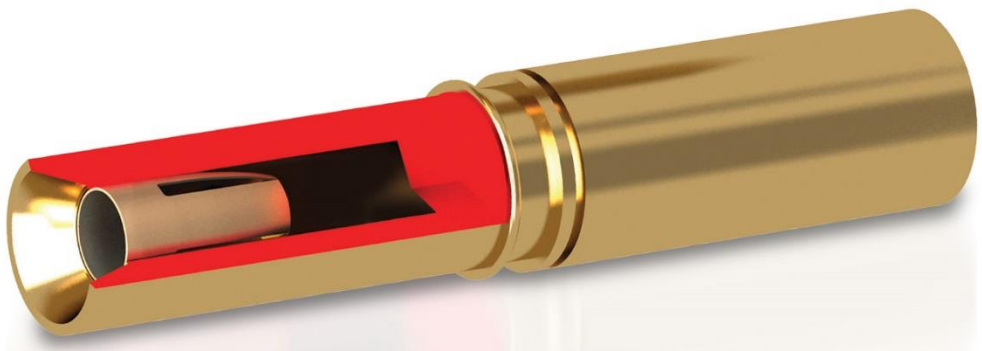
Datamate

T-CONTACT

HARWiN

Datamate T-Contact

The existing Signal contact



The current signal contact used on all Datamate variations is constructed from a 4-fingered Beryllium Copper female contact clip, housed inside a brass turned shell. The contact system gives superb performance, for both electrical and mechanical specifications, with environmental resistance to shock and vibration, and a temperature range up to 125 degrees C.

However, the contact is limited to 3.3A max (25°C ambient) individually, or 3A max when all contacts are electrically loaded.

T-CONTACT

Datamate T-Contact

Improved Current Rating

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The T-contact is an advanced design, based on the research around the Gecko connector system. By using a single piece of Beryllium Copper in a turned design, the current-carrying capacity of the contact is improved, due to additional mass of metal. Beryllium Copper is used as the base metal to ensure the spring qualities of the contact area are maintained.

This design enables a current rating of 8.5A max (25°C ambient) individually, or 3.5A max when all contacts are electrically loaded.

Datamate T-Contact

The heart of the connector

The contact design uses 6 fingers to increase the amount of contact with the mating male pin. The pattern of the 6 fingers has been likened to a Turtle shell hexagonal pattern – hence T-Contact.

This design gives a 60% increase in surface wipe, which improves the self-cleaning action of the contact, and therefore helps reduce surface contamination.

Datamate T-Contact

Avionics Standard finish

The T-Contact is only available in a gold-plated finish. To maximise durability, the gold is applied at 0.76-1.00µm (30-40µ") thickness, over nickel & copper undercoats. This improves the durability from the existing 500 mating cycles to 1,000 mating cycles without degradation. This meets the more demanding standards of the military and aerospace requirements.

Datamate T-Contact

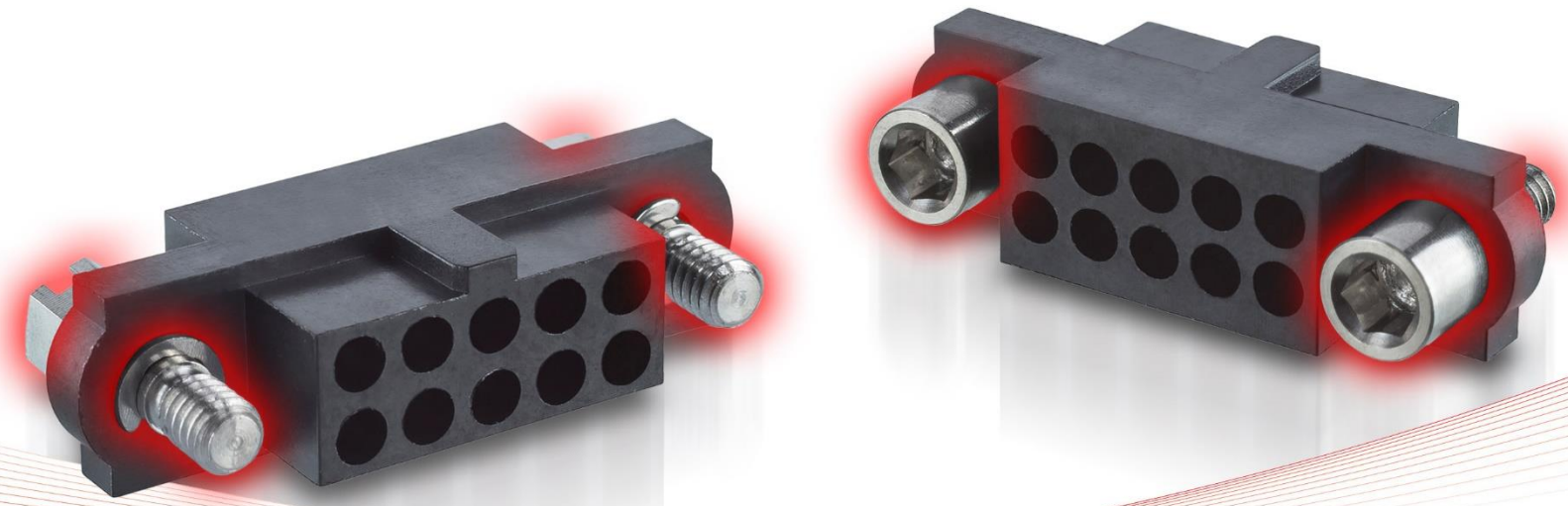
Product range – how to order

Contacts and Housings are sold separately. The contact is currently only available as a crimp contact, for 22AWG wire/cable, with a maximum insulation diameter of Ø1.10mm.

