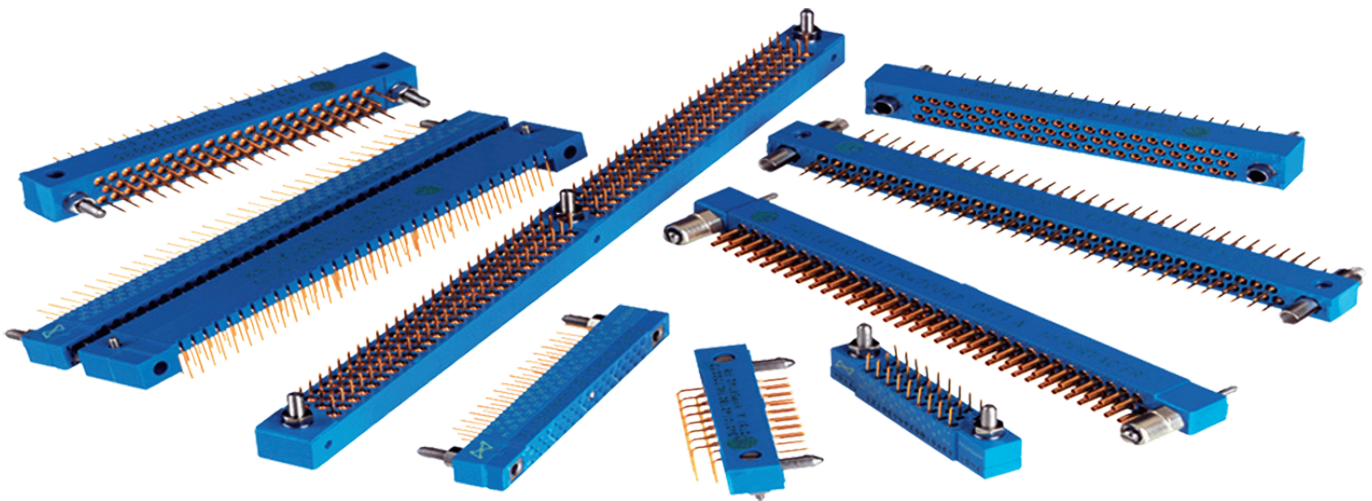


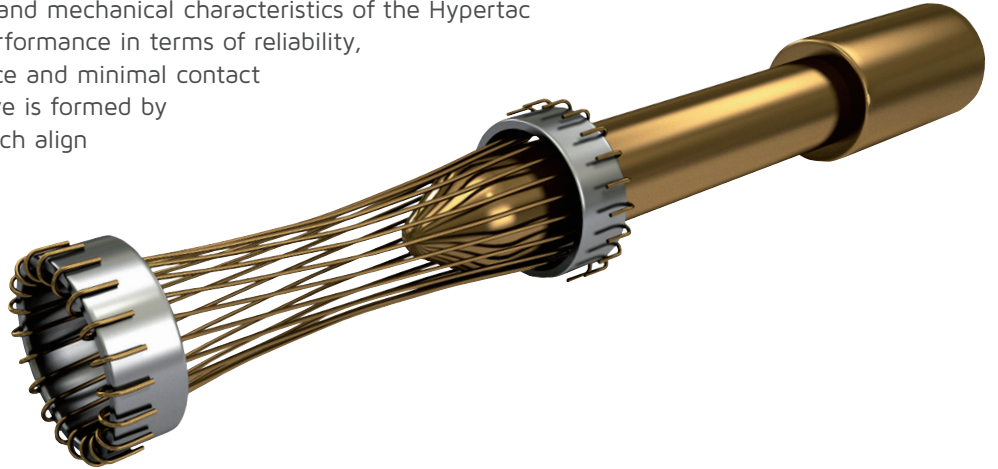
# K Series

Medium & High Density PCB Connectors



# Hypertac® Hyperboloid Technology

Smiths Interconnect, a Molex company, offers an extensive range of superior contact technologies suitable for standard and custom solutions. Hypertac® (HYPERboloid conTACT) is the original superior performing hyperboloid contact technology designed for use in all applications and in harsh and demanding environments where high reliability and safety are critical. The inherent electrical and mechanical characteristics of the Hypertac hyperboloid contact ensures unrivalled performance in terms of reliability, number of mating cycles, low contact force and minimal contact resistance. The shape of the contact sleeve is formed by hyperbolically arranged contact wires, which align themselves elastically as contact lines around the pin, providing a number of linear contact paths.



## Features

## Benefits

### Low insertion/extraction forces

The angle of the socket wires allows tight control of the pin insertion and extraction forces. The spring wires are smoothly deflected to make line contact with the pin.

### High density interconnect systems

Significant reductions in size and weight of sub-system designs. No additional hardware is required to overcome mating and un-mating forces.

### Long contact life

The smooth and light wiping action minimizes wear on the contact surfaces. Contacts perform up to 100,000 insertion/extraction cycles with minimal degradation in performance.

### Low cost of ownership

The Hypertac contact technology will surpass most product requirements, thus eliminating the burden and cost of having to replace the connector or the entire subsystem.

### Lower contact resistance

The design provides a far greater contact area and the wiping action of the wires insures a clean and polished contact surface. Our contact technology has about half the resistance of conventional contact designs.

### Low power consumption

The lower contact resistance of our technology results in a lower voltage drop across the connector reducing the power consumption and heat generation within the system.

### Higher current ratings

The design parameters of the contact (e.g., the number, diameter and angle of the wires) may be modified for any requirement. The number of wires can be increased so the contact area is distributed over a larger surface. Thus, the high current carried by each wire because of its intimate line contact, can be multiplied many times.

### Maximum contact performance

The lower contact resistance of the Hypertac contact reduces heat build-up; therefore Hypertac contacts are able to handle far greater current in smaller contact assemblies without the detrimental effects of high temperature.

### Immunity to shock & vibration

The low mass and resultant low inertia of the wires enable them to follow the most abrupt or extreme excursions of the pin without loss of contact. The contact area extends 360° around the pin and is uniform over its entire length. The 3 dimensional symmetry of the Hypertac contact design guarantees electrical continuity in all circumstances.

### Reliability under harsh environments

Harsh environmental conditions require connectors that will sustain their electrical integrity even under the most demanding conditions such as shock and vibration. The Hypertac contact provides unmatched stability in demanding environments when failure is not an option.

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# Technical Characteristics

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Contact diameter  | HYPERTAC® type Ø 0.60 mm rear removable                    |
| Number of contact | Up to 120                                                  |
| Pitch             | 2.54 mm between rows - 1.27 mm between quicuncial contacts |
| Rows              | 2                                                          |

## Materials & Platings

| Contact      | Brass or bronze                                                           |                                  |
|--------------|---------------------------------------------------------------------------|----------------------------------|
| Moulding     | Glass fiber filled diallyl - Phtalate                                     |                                  |
| Guides       | Stainless steel or nickel plated brass                                    |                                  |
|              | Standard                                                                  | ESA                              |
| Pin body     | 0.25 µm gold / 1.27 µm Ni                                                 | 1.27 µm gold / 1.27 µm Ni (min.) |
| Socket body  | 0.25 µm gold / 1.27 µm Ni on active area<br>1.27 µm Ni on non active area | 0.25 µm gold / 1.27 µm Ni (min.) |
| Socket wires | 1 µm gold / 0.20 µm Ni                                                    | 1.27 µm gold / 0.20 µm Ni (min.) |

## Electrical

|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Current grade rating (at 25°C)  | Standard grade: 3 A max. - ESA grade: 5 A max. |
| Dielectric withstanding voltage | 1200 Vrms                                      |
| Contact resistance              | ≤8 mΩ                                          |
| Insulation resistance           | >104 MΩ (500 Vcc)                              |

## Mechanical

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Mating & unmating cycle | 5000                                                                              |
| Guiding                 | By two outside guides (2 guiding styles) and one central guide (3 guiding styles) |
| Keying                  | By rotating of outside polarised guides (up to 36 keying)                         |

## Environmental

|                   |                                                             |
|-------------------|-------------------------------------------------------------|
| Temperature range | -55°C to 125°C                                              |
| Conformity        | MIL C 55302, ESA/ESCC3401/016 - 3401/017, NF C-UTE C 93-424 |

# How To Order



K N B

1 2 3



4



5



6



7

| 1                                | Series                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
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| 2                                | Pitch or type                                       | N 1.27 mm pitch, rear removable contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 3                                | Model                                               | B 2 rows                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 4                                | Number of contacts                                  | 0 1 7 0 2 9 0 4 1 0 5 3 0 6 5 0 7 2 0 8 4 0 9 6 1 2 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
|                                  |                                                     | For the right angle 053 layout, KNB must be replaced by KXB (non ESA qualified, details on page 20)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 5                                | Moulding polarity                                   | <div><div><div>NF C-UTE C 93-424<br/>MIL-C-55302</div><div>ESA/ESCC 3401/01601B<br/>SPACE GRADE</div><table><tr><td>12</td><td>14</td><td>54</td><td>54</td><td>Female plug</td></tr><tr><td>13</td><td>15</td><td>55</td><td>55</td><td>Male plug</td></tr><tr><td>16</td><td>18</td><td>56</td><td>56</td><td>Tinned female plug**†</td></tr><tr><td>17</td><td>19</td><td>57</td><td>57</td><td>Tinned male plug**†</td></tr></table></div><div><div>NF C-UTE C 93-424<br/>MIL-C-55302</div><div>ESA/ESCC 3401/01601B<br/>SPACE GRADE</div><table><tr><td>1A</td><td>1C</td><td>5A</td><td>5A</td><td>Tinned female plug**†</td></tr><tr><td>1B</td><td>1D</td><td>5B</td><td>5B</td><td>Tinned male plug**†</td></tr><tr><td>22</td><td>24</td><td>44</td><td>44</td><td>Female receptacle</td></tr><tr><td>23</td><td>25</td><td>45</td><td>45</td><td>Male receptacle</td></tr></table></div><div><div>NF C-UTE C 93-424<br/>MIL-C-55302</div><div>ESA/ESCC 3401/01601B<br/>SPACE GRADE</div><table><tr><td>26</td><td>28</td><td>46</td><td>46</td><td>Tinned female receptacle**†</td></tr><tr><td>27</td><td>29</td><td>47</td><td>47</td><td>Tinned male receptacle**†</td></tr><tr><td>2A</td><td>2C</td><td>-</td><td>-</td><td>Tinned female receptacle**†</td></tr><tr><td>2B</td><td>2D</td><td>-</td><td>-</td><td>Tinned male receptacle**†</td></tr></table></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                     |                             |                                            |  |  | 12    | 14                                              | 54    | 54                                                  | Female plug | 13                                 | 15    | 55                                       | 55    | Male plug                                    | 16    | 18                                   | 56    | 56                                                  | Tinned female plug**† | 17                                 | 19    | 57                                     | 57    | Tinned male plug**†              | 1A    | 1C                                 | 5A    | 5A                                         | Tinned female plug**† | 1B                            | 1D    | 5B                               | 5B | Tinned male plug**† | 22    | 24                                 | 44    | 44                                 | Female receptacle | 23 | 25        | 45                | 45                             | Male receptacle                | 26                               | 28                               | 46                              | 46                                | Tinned female receptacle**†     | 27                              | 29                              | 47 | 47 | Tinned male receptacle**†         | 2A | 2C                              | - | -                               | Tinned female receptacle**† | 2B                                     | 2D | - | - | Tinned male receptacle**† |
| 12                               | 14                                                  | 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 54                                                  | Female plug                 |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 13                               | 15                                                  | 55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 55                                                  | Male plug                   |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 16                               | 18                                                  | 56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 56                                                  | Tinned female plug**†       |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 17                               | 19                                                  | 57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 57                                                  | Tinned male plug**†         |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1A                               | 1C                                                  | 5A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5A                                                  | Tinned female plug**†       |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1B                               | 1D                                                  | 5B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 5B                                                  | Tinned male plug**†         |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 22                               | 24                                                  | 44                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 44                                                  | Female receptacle           |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 23                               | 25                                                  | 45                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 45                                                  | Male receptacle             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 26                               | 28                                                  | 46                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 46                                                  | Tinned female receptacle**† |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 27                               | 29                                                  | 47                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 47                                                  | Tinned male receptacle**†   |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2A                               | 2C                                                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                                                   | Tinned female receptacle**† |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2B                               | 2D                                                  | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | -                                                   | Tinned male receptacle**†   |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 6                                | Termination styles                                  | <table><tr><td>1 0</td><td>Through board solder - 90° - length 3 mm</td><td>2 1</td><td>Double Crimp</td><td>5 1</td><td>Wire wrap (3 wrapping levels)</td></tr><tr><td>1 1</td><td>Through board solder - 90° - length 4 mm</td><td>3 0</td><td>Through board solder - straight</td><td>9 0</td><td>Male - male</td></tr><tr><td>1 2</td><td>Through board solder - 90° - length 4.50 to 5.70 mm</td><td>3 1</td><td>Through board solder - straight</td><td>9 1</td><td>Female - male</td></tr><tr><td>2 0</td><td>Crimp</td><td>4 0</td><td>Solder bucket</td><td></td><td></td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                     |                             |                                            |  |  | 1 0   | Through board solder - 90° - length 3 mm        | 2 1   | Double Crimp                                        | 5 1         | Wire wrap (3 wrapping levels)      | 1 1   | Through board solder - 90° - length 4 mm | 3 0   | Through board solder - straight              | 9 0   | Male - male                          | 1 2   | Through board solder - 90° - length 4.50 to 5.70 mm | 3 1                   | Through board solder - straight    | 9 1   | Female - male                          | 2 0   | Crimp                            | 4 0   | Solder bucket                      |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 0                              | Through board solder - 90° - length 3 mm            | 2 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Double Crimp                                        | 5 1                         | Wire wrap (3 wrapping levels)              |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 1                              | Through board solder - 90° - length 4 mm            | 3 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Through board solder - straight                     | 9 0                         | Male - male                                |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 2                              | Through board solder - 90° - length 4.50 to 5.70 mm | 3 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Through board solder - straight                     | 9 1                         | Female - male                              |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 0                              | Crimp                                               | 4 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Solder bucket                                       |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 7                                | Mounting hardware                                   | <div><div>Guide Style (consult us for special guides)</div><table><tr><td>1 1 0</td><td>Male polarised, transverse mount, standard plug</td><td>1 4 5</td><td>Male polarised, transverse mount on receptacle only</td><td>1 3 1</td><td>Male unpolarised, transverse mount</td></tr><tr><td>1 1 1</td><td>Male polarised, vertical mount</td><td>1 9 0</td><td>Female power or mass contact, vertical mount</td><td>1 3 2</td><td>Female unpolarised, transverse mount</td></tr><tr><td>1 1 3</td><td>Male polarised, float mount</td><td>1 2 5</td><td>Male unpolarised, transverse mount</td><td>1 3 3</td><td>Female all polarised, transverse mount</td></tr><tr><td>1 2 1</td><td>Female polarised, vertical mount</td><td>1 2 6</td><td>Female unpolarised, vertical mount</td><td>1 9 1</td><td>Male power or mass contact, vertical mount</td></tr><tr><td>1 2 3</td><td>Female polarised, float mount</td><td>1 2 7</td><td>Male unpolarised, vertical mount</td><td></td><td></td></tr><tr><td>1 2 4</td><td>Female polarised, transverse mount</td><td>1 3 0</td><td>Female unpolarised, vertical mount</td><td></td><td></td></tr></table></div> <div><div>Locking Styles</div><table><tr><th>MALE PLUG</th><th>FEMALE RECEPTACLE</th></tr><tr><td>2 0 1 1/4 turn, free connector</td><td>2 0 2 1/4 turn, vertical mount</td></tr><tr><td>2 0 3 1/4 turn, transverse mount</td><td>2 0 4 1/4 turn, transverse mount</td></tr><tr><td>2 0 7 Jackscrew, free connector</td><td>2 0 8 Jackscrew, transverse mount</td></tr><tr><td>2 1 1 Jackscrew, free connector</td><td>2 1 0 Jackscrew, free connector</td></tr><tr><td>2 9 0 Jackscrew, vertical mount</td><td></td></tr><tr><td></td><td>2 1 2 Jackscrew, transverse mount</td></tr><tr><td></td><td>2 1 5 Jackscrew, vertical mount</td></tr><tr><td></td><td>2 1 9 Jackscrew, vertical mount</td></tr><tr><td></td><td>2 3 2 Jackscrew, with operation button</td></tr></table></div> |                                                     |                             |                                            |  |  | 1 1 0 | Male polarised, transverse mount, standard plug | 1 4 5 | Male polarised, transverse mount on receptacle only | 1 3 1       | Male unpolarised, transverse mount | 1 1 1 | Male polarised, vertical mount           | 1 9 0 | Female power or mass contact, vertical mount | 1 3 2 | Female unpolarised, transverse mount | 1 1 3 | Male polarised, float mount                         | 1 2 5                 | Male unpolarised, transverse mount | 1 3 3 | Female all polarised, transverse mount | 1 2 1 | Female polarised, vertical mount | 1 2 6 | Female unpolarised, vertical mount | 1 9 1 | Male power or mass contact, vertical mount | 1 2 3                 | Female polarised, float mount | 1 2 7 | Male unpolarised, vertical mount |    |                     | 1 2 4 | Female polarised, transverse mount | 1 3 0 | Female unpolarised, vertical mount |                   |    | MALE PLUG | FEMALE RECEPTACLE | 2 0 1 1/4 turn, free connector | 2 0 2 1/4 turn, vertical mount | 2 0 3 1/4 turn, transverse mount | 2 0 4 1/4 turn, transverse mount | 2 0 7 Jackscrew, free connector | 2 0 8 Jackscrew, transverse mount | 2 1 1 Jackscrew, free connector | 2 1 0 Jackscrew, free connector | 2 9 0 Jackscrew, vertical mount |    |    | 2 1 2 Jackscrew, transverse mount |    | 2 1 5 Jackscrew, vertical mount |   | 2 1 9 Jackscrew, vertical mount |                             | 2 3 2 Jackscrew, with operation button |    |   |   |                           |
| 1 1 0                            | Male polarised, transverse mount, standard plug     | 1 4 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Male polarised, transverse mount on receptacle only | 1 3 1                       | Male unpolarised, transverse mount         |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 1 1                            | Male polarised, vertical mount                      | 1 9 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Female power or mass contact, vertical mount        | 1 3 2                       | Female unpolarised, transverse mount       |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 1 3                            | Male polarised, float mount                         | 1 2 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Male unpolarised, transverse mount                  | 1 3 3                       | Female all polarised, transverse mount     |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 2 1                            | Female polarised, vertical mount                    | 1 2 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Female unpolarised, vertical mount                  | 1 9 1                       | Male power or mass contact, vertical mount |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 2 3                            | Female polarised, float mount                       | 1 2 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Male unpolarised, vertical mount                    |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 1 2 4                            | Female polarised, transverse mount                  | 1 3 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Female unpolarised, vertical mount                  |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| MALE PLUG                        | FEMALE RECEPTACLE                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 0 1 1/4 turn, free connector   | 2 0 2 1/4 turn, vertical mount                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 0 3 1/4 turn, transverse mount | 2 0 4 1/4 turn, transverse mount                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 0 7 Jackscrew, free connector  | 2 0 8 Jackscrew, transverse mount                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 1 1 Jackscrew, free connector  | 2 1 0 Jackscrew, free connector                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
| 2 9 0 Jackscrew, vertical mount  |                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
|                                  | 2 1 2 Jackscrew, transverse mount                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
|                                  | 2 1 5 Jackscrew, vertical mount                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
|                                  | 2 1 9 Jackscrew, vertical mount                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |
|                                  | 2 3 2 Jackscrew, with operation button              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                     |                             |                                            |  |  |       |                                                 |       |                                                     |             |                                    |       |                                          |       |                                              |       |                                      |       |                                                     |                       |                                    |       |                                        |       |                                  |       |                                    |       |                                            |                       |                               |       |                                  |    |                     |       |                                    |       |                                    |                   |    |           |                   |                                |                                |                                  |                                  |                                 |                                   |                                 |                                 |                                 |    |    |                                   |    |                                 |   |                                 |                             |                                        |    |   |   |                           |

\* For 90° & straight terminations (splicing on PCB)

\*\* RoHS compliant for 90° & straight terminations (splicing on PCB)

† Tinned contacts are not available as spares

# Hypertac & ESA Correspondance Table

HYPERTAC

KNB

34 01 016 01 B

1

2

3

4

5

6

1 ESCC component number

2 Mounting

## HYPERTAC

## ESA

|              |    |                    |    |                    |    |                    |    |                    |    |
|--------------|----|--------------------|----|--------------------|----|--------------------|----|--------------------|----|
| Plug KNB 017 | 01 | Plug KNB 096       | 08 | Receptacle KNB 053 | 16 | Plug KNB 072       | 56 | Plug KNC 098       | 62 |
| Plug KNB 029 | 02 | Plug KNB 120       | 10 | Receptacle KNB 065 | 17 | Receptacle KNB 072 | 57 | Receptacle KNC 098 | 63 |
| Plug KNB 041 | 03 | Plug KNC 160       | 12 | Receptacle KNB 084 | 19 | Plug KNC 062       | 58 |                    |    |
| Plug KNB 053 | 04 | Receptacle KNB 017 | 13 | Receptacle KNB 096 | 20 | Receptacle KNC 062 | 59 |                    |    |
| Plug KNB 065 | 05 | Receptacle KNB 029 | 14 | Receptacle KNB 120 | 22 | Plug KNC 080       | 60 |                    |    |
| Plug KNB 084 | 07 | Receptacle KNB 041 | 15 | Receptacle KNC 160 | 24 | Receptacle KNC 080 | 61 |                    |    |

REMINDER SPATIAL P.P.P. (Party Polarity Protection)

|                   |    |             |    |
|-------------------|----|-------------|----|
| Female receptacle | 44 | Plug female | 54 |
| Male receptacle   | 45 | Plug male   | 55 |

EXAMPLE

KNB 029 44-40 113

P.P.P.

