

# Datamate Mix-Tek Off-the-Shelf Mixed Technology Connectors

Signal, Power and Coax in one compact connection

Achieve high reliability and performance with the mixed technology connectors from the Datamate range. Specify off-the-shelf connectors with:

Power Only (20A)

Power (20A) with Signal (3A)

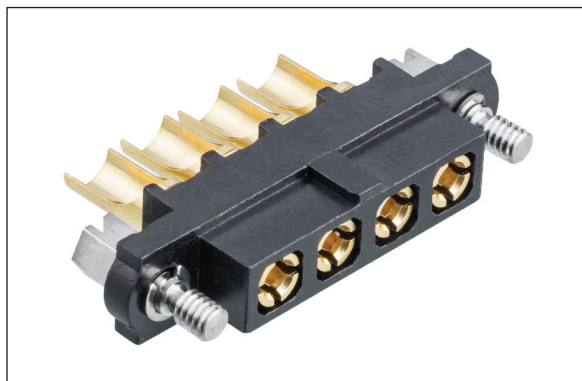
High Power Only (40A)

Coax Only (50Ω)

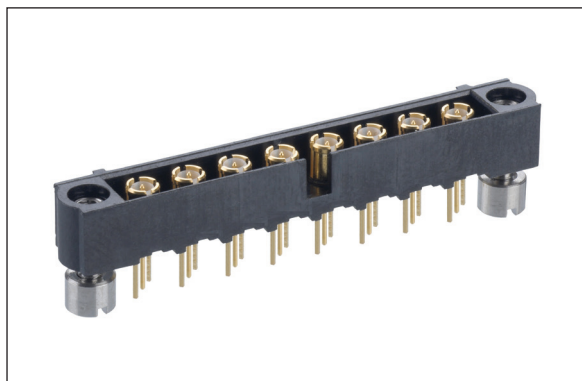
Discover a wide range of lightweight connectors ideal where COTS (Commercial Off-The-Shelf) substitution is possible. Guard against vibration and shock with fitted stainless steel jackscrews. These robust connectors bring you a proven track record under extreme conditions. Specify these cable-to-board connectors for delivery from stock.



