



# RAIL D-SUB BACKSHELLS

## FOR D-SUBMINIATURE CONNECTORS

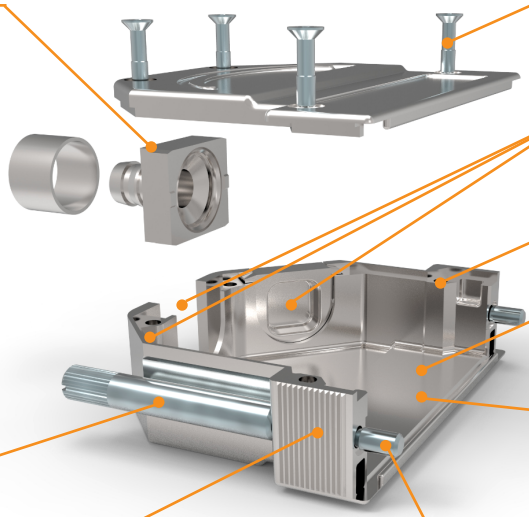
# RAIL D-SUB BACKSHELLS

## FOR D-SUBMINIATURE CONNECTORS

A comprehensive range of ruggedized metal backshells for D-Subminiature connectors. Fast easy installation and assembly thanks to a practical construction with a minimum number of single parts. TE Connectivity (TE) have many options available including two cable exit variants and a unique retrofitable quick-lock system for easy robust assembly in tight spaces. With a cable exit option of crimp inserts ensuring unparelleled 360° EMI/ EMC Shielding, the crimp insert also protects the conductors against damage druing the crimping process. For quick and easy installation we also have a screw strain relief cable exit option which required no special tooling.

2 Strain relief versions:

- Crimp for high vibration and extreme environmental conditions, torsion proof, 360° EMI shielding
- Screw strain relief for easy cable preperation



Self retaining assembly screws

225°, 180° and 135° cable exit options

High Quality die cast metal shell

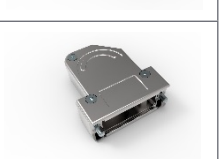
Large volume allows for dense packing.