3 Termination style

## HYPERTAC

## ESA

|                         |    |                          |    |                           |    |                            |    |
|-------------------------|----|--------------------------|----|---------------------------|----|----------------------------|----|
| Bent male 10            | MC | Solder bucket male 40    | MS | Bent female tinned 10     | FA | Mini-wrapping female 51    | FY |
| Bent male tinned 10     | MA | Mini-wrapping male 51    | MY | Crimp female 20           | FR | Bent long female 11        | FL |
| Crimp male 20           | MR | Bent long male 11        | ML | Straight female 30        | FD | Bent long female tinned 11 | FG |
| Straight male 30        | MD | Bent long male tinned 11 | MG | Straight female tinned 30 | FE | Female-male 91             | FM |
| Straight male tinned 30 | ME | Bent female 10           | FC | Solder bucket female 40   | FS |                            |    |

4 Locking type  
On left side

## HYPERTAC

## ESA

|                     |    |            |    |            |    |            |    |            |    |
|---------------------|----|------------|----|------------|----|------------|----|------------|----|
| Guideless connector | 00 | KNB 145    | 40 | KNC 10 209 | 49 | KNB 11 125 | 71 | KNB 11 208 | 79 |
| KNB 131             | 31 | KNB 124    | 41 | KN 210     | 50 | KNB 11 110 | 72 | KN 219     | 80 |
| KNB 132             | 32 | KNC 10 230 | 43 | KN 211     | 51 | KNB 10 230 | 73 | KN 290*    | 81 |
| KNB 10 110          | 33 | KN 232     | 45 | KNB 212    | 52 | KNC 124    | 74 |            |    |
| KNC 10 110          | 34 | KN 231     | 46 | KN 215     | 53 | KNC 132    | 75 |            |    |
| KN 111              | 35 | KN 207     | 47 | KN 123     | 54 | KNC 11 110 | 76 |            |    |
| KN 121              | 36 | KNB 10 208 | 48 | KN 113     | 55 | KNC 11 125 | 77 |            |    |

5 Locking type  
In center

00

For 2 guide connectors

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For 3 guide connectors (see table 4, Locking type - On left side)

## HYPERTAC

## ESA

|            |    |            |    |        |    |        |    |
|------------|----|------------|----|--------|----|--------|----|
| KNB 10 125 | 26 | KNC 10 125 | 27 | KN 127 | 28 | KN 126 | 29 |
|------------|----|------------|----|--------|----|--------|----|

6 Locking type  
On right side

(see table 4, Locking type - On left side)

\* Please consult us

# Contact Terminations

## Plug

Male

Female

## Receptacle

Female

Male

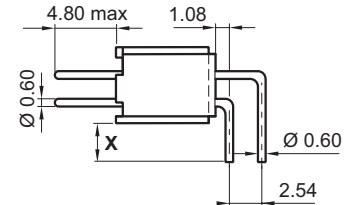
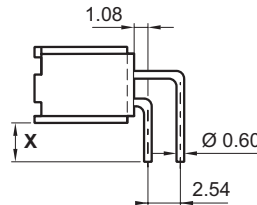
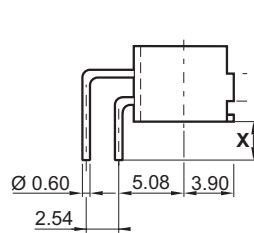
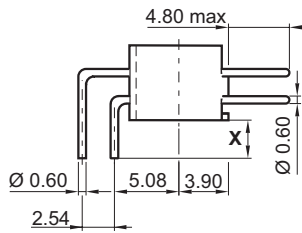
### 90° Through board solder

Ref: **10** (X=3)

Ref: **MC & FC / MA & FA** - Ref: **11** (X=4)

Ref: **ML & FL / MG & FG**

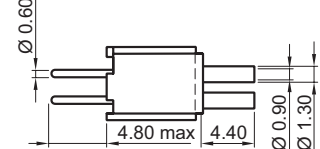
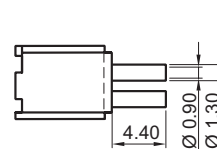
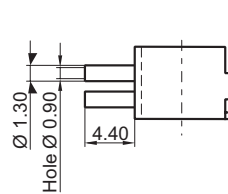
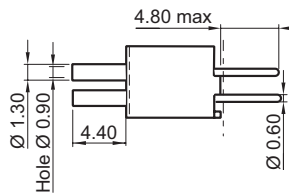
Ref: **12** (X= 4.50 mm min to 5.70 mm max)



### Crimp (AWG 28-26 & 24-22)

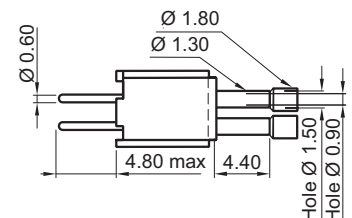
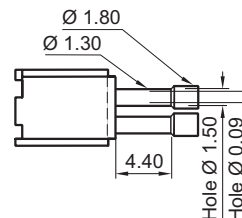
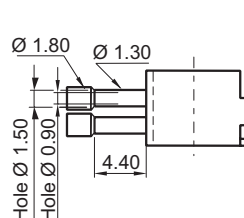
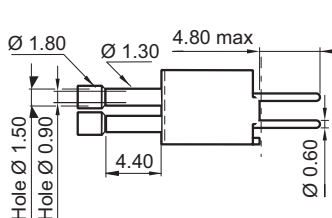
Ref: **20**

Ref: **MR & FR**



### Crimp (AWG 28-26 & 24-22) & Crimp on sheath (Ø 1.45)

Ref: **21**



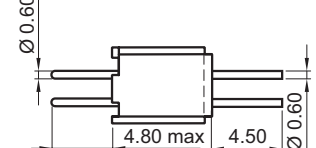
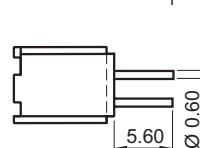
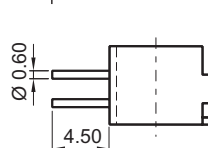
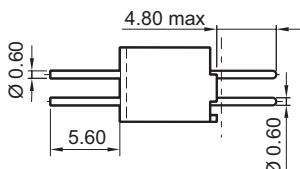
### Straight through board solder

Ref: **30**

Ref: **MD & FD / ME & FE**

Ref: **31**

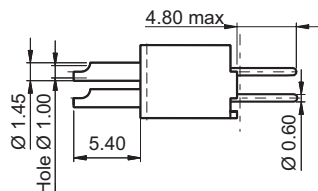
See: 90° Through board solder



# Contact Terminations

## Plug

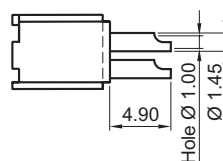
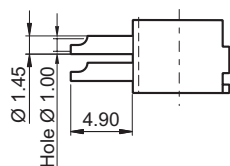
Male



Female

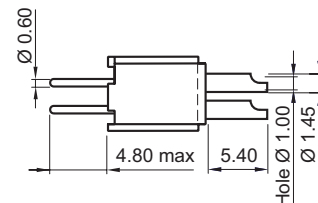
Solder bucket (AWG 22 max)

Ref: 40 Ref: MS &amp; FS



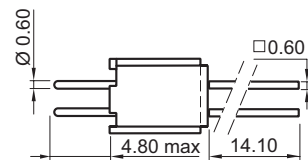
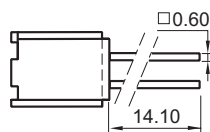
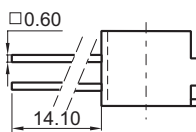
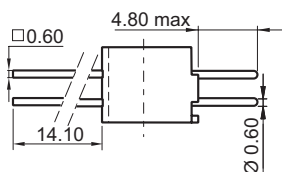
## Receptacle

Male



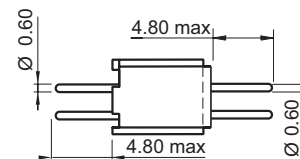
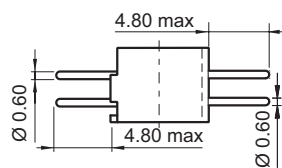
### Wire wrap (3 wrapping levels)

Ref: 51 Ref: MY &amp; FY



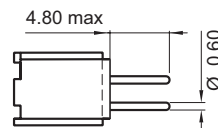
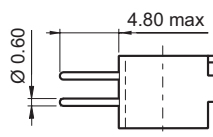
### Saver (male-male)

Ref: 90



### Saver (female-male)

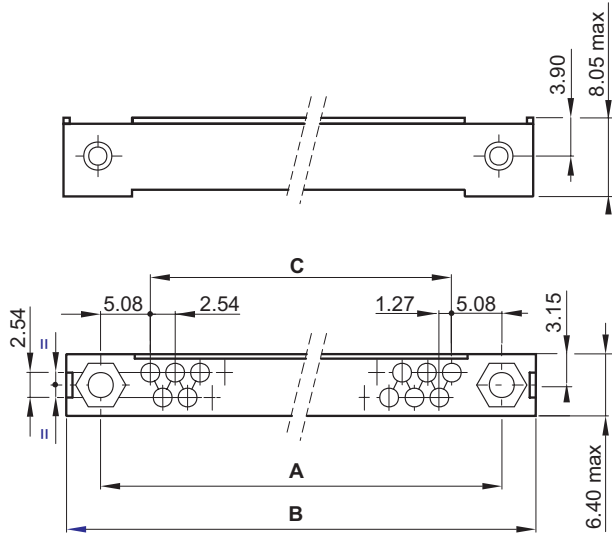
Ref: 91 Ref: FM



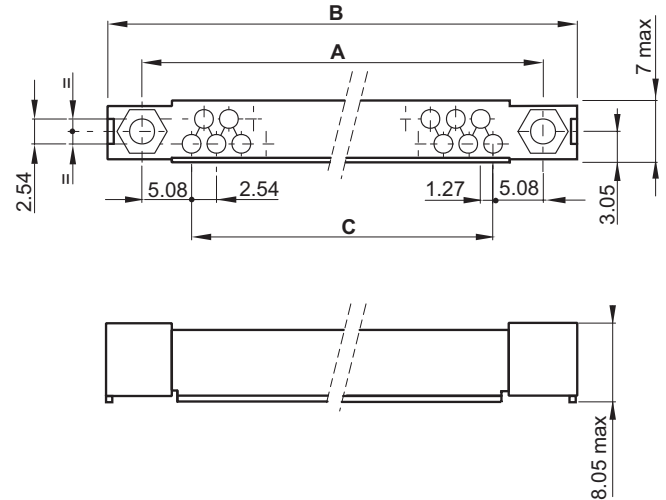
# Connector Dimensions

## Plug

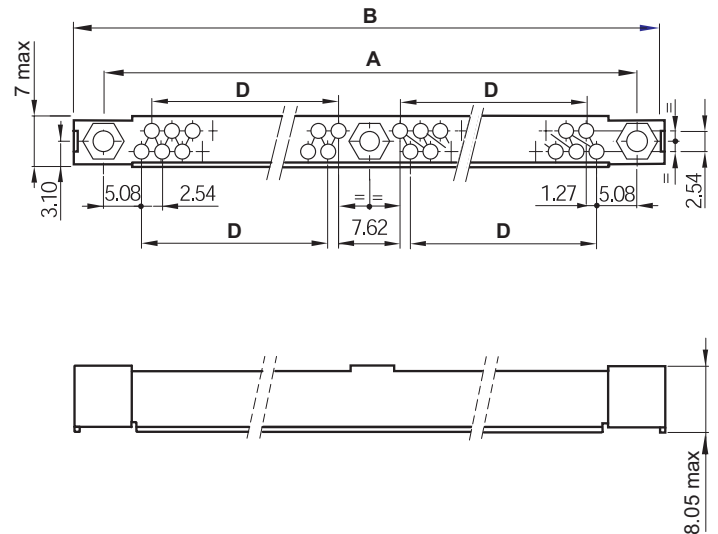
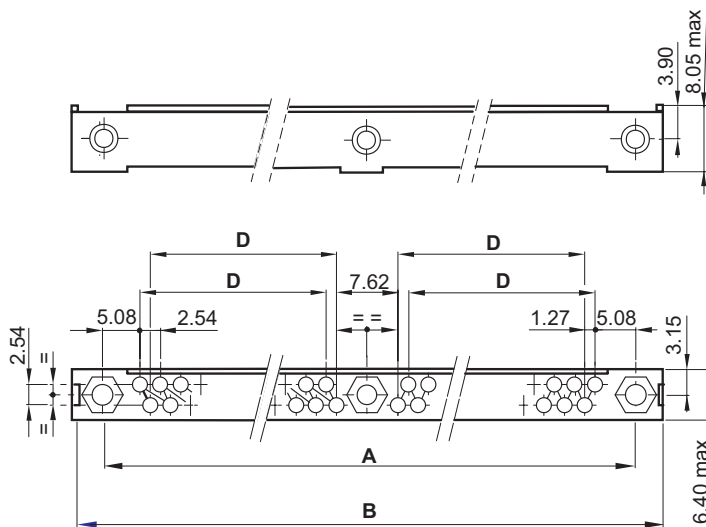
17 to 65 contacts



## Receptacle



72 to 120 contacts



| No. of contacts | 17    | 29    | 41    | 53    | 65    | 72     | 84     | 96     | 120    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | 167.64 |
| B max           | 38.50 | 53.70 | 69.00 | 84.20 | 99.50 | 114.70 | 129.90 | 145.20 | 175.50 |
| C               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | -      | -      | -      | -      |
| D               | -     | -     | -     | -     | -     | 43.18  | 50.80  | 58.42  | 73.66  |



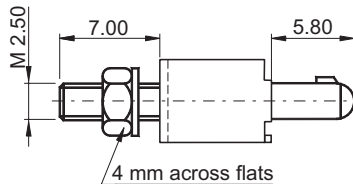
# Guide Styles

## Plug & Receptacle

### Male

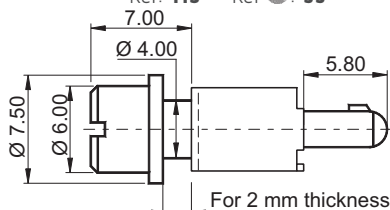
#### Polarised vertical mount

Ref: 111 Ref : 35



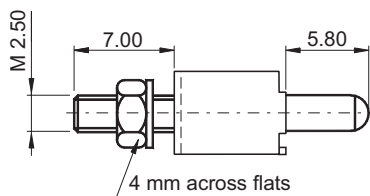
#### Polarised vertical float mount

Ref: 113 Ref : 55



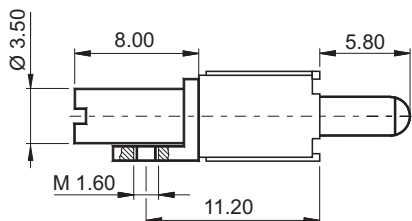
#### Unpolarised vertical mount

Ref: 127 Ref : 28



#### Unpolarised transverse mount

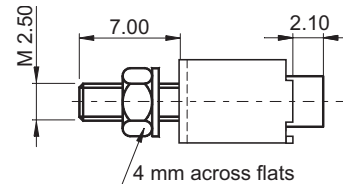
Ref: 131 Ref : 31



### Female

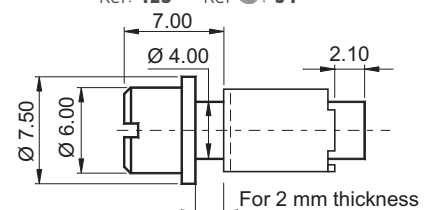
#### Polarised vertical mount

Ref: 121 Ref : 36



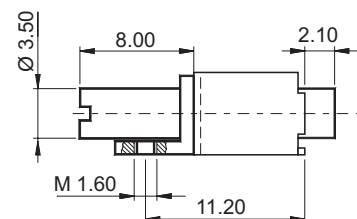
#### Polarised vertical float mount

Ref: 123 Ref : 54



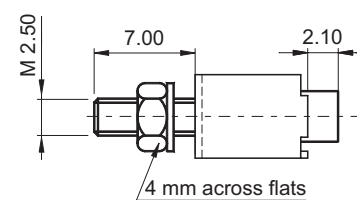
#### Polarised transverse mount

Ref: 124 Ref : 41



#### Unpolarised vertical mount

Ref: 126 Ref : 29



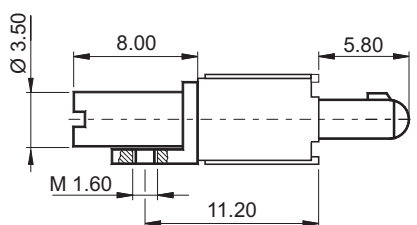
# Guide Styles

## Plug & Receptacle

### Male

#### Polarised transverse mount

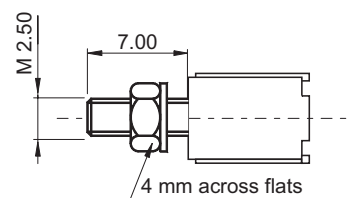
Ref: **145** Ref:  40



### Female

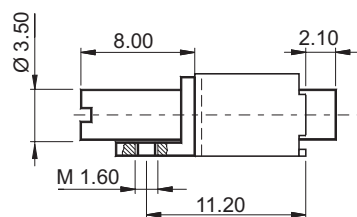
#### All polarised vertical mount

Ref: **130**



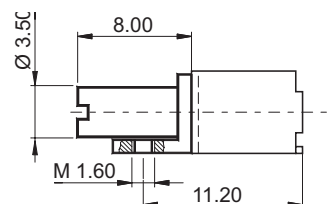
#### Unpolarised transverse mount

Ref: **132** Ref:  32



#### All polarised transverse mount

Ref: **133**



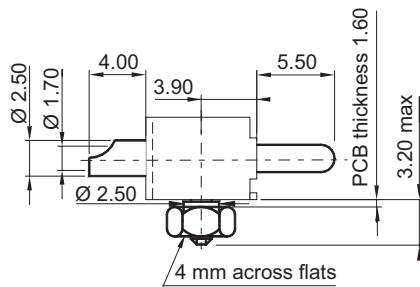
# Guide Styles

## Plug & Receptacle

### Male

#### Power or mass transverse mount

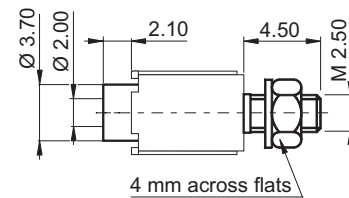
Ref: **191**



### Female

#### Power or mass vertical mount

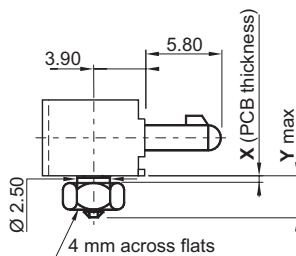
Ref: **190**



## Plug Only

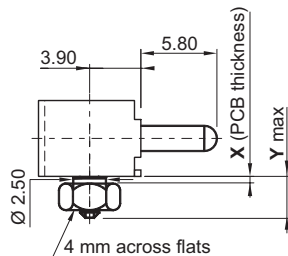
### Polarised transverse mount

Ref: **10 110** Ref: **33** X=1.60 Y=3.20  
Ref: **11 110** Ref: **72** X=2.40 Y=4.90  
Ref: **12 110** X=3.20 Y=6.90

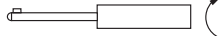
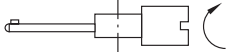
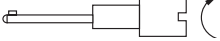


### Unpolarised transverse mount

Ref: **10 125** Ref: **26** X=1.60 Y=3.20  
Ref: **11 125** Ref: **71** X=2.40 Y=4.90  
Ref: **12 125** X=3.20 Y=6.90



# Locking Device Compatibility Chart

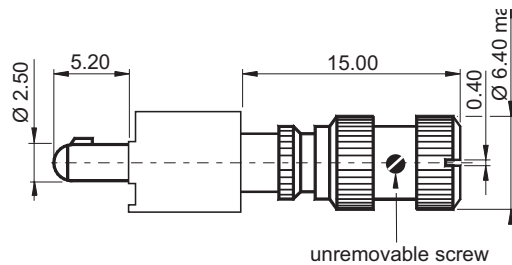
|            |                                   | R                                                                                   | P                                 | R                                                                                   | P                                 | R                                                                                   | P                                 | R                                                                                   | P                                 | R                                                                                   | P                                 | R                                                                                   | P                                 | R                                                                                   | P                                 |                                                                                       |          |                        |  |
|------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|-----------------------------------|---------------------------------------------------------------------------------------|----------|------------------------|--|
| Compatible |                                   | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | Receptacle                                                                            | Moulding |                        |  |
|            |                                   | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | Plug                                                                                  |          |                        |  |
| P          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |    | 290      |                        |  |
| R          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |    | 231      |                        |  |
| P          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |    | 211      |                        |  |
| R          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |    | 207      |                        |  |
| P          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |    | 205      |                        |  |
| R          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |  | 203      |                        |  |
| P          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |  | 201      |                        |  |
| R          | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> | <div><div></div><div></div></div>                                                   | <div><div></div><div></div></div> |                                                                                       |          |                        |  |
| Receptacle |                                   |  |                                   |  |                                   |  |                                   |  |                                   |  |                                   |  |                                   |  |                                   |  |          | Male locking devices   |  |
| Plug       |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                     |                                   |                                                                                       |          | Female locking devices |  |
| Moulding   |                                   | 232                                                                                 |                                   | 219                                                                                 |                                   | 215                                                                                 |                                   | 212                                                                                 |                                   | 210                                                                                 |                                   | 208                                                                                 |                                   | 204                                                                                 |                                   | 202                                                                                   |          |                        |  |

# Male Locking Styles

## Plug & Receptacle

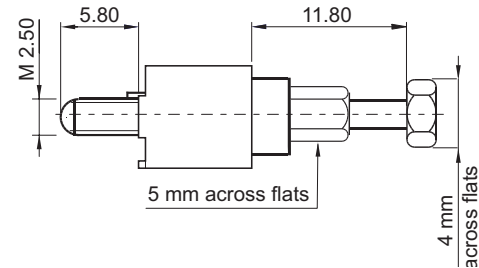
### Jack 1/4 turn lock, free connector

Ref: **201**



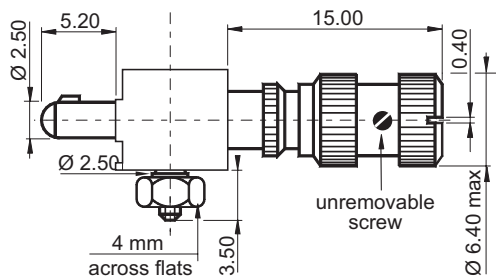
### Jackscrew, free connector

Ref: **211** Ref : **51**



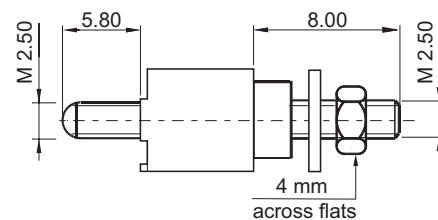
### Jack 1/4 turn lock, transverse mount

Ref: **203** PCB thickness **1.60**



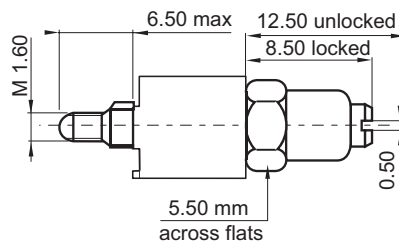
### Jackscrew, vertical mount

Ref: **231** Ref : **46**



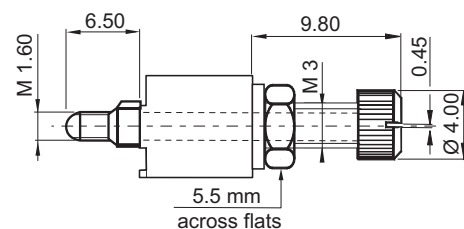
### Jackscrew, free connector

Ref: **207** Ref : **47**



### Jackscrew, vertical mount

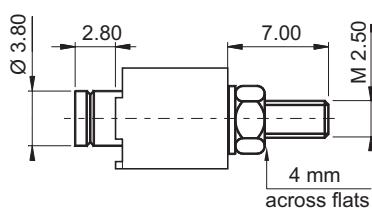
Ref: **290** Ref : **81**



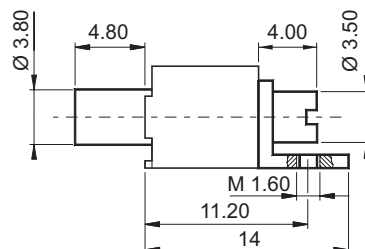
# Female Locking Styles

## Plug & Receptacle

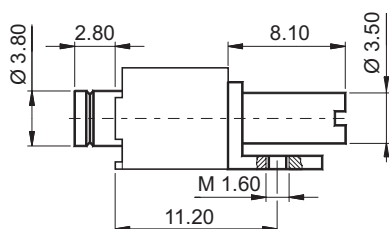
### Jack 1/4 turn lock, vertical mount

Ref: **202**

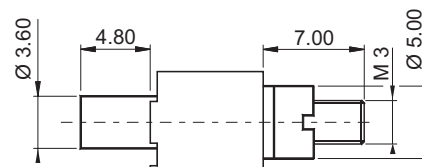
### Jackscrew, transverse mount

Ref: **212** Ref: **52**

### Jack 1/4 turn lock, transverse mount

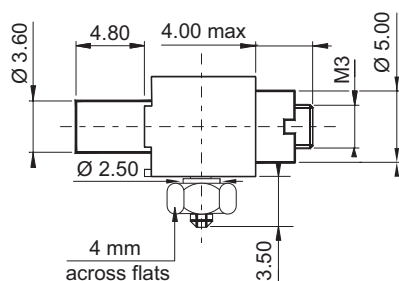
Ref: **204**

### Jackscrew, vertical mount

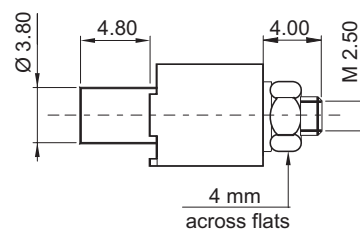
Ref: **215** Ref: **53**

### Jackscrew, transverse mount

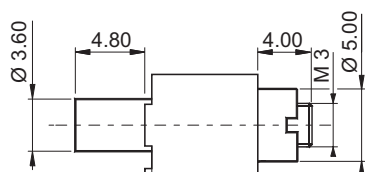
Ref: **10 208** Ref: **48** PCB thickness 1.60  
 Ref: **11 208** Ref: **79** PCB thickness 2.40



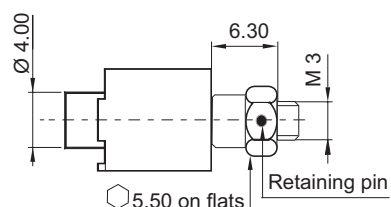
### Jackscrew, vertical mount

Ref: **219** Ref: **80**

### Jackscrew, free connector

Ref: **210** Ref: **50**

### Rotating jackscrew, free connector

Ref: **232** Ref: **45**

# Mating Side Layout View

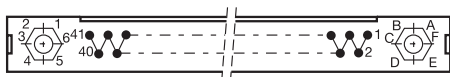
## Plug



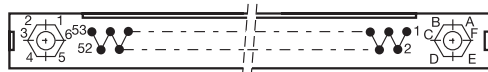
017



029



041



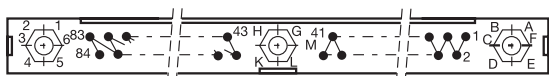
053



065



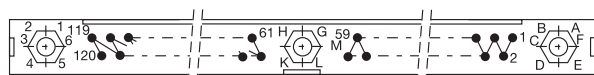
072



084

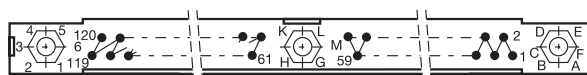
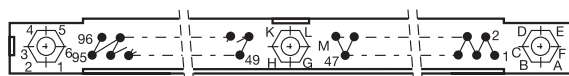
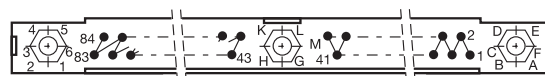
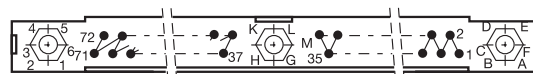
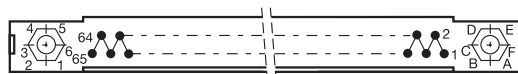
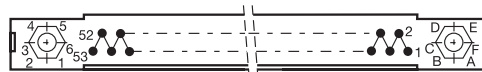
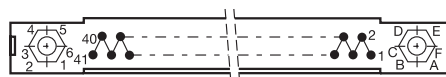
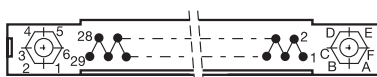
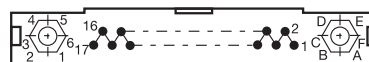