2 Power and 2 signal male vertical PCB connector



4 High Power female cable connector with solder cups

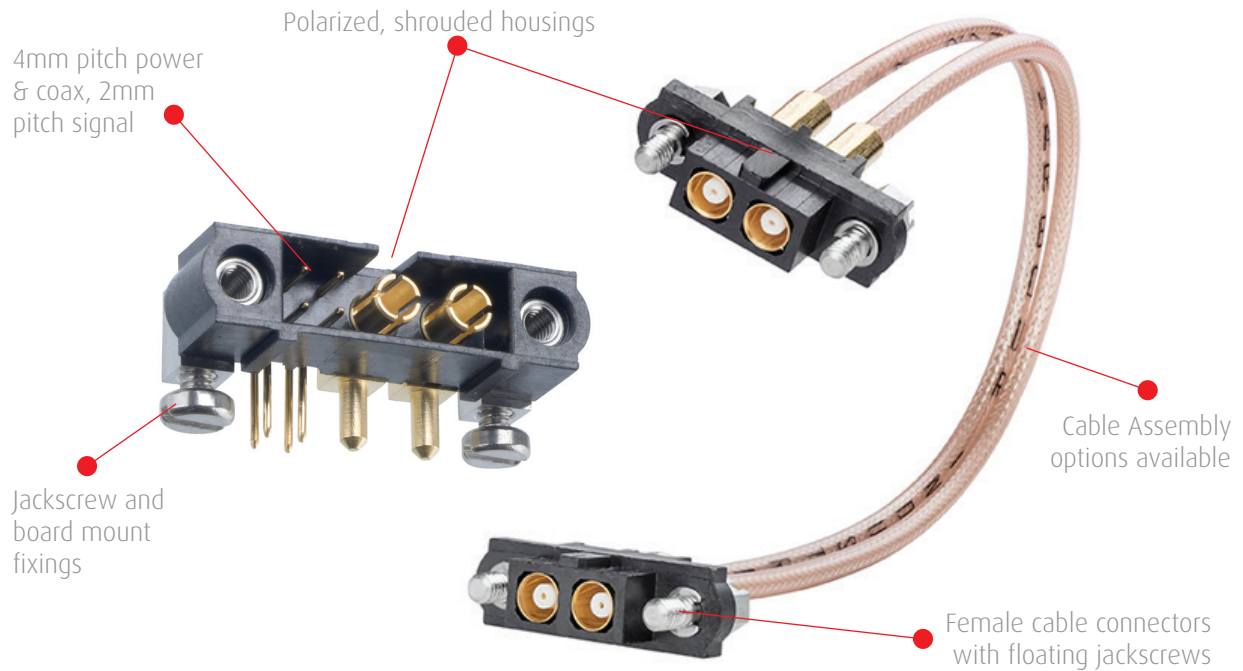


8 coax male vertical PCB connector with board mount

Features and Benefits	
Multiple current capacity options - 3A (signal), 20A (power), 40A (high power)	Low to high current options for maximum flexibility in a compact connector
Beryllium Copper Contact with -55°C to +125°C temperature range	Rugged and durable connector design with proven track record
World-class quality from the Original Designers of Datamate	Published test reports, proven track record, high quality requirements through the complete production cycle
Available from stock	Off-the-shelf, supported by a global distributor network
Multiport 50Ω, 6GHz coaxial ganged contacts	Ready-to-use cable connectors and mating cable assemblies also available
Hexagonal slotted floating jackscrews for female connectors	To ensure vibration and shock requirements are met, and to give maximum strain relief in cable-to-board configurations

Key Applications	
Aerospace, Defense & Security	Radar, avionics controls, guidance systems, UAVs, radio communications, radar and tracking, vehicle electronics
Motorsport	Sensors and telemetry, navigation, sensor power
Space	Satellites & CubeSats, communications, launch systems
Energy	Oil & Gas, renewable energy equipment
High-end professional electronics	Robotics, automation, drives & controls
Medical	Diagnostics, instrumentation

## Product Features



## Specifications

Electrical		Mechanical		Physical	
Current Rating	3A (signal), 20A (power), 40A (high power)	Number of Mating Cycles	500	Housing	Glass filled PPS, UL94V-0
Voltage Rating	800V AC/DC	Temperature Range	-55°C to +125°C	Contacts	Copper alloy, Gold or selective gold/tin plating
Maximum Voltage	1200V AC/DC	Insertion Force	2N max (signal), 8N max (power), 15N max (high power), 20N max (coax)	Jack screws	Stainless steel
Contact Resistance	25mΩ max	Withdrawal Force	0.2N min		
Insulation Resistance	100MΩ min	Vibration	10G, 6 hours total		
Frequency Range (coax)	Up to 6GHz				
VSWR (coax)	1.05 + (0.04 x Frequency) GHz max				

## How to Order

### Power Only connector

**M80 - X 000000 XX - XX - XXX - 00 - 0000**

GENDER	
4	Female
5	Male

JACKSCREW	
F1	Floating Hex Slotted (female)
M1	Internal Jackscrew (male)
M2	Vertical with 3.5mm board mount stud (male)
M3	Vertical with 5mm board mount stud (male)
M5	Horizontal with 5mm board mount bolt (male)

POWER CONTACTS PART NO.	
325	Female 12AWG (20A)
PF5	Female 10AWG (40A)
331	Male Vertical 3.5mm (20A)
332	Male Vertical 5mm (20A)
PM1	Male Vertical 3.5mm (40A)
333	Male Horizontal 3.5mm (20A)
PM3	Male Horizontal 3.5mm (40A)

NO. OF POWER CONTACTS
02, 04, 06, 08, 10

### Signal & Power connector

**M80 - X XX XX 05 XX - XX - XXX - 00 - 0000**

GENDER	
4	Female
5	Male

TYPE	
C1	Female 24-28AWG signal
L1	Male Horizontal Throughboard
T1	Male Vertical Throughboard

NO. OF SIGNAL CONTACTS
02, 04, 06, 08, 12

POWER CONTACT PART NO.	
325	Female
331	Male Vertical
333	Male Horizontal

NO. OF POWER CONTACTS
02, 04

JACKSCREW	
F1	Floating Hex Slotted (female)
M1	Internal Jackscrew (male)
M2	Vertical with 3.5mm board mount stud (male)
M5	Horizontal with 5mm board mount bolt (male)

### 50Ω Coax ganged connector

**M80 - XXXXXXXX - XX**

GENDER/TYPE	
FC305F1	Female Cable, RG178
MV311M2C	Male Vertical Board Mount, 3mm Throughboard
MV312M3C	Male Vertical Board Mount, 4.5mm Throughboard
MH313M2C	Male Horizontal Board Mount, 3mm Throughboard
MH314M3C	Male Horizontal Board Mount, 4.5mm Throughboard

NO. OF COAX CONTACTS
02, 04, 06, 08



**Harwin Europe (Global Headquarters)**

Portsmouth, Hampshire, UK

E: [mis@harwin.co.uk](mailto:mis@harwin.co.uk)

T: +44 (0)23 9231 4545

**Harwin Inc (Americas)**

New Albany, Indiana, USA

E: [mis@harwin.com](mailto:mis@harwin.com)

T: +1 603 893 5376

**Harwin Asia Pte Ltd (Asia, Australasia)**

Singapore

E: [mis@harwinasia.com](mailto:mis@harwinasia.com)

T: +65 6 779 4909