The part number for this contact is M80-2060005. It will work as a replacement contact in any existing female Datamate crimp housing.

Datamate T-Contact

Product range – how to order



The cable housings are available without contacts in 5 different designs. Two of these are floating jackscrews, and can be mated with the majority of the male connectors with 2mm threaded jackscrews. For a complete part number, replace the "xx" with the total number of contacts required – from 04 to 50.

- Floating Jackscrew with hexagonal slotted head – M80-413xx98
- Floating Jackscrew with hex socket head (for an allen key or hex driver) – M80-414xx98

Datamate T-Contact

Product range – how to order

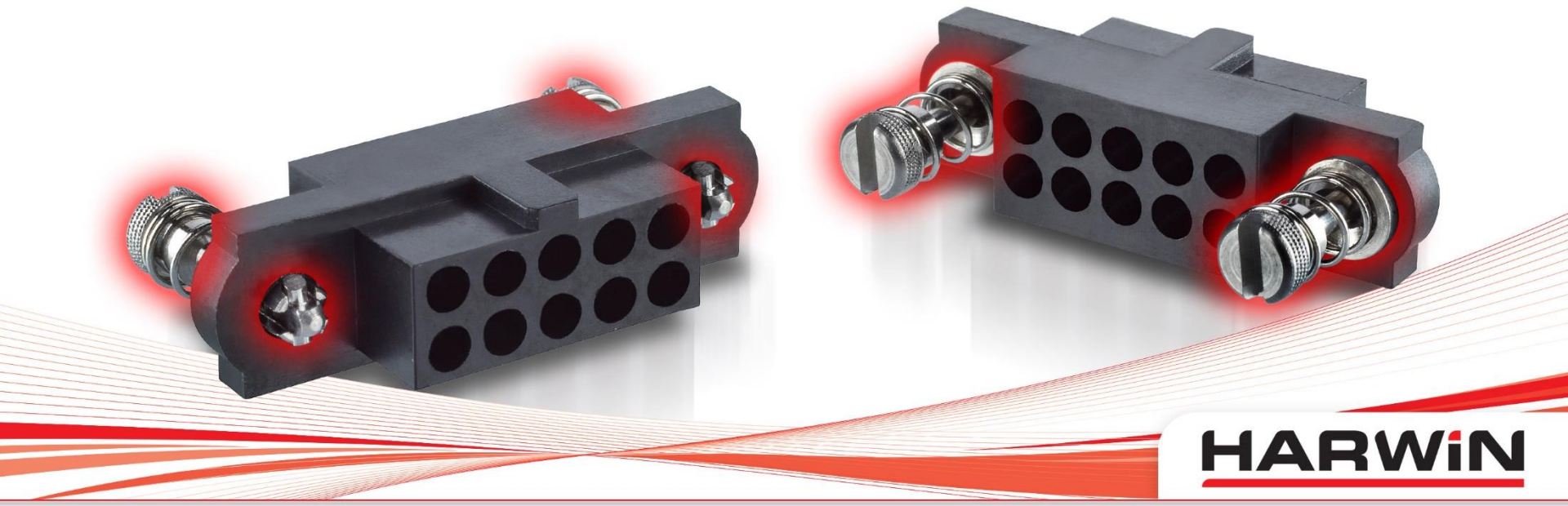
Two cable housing styles are available with panel mount fixings on the rear of the connector. For a complete part number, replace the "xx" with the total number of contacts required – from 04 to 50.

- Reverse Fix Jackscrew (3.5mm stud) – M80-415xx98
- Guide Pin jackscrew – M80-417xx98

Both housings are compatible with the board mounts nuts M80-2130000B (round slotted) or M80-2430000B (hexagonal).

Datamate T-Contact

Product range – how to order



The 101Lok fixing system is a bayonet-style, fast-acting method of securing mated pairs. Simply mate the connectors together, then push and turn each fixing by 101-degrees (just over a quarter-turn). To dis-engage, push, rotate in the opposite direction and release. For a complete part number, replace the "xx" with the total number of contacts required – from 04 to 50.

- 101Lok fixing – M80-418xx98

Datamate T-Contact

Hand Tools and associated products

Harwin supply the full set of hand tooling required for your own cable assembly manufacture, as listed below. Alternatively, our Cable Assembly facility is available to assist and manufacture complete cable assemblies to your specification.