096



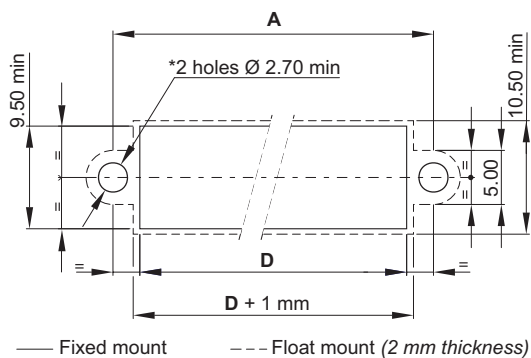
120

## Receptacle



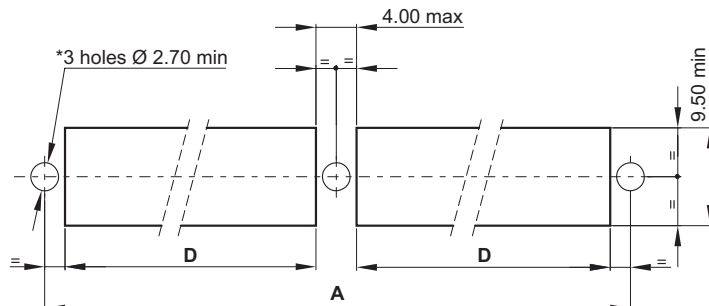
# Panel Preparation Details

## 17 to 65 Contacts



\* for Ref: 215, holes Ø 3.20 mm

## 72 to 120 Contacts

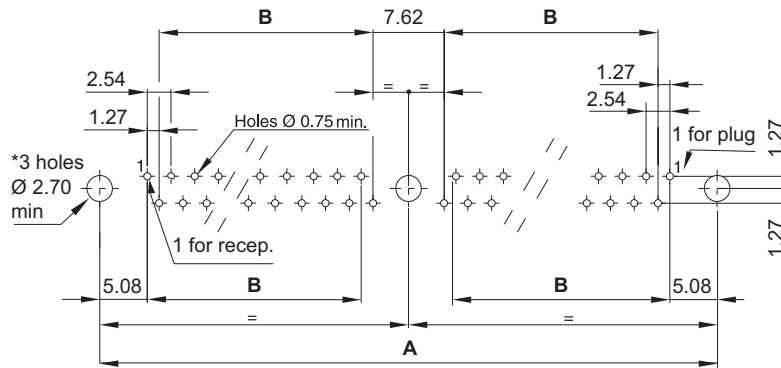
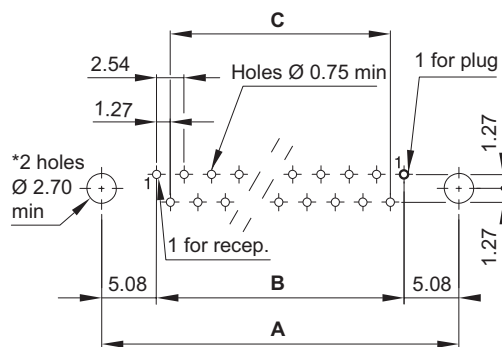


**Panel:** female or male, plug or receptacle, terminations 20 - 40 - 51  
**Guide styles:** 111 - 121 - 126 - 127 - 130 - 190 (Fixed Mount) - 113 - 123 (Float Mount)  
**Locking styles:** 202 - 215\* - 219 - 231  
 \*: for ref: 215, holes Ø 3.20 mm

| No. of contacts | 17    | 29    | 41    | 53    | 65    | 72     | 84     | 96     | 120    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | 167.64 |
| D               | 25.90 | 41.10 | 56.40 | 71.60 | 86.90 | 48.50  | 56.00  | 63.30  | 78.80  |

## Mother board

## 72 to 120 Contacts

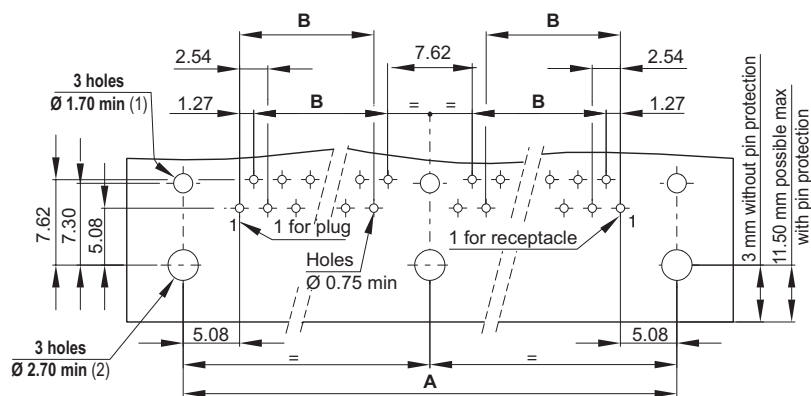
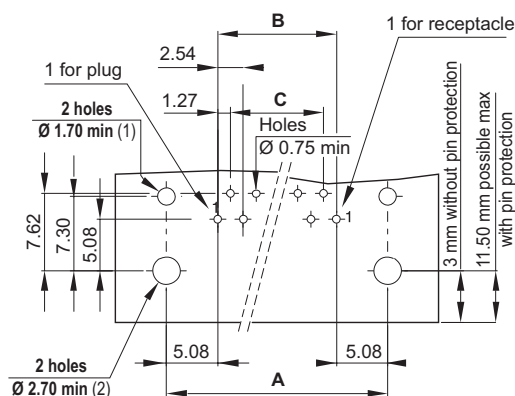


**Mother Board:** female or male, plug or receptacle, straight solder termination  
**Guide styles:** 111 - 121 - 126 - 127 - 130 - 190 Locking styles: 202 - 215\* - 219 - 231  
 \*: for ref: 215, holes Ø 3.20 mm

## Daughter board

## 17 to 65 Contacts

## 72 to 120 Contacts



**Daughter Board:** female or male, plug or receptacle, 90° termination  
 (1) **Guide styles:** 124 - 131 - 132 - 133 - 145 Locking styles: 204 - 212  
 (2) **Guide styles:** 110 - 125 - 191 Locking styles: 203 - 208

| No. of contacts | 17    | 29    | 41    | 53    | 65    | 72     | 84     | 96     | 120    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | 167.64 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 43.18  | 50.80  | 58.42  | 73.66  |
| D               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | –      | –      | –      | –      |

# Technical Characteristics

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Contact diameter  | HYPERTAC® type Ø 0.60 mm rear removable                    |
| Number of contact | 53                                                         |
| Pitch             | 2.54 mm between rows - 1.27 mm between quicuncial contacts |
| Rows              | 2                                                          |

## Materials & Platings

|              |                                                                         |
|--------------|-------------------------------------------------------------------------|
| Contact      | Brass or bronze                                                         |
| Moulding     | Glass fiber filled diallyl - Phtalate                                   |
| Guides       | Stainless steel or nickel plated brass                                  |
| Pin body     | 0.25 µm gold / 1.27 µm Ni                                               |
| Socket body  | 0.25 µm gold / 1.27 µm Ni on active area; 1.27 µm Ni on non active area |
| Socket wires | 1 µm gold / 0.20 µm Ni                                                  |

## Electrical

|                                 |                   |
|---------------------------------|-------------------|
| Current rating (at 25°C)        | 3 A max.          |
| Dielectric withstanding voltage | 1200 Vrms         |
| Contact resistance              | ≤8 mΩ             |
| Insulation resistance           | >104 MΩ (500 Vcc) |

## Mechanical

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Mating & unmating cycle | 5000                                                                              |
| Guiding                 | By two outside guides (2 guiding styles) and one central guide (3 guiding styles) |
| Keying                  | By rotating of outside polarised guides (up to 36 keying)                         |

## Environmental

|                   |                   |
|-------------------|-------------------|
| Temperature range | -55°C to 125°C    |
| Conformity        | NF C-UTE C 93-424 |

# How To Order



K X B 0 5 3

1

2

3

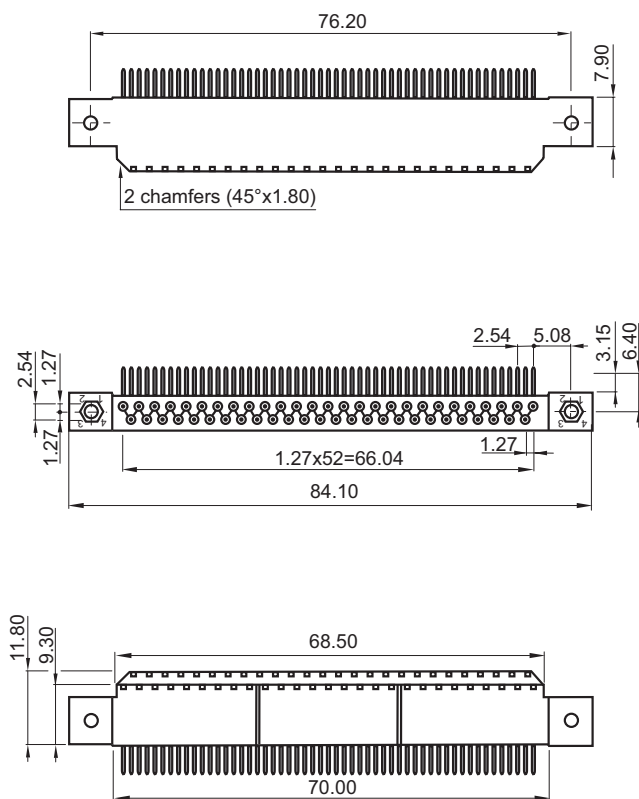
4

|                                                 |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
|-------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------|-------|-------------------------------------------------------|-------------------------------------------------|-------------------------------------------------|-------|-----------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------|-------|--------------------------------------------|-------|------------------------------------|----|-------------|-------------------|----|-----------|----------------------|-------|----------------------------|-------|----------------------------|-------|-----------------------------|----|-----------|----|----|----|--------------------|----|----|----|-------------------------|----|----|----|---------------------|----|----|----|-------------------|----|----|---|----------------------------|----|----|----|-------------------|----|----|----|-----------------|----|----|---|--------------------------|
| 1                                               | Thermoplastic material                                | X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 2                                               | Moulding polarity                                     | <table><tr><td colspan="4">NF C-UTE C 93-424<br/>MIL-C-55302<br/>SPACE GRADE</td><td colspan="4">NF C-UTE C 93-424<br/>MIL-C-55302<br/>SPACE GRADE</td><td colspan="4">NF C-UTE C 93-424<br/>MIL-C-55302<br/>SPACE GRADE</td></tr><tr><td>12</td><td>14</td><td>54</td><td>Female plug</td><td>1A</td><td>1C</td><td>5A</td><td>Tinned female plug**</td><td>26</td><td>28</td><td>46</td><td>Tinned female receptacle*</td></tr><tr><td>13</td><td>15</td><td>55</td><td>Male plug</td><td>1B</td><td>1D</td><td>5B</td><td>Tinned male plug**</td><td>27</td><td>29</td><td>47</td><td>Tinned male receptacle*</td></tr><tr><td>16</td><td>18</td><td>56</td><td>Tinned female plug*</td><td>22</td><td>24</td><td>44</td><td>Female receptacle</td><td>2A</td><td>2C</td><td>-</td><td>Tinned female receptacle**</td></tr><tr><td>17</td><td>19</td><td>57</td><td>Tinned male plug*</td><td>23</td><td>25</td><td>45</td><td>Male receptacle</td><td>2B</td><td>2D</td><td>-</td><td>Tinned male receptacle**</td></tr></table> | NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE           |                                                 |       |                                                       | NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE |                                                 |       |                                                           | NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE |                                                       |       |                                            | 12    | 14                                 | 54 | Female plug | 1A                | 1C | 5A        | Tinned female plug** | 26    | 28                         | 46    | Tinned female receptacle*  | 13    | 15                          | 55 | Male plug | 1B | 1D | 5B | Tinned male plug** | 27 | 29 | 47 | Tinned male receptacle* | 16 | 18 | 56 | Tinned female plug* | 22 | 24 | 44 | Female receptacle | 2A | 2C | - | Tinned female receptacle** | 17 | 19 | 57 | Tinned male plug* | 23 | 25 | 45 | Male receptacle | 2B | 2D | - | Tinned male receptacle** |
| NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           | NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE |       |                                                       |                                                 | NF C-UTE C 93-424<br>MIL-C-55302<br>SPACE GRADE |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 12                                              | 14                                                    | 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Female plug                                               | 1A                                              | 1C    | 5A                                                    | Tinned female plug**                            | 26                                              | 28    | 46                                                        | Tinned female receptacle*                       |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 13                                              | 15                                                    | 55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Male plug                                                 | 1B                                              | 1D    | 5B                                                    | Tinned male plug**                              | 27                                              | 29    | 47                                                        | Tinned male receptacle*                         |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 16                                              | 18                                                    | 56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Tinned female plug*                                       | 22                                              | 24    | 44                                                    | Female receptacle                               | 2A                                              | 2C    | -                                                         | Tinned female receptacle**                      |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 17                                              | 19                                                    | 57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Tinned male plug*                                         | 23                                              | 25    | 45                                                    | Male receptacle                                 | 2B                                              | 2D    | -                                                         | Tinned male receptacle**                        |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 3                                               | Termination styles                                    | <table><tr><td>1 0</td><td>Through board solder - 90° - length 3 mm</td><td>1 3</td><td>Through board solder - 90° - length 2.3 mm, plug only</td></tr><tr><td>1 1</td><td>Through board solder - 90° - length 4 mm</td><td>1 4</td><td>Through board solder - 90° - length 8 mm, receptacle only</td></tr><tr><td>1 2</td><td>Through board solder - 90° - length 5.1 mm, plug only</td><td></td><td></td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 1 0                                                       | Through board solder - 90° - length 3 mm        | 1 3   | Through board solder - 90° - length 2.3 mm, plug only | 1 1                                             | Through board solder - 90° - length 4 mm        | 1 4   | Through board solder - 90° - length 8 mm, receptacle only | 1 2                                             | Through board solder - 90° - length 5.1 mm, plug only |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 0                                             | Through board solder - 90° - length 3 mm              | 1 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Through board solder - 90° - length 2.3 mm, plug only     |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 1                                             | Through board solder - 90° - length 4 mm              | 1 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Through board solder - 90° - length 8 mm, receptacle only |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 2                                             | Through board solder - 90° - length 5.1 mm, plug only |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 4                                               | Mounting hardware                                     | <p>Guide Style***</p> <table><tr><td>1 1 0</td><td>Male polarised, transverse mount, standard plug</td><td>1 3 1</td><td>Male unpolarised, transverse mount</td></tr><tr><td>1 2 1</td><td>Female polarised, vertical mount</td><td>1 4 5</td><td>Male polarised, transverse mount on receptacle only</td></tr><tr><td>1 2 4</td><td>Female polarised, transverse mount</td><td>1 9 1</td><td>Male power or mass contact, vertical mount</td></tr><tr><td>1 2 5</td><td>Male unpolarised, transverse mount</td><td></td><td></td></tr></table> <p>Locking Styles***</p> <table><tr><td colspan="2">FEMALE RECEPTACLE</td><td colspan="2">MALE PLUG</td></tr><tr><td>2 0 4</td><td>1/4 turn, transverse mount</td><td>2 0 3</td><td>1/4 turn, transverse mount</td></tr><tr><td>2 1 8</td><td>Jackscrew, transverse mount</td><td></td><td></td></tr></table>                                                                                                                                                                         | 1 1 0                                                     | Male polarised, transverse mount, standard plug | 1 3 1 | Male unpolarised, transverse mount                    | 1 2 1                                           | Female polarised, vertical mount                | 1 4 5 | Male polarised, transverse mount on receptacle only       | 1 2 4                                           | Female polarised, transverse mount                    | 1 9 1 | Male power or mass contact, vertical mount | 1 2 5 | Male unpolarised, transverse mount |    |             | FEMALE RECEPTACLE |    | MALE PLUG |                      | 2 0 4 | 1/4 turn, transverse mount | 2 0 3 | 1/4 turn, transverse mount | 2 1 8 | Jackscrew, transverse mount |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 1 0                                           | Male polarised, transverse mount, standard plug       | 1 3 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Male unpolarised, transverse mount                        |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 2 1                                           | Female polarised, vertical mount                      | 1 4 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Male polarised, transverse mount on receptacle only       |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 2 4                                           | Female polarised, transverse mount                    | 1 9 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Male power or mass contact, vertical mount                |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 1 2 5                                           | Male unpolarised, transverse mount                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| FEMALE RECEPTACLE                               |                                                       | MALE PLUG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 2 0 4                                           | 1/4 turn, transverse mount                            | 2 0 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 1/4 turn, transverse mount                                |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |
| 2 1 8                                           | Jackscrew, transverse mount                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                           |                                                 |       |                                                       |                                                 |                                                 |       |                                                           |                                                 |                                                       |       |                                            |       |                                    |    |             |                   |    |           |                      |       |                            |       |                            |       |                             |    |           |    |    |    |                    |    |    |    |                         |    |    |    |                     |    |    |    |                   |    |    |   |                            |    |    |    |                   |    |    |    |                 |    |    |   |                          |

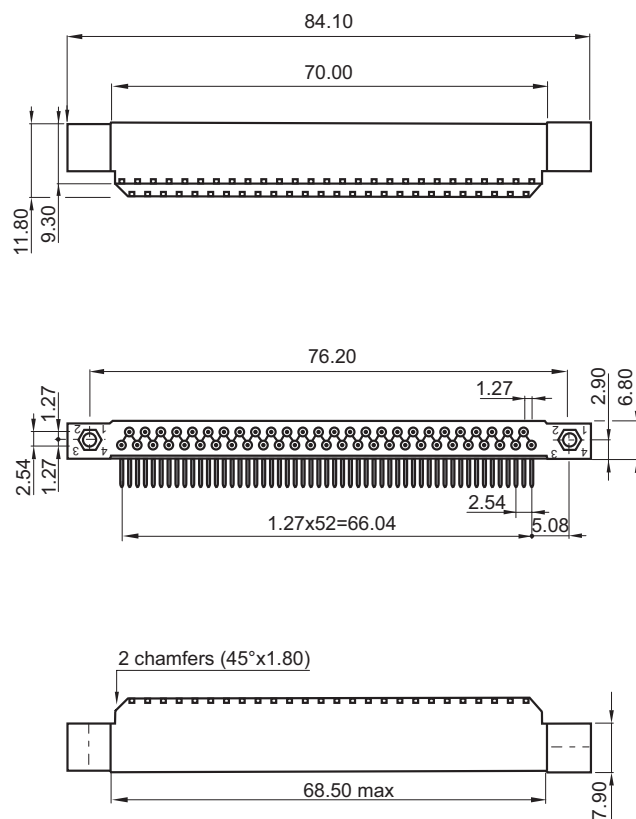
- \* No RoHS compliant = 16 et 17
- \*\* RoHS Compliant = 1A et 1B

# Connector Dimensions

## Plug



## Receptacle



# Technical Characteristics

|                   |                                                             |
|-------------------|-------------------------------------------------------------|
| Contact diameter  | HYPERTAC® type Ø 0.60 mm rear removable                     |
| Number of contact | Up to 160                                                   |
| Pitch             | 2.54 mm between rows - 1.27 mm between quincuncial contacts |
| Rows              | 3                                                           |

## Materials & Platings

| Contact      | Brass or bronze                                                           |                                 |
|--------------|---------------------------------------------------------------------------|---------------------------------|
| Moulding     | Glass fiber filled diallyl - Phtalate                                     |                                 |
| Guides       | Stainless steel or nickel plated brass                                    |                                 |
|              | Standard                                                                  | ESA                             |
| Pin body     | 0.25 µm gold / 1.27 µm Ni                                                 | 1.27 µm gold / 1.27 µm Ni (min) |
| Socket body  | 0.25 µm gold / 1.27 µm Ni on active area<br>1.27 µm Ni on non active area | 0.25 µm gold / 1.27 µm Ni (min) |
| Socket wires | 1 µm gold / 0.20 µm Ni                                                    | 1.27 µm gold / 0.20 µm Ni (min) |

## Electrical

|                                 |                                                |
|---------------------------------|------------------------------------------------|
| Current grade rating (at 25°C)  | Standard grade: 3 A max. - ESA grade: 5 A max. |
| Dielectric withstanding voltage | 1200 Vrms                                      |
| Contact resistance              | ≤8 mΩ                                          |
| Insulation resistance           | >104 MΩ (500 Vcc)                              |

## Mechanical

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Mating & unmating cycle | 5000                                                                              |
| Guiding                 | By two outside guides (2 guiding styles) and one central guide (3 guiding styles) |
| Keying                  | By rotating of outside polarised guides (up to 36 keying)                         |

## Environmental

|                   |                                                             |
|-------------------|-------------------------------------------------------------|
| Temperature range | -55° C to 125° C                                            |
| Conformity        | MIL C 55302, ESA/ESCC3401/016 - 3401/017, NF C-UTE C 93-424 |

## How To Order



|   |                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Series             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 2 | Pitch or type      | <div>N</div> 1.27 mm pitch, rear removable contacts                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 3 | Model              | <div>C</div> 3 rows centered fixing <div>D</div> 3 rows uncentered fixing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 4 | Number of contacts | <div>KNC</div> <div>KND</div> <div>062</div> <div>080</div> <div>098</div> <div>160</div> <div>026</div> <div>044</div> <div>062</div> <div>080</div> <div>098</div> <div>108</div> <div>126</div> <div>144</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 5 | Moulding polarity  | <div><div><div>NF C-UTE C 93-424</div><div>MIL-C-55302</div><div><div><div></div><div></div><div></div><div></div></div><div>ESA/ESCC 3401/01601B</div><div>SPACE GRADE</div></div></div><div><div>12</div><div>14</div><div>54</div><div>54</div><div>Female plug</div></div><div><div>13</div><div>15</div><div>55</div><div>55</div><div>Male plug</div></div><div><div>16</div><div>18</div><div>56</div><div>56</div><div>Tinned female plug*</div></div><div><div>17</div><div>19</div><div>57</div><div>57</div><div>Tinned male plug*</div></div></div> <div><div><div>NF C-UTE C 93-424</div><div>MIL-C-55302</div><div><div><div></div><div></div><div></div><div></div></div><div>ESA/ESCC 3401/01601B</div><div>SPACE GRADE</div></div></div><div><div>1A</div><div>1C</div><div>5A</div><div>5A</div><div>Tinned female plug**</div></div><div><div>1B</div><div>1D</div><div>5B</div><div>5B</div><div>Tinned male plug**</div></div><div><div>22</div><div>24</div><div>44</div><div>44</div><div>Female receptacle</div></div><div><div>23</div><div>25</div><div>45</div><div>45</div><div>Male receptacle</div></div></div> <div><div><div>NF C-UTE C 93-424</div><div>MIL-C-55302</div><div><div><div></div><div></div><div></div><div></div></div><div>ESA/ESCC 3401/01601B</div><div>SPACE GRADE</div></div></div><div><div>26</div><div>28</div><div>46</div><div>46</div><div>Tinned female receptacle*</div></div><div><div>27</div><div>29</div><div>47</div><div>47</div><div>Tinned male receptacle*</div></div><div><div>2A</div><div>2C</div><div>-</div><div>-</div><div>Tinned female receptacle**</div></div><div><div>2B</div><div>2D</div><div>-</div><div>-</div><div>Tinned male receptacle**</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 6 | Termination styles | <div><div><div><div></div><div>10</div></div>Through board solder - 90°- length 3 mm</div><div><div><div></div><div>21</div></div>Double Crimp</div><div><div><div></div><div>51</div></div>Wire wrap (3 wrapping levels)</div></div> <div><div><div><div></div><div>11</div></div>Through board solder - 90°- length 4 mm</div><div><div><div></div><div>30</div></div>Through board solder - straight</div><div><div><div></div><div>90</div></div>Male - male</div></div> <div><div><div><div></div><div>12</div></div>Through board solder - 90°- length 4.50 to 5.2 mm</div><div><div><div></div><div>40</div></div>Solder bucket</div><div><div><div></div><div>91</div></div>Female - male</div></div> <div><div><div><div></div><div>20</div></div>Crimp</div><div><div><div></div><div>40</div></div>Solder bucket</div></div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 7 | Mounting hardware  | <div>Guide Style (consult us for special guides)</div> <div><div><div><div><div></div><div>110</div></div>Male polarised, transverse mount, standard plug</div><div><div><div></div><div>145</div></div>Male polarised, transverse mount on receptacle only</div><div><div><div></div><div>131</div></div>Male unpolarised, transverse mount</div></div><div><div><div><div></div><div>111</div></div>Male polarised, vertical mount</div><div><div><div></div><div>190</div></div>Female power or mass contact, vertical mount</div><div><div><div></div><div>132</div></div>Female unpolarised, transverse mount</div></div><div><div><div><div></div><div>113</div></div>Male polarised, float mount</div><div><div><div></div><div>125</div></div>Male unpolarised, transverse mount</div><div><div><div></div><div>133</div></div>Female all polarised, transverse mount</div></div><div><div><div><div></div><div>121</div></div>Female polarised, vertical mount</div><div><div><div></div><div>126</div></div>Female unpolarised, vertical mount</div><div><div><div></div><div>191</div></div>Male power or mass contact, vertical mount</div></div><div><div><div><div></div><div>123</div></div>Female polarised, float mount</div><div><div><div></div><div>127</div></div>Male unpolarised, vertical mount</div><div></div></div><div><div><div><div></div><div>124</div></div>Female polarised, transverse mount</div><div><div><div></div><div>130</div></div>Female unpolarised, vertical mount</div><div></div></div></div> <div>Locking Styles</div> <div><div><div>MALE PLUG</div><div><div><div></div><div>201</div></div>1/4 turn, free connector</div><div><div><div></div><div>203</div></div>1/4 turn, transverse mount</div><div><div><div></div><div>207</div></div>Jackscrew, free connector</div><div><div><div></div><div>211</div></div>Jackscrew, free connector</div><div><div><div></div><div>290</div></div>Jackscrew, vertical mount</div></div><div><div>FEMALE RECEPTACLE</div><div><div><div></div><div>202</div></div>1/4 turn, vertical mount</div><div><div><div></div><div>204</div></div>1/4 turn, transverse mount</div><div><div><div></div><div>208</div></div>Jackscrew, transverse mount</div><div><div><div></div><div>210</div></div>Jackscrew, free connector</div><div></div></div><div><div><div></div><div>212</div></div>Jackscrew, transverse mount</div><div><div><div></div><div>215</div></div>Jackscrew, vertical mount</div><div><div><div></div><div>219</div></div>Jackscrew, vertical mount</div><div><div><div></div><div>232</div></div>Jackscrew, with operation button</div></div> |