360° EMI/EMC shielding for useage in EN50155 systems

Several Turned steel screws options in M3 and UNC4-40

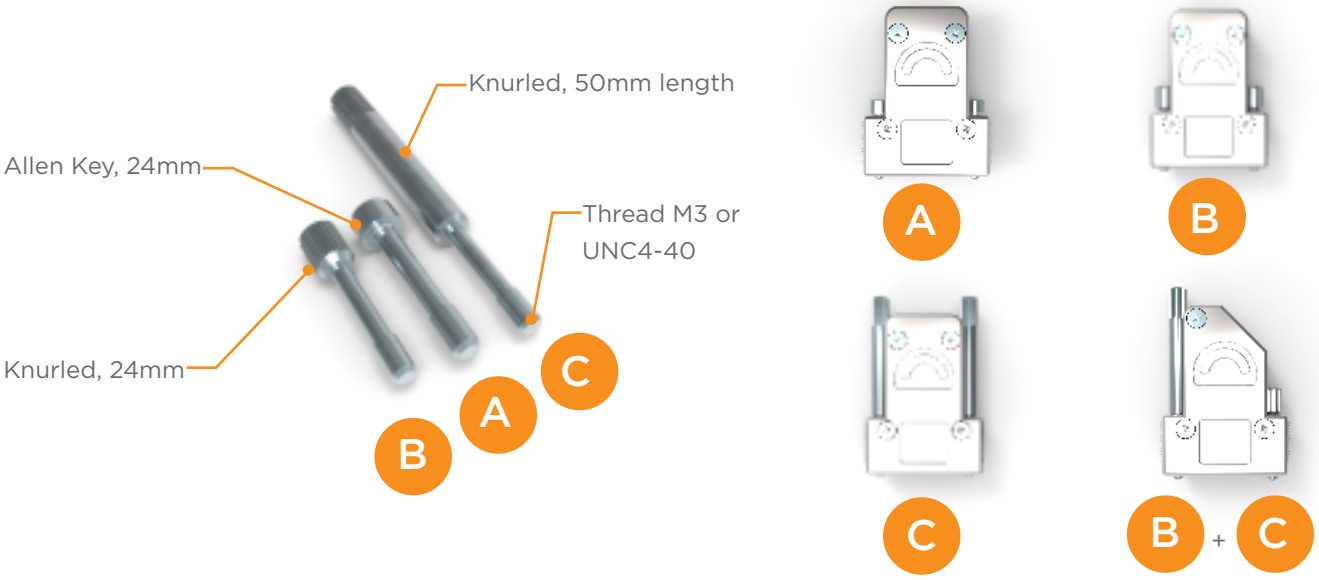
M3 or UNC4-40 thread

Full metal parts means fire and smoke compliant

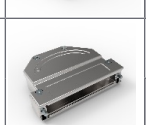
| Cable Outlet | Size 1<br>9/15p | Size 2<br>15/26p | Size 3<br>25/44p | Size 4<br>37/62p | Size 5<br>50/78p |
|---|---|---|---|---|---|
| 180° Cable Outlet |  |  |  |  |  |
| 135° Cable Outlet |  |  | | | |
| 225° Cable Outlet | | | | | |

## Screw Lock Options

With multiple screw lock options our D-Sub backshells meet all requirements for D-Subminature connectors.

