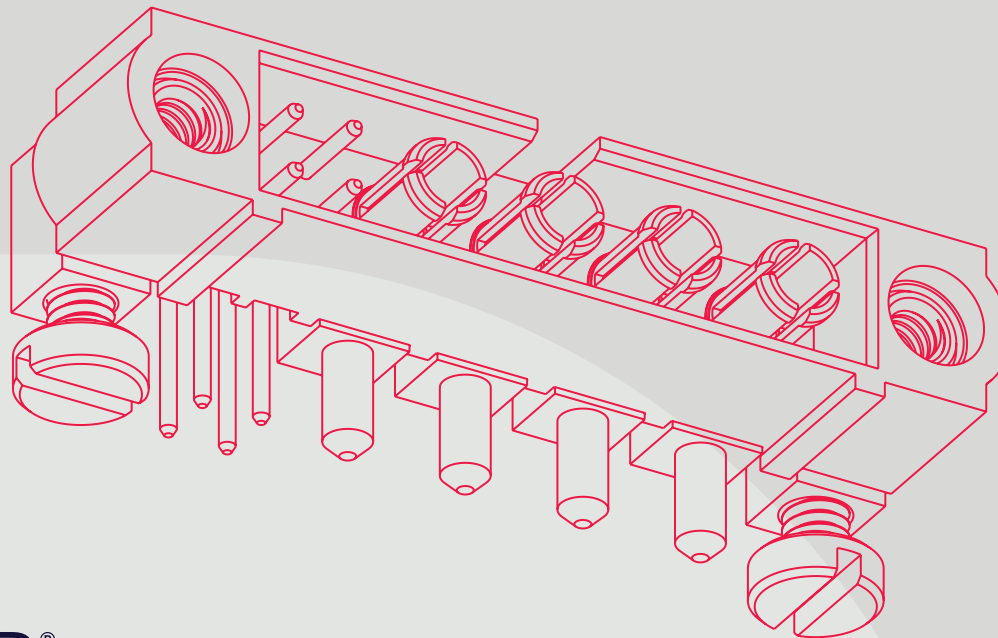


# HARWIN

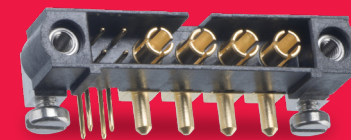
CONNECT TECHNOLOGY  
WITH CONFIDENCE



 **Datamate®**

# HIGH RELIABILITY SIGNAL/POWER/COAX

MIXED CONTACT MINIATURE CONNECTORS



HIGH RELIABILITY  
WITH SUPREME  
PERFORMANCE

**HRi**  
RANGE

# HARWIN



# HRI CONNECTORS FROM HARWIN.

## Miniature Connectors for SWaP-C Optimization

For applications that must not fail, Datamate Mix-Tek brings high-reliability connection at combination 2.00mm/4.00mm pitch. Ultimate flexibility with proven performance under shock/vibration and temperature.

The compact design gives space and weight savings over industry standard alternatives. Cable-to-board, board-to-board and cable-to-cable options; pin counts up to 12 power/coax or mixed with equivalent signal contacts.

Multi-finger Beryllium Copper contacts deliver proven signal integrity under heavy vibration and shock, maintaining electrical connectivity in a variety of harsh environments. Temperature resistance covers -55°C to +125°C.

The power contacts are available in 5/8A crimp, up to 20A cable and PCB throughboard solder, or high power 40A

cable / PCB solder versions. Coax contacts are suitable for Semi-Rigid, RG174, RG178, RG179 and RG316 cable.

Stainless steel jackscrews are available in both standard or reverse-fix configurations, with panel and board mount for additional security.

Cable assembly options are available from our in-house cabling experts, supplying fully inspected and tested assemblies ready for your production line.

## FEATURES

- Jackscrews, latches or quick-mating bayonet fixings for reliable connections
- Assured signal integrity under extreme environments – vibration, shock and temperature resistance
- Low outgassing, great for space, avionics and optronics

## APPLICATIONS

- Aviation and UAVs
- New space
- Motorsport
- Defense & security



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## SPECIFICATIONS

MATERIALS	ELECTRICAL	MECHANICAL	ENVIRONMENTAL
Housings: <b>Glass-Filled High Temperature Thermoplastic, UL94V-0</b>	Current per contact: <b>40A max for power</b> <b>3.3A max for signal</b>	Durability: <b>500 mating cycles</b>	Operating temperature: <b>-55°C to +125°C</b>
Contacts: <b>Copper Alloy, Gold finish on contact area</b>	Coax characteristics: <b>50Ω impedance</b> <b>6GHz frequency range</b>	Insertion force (per contact): <b>20.0N max for power/coax</b> <b>2.0N max for signal</b>	Environmental classification: <b>55/125/56 days at 95% RH</b>
Jackscrews: <b>Stainless Steel</b>	Working voltage: <b>180V AC for coax</b> <b>800V AC/DC for other connectors</b> <b>300V AC/DC for cable assemblies</b>	Withdrawal force (per contact): <b>0.2N min</b>	Vibration resistance: <b>10G (196m/s<sup>2</sup>) for 6 hrs</b> <b>20G (98m/s<sup>2</sup>) for 2 hrs</b>
Metal Backshells: <b>Aluminium Alloy</b>	Maximum voltage: <b>1,200V AC/DC for power/signal</b> <b>1,000V AC for coax</b>	Contact retention in housing: <b>10N min</b>	Shock resistance: <b>100G (981m/s<sup>2</sup>)</b>
	Insulation resistance: <b>100MΩ min</b>	Pitch: <b>4.00mm for power/coax</b> <b>2.00mm for signal</b>	Compliance: <b>RoHS Compliant</b> <b>REACH / CMRT statements</b>

Specifications are subject to change.