\* For 90° & straight terminations (splicing on PCB)  
 \*\* RoHS compliant for 90° & straight terminations (splicing on PCB)  
 † Tinned contacts are not available as spares

# Hypertac & ESA Correspondance Table

**HYPERTAC** **KNC**

34 01 016 01 B

1

2

3

4

5

6

1 ESCC component number

2 Mounting

3 Termination style

4 Locking type  
On left side

5 Locking type  
In center

6 Locking type  
On right side

## HYPERTAC ESA

|              |    |                    |    |                    |    |                    |    |                    |    |
|--------------|----|--------------------|----|--------------------|----|--------------------|----|--------------------|----|
| Plug KNB 017 | 01 | Plug KNB 096       | 08 | Receptacle KNB 053 | 16 | Plug KNB 072       | 56 | Plug KNC 098       | 62 |
| Plug KNB 029 | 02 | Plug KNB 120       | 10 | Receptacle KNB 065 | 17 | Receptacle KNB 072 | 57 | Receptacle KNC 098 | 63 |
| Plug KNB 041 | 03 | Plug KNC 160       | 12 | Receptacle KNB 084 | 19 | Plug KNC 062       | 58 |                    |    |
| Plug KNB 053 | 04 | Receptacle KNB 017 | 13 | Receptacle KNB 096 | 20 | Receptacle KNC 062 | 59 |                    |    |
| Plug KNB 065 | 05 | Receptacle KNB 029 | 14 | Receptacle KNB 120 | 22 | Plug KNC 080       | 60 |                    |    |
| Plug KNB 084 | 07 | Receptacle KNB 041 | 15 | Receptacle KNC 160 | 24 | Receptacle KNC 080 | 61 |                    |    |

REMINDER SPATIAL P.P.P. (Party Polarity Protection)

|                   |    |             |    |                   |
|-------------------|----|-------------|----|-------------------|
| Female receptacle | 44 | Plug female | 54 | KNC 062 44-30 113 |
| Male receptacle   | 45 | Plug male   | 55 | P.P.P.            |

## HYPERTAC ESA

|                         |    |                          |    |                           |    |                            |    |
|-------------------------|----|--------------------------|----|---------------------------|----|----------------------------|----|
| Bent male 10            | MC | Solder bucket male 40    | MS | Bent female tinned 10     | FA | Mini-wrapping female 51    | FY |
| Bent male tinned 10     | MA | Mini-wrapping male 51    | MY | Crimp female 20           | FR | Bent long female 11        | FL |
| Crimp male 20           | MR | Bent long male 11        | ML | Straight female 30        | FD | Bent long female tinned 11 | FG |
| Straight male 30        | MD | Bent long male tinned 11 | MG | Straight female tinned 30 | FE | Female-male 91             | FM |
| Straight male tinned 30 | ME | Bent female 10           | FC | Solder bucket female 40   | FS |                            |    |

## HYPERTAC ESA

|                     |        |     |     |        |     |        |     |     |        |        |     |        |      |    |
|---------------------|--------|-----|-----|--------|-----|--------|-----|-----|--------|--------|-----|--------|------|----|
| Guideless connector | 00     | KNB | 145 | 40     | KNC | 10 209 | 49  | KNB | 11 125 | 71     | KNB | 11 208 | 79   |    |
| KNB                 | 131    | 31  | KNB | 124    | 41  | KN     | 210 | 50  | KNB    | 11 110 | 72  | KN     | 219  | 80 |
| KNB                 | 132    | 32  | KNC | 10 230 | 43  | KN     | 211 | 51  | KNB    | 10 230 | 73  | KN     | 290* | 81 |
| KNB                 | 10 110 | 33  | KN  | 232    | 45  | KNB    | 212 | 52  | KNC    | 124    | 74  |        |      |    |
| KNC                 | 10 110 | 34  | KN  | 231    | 46  | KN     | 215 | 53  | KNC    | 132    | 75  |        |      |    |
| KN                  | 111    | 35  | KN  | 207    | 47  | KN     | 123 | 54  | KNC    | 11 110 | 76  |        |      |    |
| KN                  | 121    | 36  | KNB | 10 208 | 48  | KN     | 113 | 55  | KNC    | 11 125 | 77  |        |      |    |

00 For 2 guide connectors

— For 3 guide connectors (see table 4, Locking type - On left side)

## HYPERTAC ESA

|     |        |    |     |        |    |    |     |    |    |     |    |
|-----|--------|----|-----|--------|----|----|-----|----|----|-----|----|
| KNB | 10 125 | 26 | KNC | 10 125 | 27 | KN | 127 | 28 | KN | 126 | 29 |
|-----|--------|----|-----|--------|----|----|-----|----|----|-----|----|

(see table 4, Locking type - On left side)

Please consult us

# Contact Terminations

## Plug

Male

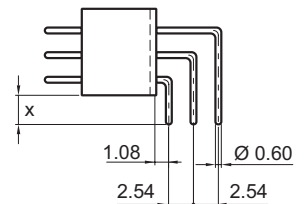
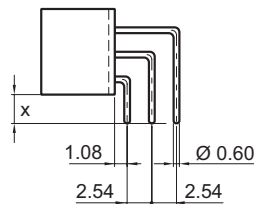
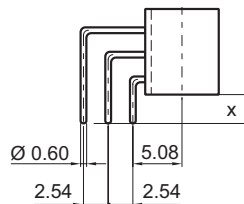
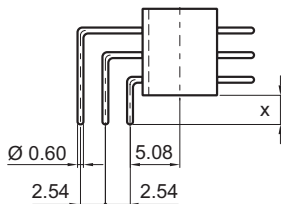
Female

## Receptacle

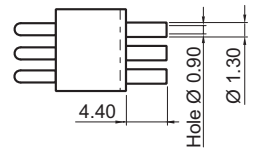
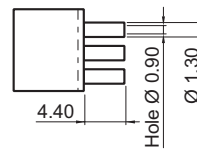
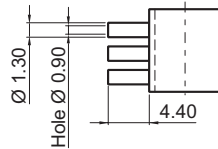
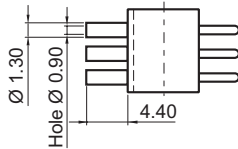
Male

Female

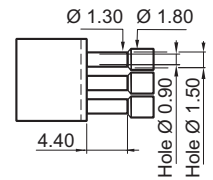
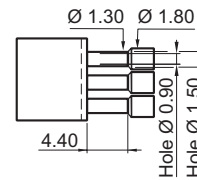
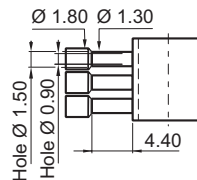
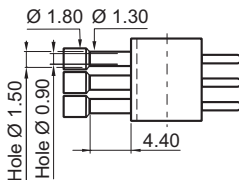
### 90° Through board solder

Ref: **10** (X=3)Ref: **MC & FC / MA & FA** - Ref: **11** (X=4)Ref: **ML & FL / MG & FG**Ref: **12** (X= 4.50 mm min to 5.70 mm max)

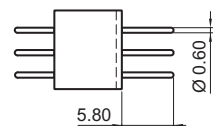
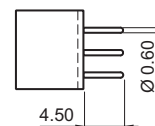
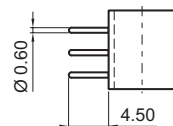
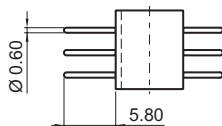
### Crimp (AWG 28-22)

Ref: **20**Ref: **MR & FR**

### Crimp (AWG 28-22)

Ref: **21**

### Straight through board solder

Ref: **30**Ref: **MD & FD/ ME & FE**

# Contact Terminations

## Plug

Male

Female

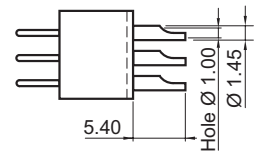
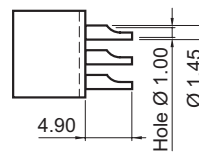
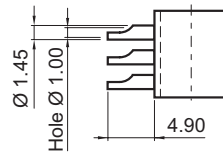
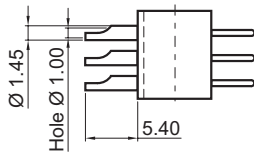
## Receptacle

Male

Female

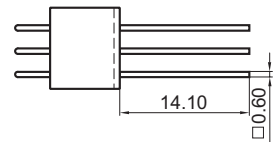
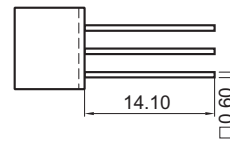
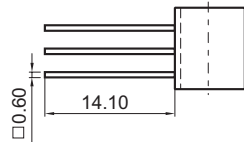
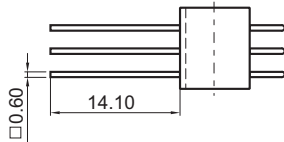
Solder bucket (AWG 22 max)

Ref: **40** Ref: **MS & FS**



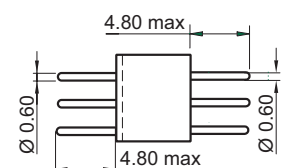
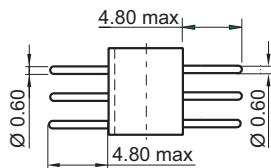
Wire wrap (3 wrapping levels)

Ref: **51** Ref: **MY & FY**



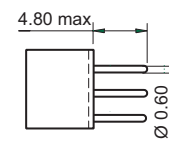
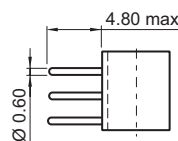
Saver (male-male)

Ref: **90**



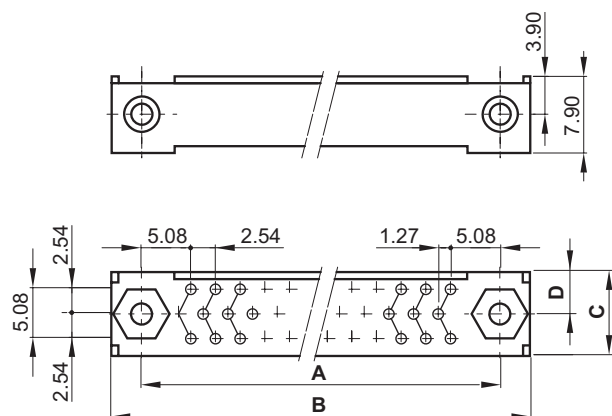
Saver (female-male)

Ref: **91** Ref: **FM**



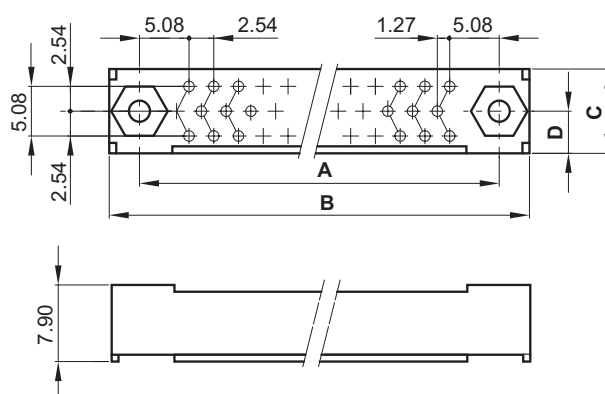
# Dimensions

## Plug

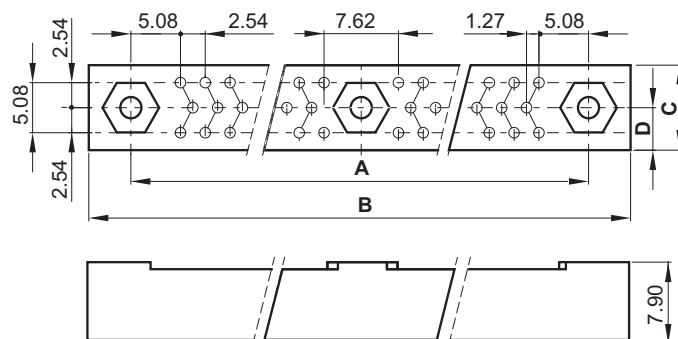
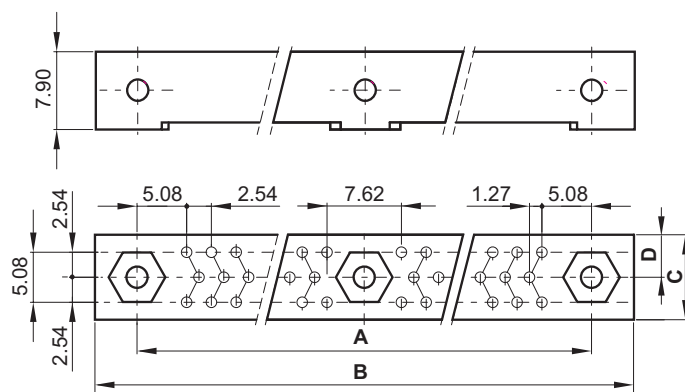


## Receptacle

26 to 98 contacts



108 to 160 contacts



|     |                   | No. of contacts | 26    | 44    | 62    | 80    | 98    | 108    | 126    | 144    | 160    |
|-----|-------------------|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| KNC | Plug & Receptacle | A               | –     | –     | 60.96 | 76.20 | 91.44 | –      | –      | –      | 149.86 |
|     |                   | B max           | –     | –     | 69.00 | 84.20 | 99.50 | –      | –      | –      | 158.00 |
|     | Plug              | C max           | –     | –     | 9.45  | 9.45  | 9.45  | –      | –      | –      | 9.30   |
|     |                   | D               | –     | –     | 4.42  | 4.42  | 4.42  | –      | –      | –      | 4.70   |
|     | Receptacle        | C max           | –     | –     | 9.30  | 9.30  | 9.30  | –      | –      | –      | 9.30   |
|     |                   | D               | –     | –     | 4.17  | 4.17  | 4.17  | –      | –      | –      | 4.70   |
| KND | Plug & Receptacle | A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | –      |
|     |                   | B max           | 38.50 | 53.70 | 69.00 | 84.20 | 99.50 | 114.70 | 129.90 | 145.20 | –      |
|     | Plug              | C min           | 8.95  | 8.95  | 8.95  | 8.95  | 8.95  | 8.95   | 8.95   | 8.95   | –      |
|     |                   | C max           | 9.55  | 9.55  | 9.55  | 9.55  | 9.55  | 9.55   | 9.55   | 9.55   | –      |
|     |                   | D               | 3.15  | 3.15  | 3.15  | 3.15  | 3.15  | 3.15   | 3.15   | 3.15   | –      |
|     |                   | D               | 3.10  | 3.10  | 3.10  | 3.10  | 3.10  | 3.10   | 3.10   | 3.10   | –      |
|     | Receptacle        | C max           | 9.35  | 9.35  | 9.35  | 9.35  | 9.35  | 9.35   | 9.35   | 9.35   | –      |
|     |                   | D               | 3.10  | 3.10  | 3.10  | 3.10  | 3.10  | 3.10   | 3.10   | 3.10   | –      |



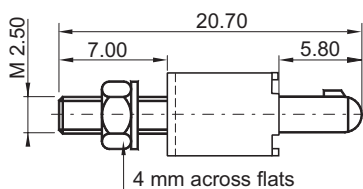
# Guide Styles

## Plug & Receptacle

### Male

#### Polarised vertical mount

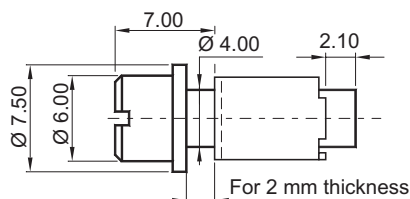
Ref: **111** Ref: **35**



### Female

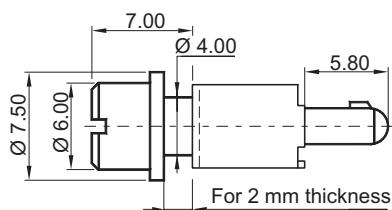
#### Polarised vertical float mount

Ref: **123** Ref: **54**



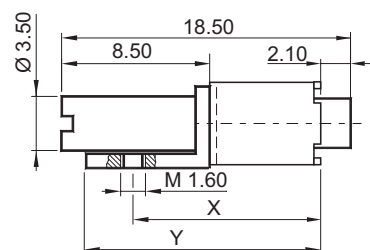
#### Polarised vertical float mount

Ref: **113** Ref: **55**



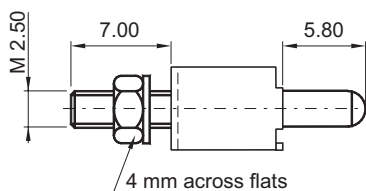
#### Polarised transverse mount

Ref: **124** Ref: **74**  
KNC X=11.20 Y=14.00 KND X=12.80 Y=15.90



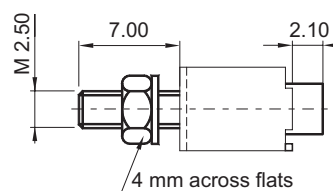
#### Unpolarised vertical mount

Ref: **127** Ref: **28**



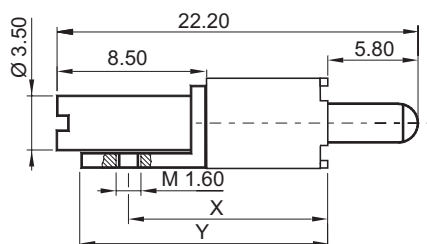
#### Unpolarised vertical mount

Ref: **126** Ref: **29**



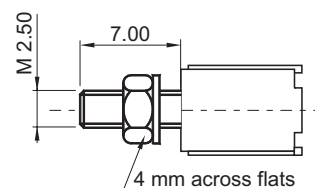
#### Unpolarised transverse mount

Ref: **131**  
KNC X=11.20 Y=14.00 KND X=12.80 Y=15.90



#### All polarised vertical mount

Ref: **130**



Ref. applies only to the KNC Series

# Guide Styles

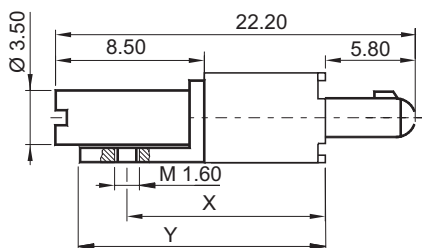
## Plug & Receptacle

### Male

#### Polarised transverse mount

Ref: **145**

**KNC** X=11.20 Y=14.00 **KND** X=12.80 Y=15.90

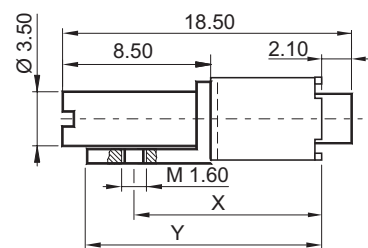


### Female

#### Unpolarised transverse mount

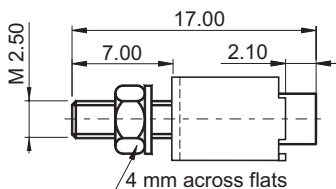
Ref: **132** Ref: **75**

**KNC** X=11.20 Y=14.00 **KND** X=12.80 Y=15.90



#### Polarised vertical mount

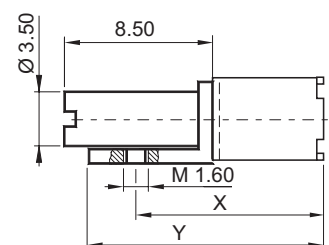
Ref: **121** Ref: **36**



#### All polarised transverse mount

Ref: **133**

**KNC** X=11.20 Y=14.00 **KND** X=12.80 Y=15.90



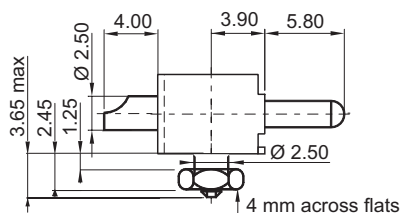
# Guide Styles

## Plug & Receptacle

### Male

#### Power or mass vertical mount

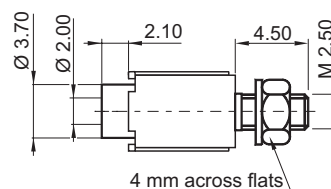
Ref: **191** PCB thickness **1.60**



### Female

#### Power or mass vertical mount

Ref: **190**



## Male plug only

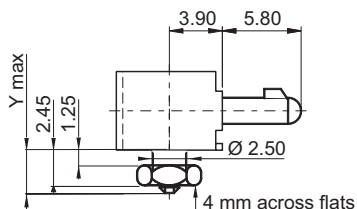
### KNC only

#### Polarised transverse mount

Ref: **10 110** Ref: **34** PCB thickness **1.60** Y=3.65

Ref: **11 110** Ref: **34** PCB thickness **2.40** Y=5.65

Ref: **12 110** PCB thickness **3.20** Y=5.65

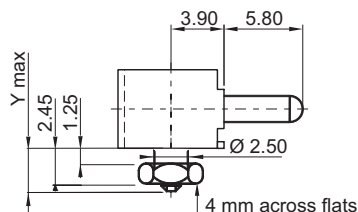


#### Unpolarised transverse mount

Ref: **10 125** Ref: **27** PCB thickness **1.60** Y=3.65

Ref: **11 125** Ref: **27** PCB thickness **1.60** Y=5.65

Ref: **12 125** PCB thickness **1.60** Y=5.65



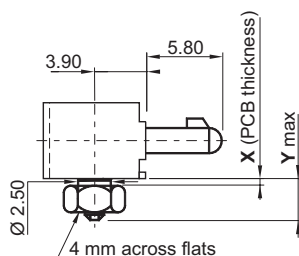
### KND only

#### Polarised transverse mount

Ref: **10 110** X=1.60 Y=3.20

Ref: **11 110** X=2.40 Y=4.90

Ref: **12 110** X=3.20 Y=6.90

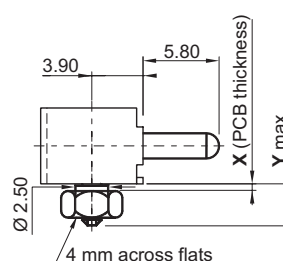


#### Unpolarised transverse mount

Ref: **10 125** X=1.60 Y=3.20

Ref: **11 125** X=2.40 Y=4.90

Ref: **12 110** X=3.20 Y=6.90



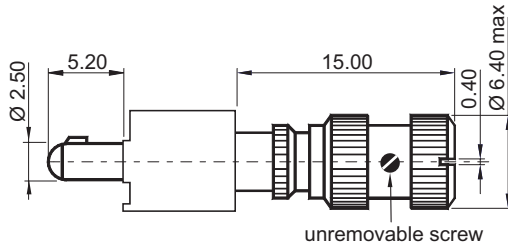
© Ref. applies only to the KNC Series



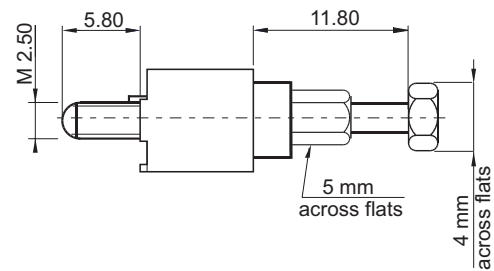
# Male Locking Styles

## Plug & Receptacle

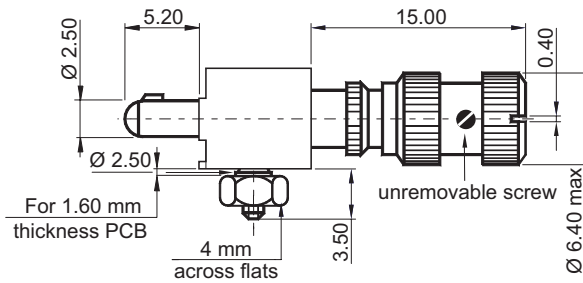
### Jack 1/4 turn lock, free connector

Ref: **201**

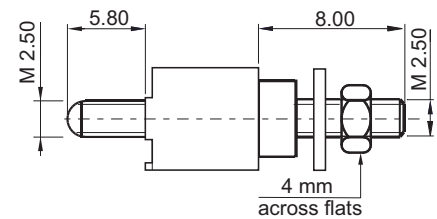
### Jackscrew, free connector

Ref: **211** Ref: **51**

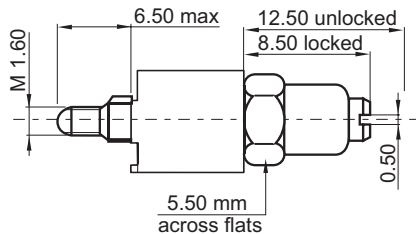
### Jack 1/4 turn lock, transverse mount

