

# Metro, Monorail & Driverless

**Connectivity Solutions** 





# We Offer

Smiths Interconnect is a leading provider of technically differentiated electronic components, subsystems, microwave and radio frequency products that connect, protect and control critical applications in the Defence and Aerospace, Communications and Industrial markets.

Smiths Interconnect is the partner of choice for safe, efficient and reliable connectivity in railway applications. Our experience performance connector solutions, antenna systems, RF components and cable assemblies for rolling stock, signalling and infrastructure results in customer-driven, reliable solutions for our customers.

Our technology brands (EMC, Hypertac, IDI, Lorch, Millitech, Reflex Photonics, RF Labs, Sabritec, TECOM, TRAK and HSI) are synonymous with exceptional performance in technologically advanced, high quality solutions required for a high degree of safety and durability. Our extensive product portfolio includes high reliability electrical connectors and cable assemblies, rugged embedded transceivers, solutions for antenna systems, and a wide range of innovative RF and microwave solutions.

Smiths Interconnect is part of Smiths Group plc, a global leader in applying advanced technologies for markets in threat and contraband detection, energy, communications and engineered components. Smiths Group has a presence in more than 50 countries.





# information system



**Our Contact Technologies** for Metro, Monorail and **Driverless Applications** 

#### Hypertac® Hyperboloid Contacts

- Extremely low insertion/extraction forces
- Industry-leading mating cycles (over 20,000)
- No fretting corrosion during life cycle
- Very low contact resistance

#### Screw-Machined MR Contacts

- Rail standard contact life up to 500 mating cycles
- Tested signal integrity, no contact interruption >50 ns
- Low level contact resistance and low insertion/extraction

#### **High-Speed Contacts**

- Twinax, triax and quadrax contacts suitable for high speed signalup to 100 MHz
- Fit various insert arrangements for d-sub, circular, PCB and rack and panel connectorsistance and low insertion extraction forces

#### **High-Power Contacts**

- Current ratings up to 650A
- Fit various insert arrangements for waterproof modular & circular connectors









# Rectangular & PCB Solutions



# Signal & Ethernet PCB Connectors for Complex **Electronics**

# **Intercompact Series**

- Compact Signal and Ethernet PCB Connectors
- Compliance with the main European Railway standards
- Insulators in Liquid Cristal Polymer material for an optimized insulation resistance in severe environment conditions



# **Environmentally-Sealed Plastic Connectors**

# **REP & EasyREP Series**

- Conforms to EN 45545 and EN 50124 standards
- ■Voltage rating up to 400 V
- Allows wire sections from 0.5 mm² to 2.5 mm² (20-12AWG)
- Crimp, straight, PCB or bent termination options



# PCB Connectors for Harsh Environments

Low, Medium and High Density

- ■Long life cycle connectors with immunity to shock and vibration fretting
- Signal, power, coaxial and high speed, RF contacts and spring probes solutions
- Straight dip, right angle solder, crimp, solder cup and Wire Wrap® terminations
- ■Board-to-board, cable to board, cable to cable and stacking



# High Power and Circular Solutions

# **High Power Quick Release Connectors**

### **HBB** Series

- ■Compact and small size for weight savings available in both single and five pole version
- Quick locking device
- ■Current ratings from 300A to 500A
- 360° EMI/RFI shielding
- ■IP67 fully sealed
- Robust metal shells
- Finger proof IP2X



# **Rugged Circular Connectors**

### C Series

- Suitable to EN Railway cables
- High shock & vibration resistance EN 61373 Level 2
- ■IP67 metal shell
- Hyperboloid gold plating contacts with a large crimp section
- High performance in a smaller space



# **High Power Compact Connectors**

## **Compactpower Series**

- Compact size for high current
- Current ratings up to 300A
- ■Voltage rating 750V
- ■IP66 fully sealed
- Patented offset contact termination
- Robust metal shells
- Compliant to NFF 61-030



# Reliable M12 Connectors

M12 Series

- Compact IP67 metal shell
- 360° EMI shielding
- Hyperboloid contact technology
- Compliant with fire and smoke standards
- Straight and right angle 90° rotatable backshell
- Compatible with most commonly use rail cables





# Modular and Mini-Modular Connectors

L, N and LHS Series

- ■Mixed signal, power, coaxial, fibre optic and pneumatic modules
- High-density mini modular connectors up to 900 contact positions
- Cable to chassis and rack & panel; plastic backshell with strain relief and half turn quick disconnect jackscrew
- ■Float mountable for blind mating disconnect jackscrew



# Heavy Duty Connectors for harsh environments **HDC** and IV Coupler Series

- Designed and tested according to IEC 61373 / IEC 61984 for higher robustness and durability
- Waterproof and anti-corrosion characteristics for harsh outdoor environments
- ■Up to 650A and 5000V and up to 1000M data transmission speed
- ■Power, signal, and ethernet/fibre optic data and pneumatic contact types
- Pre-assembled cables version available





# Certifications, Standards & Compliance

NF F 16-102 ISO 9001 ISO 14001 NF-C 93421 DIN 41612 ISO 45001 NF F 61-030 DIN 43652 NF F 61-032 EN 50124 NF F 16-101 EN 45545-2

IEEE-1101.2-'92 IEC 1076-4 101 IEC 61373 IEC 61984 HE 501 HE 704

UTE C93-425 UL94 VO RoHS compliance

# Connecting Global **Markets**

Smiths Interconnect's strong focus on serving international markets and customers is supported by our sales and technical teams across the Americas, Europe and Asia.

60+ Years Experience

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### **Business Unit**

Connectors

Fibre Optics & RF Components

Semiconductor Test

**RF/MW** Subsystems

### **Americas**

connectors.uscsr@smithsinterconnect.com

### Technical Support

connectors.ustechsupport@smithsinterconnect.

#### Sales

focom.uscsr@smithsinterconnect.com

#### Technical Support

focom.techsupport@smithsinterconnect.com

#### Sales

semi.uscsr@smithsinterconnect.com

#### Technical Support

semi.techsupport@smithsinterconnect.com

#### Sales

subsystems.csr@smiths interconnect.com

#### Technical Support

subsystems.techsupport@smithsinterconnect.

# Europe

Sales

connectors.emeacsr@smithsinterconnect.com

#### Technical Support

connectors.emeatechsupport@smithsinterconnect.

focom.emeacsr@smithsinterconnect.com

#### Technical Support

**Technical Support** 

**Technical Support** 

focom.techsupport@smithsinterconnect.com

semi.emeacsr@smithsinterconnect.com

semi.techsupport@smithsinterconnect.com

subsystems.csr@smiths interconnect.com

subsystems.tech support@smiths interconnect

Sales

**Asia** 

Technical Support

focom.asiacsr@smithsinterconnect.com

a siate chsupport @smith sinter connect.com

#### focom.techsupport@smithsinterconnect.com

asiacsr@smithsinterconnect.com

Technical Support

#### Sales

semi.asiacsr@smithsinterconnect.com

#### Technical Support

semi.techsupport@smithsinterconnect.com

subsystems.csr@smiths interconnect.com

#### Technical Support

subsystems. tech support@smiths interconnect.

