

# MHC Contacts



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Smiths Interconnect's High Frequency Coax Contacts (MHC) offer exceptional RF performance up to 26.5 GHz for Size 8 and 40 GHz for Size 12 contacts in multi-pin connector applications. Engineered with a "float mount" design, these contacts ensure low VSWR at microwave frequencies by preventing air gaps at the mating interface. These contacts are designed to be terminated to 0.086 diameter flexible cables (RG-405 equivalent).

## Features

- Fits Size 8 and 12 cavities for MIL-DTL-38999, ARINC 404 and ARINC 600
- Fits Size 8 cavity for MIL-DTL-24308 D-Sub
- Spring loaded for optimum contact mating force
- High frequency performance
- Low VSWR:
  - Size 8: 1.15:1 Typ Mated Pair (DC to 26.5 GHz)
  - Size 12: 1.25:1 Typ Mated Pair (DC to 26.5 GHz)
  - 1.5:1 Typ Mated Pair (26.5 - 40 GHz)
- Insertion Loss:
  - 0.15 dB to 26.5 GHz Typ (Size 8)
  - 0.2 dB to 40 GHz Typ (Size 12)
- Socket contacts are spring loaded float mount for superior RF performance and reliability

## Electrical Specifications

(MIL-DTL-38999 / ARINC 404 / ARINC 600)

<b>Impedance</b>	50 Ohms
<b>Frequency Range</b>	DC to 26.5 GHz (Size 8) DC to 40 GHz (Size 12)
<b>VSWR</b>	1.15:1 Typ (Size 8) to 26.5 GHz 1.25:1 Typ (Size 12) to 26.5 GHz 1.50:1 Typ (Size 12) to 40 GHz (mated pair)
<b>DWV</b>	500 VRMS @ Sea Level (Size 8) 325 VRMS @ Sea Level (Size 12)
<b>Temperature Range</b>	-65°C to +165°C

## Materials & Finishes

<b>Center &amp; Outer Spring Contacts</b>	Brass per ASTM-B16, alloy UNS C36000 or BeCu per ASTM-B196, alloy UNS C17200, C17300 Gold plate per MIL-DTL-45204, Type II, Class 1
<b>Shell</b>	Brass per ASTM-B16, alloy UNS C36000 Gold plate per MIL-DTL-45204, Type II, Class 1
<b>Hood</b>	305 CRES per ASTM-A240, passivated per ASTM-A967
<b>Insulators</b>	PTFE per ASTM D-170

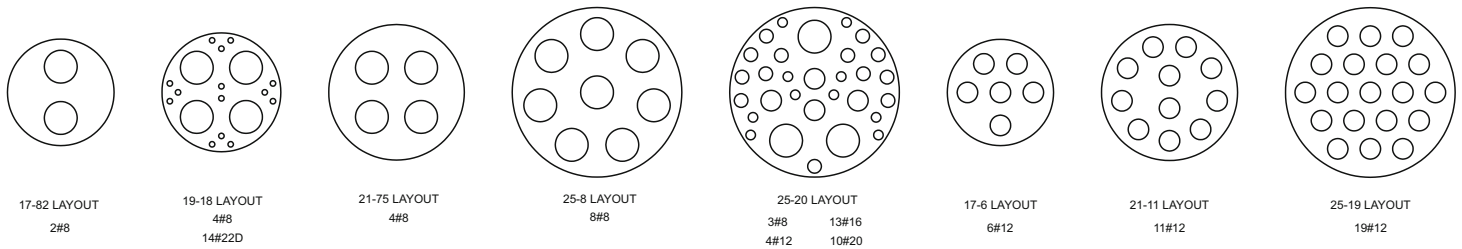
All specifications subject to change without notice.