Ref: **206**

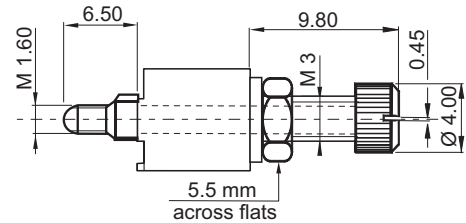
### Jackscrew, vertical mount

Ref: **231** Ref: **46**

### Jackscrew, free connector

Ref: **207** Ref: **47**

### Jackscrew, vertical mount

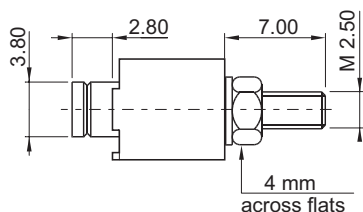
Ref: **290** Ref: **81**

# Female Locking Styles

## Plug & Receptacle

### Jack 1/4 turn lock, vertical mount

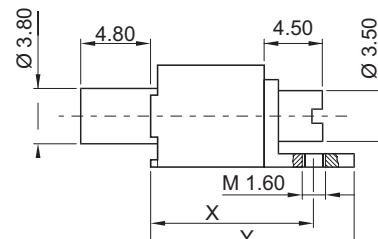
Ref: **202**



### Jackscrew, transverse mount

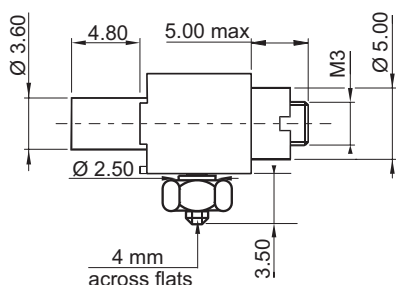
Ref: **212**

KNC X=11.20 Y=14.00 KND X=12.80 Y=15.90



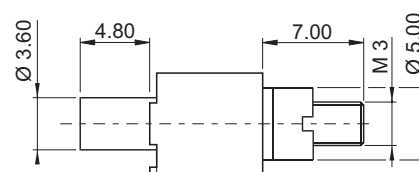
### Jackscrew, transverse mount

Ref: **10 209** Ref: **49** PCB thickness 1.60



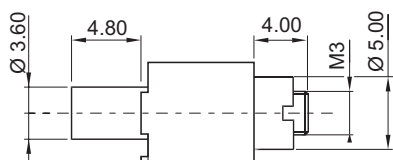
### Jackscrew, vertical mount

Ref: **215** Ref: **53**



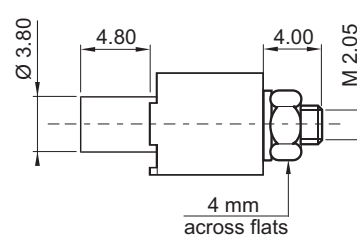
### Jackscrew, free connector

Ref: **210** Ref: **50**



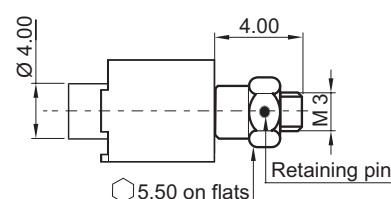
### Jackscrew, vertical mount

Ref: **219** Ref: **80**



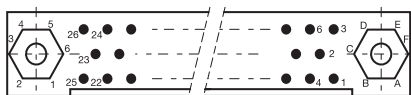
### Rotating jackscrew

Ref: **232**

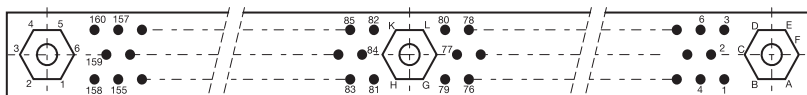


# Receptacle Mating Side Layout View

26 to 98 contacts

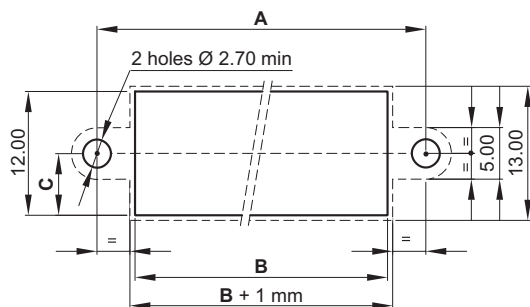


108 to 160 contacts



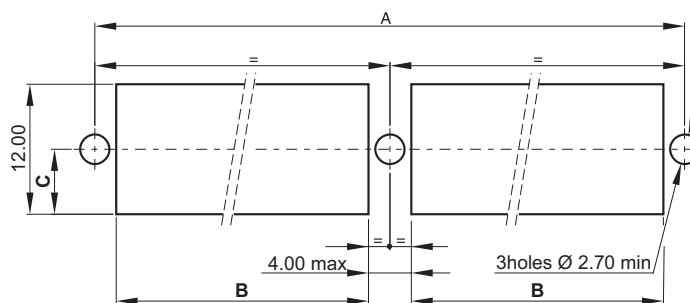
## Panel Preparation Details

26 to 98 contacts



— Fixed mount      - - - Float mount (2 mm thickness)

108 to 160 contacts



**Panel:** female or male, plug or receptacle

**Terminations:** 40 - 51

**Guide styles:** 111 - 121 (Fixed Mount)

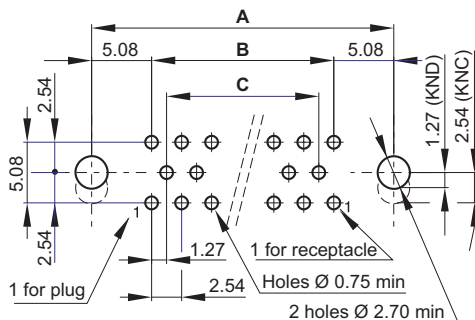
**Guide styles:** 113 - 123 - 202 (Float Mount)

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 108    | 126    | 144    | 160    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | 149.86 |
| B min           | 25.90 | 41.10 | 56.40 | 71.60 | 86.90 | 48.50  | 56.00  | 63.60  | 69.95  |
| C (KNC)         | -     | -     | 6.00  | 6.00  | 6.00  | -      | -      | -      | 6.00   |
| C (KND)         | 4.73  | 4.73  | 4.73  | 4.73  | 4.73  | 4.73   | 4.73   | 4.73   | -      |

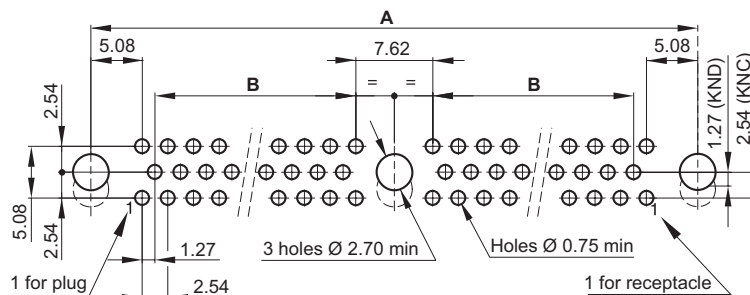
# Board Preparation Details

## Mother board

### 26 to 98 Contacts



### 108 to 160 Contacts

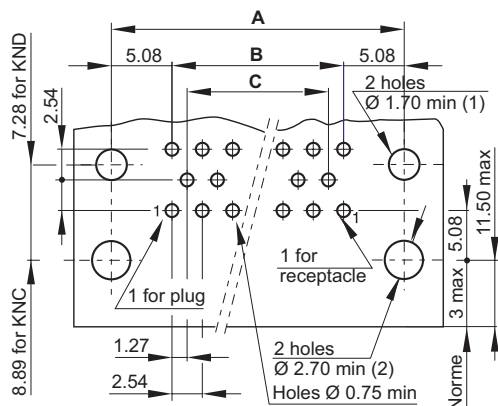


**Mother Board:** female or male, plug or receptacle, straight solder termination

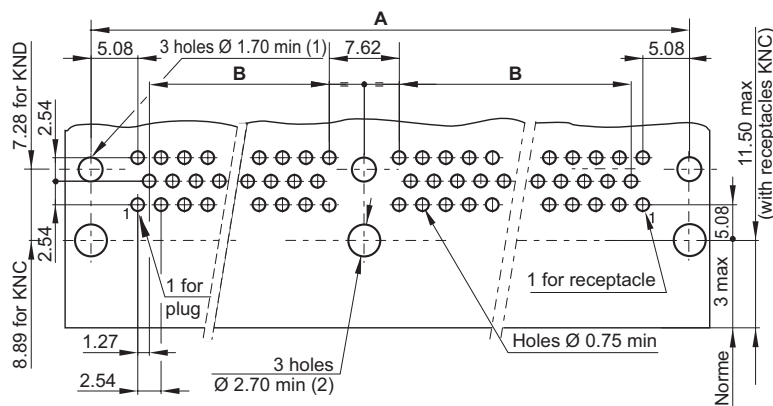
**Guide styles:** 111 - 121- 202

## Daughter board

### 26 to 98 Contacts



### 108 to 160 Contacts



**Daughter Board:** female or male, plug or receptacle, 90° termination

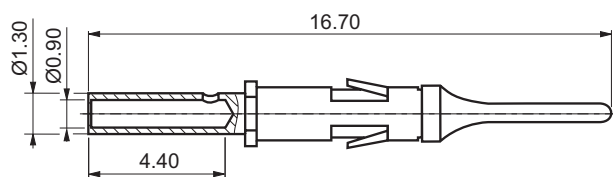
(1) **Guide styles:** 124 (2) **Guide styles:** 110 - 206

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 108    | 126    | 144    | 160    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 106.68 | 121.92 | 137.16 | 149.86 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 43.18  | 50.80  | 58.42  | 64.77  |
| C               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | -      | -      | -      | -      |

# Contacts

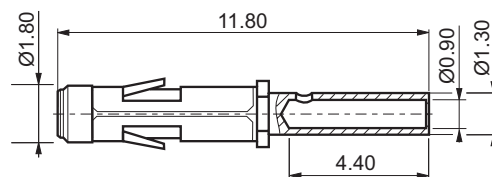
## Male

Crimp terminations awg 22-28 (0.079 - 0.34 mm<sup>2</sup>)



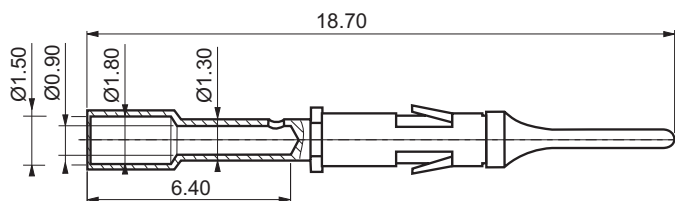
| Reference              | Part number                        |
|------------------------|------------------------------------|
| KN- ---13 20 ---       | 006 042 1- 20R OG                  |
| KN- ---55 20 ---<br>MR | 006 042 1- 20P OF<br>3401 017 004B |

## Female

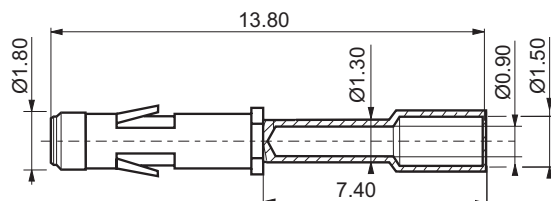


| Reference              | Part number                        |
|------------------------|------------------------------------|
| KN- ---22 20 ---       | 006 042 2- 20R G0                  |
| KN- ---44 20 ---<br>FR | 006 042 2- 20P J9<br>3401 017 015B |

Crimp terminations awg 22-28 (0.079 - 0.34 mm<sup>2</sup>) & Sheath Ø1.45



| Reference        | Part number       |
|------------------|-------------------|
| KN- ---13 20 --- | 006 063 1- 21R OG |
| KN- ---55 20 --- | 006 063 1- 20R OF |



| Reference        | Part number       |
|------------------|-------------------|
| KN- ---22 20 --- | 006 063 2- 21R G0 |
| KN- ---44 20 --- | 006 063 2- 21R J3 |

# Tools

## Crimp tool & Positioner

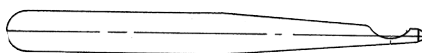


| Contact part number                    | Crimp tool                | AWG | Wire cross section | Positioner    | Tool turret | Selector position |
|----------------------------------------|---------------------------|-----|--------------------|---------------|-------------|-------------------|
| 006 042 1- 20R OG<br>006 042 2- 20R GO | ASTRO TOOL<br>M22520/2.01 | 28  | 0.079              | SS-0060000001 |             | 3                 |
|                                        |                           | 26  | 0.14               |               |             | 4                 |
|                                        |                           | 24  | 0.20               |               |             | 4                 |
|                                        |                           | 22  | 0.34               |               |             | 5                 |
|                                        | DANIELS<br>M22520/2.01    | 28  | 0.079              | SS-0060000001 |             | 3                 |
|                                        |                           | 26  | 0.14               |               |             | 4                 |
|                                        |                           | 24  | 0.20               |               |             | 4                 |
|                                        |                           | 22  | 0.34               |               |             | 5                 |

|                                        |                                                     |                           |    |       |               |  |   |
|----------------------------------------|-----------------------------------------------------|---------------------------|----|-------|---------------|--|---|
| 006 063 1- 21R OG<br>006 063 2- 21R GO | 2 operations<br><br>1 <sup>st</sup> crimp<br>(lead) | ASTRO TOOL<br>M22520/2.01 | 28 | 0.079 | SS-0060000001 |  | 3 |
|                                        |                                                     |                           | 26 | 0.14  |               |  | 4 |
|                                        |                                                     |                           | 24 | 0.20  |               |  | 4 |
|                                        |                                                     |                           | 22 | 0.34  |               |  | 5 |
|                                        |                                                     | DANIELS<br>M22520/2.01    | 28 | 0.079 | SS-0060000001 |  | 3 |
|                                        |                                                     |                           | 26 | 0.14  |               |  | 4 |
|                                        |                                                     |                           | 24 | 0.20  |               |  | 4 |
|                                        |                                                     |                           | 22 | 0.34  |               |  | 5 |
|                                        | 2 <sup>nd</sup> crimp<br>(sheath)                   | ASTRO TOOL<br>M22520/2.01 | 28 | 0.079 | SS-0060000002 |  | * |
|                                        |                                                     |                           | 26 | 0.14  |               |  | 6 |
|                                        |                                                     |                           | 24 | 0.20  |               |  | 7 |
|                                        |                                                     |                           | 22 | 0.34  |               |  | 7 |
|                                        |                                                     | DANIELS<br>M22520/2.01    | 28 | 0.079 | SS-0060000002 |  | * |
|                                        |                                                     |                           | 26 | 0.14  |               |  | 6 |
|                                        |                                                     |                           | 24 | 0.20  |               |  | 7 |
|                                        |                                                     |                           | 22 | 0.34  |               |  | 7 |

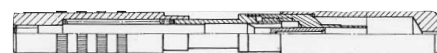
|  |             |       |    |       |  |       |   |
|--|-------------|-------|----|-------|--|-------|---|
|  | 1 operation | 52007 | 28 | 0.079 |  | SP717 | 2 |
|  |             |       | 26 | 0.14  |  |       | 3 |
|  |             |       | 24 | 0.20  |  |       | 4 |
|  |             |       | 22 | 0.34  |  |       | 4 |

## Insertion



SM-0060000001

## Extraction



SD-0060000006

## Alignment Combs

for 90° through board termination  
HPF107/B  
SP. 006 00 00 004

2 fixing points  
3 fixing points

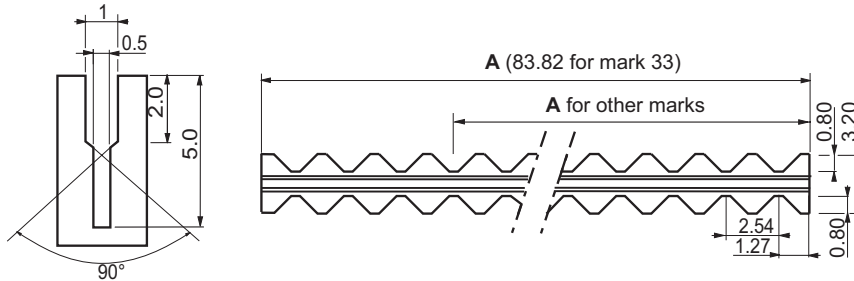
## Screwdriver for m3 nut

208 locking devices  
215 locking devices

S\_075

# Accessories

## Antistatic Pin Protector



### Ordering information

**K N B - - - - 314**  
↑  
Ref

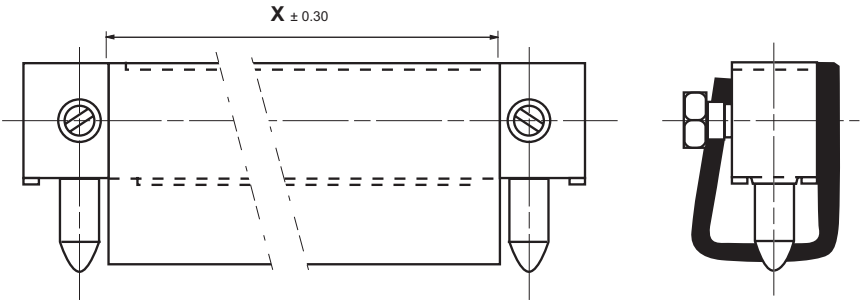
| Use                                       | A     | Ref        |
|-------------------------------------------|-------|------------|
| KNB 017                                   | 24.13 | <b>009</b> |
| KND 026                                   |       |            |
| KNB 029<br>KND 044                        | 39.37 | <b>015</b> |
| KNB 072<br>KND 108                        | 46.99 | <b>018</b> |
| KNB 041 & 084<br>KNC 062<br>KND 062 & 126 | 54.61 | <b>021</b> |

| Use                                 | A     | Ref        |
|-------------------------------------|-------|------------|
| KNB 096                             | 62.23 | <b>024</b> |
| KND 144                             |       |            |
| KNB 053<br>KNC 080 & 160<br>KND 080 | 69.85 | <b>027</b> |
| KNB 120                             | 77.47 | <b>030</b> |
| KNB 065<br>KNC 098<br>KND 098       | 83.82 | <b>033</b> |

**Note:** Each part number contains only one header.  
To equip fully the connector, you have to order 2, 3, 4 or 6 identical headers.  
Header can fit on contacts or be positioned between rows.

# Accessories

## Pin Protector (extruded polypropylene)



**Ordering information**

**K N - - - - 308**

B, C or D      Number of positions

| KNB      | 017   | 029   | 041 | 053   | 065   | 072   | 084 | 096   | 120   |
|----------|-------|-------|-----|-------|-------|-------|-----|-------|-------|
| X ± 0.30 | 25.50 | 40.70 | 56  | 71.20 | 86.50 | 48.40 | 56  | 63.60 | 78.80 |
| Qty      | 1     | 1     | 1   | 1     | 1     | 2     | 2   | 2     | 2     |

| KNC      | 062 | 080   | 098   | 119    | 160    |
|----------|-----|-------|-------|--------|--------|
| X ± 0.30 | 66  | 81.20 | 96.40 | 114.20 | 155.00 |
| Qty      | 1   | 1     | 1     | 1      | 1      |

| KND      | 026   | 044   | 108    | 126    | 144    |
|----------|-------|-------|--------|--------|--------|
| X ± 0.30 | 35.50 | 50.70 | 111.70 | 127.00 | 142.20 |
| Qty      | 1     | 1     | 1      | 1      | 1      |

# Technical Characteristics

|                   |                                                             |
|-------------------|-------------------------------------------------------------|
| Contact diameter  | HYPERTAC® type Ø 0.50 mm                                    |
| Number of contact | Up to 162                                                   |
| Pitch             | 1.905 mm between rows - 1.27 mm between quicuncial contacts |
| Rows              | 3                                                           |

## Materials & Platings

|              |                                                                           |                                  |
|--------------|---------------------------------------------------------------------------|----------------------------------|
| Contact      | Brass or bronze                                                           |                                  |
| Moulding     | Glass fiber filled diallyl - Phtalate                                     |                                  |
| Guides       | Stainless steel or nickel plated brass                                    |                                  |
|              | Standard                                                                  | ESA                              |
| Pin body     | 0.25 µm gold / 1.27 µm Ni                                                 | 1.27 µm gold / 1.27 µm Ni (min.) |
| Socket body  | 0.25 µm gold / 1.27 µm Ni on active area<br>1.27 µm Ni on non active area | 0.25 µm gold / 1.27 µm Ni (min.) |
| Socket wires | 1 µm gold / 0.20 µm Ni                                                    | 1.27 µm gold / 0.20 µm Ni (min.) |

## Electrical

|                                 |                               |
|---------------------------------|-------------------------------|
| Current rating (at 25°C)        | 3 A max.                      |
| Dielectric withstanding voltage | 800 Vrms                      |
| Contact resistance              | ≤8 mΩ                         |
| Insulation resistance           | >10 <sup>4</sup> MΩ (500 Vcc) |

## Mechanical

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Mating & unmating cycle | 5000                                                                              |
| Guiding                 | By two outside guides (2 guiding styles) and one central guide (3 guiding styles) |
| Keying                  | By rotating of outside polarised guides (up to 16 keying)                         |

## Environmental

|                   |                                                |
|-------------------|------------------------------------------------|
| Temperature range | -55° C to 125° C                               |
| Conformity        | ESA/ESCC3401/016 - 3401/017, NF C-UTE C 93-424 |

