

# HARWiN

CONNECT TECHNOLOGY  
WITH CONFIDENCE

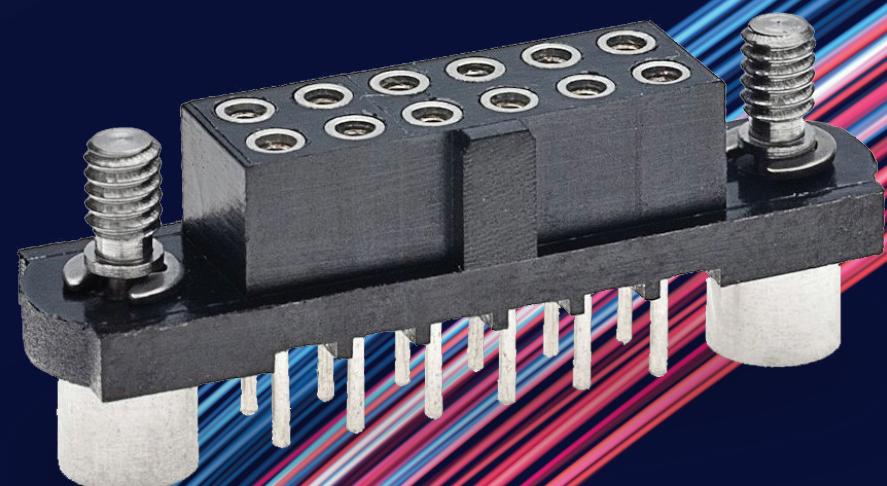


**HRI**  
RANGE

 **Datamate®**

# HIGH RELIABILITY RECTANGULAR SIGNAL

MINIATURE CONNECTORS



# HRI CONNECTORS FROM HARWIN.

## MINIATURE CONNECTORS FOR SWAP-C OPTIMIZATION

For applications that must not fail, Datamate brings high-reliability connection at a miniature 2.00mm pitch. Complete 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 in pin counts up to 50.

The 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, and contacts can carry up to 3.3A for low power as well as signal requirements.

Stainless steel jackscrews are available in both standard or reverse-fix configurations, with panel and board mount for additional security. Latch versions save mating time and PCB real estate. Lightweight metal hoods protect cables & housings, and reduce EM/RF interference.

Cable assembly options are available from our in-house cabling experts. Just specify the length and the signal cable gauge, and we'll produce 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 Thermoplastic, UL94V-0</b>	Current per contact: <b>3.3A max</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>	Working voltage: <b>800V AC/DC (Connectors) 250V AC/DC (Cable assemblies)</b>	Insertion force (per contact): <b>2.0N max</b>	Environmental classification: <b>55/125/56 days at 95% RH</b>
Latches: <b>Beryllium Copper, Tin finish</b>	Maximum voltage: <b>1,200V AC/DC</b>	Withdrawal force (per contact): <b>0.2N min</b>	Vibration resistance: <b>10G (196m/s<sup>2</sup>) for 6 hrs 20G (98m/s<sup>2</sup>) for 2 hrs</b>
Jackscrews: <b>Stainless Steel</b>	Contact resistance: <b>25mΩ max</b>	Contact retention in housing: <b>10N min</b>	Shock resistance: <b>100G (981m/s<sup>2</sup>)</b>
Metal Backshells: <b>Aluminium Alloy</b>	Insulation resistance: <b>100MΩ min</b>	Pitch: <b>2.00mm</b>	Compliance: <b>RoHS Compliant REACH / CMRT statements</b>

Specifications are subject to change.





## PRODUCT CATEGORIES

### CABLE ASSEMBLIES

Ready-to-use cabled connectors, single or double ended, fully inspected and tested. Latched and jackscrew versions available. Ideal for both prototyping and full production requirements.



### CABLE CONNECTOR PARTS

Cable housings and contacts available in kits, with additional options and spare contacts sold separately. Latches and jackscrews are ready assembled to the housings.



### PCB CONNECTORS

Board-mounted connectors in male plug and female receptacle options. Low profile, with standard gender or reverse fix jackscrews, or latching style for reduced PCB space. Additional board mount nuts/bolts and hold-down straps.



### TOOLING & ACCESSORIES

Associated products and tooling to support the Datamate range.



Specifications are subject to change.



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## PRODUCT CATEGORIES

### BACKSHELLS

Lightweight aluminium alloy backshells for cable and PCB mounting, compatible with male plug and female receptacle connectors. EMC shielding with metal braid and micro-band fixing. Robust hoods for long-term physical protection.



Specifications are subject to change.

### PRE-CABLED CONTACTS

Individual cable contacts pre-crimped to lengths of equipment wire. Available in single or double ended options. Eliminates the additional expense of crimp tooling – great for prototyping and volume production.



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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 J-Tek Extended Height
- Datamate PIHR (Pin-in-Hole Reflow)
- Panel Mount with Datamate
- Guide to Latches, Jackscrews and 101Lok
- Using the Strain Relief Strap M80-0030006



Cable Assembly Instruction Video



### TEST REPORTS

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



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



**HT019** – Datamate Frequency Testing



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



**HT010** – Datamate J-Tek Right-angle SMT Contacts



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



**HT006** – Datamate L-Tek/J-Tek Male Plug Crimp Retention



**HT005** – Datamate L-Tek Female Receptacle Crimp Retention



**HT016** – Datamate L-Tek Female Receptacle Crimp Forces



**HT011** – Datamate L-Tek Crimp High Temp. plastic material



**HT025** – Datamate L-Tek Vibration/Shock/Bump



**HT012** – Datamate L-Tek Right-angle SMT Contacts



**HT017** – Datamate L-Tek 3 and 15 years Artificial Aging



**HT044** – Datamate L-Tek number of latch operations



**HT079** – Backshells, Shielded Cables Attenuation Testing



Specifications are subject to change.



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FOR FURTHER INFORMATION PLEASE CONTACT:

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