# MHC Sample Insert Arrangements

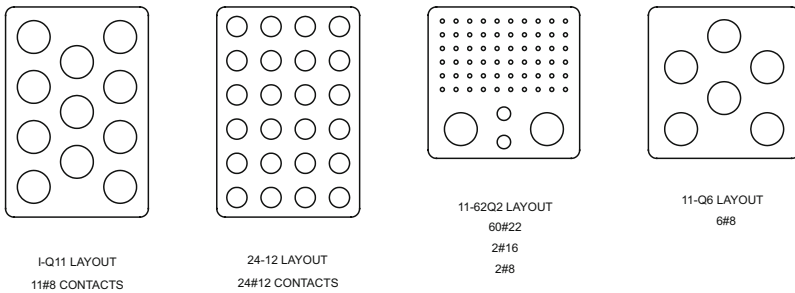
**Consult Factory For:**

- Custom or Special Insert Arrangements
- Connector Ordering Information
- PC Tail Versions of Contacts

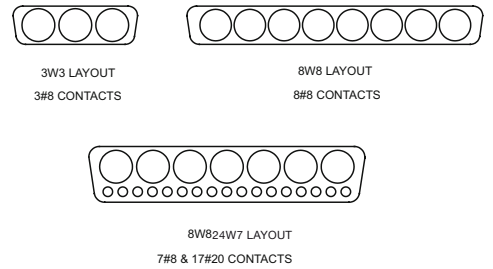
## MIL-DTL-38999



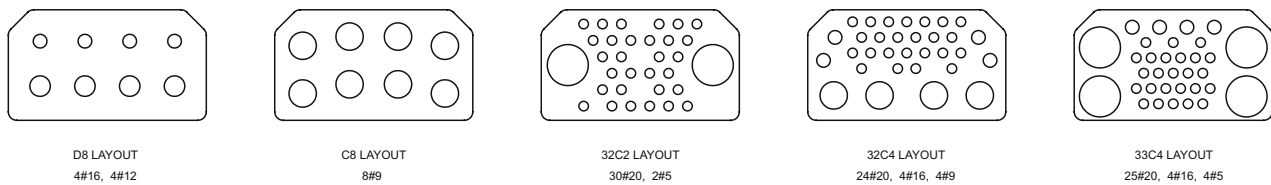
## ARINC 600



## MIL-DTL-24308



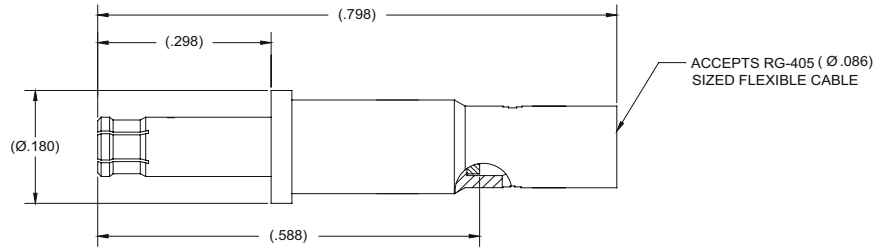
## ARINC 404



**Note:** Smiths Interconnect provides specialty, enhanced performance connectors and cable assemblies and does not currently offer circular, rack and panel or D-subminiature connectors that are listed on military standard Qualified Products Lists (QPL) per applicable detail specification sheets. Smiths Interconnect's connectors are fully interchangeable with applicable QPL products and meet the applicable requirements of all military standards listed in the data sheet.