# How To Order



## Hypertac & ESA Correspondance Table

ESA 3401/039 01B

K M C

1

2

3

4

5

|         |                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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|---------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------|-------------------------------------------------------------|-------|--------------------------------|-------|--------------------------------|-------------------------------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------|-------------------------------------------------|-----------------------------------------------|-------------------------------------------------|----------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------------------------------------------------|-------------------------------|---------------------------------------------------|---------------|--------------------------------------------|--------------------|-----------------------------------------------------|-------|-------------------------------------------------------------|-------------------|-------------------------------------------------|---------|-------------------------------------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------------------------|-------|-----------------------------------------------------|---------------------------|------------------------------------------------|-------|---------------------------------------------------|-------------------------|---------------------------------------------------|---|---|----------------------------|---------------------------------------------------|-------|---------------------------------------------------|--------------------------|--|------|--|---------|------------------------------------------|---------|------------------------------------------|-------|-----------------------------|-------|--------------------------------------------|---------|--------------------------------------------|---------|------------------------------------------|-------|------------------------------------------|--|--|
| 1       | Series                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   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                                |   |   |                            |                                                   |       |                                                   |                          |  |      |  |         |                                          |         |                                          |       |                             |       |                                            |         |                                            |         |                                          |       |                                          |  |  |
| 2       | Number of contacts                                | 0 2 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 0 4 4                                               | 0 6 2   | 0 8 0                                                       | 0 9 8 | 1 4 4                          | 1 6 2 |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                            |                    |                                                     |       |                                                             |                   |                                                 |         |                                                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                              |       |                                                     |                           |                                                |       |                                                   |                         |                                                   |   |   |                            |                                                   |       |                                                   |                          |  |      |  |         |                                          |         |                                          |       |                             |       |                                            |         |                                            |         |                                          |       |                                          |  |  |
| 3       | Moulding polarity                                 | <b>NF C-UTE C 93-424</b><br>Ⓒ <b>ESA/ESCC 3401/03901B</b><br><b>SPACE GRADE</b><br><table><tr><td>12</td><td>-</td><td>54</td><td>Female plug</td></tr><tr><td>13</td><td>55</td><td>55</td><td>Male plug</td></tr><tr><td>16</td><td>-</td><td>56</td><td>Tinned female plug*</td></tr><tr><td>17</td><td>-</td><td>57</td><td>Tinned male plug*</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                     | 12      | -                                                           | 54    | Female plug                    | 13    | 55                             | 55                                              | Male plug                        | 16                                                                                                                                                                                                                                                                                    | -     | 56                                                | Tinned female plug*                             | 17                                            | -                                               | 57                                           | Tinned male plug* | <b>NF C-UTE C 93-424</b><br>Ⓒ <b>ESA/ESCC 3401/03901B</b><br><b>SPACE GRADE</b><br><table><tr><td>1A</td><td>-</td><td>-</td><td>Tinned female plug**</td></tr><tr><td>1B</td><td>-</td><td>-</td><td>Tinned male plug**</td></tr><tr><td>22</td><td>44</td><td>44</td><td>Female receptacle</td></tr><tr><td>23</td><td>-</td><td>45</td><td>Male receptacle</td></tr></table> |                               | 1A                                                                                                                                                                   | -     | -                                                 | Tinned female plug**          | 1B                                                | -             | -                                          | Tinned male plug** | 22                                                  | 44    | 44                                                          | Female receptacle | 23                                              | -       | 45                                              | Male receptacle | <b>NF C-UTE C 93-424</b><br>Ⓒ <b>ESA/ESCC 3401/03901B</b><br><b>SPACE GRADE</b><br><table><tr><td>26</td><td>-</td><td>46</td><td>Tinned female receptacle*</td></tr><tr><td>27</td><td>-</td><td>47</td><td>Tinned male receptacle*</td></tr><tr><td>2A</td><td>-</td><td>-</td><td>Tinned female receptacle**</td></tr><tr><td>2B</td><td>-</td><td>-</td><td>Tinned male receptacle**</td></tr></table> |       | 26                                           | -     | 46                                                  | Tinned female receptacle* | 27                                             | -     | 47                                                | Tinned male receptacle* | 2A                                                | - | - | Tinned female receptacle** | 2B                                                | -     | -                                                 | Tinned male receptacle** |  |      |  |         |                                          |         |                                          |       |                             |       |                                            |         |                                            |         |                                          |       |                                          |  |  |
| 12      | -                                                 | 54                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| 13      | 55                                                | 55                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| 16      | -                                                 | 56                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tinned female plug*                                 |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 17      | -                                                 | 57                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Tinned male plug*                                   |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1A      | -                                                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Tinned female plug**                                |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1B      | -                                                 | -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| 4       | Termination styles                                | <table><tr><td>Ⓒ 1 0</td><td>90° lenght 3 mm ("A" moulding)</td></tr><tr><td>1 0</td><td>90° lenght 3 mm ("B" moulding)</td></tr><tr><td>1 1</td><td>90° lenght 4 mm ("A" moulding)</td></tr><tr><td>1 3</td><td>90° lenght 5.5 mm ("B" moulding)</td></tr></table>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                     | Ⓒ 1 0   | 90° lenght 3 mm ("A" moulding)                              | 1 0   | 90° lenght 3 mm ("B" moulding) | 1 1   | 90° lenght 4 mm ("A" moulding) | 1 3                                             | 90° lenght 5.5 mm ("B" moulding) | <table><tr><td>Ⓒ 3 0</td><td>Through board solder - straight - lenght 4.5 mm</td></tr><tr><td>Ⓒ 3 1</td><td>Through board solder - straight - lenght 5.6 mm</td></tr><tr><td>Ⓒ 4 0</td><td>Solder bucket</td></tr><tr><td>5 0</td><td>Wire wrap (2 wrapping levels)</td></tr></table> |       | Ⓒ 3 0                                             | Through board solder - straight - lenght 4.5 mm | Ⓒ 3 1                                         | Through board solder - straight - lenght 5.6 mm | Ⓒ 4 0                                        | Solder bucket     | 5 0                                                                                                                                                                                                                                                                                                                                                                             | Wire wrap (2 wrapping levels) | <table><tr><td>Ⓒ 5 1</td><td>Wire wrap (3 wrapping levels)</td></tr><tr><td>9 0</td><td>Male - Female</td></tr><tr><td>Ⓒ 9 1</td><td>Female - male</td></tr></table> |       | Ⓒ 5 1                                             | Wire wrap (3 wrapping levels) | 9 0                                               | Male - Female | Ⓒ 9 1                                      | Female - male      |                                                     |       |                                                             |                   |                                                 |         |                                                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                              |       |                                                     |                           |                                                |       |                                                   |                         |                                                   |   |   |                            |                                                   |       |                                                   |                          |  |      |  |         |                                          |         |                                          |       |                             |       |                                            |         |                                            |         |                                          |       |                                          |  |  |
| Ⓒ 1 0   | 90° lenght 3 mm ("A" moulding)                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 1 3     | 90° lenght 5.5 mm ("B" moulding)                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| Ⓒ 3 0   | Through board solder - straight - lenght 4.5 mm   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| Ⓒ 3 1   | Through board solder - straight - lenght 5.6 mm   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| Ⓒ 4 0   | Solder bucket                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 5 0     | Wire wrap (2 wrapping levels)                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| Ⓒ 5 1   | Wire wrap (3 wrapping levels)                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 9 0     | Male - Female                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| Ⓒ 9 1   | Female - male                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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| 5       | Mounting hardware                                 | <div>Guide Styles (consult us for special guides)</div> <table><tr><td>Ⓒ 1 1 0</td><td>Male polarised, transverse mount<sup>(1)</sup></td><td>1 2 7</td><td>Male unpolarised, vertical mount<sup>(2)</sup></td><td>1 5 6</td><td>Male unpolarised, transverse mount<sup>(2)</sup></td></tr><tr><td>1 1 1</td><td>Male polarised, vertical mount<sup>(2)</sup></td><td>1 2 8</td><td>Male unpolarised, float mount<sup>(2)</sup></td><td>1 7 3</td><td>Female unpolarised, transverse mount<sup>(1)</sup></td></tr><tr><td>1 1 2</td><td>Male polarised, vertical mount<sup>(2)</sup></td><td>1 3 0</td><td>Female unpolarised, vertical mount<sup>(2)</sup></td><td>1 7 4</td><td>Female polarised, transverse mount<sup>(1)</sup></td></tr><tr><td>1 1 3</td><td>Male polarised, float mount<sup>(2)</sup></td><td>1 3 3</td><td>Female unpolarised, transverse mount<sup>(2)</sup></td><td>1 9 0</td><td>Female power or mass contact, vertical mount<sup>(2)</sup></td></tr><tr><td>Ⓒ 1 2 1</td><td>Female polarised, vertical mount<sup>(2)</sup></td><td>Ⓒ 1 4 3</td><td>Female polarised, vertical mount<sup>(2)</sup></td><td>1 9 1</td><td>Male power or mass contact, transverse mount<sup>(1)</sup></td></tr><tr><td>1 2 3</td><td>Female polarised, float mount<sup>(2)</sup></td><td>1 5 3</td><td>Female unpolarised, transverse mount<sup>(2)</sup></td><td>Ⓒ 7 0 3</td><td>Female - male unpolarised guide <sup>(1)</sup></td></tr><tr><td>1 2 4</td><td>Female polarised, transverse mount<sup>(2)</sup></td><td>1 5 4</td><td>Female polarised, transverse mount<sup>(2)</sup></td><td colspan="2" rowspan="2"></td></tr><tr><td>1 2 5</td><td>Male unpolarised, transverse mount<sup>(1)</sup></td><td>1 5 5</td><td>Male unpolarised, transverse mount<sup>(2)</sup></td></tr></table> <div>Locking Styles</div> <table><tr><td colspan="2">FEMALE</td><td colspan="2">MALE</td></tr><tr><td>Ⓒ 2 0 2</td><td>Jackscrew, vertical mount<sup>(2)</sup></td><td>Ⓒ 2 0 1</td><td>Jackscrew, free connector<sup>(2)</sup></td></tr><tr><td>2 0 3</td><td>Jackscrew, transverse mount</td><td>2 0 5</td><td>Jackscrew, transverse mount<sup>(1)</sup></td></tr><tr><td>Ⓒ 2 0 4</td><td>Jackscrew, transverse mount<sup>(2)</sup></td><td>Ⓒ 2 0 6</td><td>Jackscrew, free connector<sup>(2)</sup></td></tr><tr><td>2 0 7</td><td>Jackscrew, vertical mount<sup>(2)</sup></td><td></td><td></td></tr></table> |                                                     |         |                                                             |       |                                |       | Ⓒ 1 1 0                        | Male polarised, transverse mount <sup>(1)</sup> | 1 2 7                            | Male unpolarised, vertical mount <sup>(2)</sup>                                                                                                                                                                                                                                       | 1 5 6 | Male unpolarised, transverse mount <sup>(2)</sup> | 1 1 1                                           | Male polarised, vertical mount <sup>(2)</sup> | 1 2 8                                           | Male unpolarised, float mount <sup>(2)</sup> | 1 7 3             | Female unpolarised, transverse mount <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                             | 1 1 2                         | Male polarised, vertical mount <sup>(2)</sup>                                                                                                                        | 1 3 0 | Female unpolarised, vertical mount <sup>(2)</sup> | 1 7 4                         | Female polarised, transverse mount <sup>(1)</sup> | 1 1 3         | Male polarised, float mount <sup>(2)</sup> | 1 3 3              | Female unpolarised, transverse mount <sup>(2)</sup> | 1 9 0 | Female power or mass contact, vertical mount <sup>(2)</sup> | Ⓒ 1 2 1           | Female polarised, vertical mount <sup>(2)</sup> | Ⓒ 1 4 3 | Female polarised, vertical mount <sup>(2)</sup> | 1 9 1           | Male power or mass contact, transverse mount <sup>(1)</sup>                                                                                                                                                                                                                                                                                                                                                | 1 2 3 | Female polarised, float mount <sup>(2)</sup> | 1 5 3 | Female unpolarised, transverse mount <sup>(2)</sup> | Ⓒ 7 0 3                   | Female - male unpolarised guide <sup>(1)</sup> | 1 2 4 | Female polarised, transverse mount <sup>(2)</sup> | 1 5 4                   | Female polarised, transverse mount <sup>(2)</sup> |   |   | 1 2 5                      | Male unpolarised, transverse mount <sup>(1)</sup> | 1 5 5 | Male unpolarised, transverse mount <sup>(2)</sup> | FEMALE                   |  | MALE |  | Ⓒ 2 0 2 | Jackscrew, vertical mount <sup>(2)</sup> | Ⓒ 2 0 1 | Jackscrew, free connector <sup>(2)</sup> | 2 0 3 | Jackscrew, transverse mount | 2 0 5 | Jackscrew, transverse mount <sup>(1)</sup> | Ⓒ 2 0 4 | Jackscrew, transverse mount <sup>(2)</sup> | Ⓒ 2 0 6 | Jackscrew, free connector <sup>(2)</sup> | 2 0 7 | Jackscrew, vertical mount <sup>(2)</sup> |  |  |
| Ⓒ 1 1 0 | Male polarised, transverse mount <sup>(1)</sup>   | 1 2 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Male unpolarised, vertical mount <sup>(2)</sup>     | 1 5 6   | Male unpolarised, transverse mount <sup>(2)</sup>           |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1 1 1   | Male polarised, vertical mount <sup>(2)</sup>     | 1 2 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Male unpolarised, float mount <sup>(2)</sup>        | 1 7 3   | Female unpolarised, transverse mount <sup>(1)</sup>         |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1 1 2   | Male polarised, vertical mount <sup>(2)</sup>     | 1 3 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Female unpolarised, vertical mount <sup>(2)</sup>   | 1 7 4   | Female polarised, transverse mount <sup>(1)</sup>           |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1 1 3   | Male polarised, float mount <sup>(2)</sup>        | 1 3 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Female unpolarised, transverse mount <sup>(2)</sup> | 1 9 0   | Female power or mass contact, vertical mount <sup>(2)</sup> |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| Ⓒ 1 2 1 | Female polarised, vertical mount <sup>(2)</sup>   | Ⓒ 1 4 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Female polarised, vertical mount <sup>(2)</sup>     | 1 9 1   | Male power or mass contact, transverse mount <sup>(1)</sup> |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1 2 3   | Female polarised, float mount <sup>(2)</sup>      | 1 5 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Female unpolarised, transverse mount <sup>(2)</sup> | Ⓒ 7 0 3 | Female - male unpolarised guide <sup>(1)</sup>              |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                            |                    |                                                     |       |                                                             |                   |                                                 |         |                                                 |                 |                                                                                                                                                                                                                                                                                                                                                                                                            |       |                                              |       |                                                     |                           |                                                |       |                                                   |                         |                                                   |   |   |                            |                                                   |       |                                                   |                          |  |      |  |         |                                          |         |                                          |       |                             |       |                                            |         |                                            |         |                                          |       |                                          |  |  |
| 1 2 4   | Female polarised, transverse mount <sup>(2)</sup> | 1 5 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Female polarised, transverse mount <sup>(2)</sup>   |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 1 2 5   | Male unpolarised, transverse mount <sup>(1)</sup> | 1 5 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Male unpolarised, transverse mount <sup>(2)</sup>   |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| FEMALE  |                                                   | MALE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| Ⓒ 2 0 2 | Jackscrew, vertical mount <sup>(2)</sup>          | Ⓒ 2 0 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Jackscrew, free connector <sup>(2)</sup>            |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 2 0 3   | Jackscrew, transverse mount                       | 2 0 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Jackscrew, transverse mount <sup>(1)</sup>          |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| Ⓒ 2 0 4 | Jackscrew, transverse mount <sup>(2)</sup>        | Ⓒ 2 0 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Jackscrew, free connector <sup>(2)</sup>            |         |                                                             |       |                                |       |                                |                                                 |                                  |                                                                                                                                                                                                                                                                                       |       |                                                   |                                                 |                                               |                                                 |                                              |                   |                                                                                                                                                                                                                                                                                                                                                                                 |                               |                                                                                                                                                                      |       |                                                   |                               |                                                   |               |                                 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| 2 0 7   | Jackscrew, vertical mount <sup>(2)</sup>          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          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(1) Moulding A - (2) Moulding B

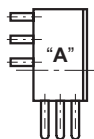
\* For 90° & straight terminations (splicing on PCB)

\*\* RoHS compliant for 90° & straight terminations (splicing on PCB)

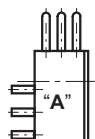
# Moulding Styles

## Plug

### One Part (moulding A)

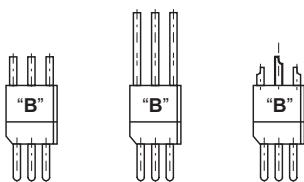


- Fitted with male contacts
- 90° through board solder



- Fitted with male contacts
- 90° through board solder  
(same design as the "A" plug type but printed as receptacle)

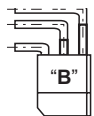
### Two Parts (moulding B)



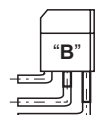
- Fitted with male contacts (pins)
- Straight through board solder
  - Wire wrap type  
(2 and 3 wrapping levels)
  - Solder bucket



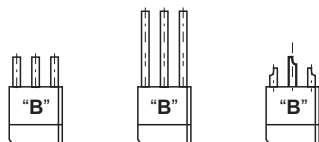
- Fitted with female contacts
- Straight through board solder
  - Wire wrap type  
(2 and 3 wrapping levels)
  - Solder bucket  
(same design as the "B" plug type but printed as receptacle)



- Fitted with female contacts (sockets)
- 90° through board solder  
*Note: the spacing of the rows for board preparation is different to the spacing of the plug fitted with the 90° termination*
  - Straight through board solder
  - Wire wrap type  
(2 and 3 wrapping levels)
  - Solder bucket



- Fitted with female contacts (sockets)
- 90° through board solder  
*Note: the spacing of the rows for board preparation is different to the spacing of the plug fitted with the 90° termination*

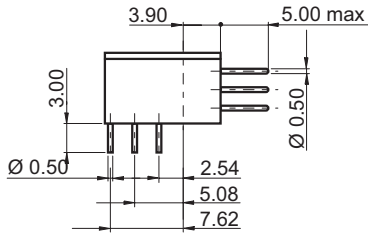


- Fitted with male contacts (pins)
- Straight through board solder
  - Wire wrap type  
(2 and 3 wrapping levels)
  - Solder bucket  
(same design as the "B" plug type but printed as receptacle)

# Contact Terminations

## Plug

### Male

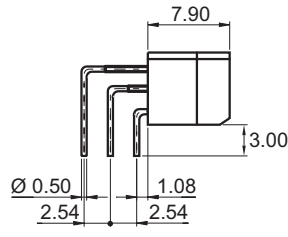


Moulding "A"

### Female

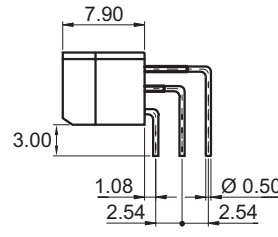
#### 90° Through board solder

Ref: 10 Ref : 10 (only A Moulding)



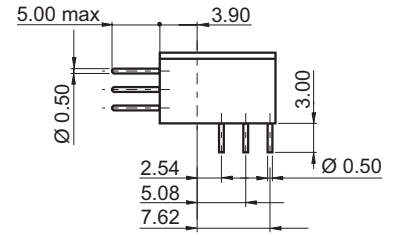
Moulding "B"

### Male



Moulding "B"

### Female

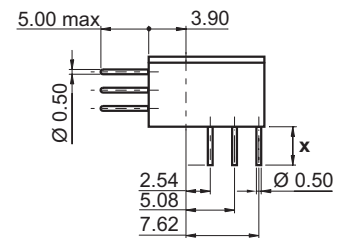
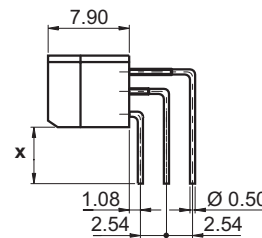
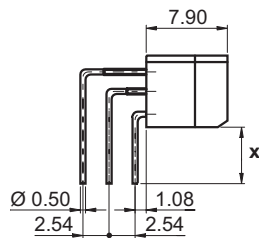
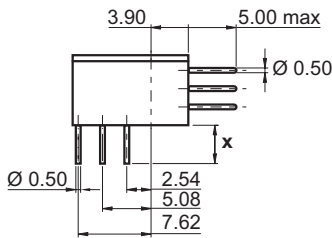


Moulding "A"

#### 90° through board solder

Moulding A Ref: 11 (X=4.00)

Moulding B Ref: 13 (X=5.50)



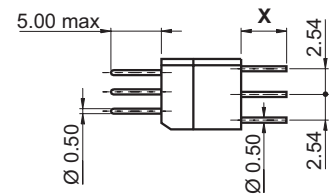
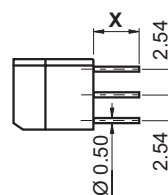
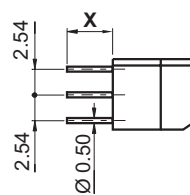
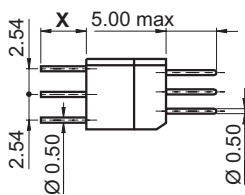
#### Straight through board solder

Ref: 30 (X=4.50)

Ref: 30

Ref: 31 (X=5.60)

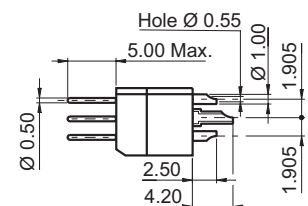
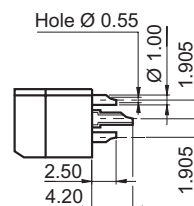
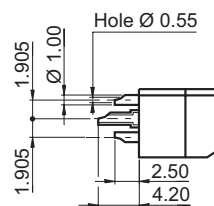
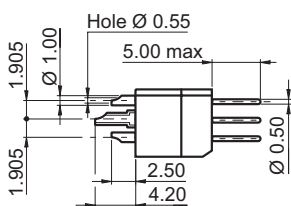
Ref: 31



#### Solder bucket (AWG 26 max)

Ref: 40

Ref: 40



**Note:** moulding A and B need different preparation board details for 90° tail termination.

# Contact Terminations

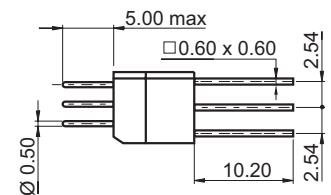
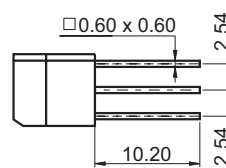
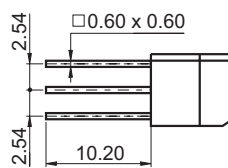
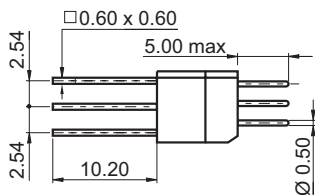
## Plug

Male

Female

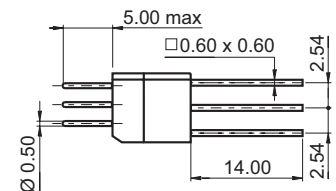
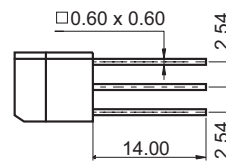
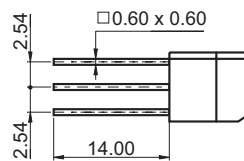
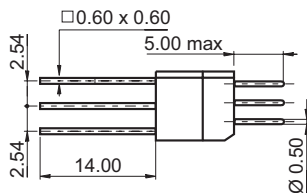
Wire wrap (2 wrapping levels)

Ref: 50 Ref: 50



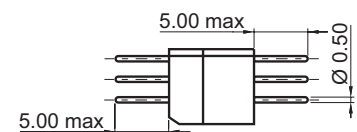
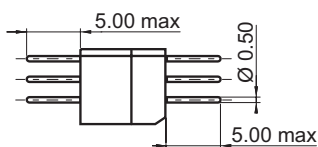
Wire wrap (3 wrapping levels)

Ref: 51 Ref: 51



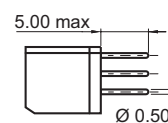
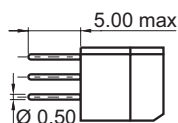
Saver (Male-Male)

Ref: 90



Saver (Female-Male)

Ref: 91 Ref: 91



**Note:** moulding A and B need different preparation board details for 90° tail termination.

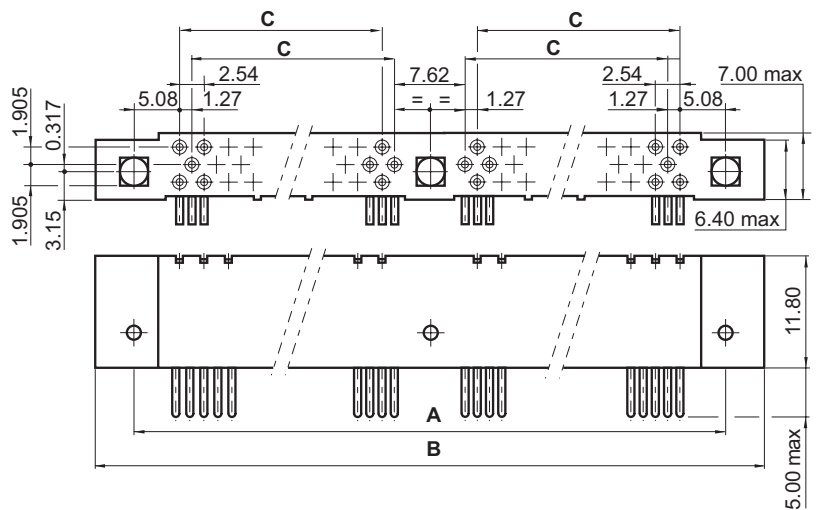
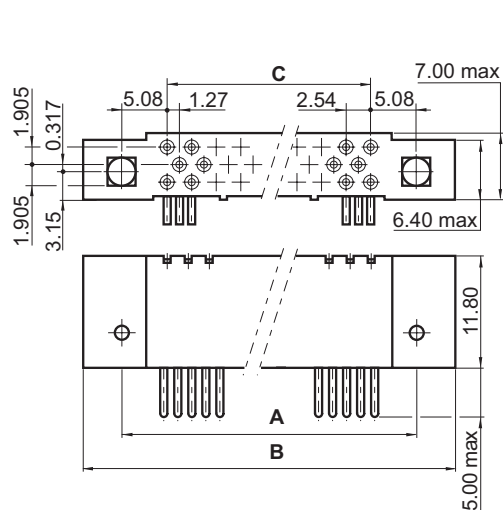
# Dimensions

## 26 to 98 Contacts

## 144 to 162 Contacts

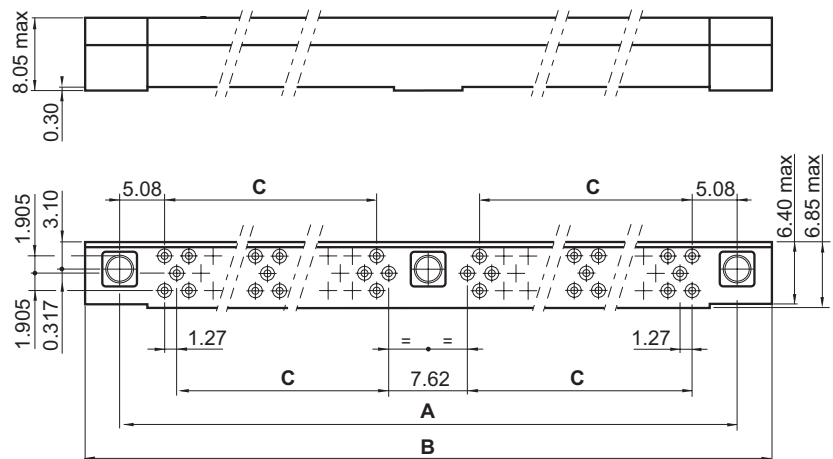
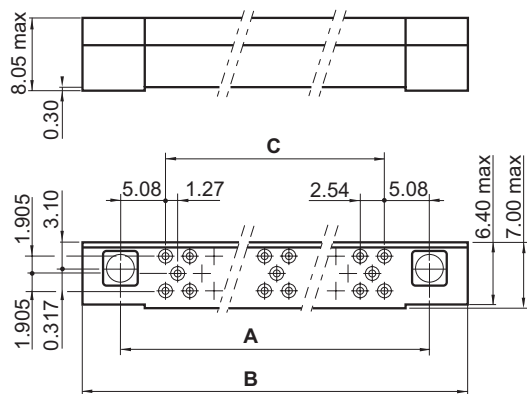
### One Part (moulding A)

90° male plug KMC ... 13 10 ...  
90° male receptacle KMC ... 23 10 ...



### Two parts (moulding B)

Female or male receptacle KMC ... 2. ...  
Female or male plug KMC ... 1. ...



