Extended Wall Datamate -

What is it?

An Extended Wall is a feature on a cable connector housing that is an additional extension on the rear of the body. This extension is the "wall". It surrounds the rear entry points where the cabled contacts are assembled.

What's so special about this wall?

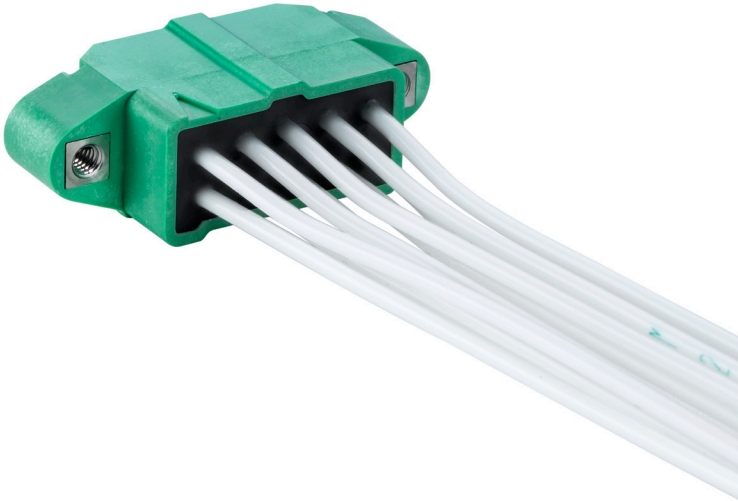
The main reason for a wall around the rear of the cable connector is to make backpotting easier. There are several advantages to backpotting a cable connector.

- Gives additional strain relief to the cables and contacts. Contacts will have a certain holding force keeping the contacts in the housing once assembled, but it is limited. By adding backpotting, the holding force of every contact is greatly improved.
- Lightweight strain relief. Backshells, hoods, and over-molding can also provide additional strain relief, but are also bulkier and heavier than a small amount of backpotting compound.
- Sealing the rear of the connector from moisture and dust. The solid resin provides a surface-to-surface coverage and fills in any spaces around the rear of the contact which would otherwise be open.
- The additional strain relief also assists with reducing side-load on the contacts, when the wires are routed at a tight angle immediately behind the connector body. The backpotting generally adds strength to the whole assembly, and increases reliability, reducing the possibility of failures in this area.

Do I really need a wall for backpotting?

No, you can do backpotting by making a temporary wall – with tape, or a machined block. But a removable wall leaves the backpotting exposed once it is removed. Backpotted resins, although strong, are not as tough as the plastic of the housing and are more vulnerable to accidental damage.

By having a permanent wall, any scrapes and knocks are absorbed by the connector plastic body which is much more durable and resilient.



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Which Harwin connectors have Extended Walls?

The following connector types from Harwin all come with these walls:

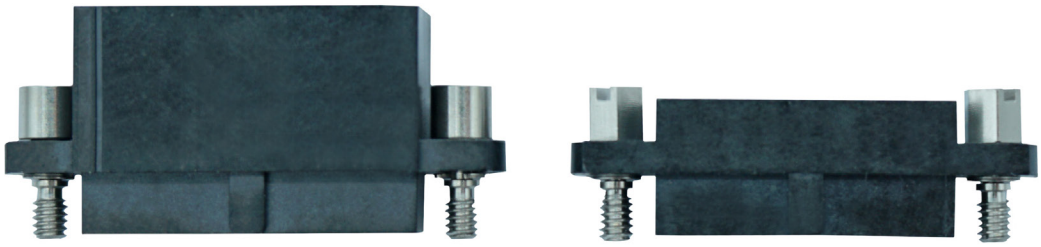
- Gecko – 1.25mm pitch High-Reliability Connectors (both Screw-Lok and Latched styles)
- M300 – 3.00mm pitch High-Reliability Connectors
- Datamate – 2.00mm pitch High-Reliability Connectors – **J-Tek Extended Wall versions only**

Why don't all Datamate connectors have Extended Walls?

Datamate has a long and successful history – and the original designs for Latched (L-Tek) and Jackscrew (J-Tek) just didn't have them when they were designed! Those customers that needed to backpot were making temporary walls for their cable assemblies.

As demand for backpotting grew, we realized this was a product improvement that some customers needed, so we added a new design of J-Tek housing that included the wall.

Because this wall does add additional height to the connector, customers that weren't backpotting didn't need it, and it might even have been in the way. So, the new design was added to the range, rather than replacing the existing crimp housings.



Should I specify Extended Walls on my Datamate connector?

That's up to you! Here are a few points to help you decide:

- Are you backpotting, either for strain relief or additional protection needed around the rear of the contacts? If not, then you probably don't need the extended wall version.
- Do you need additional protection around the rear of the connector, from accidental knocks? Maybe the extended wall is a good choice.
- Do you have space for another 5mm of connector housing? Then you can certainly fit this connector into your build.
- Do you want a bigger housing to help with maintenance in service, to give users a larger area to grip (instead of pulling on wires)? Walls could be an option as well as Datamate J-Tek hoods. These will take up less room than hoods, but still offer a bit more housing to hold onto.

What is the Extended Wall Datamate range?

These are the standard versions – check the website for availability. These are all supplied as complete kits – housings and contacts are included, and jackscrews fitted if included.

- M80-465 – Female with slotted floating jackscrews, 22 AWG crimp contacts
- M80-466 – Female with slotted floating jackscrews, 24-28 AWG crimp contacts
- M80-475 – Female with no jackscrews, 22 AWG crimp contacts
- M80-476 – Female with no jackscrews, 24-28 AWG crimp contacts
- M80-485 – Female with hex socket floating jackscrews, 22 AWG crimp contacts
- M80-486 – Female with hex socket floating jackscrews, 24-28 AWG crimp contacts
- M80-565 – Male with internal jackscrews, 22 AWG crimp contacts
- M80-566 – Male with internal jackscrews, 24-28 AWG crimp contacts
- M80-575 – Male with no jackscrews, 22 AWG crimp contacts
- M80-576 – Male with no jackscrews, 24-28 AWG crimp contacts

Can Harwin make my cable assemblies with Extended Wall Datamate?

We'd be happy to help! We can offer Extended Wall Datamate with or without backpotting as part of our Cable Assembly Service – our Experts are waiting to hear from you.

Contact our Experts for advice on backpotting, or discover cable assemblies made by Harwin.