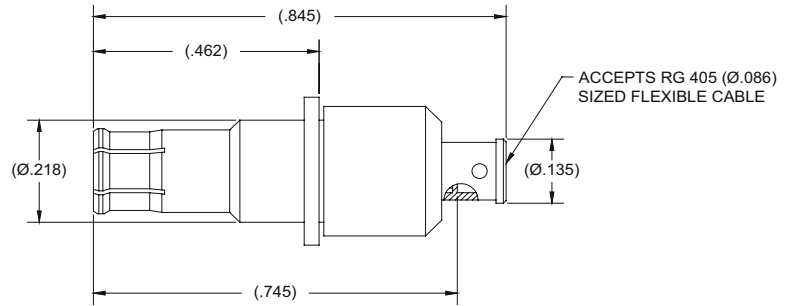
## Size 12 Pin for MIL-DTL-38999

Part Number	Cable Size
018624-8002	0.086 Flex



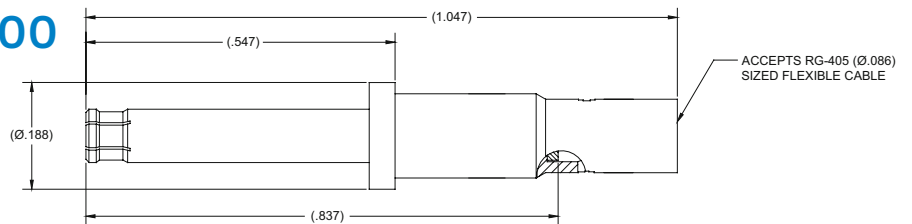
## Size 8 Pin for MIL-DTL-38999

Part Number	Cable Size
019624-2011	0.086 Flex
019624-2012	0.141 Flex



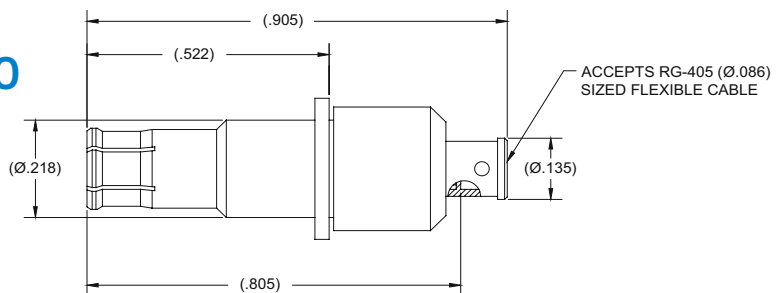
## Size 12 Pin Contact for ARINC 404 and ARINC 600

Part Number	Cable Size
018624-8004	0.086 Flex



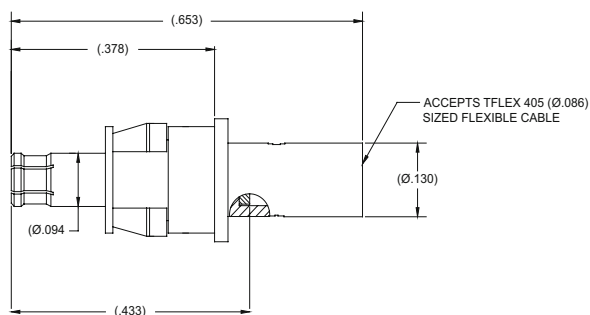
## Size 8 Pin Contact for ARINC 404 and ARINC 600

Part Number	Cable Size
019624-2014	0.086 Flex



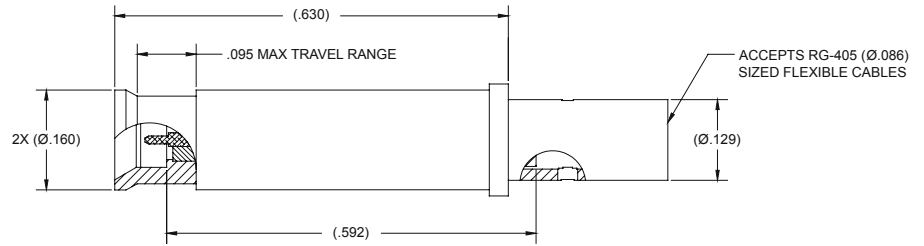
## Size 8 Pin for MIL-DTL-24308

Part Number	Cable Size
019829-2000	0.086 Flex



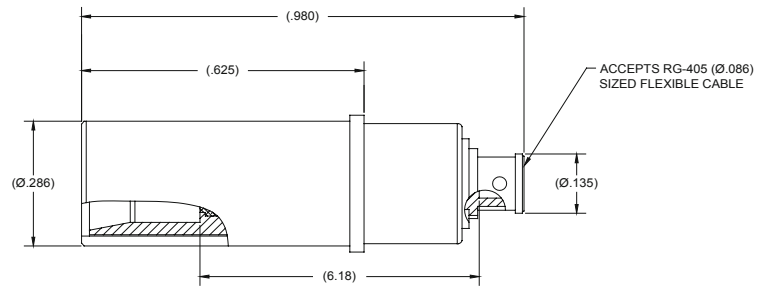
## Size 12 Socket Contact for MIL-DTL-38999

Part Number	Cable Size
018724-8002	0.086 Flex



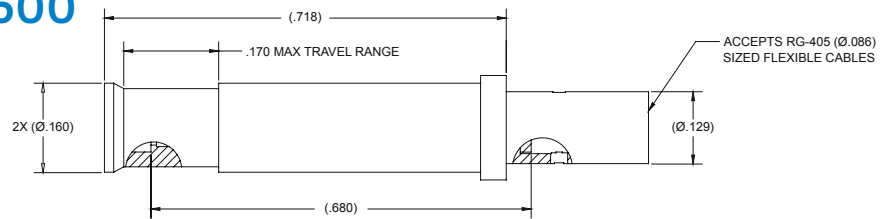
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Part Number	Cable Size
019524-2011	0.086 Flex
019524-2012	0.141 Flex