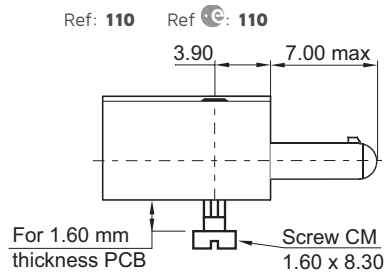
| No. of contacts | 26    | 44    | 62    | 80    | 98    | 144    | 162    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 137.16 | 152.40 |
| B max           | 38.50 | 53.70 | 69.00 | 84.20 | 99.50 | 145.20 | 160.40 |
| C               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 58.42  | 66.04  |

# Guide Device and Polarity Termination Compatibility Chart

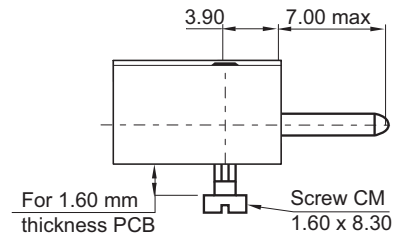
[illegible]

# Male Guide Styles

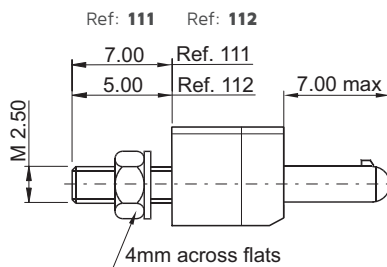
## Polarised transverse mount (moulding A)



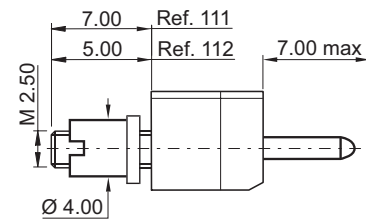
## Unpolarised transverse mount (moulding A) central guide (KMC 144-162)



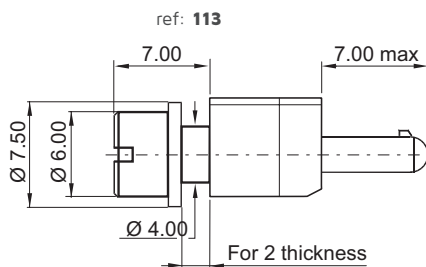
## Polarised vertical mount (moulding B)



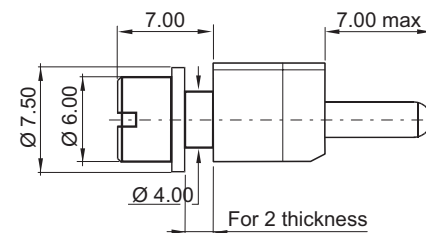
## Unpolarised vertical mount (moulding B) central guide (KMC 144-162)



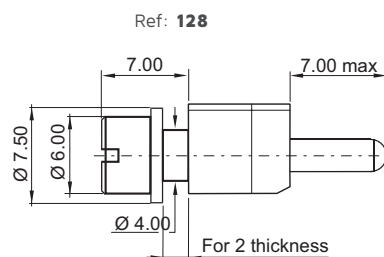
## Polarised vertical float mount (moulding B)



## Unpolarised vertical float mount (moulding B) central guide (KMC 144-162)



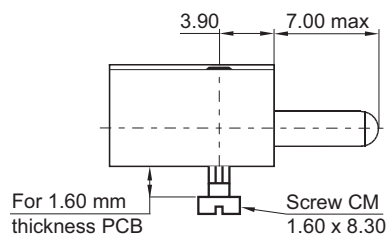
## Polarised vertical float mount (moulding B)



# Male Guide Styles

## Unpolarised transverse mount (moulding A)

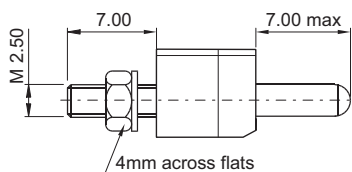
Ref: 125



## Unpolarised vertical mount (moulding B)

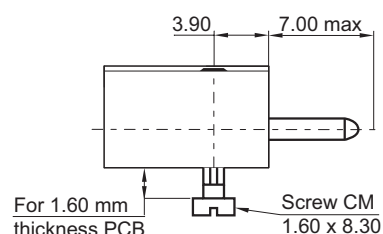
Ref: 127

### Unpolarised vertical mount (moulding B)



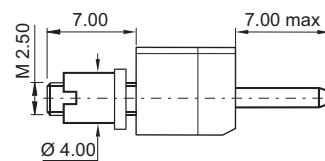
## Unpolarised transverse mount (moulding A) central guide (KMC 144-162)

Ref: 125



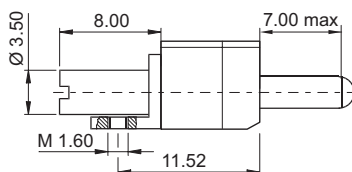
## central guide (KMC 144-162)

Ref: 127



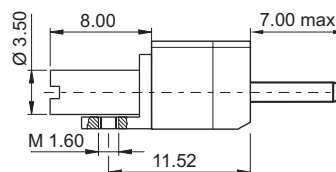
## Unpolarised transverse mount (moulding B)

Ref: 155



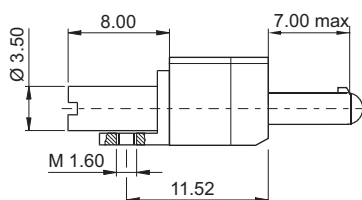
## Unpolarised transverse mount (moulding B) central guide (KMC 144-162)

Ref: 155



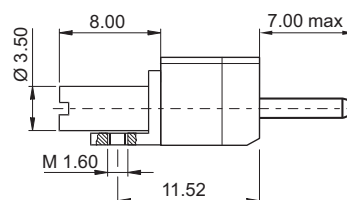
## Polarised transverse mount (moulding B)

Ref: 156



## Unpolarised transverse mount (Moulding B) central guide (KMC 144-162)

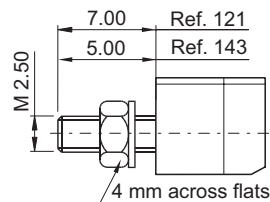
Ref: 156



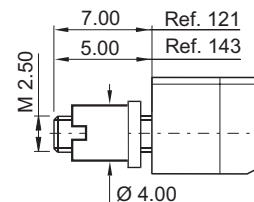
# Female Guide Styles

## Polarised vertical mount (moulding B)

Ref. 121 Ref. 143 Ref. 143

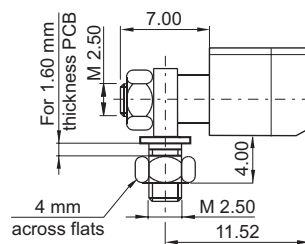


## Unpolarised vertical mount (moulding B) central guide (KMC 144-162)

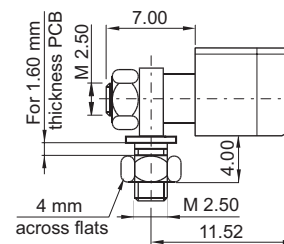


## Polarised transverse mount (moulding B)

Ref: 124

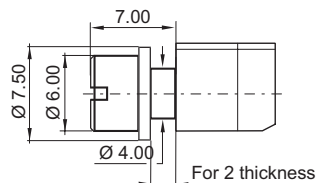


## Unpolarised transverse mount (moulding B) central guide (KMC 144-162)



## Polarised vertical float mount (moulding B)

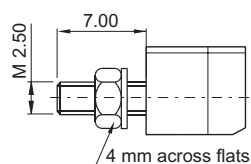
Ref: 123



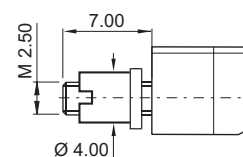
## All keying types (moulding B)

Ref: 130

## All keying types

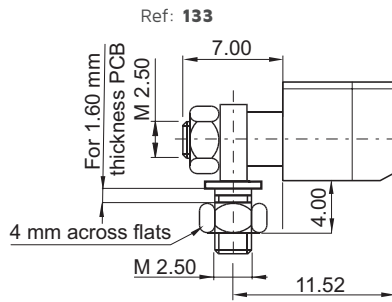


## (moulding B) central guide (KMC 144-162)

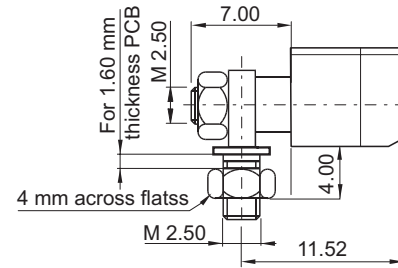


# Female Guide Styles

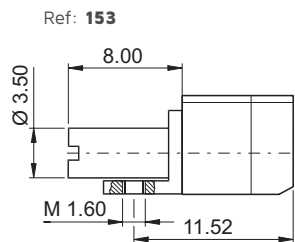
All keying types  
(moulding B)



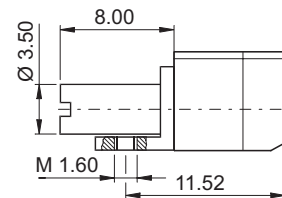
All keying types  
(moulding B) central guide (KMC 144-162)



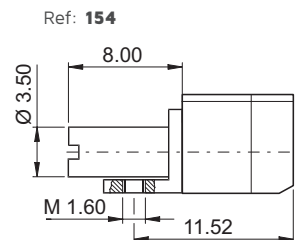
All keying types  
(moulding B)



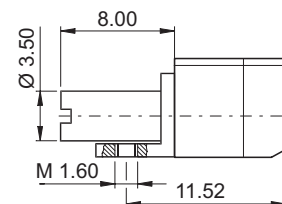
All keying types  
(moulding B) central guide (KMC 144-162)



Polarised transverse mount  
(moulding B)



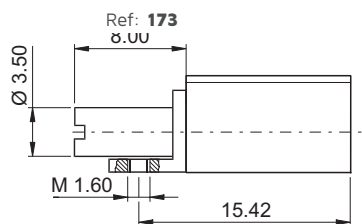
Unpolarised transverse mount  
(moulding B) central guide (KMC 144-162)



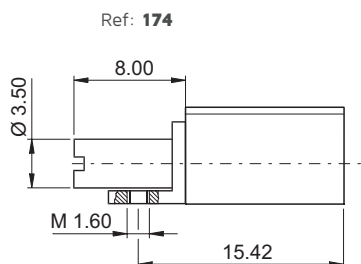
# Guide Styles

## Female

Unpolarised transverse mount  
(moulding A)

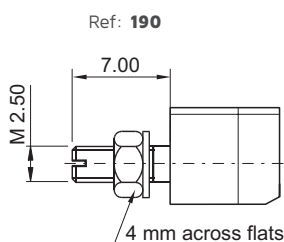


Polarised transverse mount  
(moulding A)

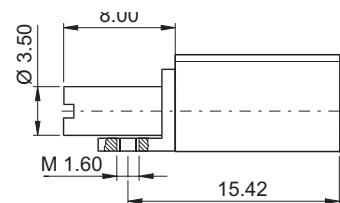


## Female

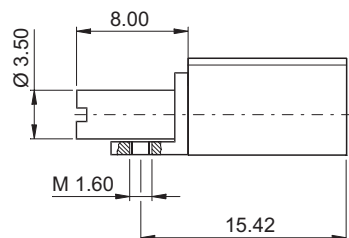
Mass and power contact  
(moulding B)



Unpolarised transverse mount (moulding A)  
central guide (KMC 144-162)

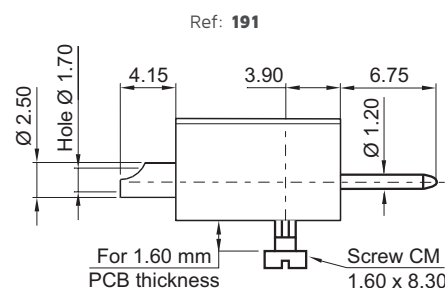


Unpolarised transverse mount  
(moulding A) central guide (KMC 144-162)



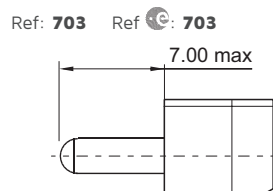
## Male

Mass and power contact  
(moulding A)

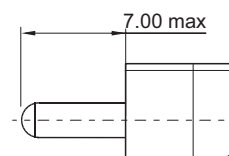


## Female - Male

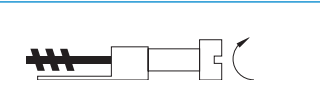
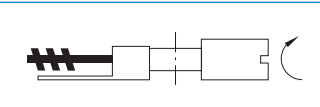
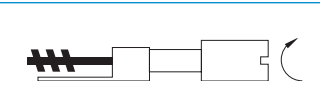
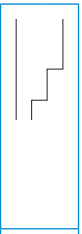
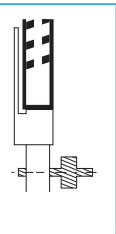
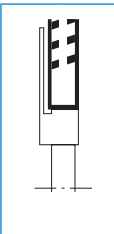
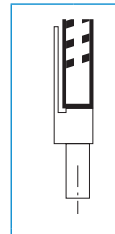
Unpolarised transverse mount  
(moulding B)



Unpolarised transverse mount  
(moulding B) central guide (KMC 144-162)



# Locking Device Compatibility chart

|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |   |          |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---|----------|
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |  | A | Moulding |
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |  | B |          |
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |  |   | 206      |
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |  |   | 205      |
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |  |   | 201      |
|  |  |  |  |  | Male locking devices                                                               |   |          |
| A                                                                                  | B                                                                                  |                                                                                    |                                                                                    |                                                                                    |                                                                                    |   |          |
| Moulding                                                                           |                                                                                    | 204                                                                                | 203                                                                                | 202/207                                                                            | Female locking devices                                                             |   |          |
|                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |                                                                                    |   |          |

 Compatible

**Note:** the connector must be fitted with its locking devices before soldering on the PCB (straight through board solder):

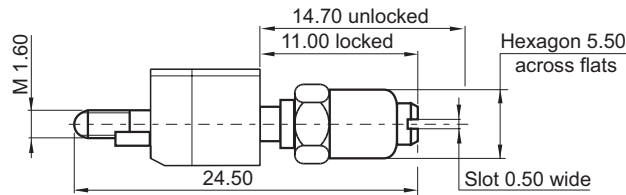
- Connector on PCB: impossibility to change the keying.
- If you need to change the keying:
  - pierce PCB through Ø 3.70, fixing devices
  - use 054826.000R shouldered washer
 } (for 202 and 207)

# Locking Styles

## Male

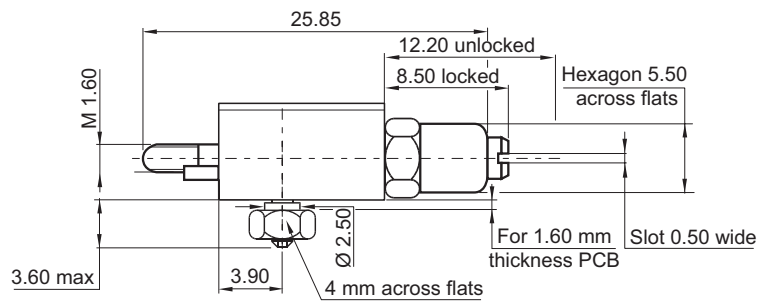
### Jackscrew, free connector (moulding B)

Ref: **201** Ref : **201**  
For **KMC 144-162** the supplied central guide is Ref: **111**



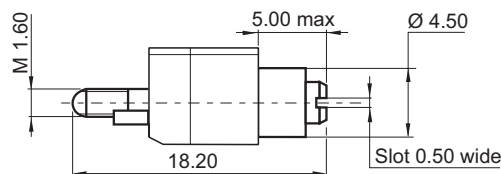
### Jackscrew, transverse mount (moulding A)

Ref: **205**  
For **KMC 144-162** the supplied central guide is Ref: **110**



### Jackscrew, free connector (moulding B)

Ref: **206** Ref : **206**  
For **KMC 144-162** the supplied central guide is Ref: **112**



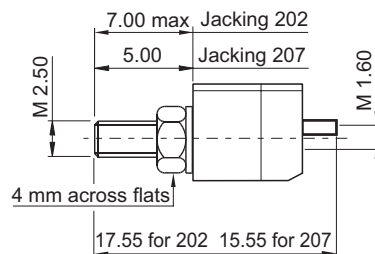
# Locking Styles

## Female

### Non rotating jackscrew, vertical mount (moulding B)

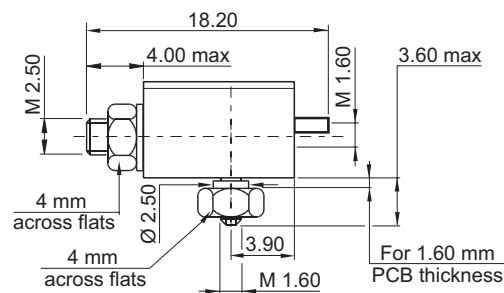
Ref: **202** Ref: : **202**  
For **KMC 144-162** jackscrew 202 the supplied central guide is Ref: **121**

Ref: **207**  
jackscrew 207 the supplied central guide is Ref: **143**



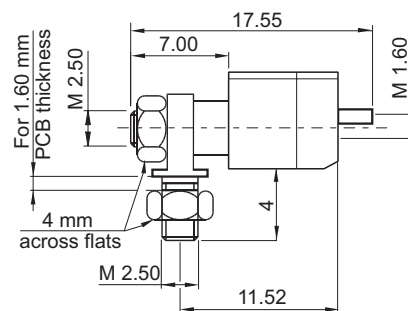
### Non rotating jackscrew, transverse mount (moulding A)

Ref: **203**  
For **KMC 144-162** jackscrew 202 the supplied central guide is Ref: **173**



### Non rotating jackscrew, transverse mount (moulding B)

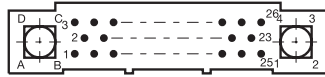
Ref: **204** Ref: : **204**  
For **KMC 144-162** the supplied central guide is Ref: **111**



# Mating Side Layout View

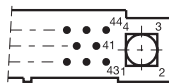
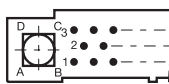
## Moulding A

Plug

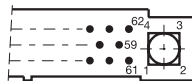
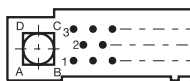
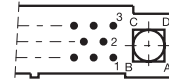
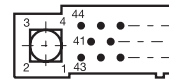


026

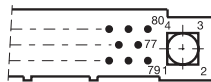
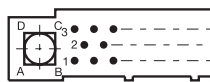
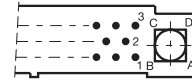
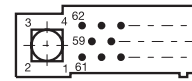
Receptacle



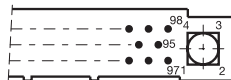
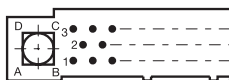
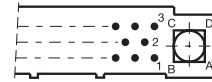
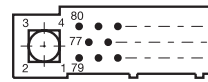
044



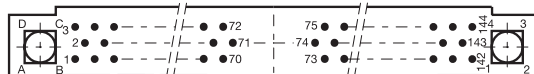
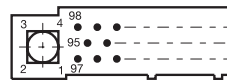
062



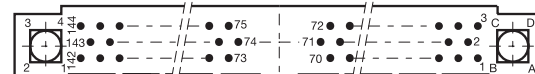
080



098



144

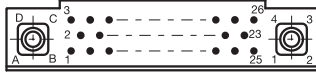


162

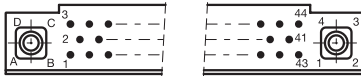


## Moulding B

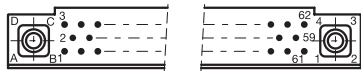
## Plug



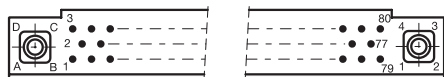
026



044



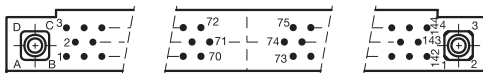
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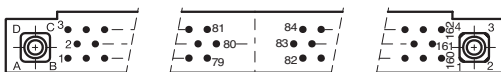
080



098

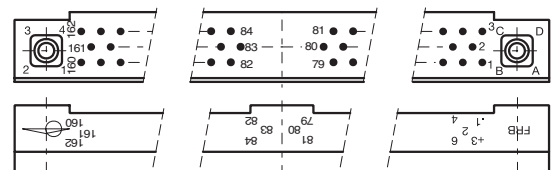
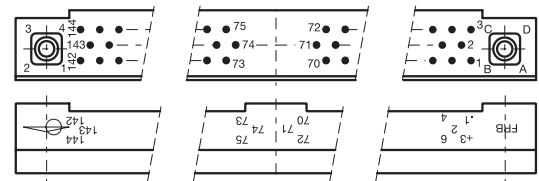
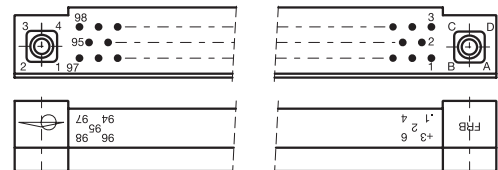
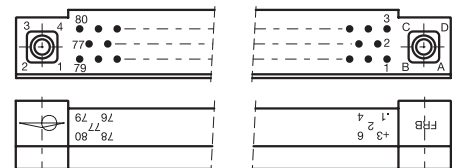
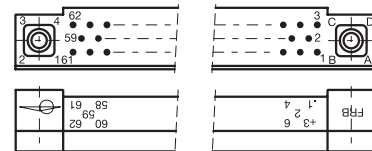
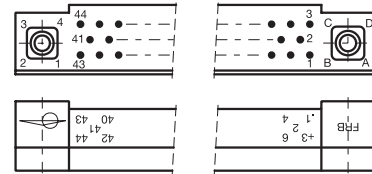
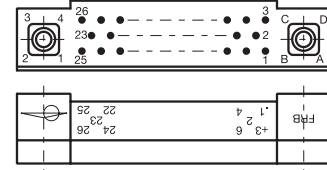


144



162

## Receptacle



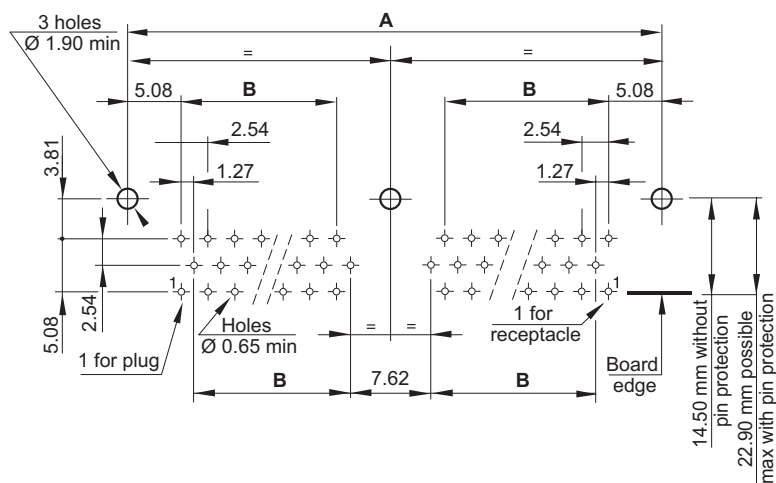
## Two Parts (moulding B)

144 to 162 contacts

**Guide styles:** 111 - 112 - 121 - 127 - 130 - 143 - 190

[illegible]

**Guide styles:** 153 - 154 - 155 - 156

5

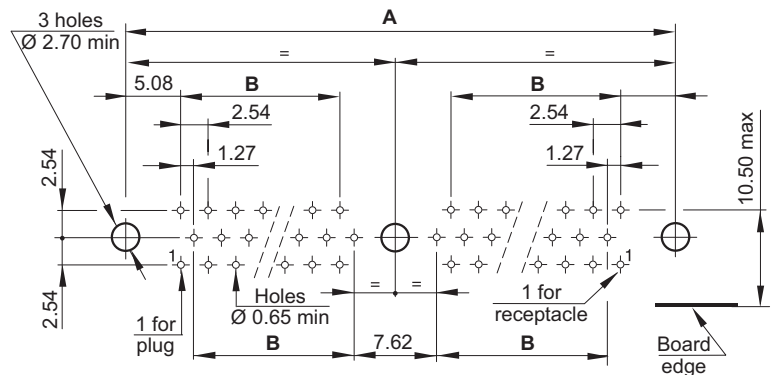
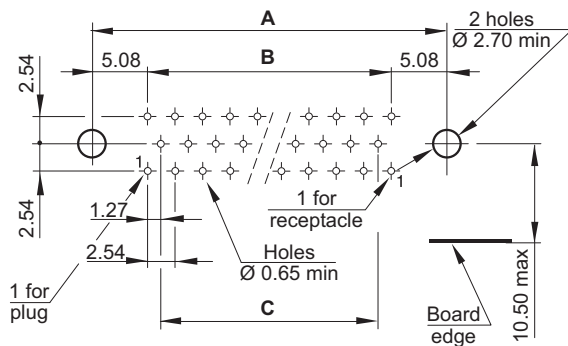
# Board Preparation Details

## Two Parts (moulding B)

26 to 98 contacts

144 to 162 contacts

### Daughter board



Female or male, plug or receptacle, 90° termination

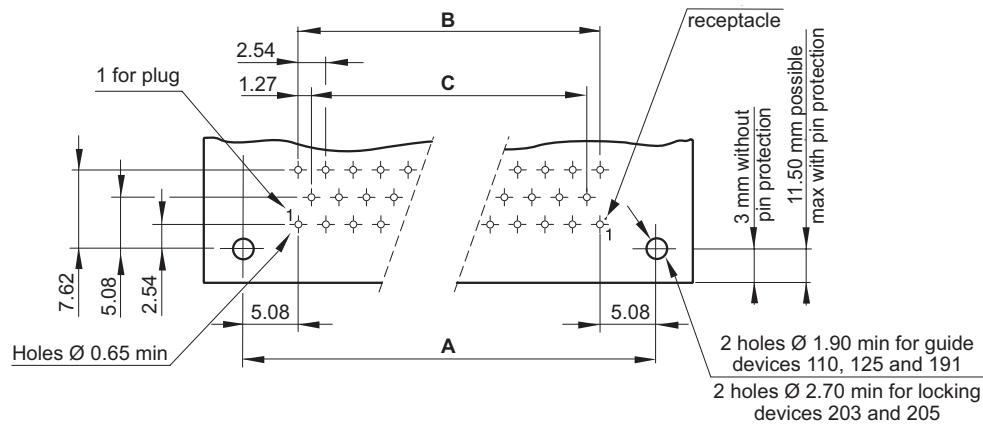
**Guide styles:** 124 - 133

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 144    | 162    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 137.16 | 152.40 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 58.42  | 66.04  |
| C               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | -      | -      |