Hand Crimp Tool:
- M22520/2-01

Positioner:
- Z80-444

Insertion/Removal Tool:
- Z80-280

Instruction Sheets:
- IS-01 and IS-25

Datamate T-Contact

Electrical Specifications

Current Rating	Up to 8.5A max
Contact Resistance	25 milliohms max
Voltage Proof	1,200V DC or AC Peak
Working Voltage	800V DC or AC Peak

Datamate is field-proven in tough terrains and environments, from underground to outer space. The Current rating for this new contact design far exceeds the levels normally expected from a 2mm pitch connector system.

The full Datamate Component Specification is available to download from the Harwin website.

Datamate T-Contact

Mechanical & Environmental Specifications

Vibration	40g for 6 hours
Shock	100g for 6 milliseconds
Durability	1,000 mating cycles
Temperature Range	-55°C to +125°C

The T-contact has been proven to withstand extreme levels of vibrations at 40G for 6 hours without loss of electrical performance. The mating cycle durability is also improved.

T-contact meets the same high reliability standard consistent throughout the Datamate range. These specifications make Datamate products the ideal choice for demanding applications.

Datamate T-Contact

Markets

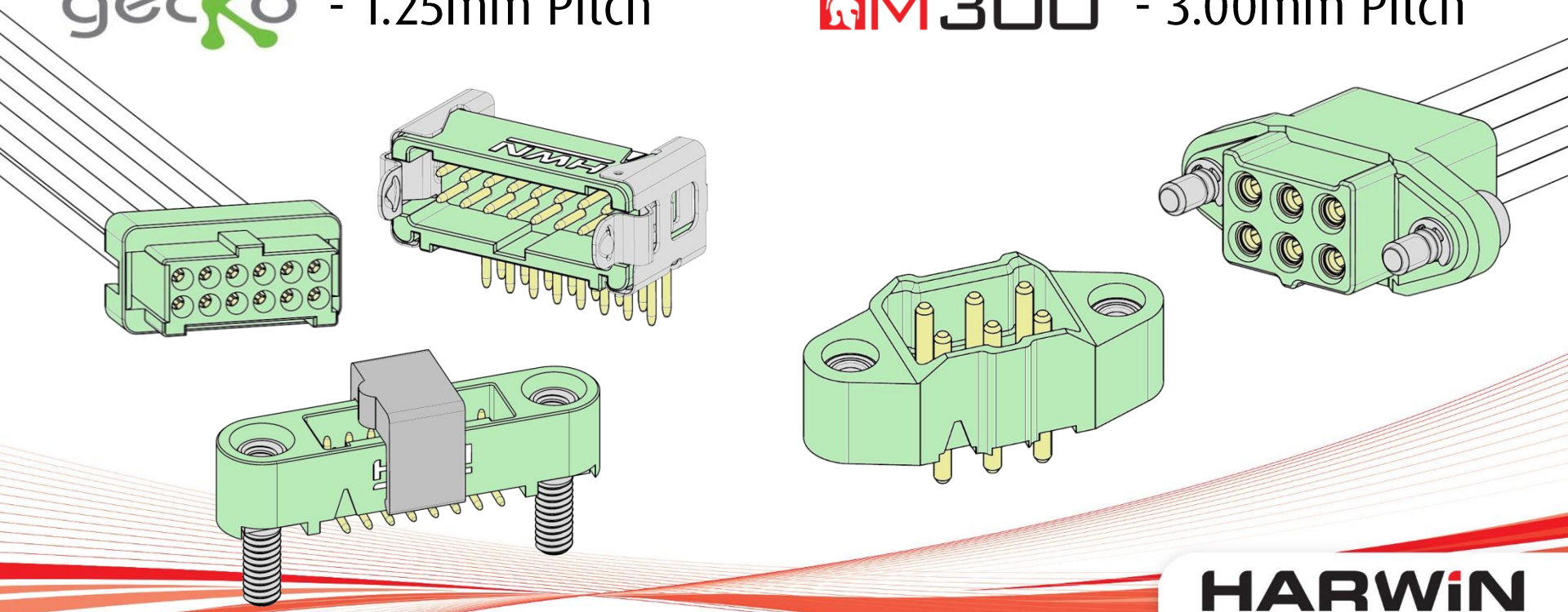
Rugged, high-reliability connectors continue to be in strong demand in many varied environments. Small enough to be used in handheld and portable applications, yet high-powered enough to meet the demands of large-scale equipment, Datamate T-Contact will be an excellent choice in both existing and new applications.

- Aerospace
- Autosport
- Military
- Robotics
- Oil & Gas

If you like this product, try...

gecko - 1.25mm Pitch

M300 - 3.00mm Pitch



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- 2A per contact, High-Reliability connector system
- Screw-Loks or Locking latch systems for strain relief
- Resists Vibration to 20G and Shock to 50G
- Temperature range -65°C to +150°C
- Vertical, Horizontal and Cable options

- Up to 10A per contact, High-Reliability connector system
- Jackscrew fixing system for strain relief
- Resists Vibration to 10G and Shock to 100G
- Temperature range -65°C to +175°C
- Vertical and Cable options

Get Help from a Harwin Expert

Our experts are specialists in their field with many years of experience in their respective roles and industries.

Find an expert that can help you with your enquiry.

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CAD Models and Evaluation Samples also available at www.harwin.com

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