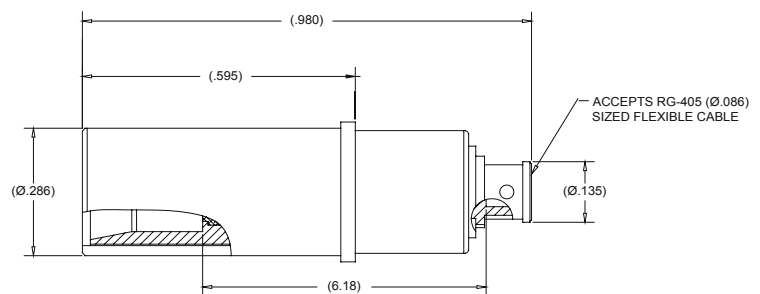
## Size 12 Socket Contact for ARINC 404 and ARINC 600

Part Number	Cable Size
018724-8004	0.086 Flex



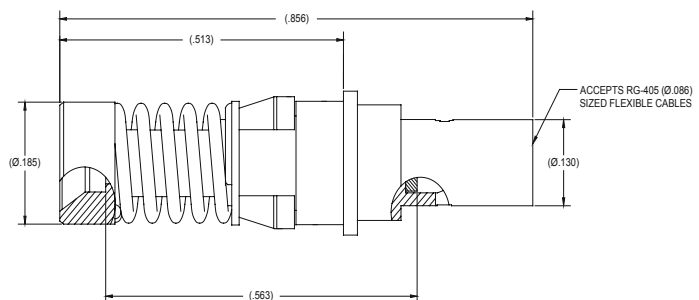
## Size 8 Socket Contact for ARINC 404 and ARINC 600

Part Number	Cable Size
019524-2014	0.086 Flex



## Size 8 Socket for MIL-DTL-24308

Part Number	Cable Size
019729-2000	0.086 Flex



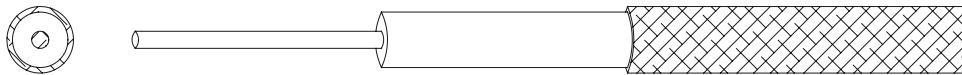
# How To Order



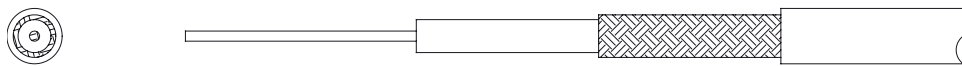
## 1 Connector #1

<b>2 Cable Group #</b>	<b>Semi-Rigid Coax</b>	<b>Flexible Coax</b>													
	<table border="0"> <tr><td>2 7</td><td>= SR.047</td></tr> <tr><td>2 8</td><td>= SR.086</td></tr> <tr><td>2 9</td><td>= .141 Flex</td></tr> <tr><td>3 0</td><td>= .086 Flex</td></tr> </table>	2 7	= SR.047	2 8	= SR.086	2 9	= .141 Flex	3 0	= .086 Flex	<table border="0"> <tr><td>3 1</td><td>= RG-178</td></tr> <tr><td>3 2</td><td>= RG-316</td></tr> <tr><td>3 6</td><td>= RG-58</td></tr> </table>	3 1	= RG-178	3 2	= RG-316	3 6
2 7	= SR.047														
2 8	= SR.086														
2 9	= .141 Flex														
3 0	= .086 Flex														
3 1	= RG-178														
3 2	= RG-316														
3 6	= RG-58														
<b>3 Connector #2</b>	OL for Open Lead														

## 4 Cable Length in Inches (XXX)



Semi-Rigid Coax Cables				
Cable Group	Cable Designation	Impedance (Ohms)	Jacket	Inner Conductor
27	SR.047	50	0.0470"	0.0362"
28	SR.086	50	0.0865"	0.0201"



Flexible Coax Cables				
Cable Group	Cable Designation	Impedance (Ohms)	Jacket	Inner Conductor
29	.141 Flex	50	0.160"	0.0360"
30	.086 Flex	50	0.104"	0.0200"
31	RG-178	50	0.071"	0.0120"
32	RG-316	50	0.098"	0.0201"
33	RG-58	50	0.195"	0.0355"

# Global Support

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