# Board Preparation Details

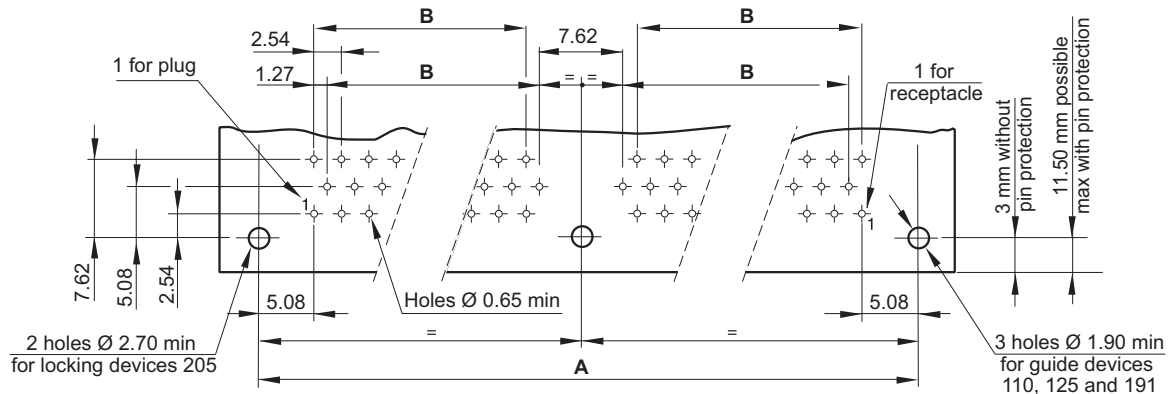
## One Part (moulding A)

Daughter board  
26 to 98 Contacts



Male, plug or receptacle, 90° termination  
**Guide styles:** 110 - 125 - 191 - 203 - 205

## 144 to 162 Contacts



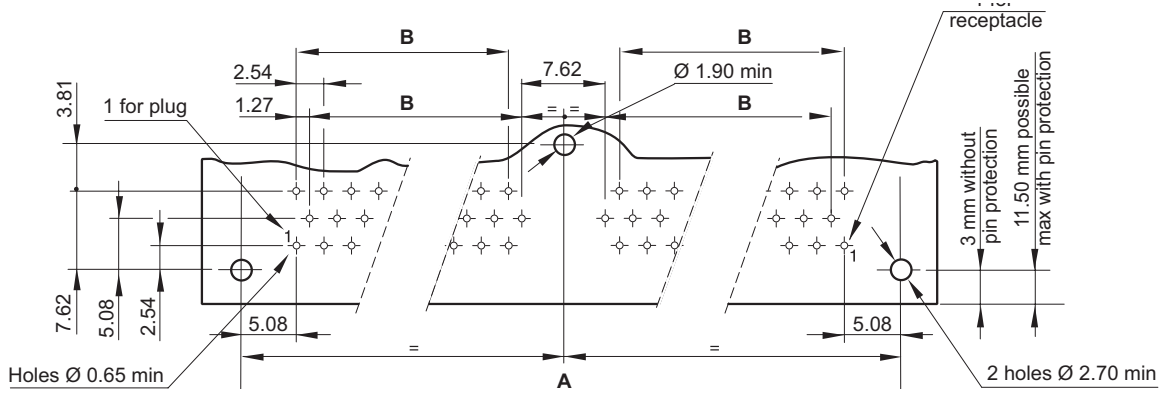
Male, plug or receptacle, 90° termination  
**Guide styles:** 110 - 125 - 191 - 205

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 144    | 162    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 137.16 | 152.40 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 58.42  | 66.04  |
| C               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | -      | -      |

# Board Preparation Details

## One Part (moulding A)

Daughter board  
144 to 162 Contacts



Male, plug or receptacle, 90° termination  
Locking styles: 203

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 144    | 162    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 137.16 | 152.40 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 58.42  | 66.04  |
| C               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | –      | –      |

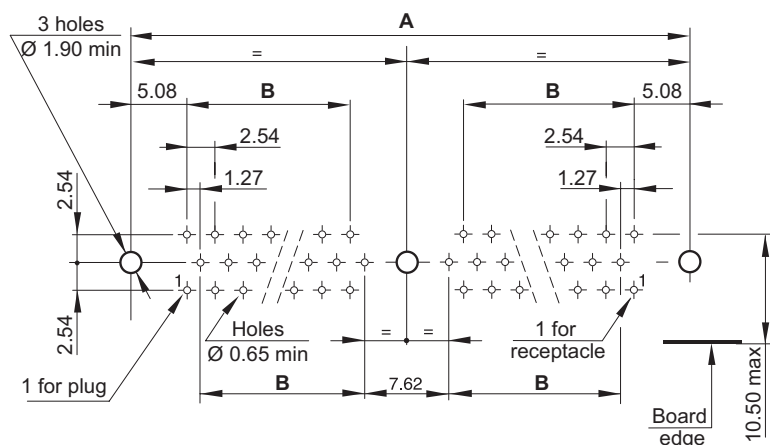
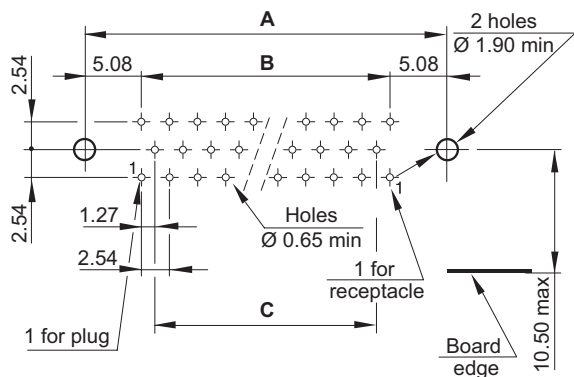
## Panel Preparation Details

## Two Parts (*moulding B*)

26 to 98 contacts

144 to 162 contacts

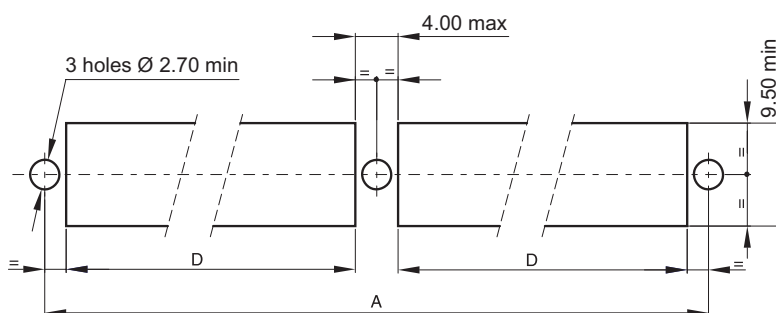
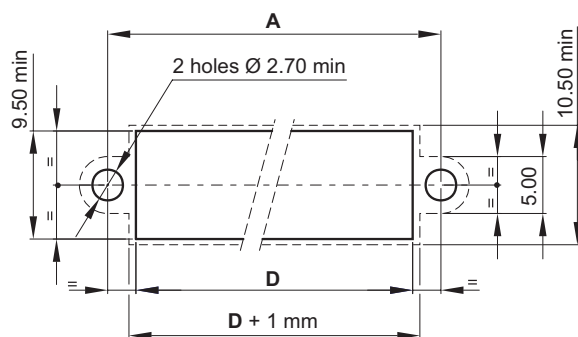
## Mother board



Plug or receptacle, 90° termination

**Guide styles:** 153 - 154 - 155 - 156

## Daughter board



— Fixed mount      - - - Float mount (2 mm thickness)

Female or male, plug or receptacle, 90° termination 40 - 50 - 51

**Guide styles:** 111 - 112 - 121 - 127 -130 - 143 - 190 - (Fixed Mount)

**Guide styles:** 113 - 123 - 128 - (Float Mount)

**Locking Styles:** 202 - 207

| No. of contacts | 26    | 44    | 62    | 80    | 98    | 144    | 162    |
|-----------------|-------|-------|-------|-------|-------|--------|--------|
| A               | 30.48 | 45.72 | 60.96 | 76.20 | 91.44 | 137.16 | 152.40 |
| B               | 20.32 | 35.56 | 50.80 | 66.04 | 81.28 | 58.42  | 66.04  |
| C               | 17.78 | 33.02 | 48.26 | 63.50 | 78.74 | –      | –      |
| D               | 25.90 | 41.20 | 56.40 | 71.60 | 86.90 | 63.60  | 71.60  |

# Technical Characteristics

|                   | Signal contact                                            | Power contact | High frequency contact |
|-------------------|-----------------------------------------------------------|---------------|------------------------|
| Contact diameter  | HC® Ø 0.50 mm                                             | HC® Ø 2.00 mm | HE 807 type            |
| Number of contact | Up to 162                                                 |               |                        |
| Pitch             | 1.905 mm between rows 1.27 mm between quicuncial contacts | 5.08 on 1 row |                        |
| Rows              | 3                                                         |               |                        |

## Electrical

|                                 |                  |       |                |
|---------------------------------|------------------|-------|----------------|
| Current rating (at 25°C)        | 3 A max.         | 15 A  | 0.5 A          |
| Dielectric withstanding voltage | 800 Vrms         |       |                |
| Nominal voltage                 |                  |       | 180 Vrms 50 Hz |
| Impedance                       |                  |       | 50 Ω           |
| Contact resistance              | ≤8 mΩ            | ≤2 mΩ | ≤10 mΩ         |
| Insulation resistance           | 104 MΩ (500 Vcc) |       | ≥107 MΩ        |

## Environmental

|                   |  |                   |               |
|-------------------|--|-------------------|---------------|
| Temperature range |  | -55° C to 125° C  |               |
| Mating forces     |  | FI ≤8N - FS ≤3N   | 1N ≤FI/FS ≤5N |
| Conformity        |  | NF C-UTE C 93-424 |               |

## Materials & Platings

|              |                                                                   |                                 |  |
|--------------|-------------------------------------------------------------------|---------------------------------|--|
| Contact      | Brass or bronze                                                   |                                 |  |
| Moulding     | Glass fiber filled diallyl - Phtalate                             |                                 |  |
| Guides       | Stainless steel or nickel plated brass                            |                                 |  |
|              | Standard                                                          | ESA                             |  |
| Pin body     | 0.25 µm gold / 1.27 µm Ni                                         | 1.27 µm gold / 1.27 µm Ni (min) |  |
| Socket body  | 0.25 µm gold / 1.27 µm Ni on active area 1.27 µm Ni on activ area | 0.25 µm gold / 1.27 µm Ni (min) |  |
| Socket wires | 1 µm gold / 0.20 µm Ni                                            | 1.27 µm gold / 0.20 µm Ni (min) |  |

## Mechanical

|                         |                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------|
| Mating & unmating cycle | 5000                                                                              |
| Guiding                 | By two outside guides (2 guiding styles) and one central guide (3 guiding styles) |
| Keying                  | By rotating of outside polarised guides (up to 16 keying)                         |

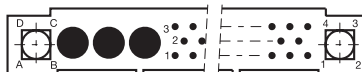
# How To Order



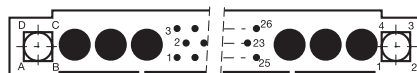
|   |                    |                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          |
|---|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Type               | <div>A <div>H</div> Moulding with cavities for special contacts</div> <div>B <div>3</div> <div>6</div> Number of cavities for special contacts</div> <div>C <div>2 6</div> <div>4 4</div> <div>8 0</div> <div>9 0</div> Number of signal contacts 0.50 mm</div>  |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          |
| 2 | Moulding polarity  | <div>NF C-UTE C 93-424<br/>SPACE GRADE</div> <div><div>12</div><div>54</div> Female plug</div> <div><div>13</div><div>55</div> Male plug</div> <div><div>16</div><div>56</div> Tinned female plug*</div> <div><div>17</div><div>57</div> Tinned male plug*</div> | <div>NF C-UTE C 93-424<br/>SPACE GRADE</div> <div><div>1A</div><div>-</div> Tinned female plug**</div> <div><div>1B</div><div>-</div> Tinned male plug**</div> <div><div>22</div><div>44</div> Female receptacle</div> <div><div>23</div><div>45</div> Male receptacle</div> | <div>NF C-UTE C 93-424<br/>SPACE GRADE</div> <div><div>26</div><div>46</div> Tinned female receptacle*</div> <div><div>27</div><div>47</div> Tinned male receptacle*</div> <div><div>2A</div><div>-</div> Tinned female receptacle**</div> <div><div>2B</div><div>-</div> Tinned male receptacle**</div> |
| 3 | Termination styles | <i>(see KMC ordering information p. 43)</i>                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          |
| 4 | Mounting hardware  | <div>Guide Styles</div> <div><i>(see p. 50 to 54) - (Consult us for special guides) - See KMC ordering information p. 43</i></div> <div>Locking Styles</div> <div><i>(see p. 56-57) - See KMC ordering information p. 43</i></div>                               |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          |

\* For 90° & straight terminations (splicing on PCB)  
\*\* RoHS conform for 90° & straight terminations (splicing on PCB)

# Layout



| No. of fixings | KMH layout | No. of special contact cavities | No. of signal contacts |
|----------------|------------|---------------------------------|------------------------|
| 2              | 326        | 3                               | 26                     |
| 2              | 344        | 3                               | 44                     |
| 2              | 380        | 3                               | 80                     |
| 3              | 390        | 3                               | 90                     |



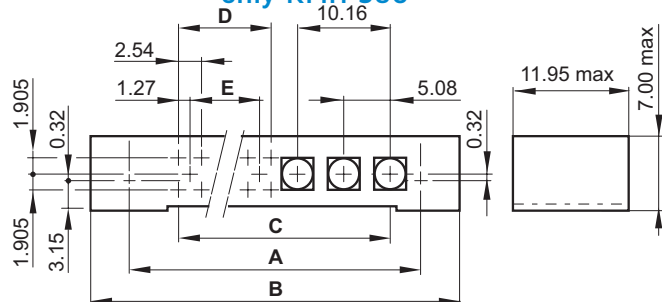
| KMH layout | No. of special contact cavities | No. of signal contacts | KMH layout equivalent dimensions |
|------------|---------------------------------|------------------------|----------------------------------|
|            |                                 |                        | 044                              |
| 626        | 6                               | 26                     | 062                              |
|            |                                 |                        | 098                              |
|            |                                 |                        | 108                              |

# Dimensions

## 26 to 80 Signal Contacts & 3 Special contact cavities

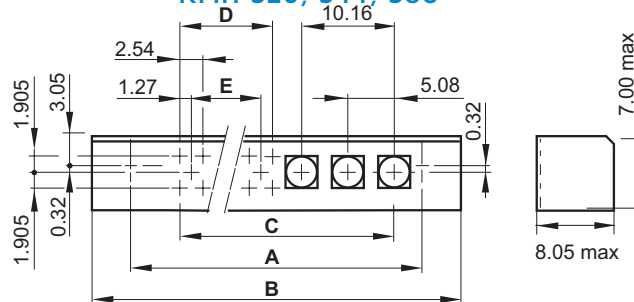
One part plug (moulding A)

only KMH 380



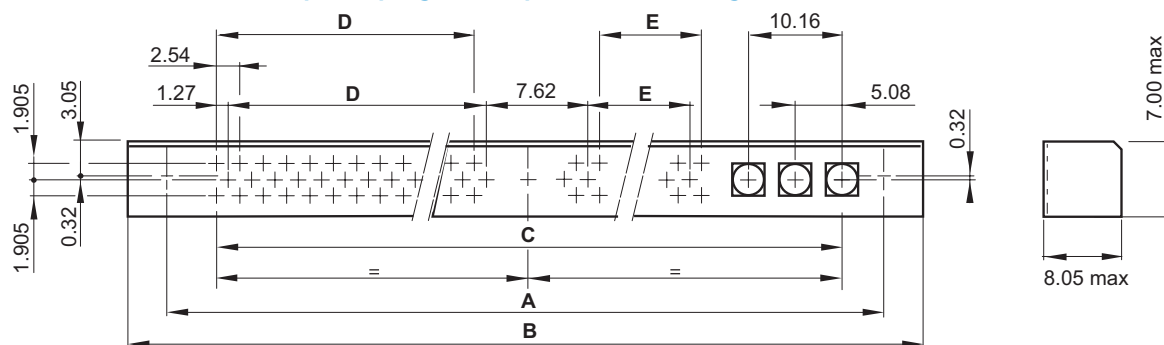
Two parts plug & receptacle (moulding B)

KMH 326, 344, 380



## 90 Signal Contacts & 3 Special contact cavities

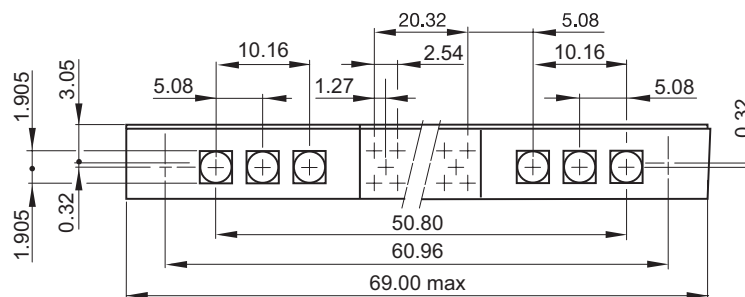
Two parts plug & receptacle (moulding B) KMH 390



| KMH layout | A      | B max  | C     | D     | E     | KMH layout equivalent dimensions |
|------------|--------|--------|-------|-------|-------|----------------------------------|
| 326        | 45.72  | 53.70  | 35.56 | 20.32 | 17.78 | 044                              |
| 344        | 60.96  | 69.00  | 50.80 | 35.56 | 33.02 | 062                              |
| 380        | 91.44  | 99.50  | 81.28 | 66.04 | 63.50 | 098                              |
| 390        | 106.68 | 114.70 | 96.52 | 43.18 | 27.94 | 108                              |

## 26 Signal Contacts & 6 Special contact cavities

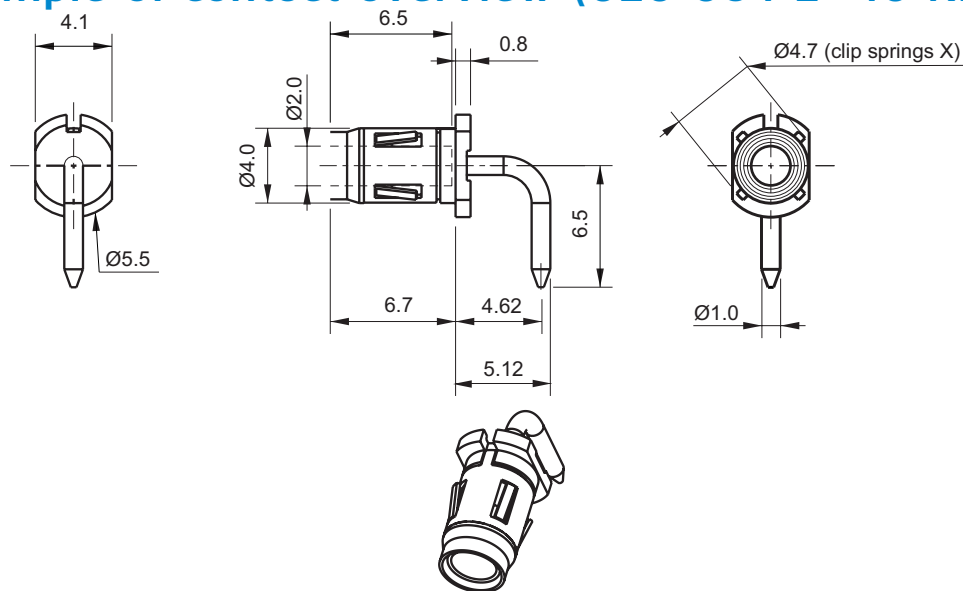
Two parts plug & receptacle (moulding B) with special contact cavities on both extremities KMH 626



# Power & High Frequency Contacts

(NF C-UTE C 93-569)

## Example of contact overview (020 084 2- 10 RN1)



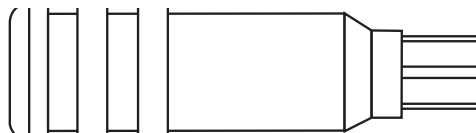
| Male                      |                   | Female                    |                   |
|---------------------------|-------------------|---------------------------|-------------------|
| P/N                       |                   | P/N                       |                   |
| 90° termination           | 020 085 1- 10R OG | 90° termination           | 020 084 2- 10R G1 |
| Straight termination      | 020 087 1- 30R OG | Straight termination      | 020 056 2- 30R G1 |
| Solder bucket termination | 020 091 1- 40R OG | Solder bucket termination | 020 060 2- 40R G1 |

# Tools and Accessories

## Screwdrivers

| Reference | Use                                                                                                                                      | Pinning |    |     | Remark                                                                                           |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------|---------|----|-----|--------------------------------------------------------------------------------------------------|
| S_____028 | - Connector fitted with female guides<br>- "B" moulding<br>- Cover's fixing screw for female guide                                       | 144     | to | 162 | These three screwdrivers can be delivered in a same packing under the reference<br><br>S_____036 |
| S_____029 | - Connector fitted with male guides<br>- "B" moulding<br>- Cover's fixing screw for female guide and screw central fixing on wiring side | 144     | to | 162 |                                                                                                  |
| S_____033 | - "B" moulding<br>- Cover's fixing screws                                                                                                | 026     | to | 162 |                                                                                                  |

## Special contact extraction tool

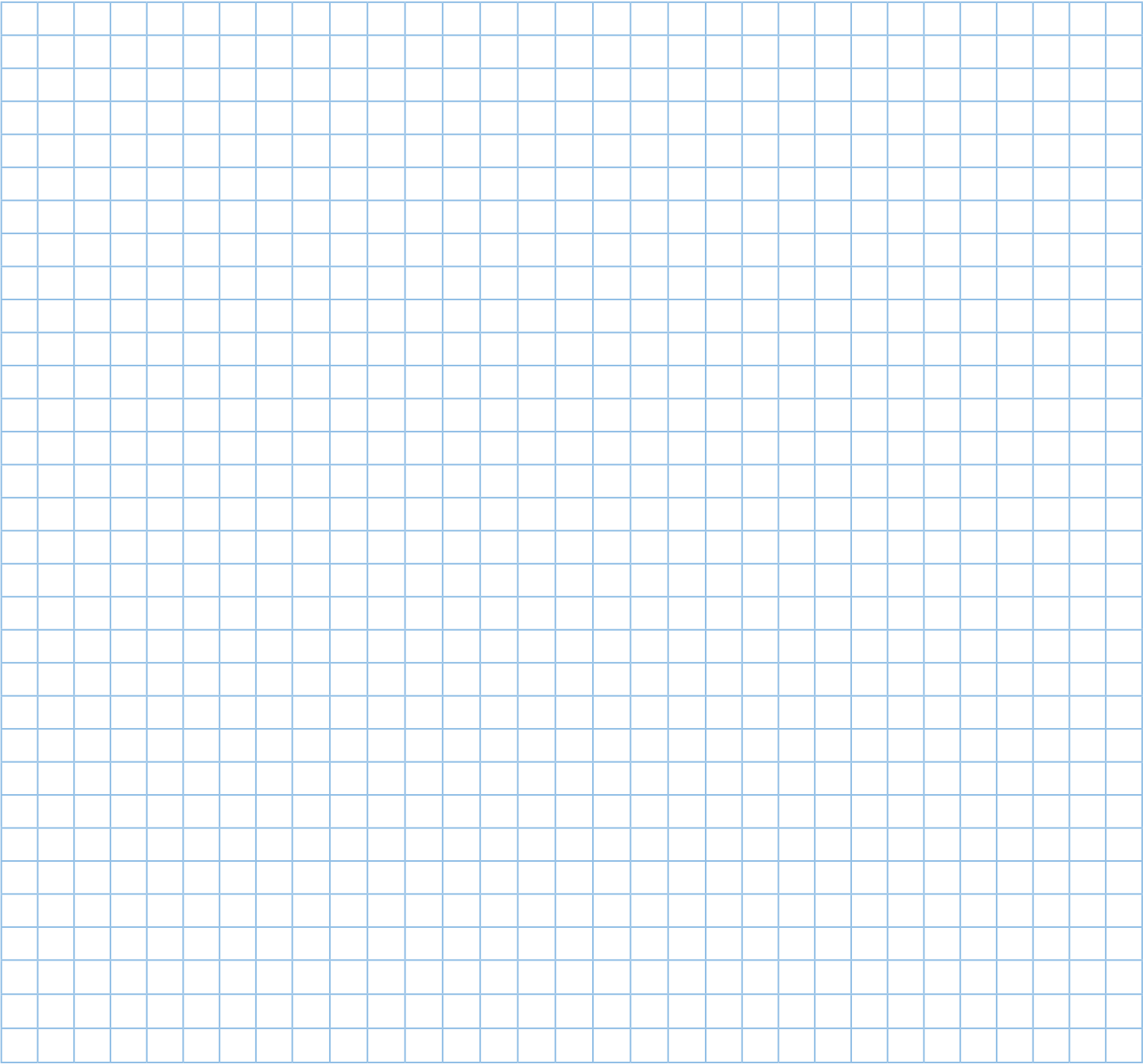


SD.030 00 CX 003

## Pin protector

| Reference              | Use                                             | Guide style              |
|------------------------|-------------------------------------------------|--------------------------|
| KMC... 302*<br>Pinning | KMC... 13..110-KMC...23..111<br>KMC ... 13..111 | Polarised male guide     |
| KMC... 303*<br>Pinning | KMC... 13..125                                  | Unpolarised male guide   |
| KMC... 304*<br>Pinning | KMC... 23..153                                  | Unpolarised female guide |
| KMC... 305*<br>Pinning | KMC... 23..121<br>KMC... 23..154                | Polarised female guide   |

**Note:** these 4 references are not available for the 162 contacts version  
• Antistatic material



**Notes:**

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## Disclaimer

All of the information included in this catalogue is believed to be accurate at the time of printing. It is recommended, however, that users should independently evaluate the suitability of each product for their intended application and be sure that each product is properly installed, used and maintained to achieve desired results.

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