

HARWIN

CONNECT TECHNOLOGY
WITH CONFIDENCE

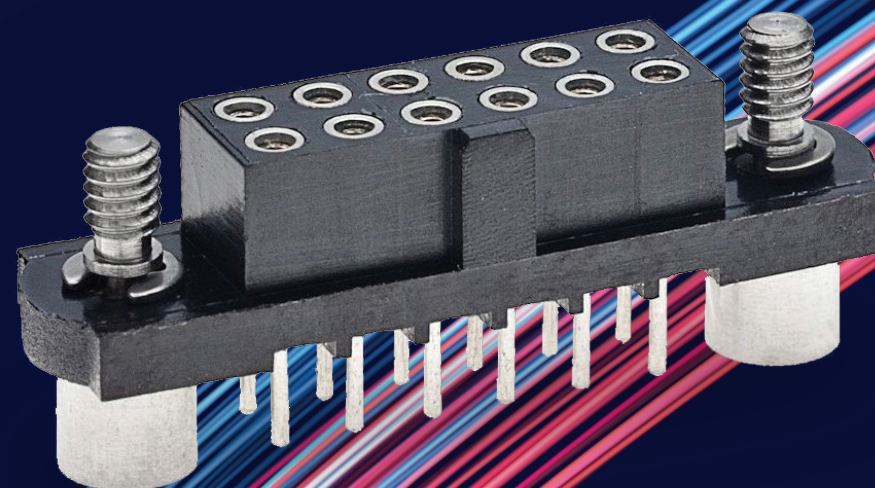


HRI
RANGE

 DATAMATE®

HIGH RELIABILITY RECTANGULAR SIGNAL

MINIATURE CONNECTORS



HARWIN

 **DATAMATE®**

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: Glass-Filled Thermoplastic, UL94V-0	Current per contact: 3.3A max	Durability: 500 mating cycles	Operating temperature: -55°C to +125°C
Contacts: Copper Alloy, Gold finish on contact area	Working voltage: 800V AC/DC (Connectors) 250V AC/DC (Cable assemblies)	Insertion force (per contact): 2.0N max	Environmental classification: 55/125/56 days at 95% RH
Latches: Beryllium Copper, Tin finish	Maximum voltage: 1,200V AC/DC	Withdrawal force (per contact): 0.2N min	Vibration resistance: 10G (196m/s²) for 6 hrs 20G (98m/s²) for 2 hrs
Jackscrews: Stainless Steel	Contact resistance: 25mΩ max	Contact retention in housing: 10N min	Shock resistance: 100G (981m/s²)
Metal Backshells: Aluminium Alloy	Insulation resistance: 100MΩ min	Pitch: 2.00mm	Compliance: RoHS Compliant REACH / CMRT statements

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.



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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