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## PRODUCT CATEGORIES

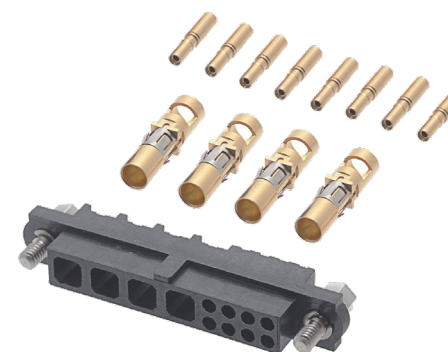
### Cable Assemblies

Ready-to-use cabled connectors, single or double ended, fully inspected and tested. 20A Power, 40A Power and Coax versions available. Ideal for both prototyping and full production requirements.



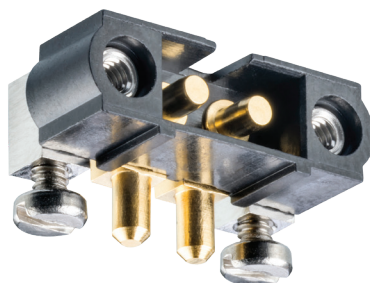
### Cable Connector Parts

Cable housings and contacts available in kits, with spare contacts sold separately. Signal/power, signal/coax, 20A Power, 40A Power and Coax versions available. Jackscrews are supplied assembled to the housings.



### PCB Connectors

Board-mounted connectors in male and female options. Low profile, with standard gender or reverse fix jackscrews. Signal/power, signal/coax, 20A Power, 40A Power and Coax versions available. Additional board mount nuts/bolts.



### Tooling & Accessories

Associated products and tooling to support the Datamate Mix-Tek range.



Specifications are subject to change.



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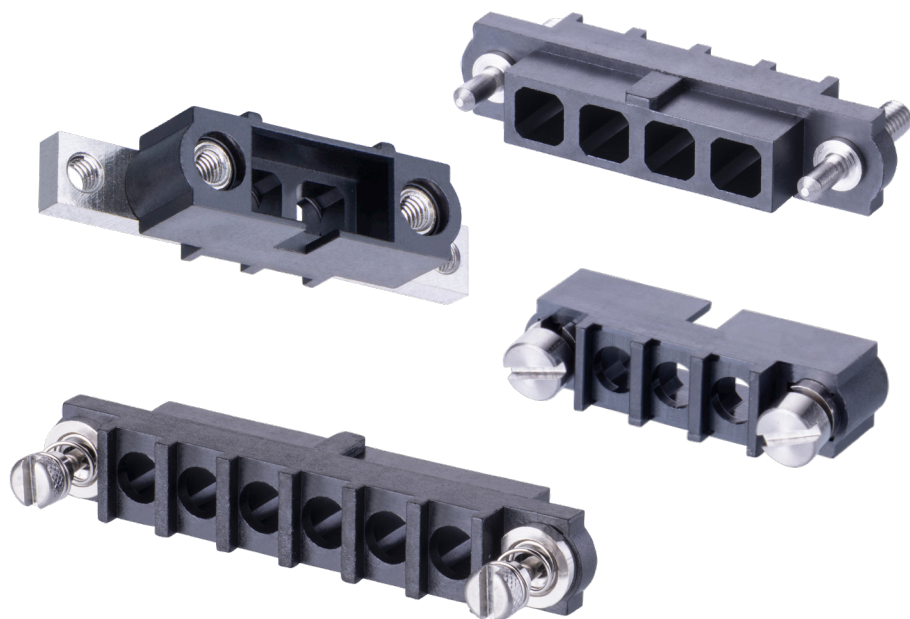
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## PRODUCT CATEGORIES

### Cable Connector Housings

Cable housings supplied without contacts for mix-and match with power or coax. Choice of jackscrew fixings, supplied assembled to the housing: standard gender or reverse fixings, 101Lok fast bayonet fixings or guide pins. Free cable, front and rear panel mount options.



### Power and Coax Contacts

Individual cable contacts for use with the cable housings. 40A high power contacts, 10-20A standard power with solder cups, 5/8A power with crimp. Coax contacts for use with RG178, RG174, RG179, RG316 and UT047 semi-rigid cable.



Specifications are subject to change.



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## DOWNLOADS

### Technical Documents

Component Specification (including pin numbering system)



### Product Training

Product Training Modules (PTM):

Range Overview



Metal Backshells Overview



Datamate Coax



Datamate Mix-Tek Housings



Panel Mount with Datamate



Guide to Latches, Jackscrews and 101Lok



Signal Cable Assembly Instruction Video



Coax Straight Cable Assembly Instruction Video



Coax Right-Angle Cable Assembly Instruction Video



### Test Reports

**HT078** – Datamate 20A Power Testing



**HT035** – Datamate Power Electrical/Mechanical



**HT040** – Datamate High Power Electrical/Mechanical



**HT052** – Datamate Coax RF Testing



**HT020** – Datamate Mix-Tek Contact Testing



**HT001** – Durability up to 10,000 cycles



**HT002** – Voltage Proof/Flashover, Insulation Resistance



**HT019** – Datamate Signal Frequency Testing



**HT004** – Datamate J-Tek Vibration/Shock/Bump/Acceleration



**HT015** – Datamate 101Lok Vibration/Shock/Bump



**HT006** – Datamate J-Tek Male Crimp Retention



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INNOVATIVE  
DESIGNS FOR  
EASY ASSEMBLY



DEPENDABLE  
CONNECTIVITY  
ACROSS THE BOARD

**HRI**  
RANGE

**EZi**  
RANGE

**BBi**  
RANGE

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