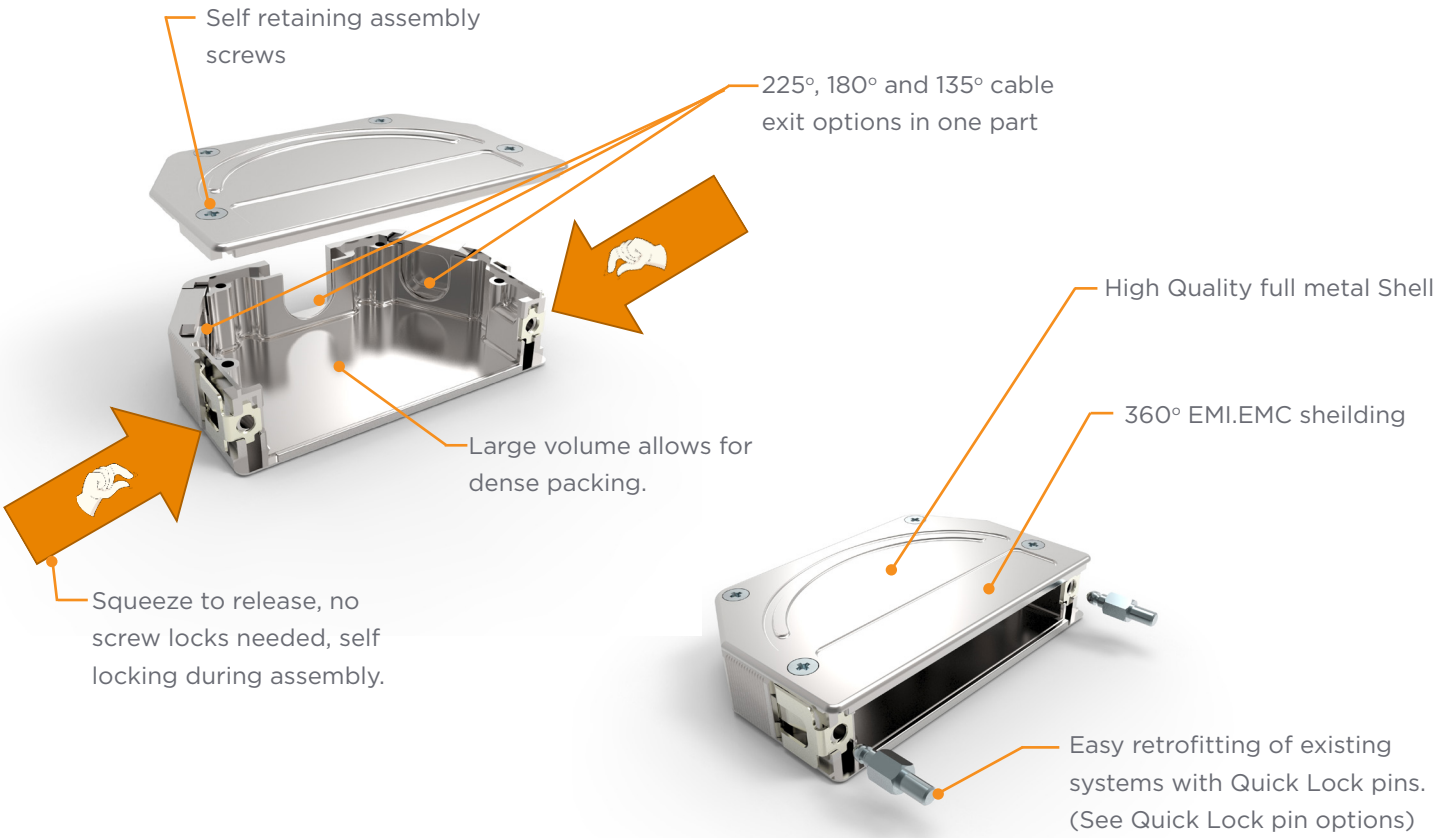



## Ordering Information

| | | | | Locking screw w/ spring washer | Locking Screw short knurled | Locking screw Long knurled | Locking screw long knurled and locking screw short knurled | Cable Outlet | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Screw Length | | 20.7mm | 24mm | 50mm | 24/50mm | | | |
| | Positions | Picture | Thread | | | | | 180° | 135° | 225° |
| 1 | 9P/15P |  | UNC 4-40 | 1-2308340-1 | 1-2308340-3 | 1-2308340-5 | - | ● | | |
| | | | M3 | 1-2308340-2 | 1-2308340-4 | 1-2308340-6 | - | ● | | |
| | |  | UNC-4-40 | 1-2308340-7 | 1-2308340-9 | - | 2-2308340-1 | | ● | |
| | | | M3 | 12308340-8 | 2-230834-0 | - | 2-2308340-2 | | ● | |
| 2 | 15/26P |  | UNC 4-40 | 1-2308341-1 | 1-2308341-3 | 1-2308341-5 | - | ● | | |
| | | | M3 | 1-2308341-2 | 1-2308341-4 | 1-2308341-6 | - | ● | | |
| | |  | UNC 4-40 | 1-2308341-7 | 1-2308341-9 | - | 2-2308341-1 | | ● | |
| | | | M3 | 1-2308341-8 | 2-2308341-0 | - | 2-2308341-2 | | ● | |
| 3 | 25/44P |  | UNC 4-40 | 1-2308342-1 | 1-2308342-3 | 1-2308342-5 | 1-2308342-7 | ● | ● | |
| | | | M3 | 1-2308342-2 | 1-2308342-4 | 1-2308342-6 | 1-2308342-8 | ● | ● | |
| 4 | 37/62P |  | UNC 4-40 | 1-2308345-1 | 1-2308345-3 | 1-2308345-5 | 1-2308345-7 | ● | ● | ● |
| | | | M3 | 1-2308345-2 | 1-2308345-4 | 1-2308345-6 | 1-2308345-8 | ● | ● | ● |
| 5 | 50/78P |  | UNC 4-40 | 1-2308346-1 | 1-2308346-3 | 1-2308346-5 | 1-2308346-7 | ● | ● | ● |
| | | | M3 | 1-2308346-2 | 1-2308346-4 | 1-2308346-6 | 1-2308346-8 | ● | ● | ● |

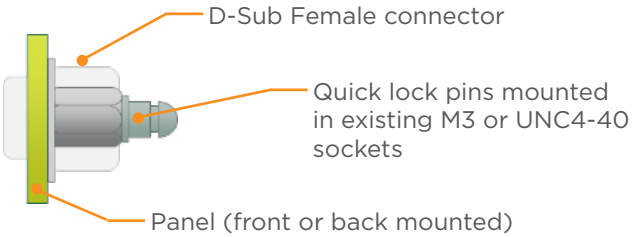
## Quick Lock Hoods

Our quick lock versions are an effective, time saving solution, with self retaining assembly screws and with its 'squeeze to release' self locking system it also provides three cable exit options in just one single part.

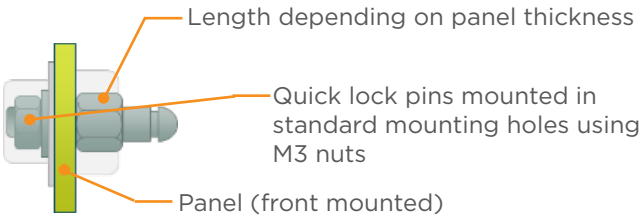



## Quick Lock pin options

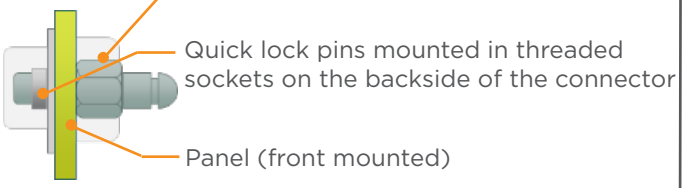
### A Fixed female screwlock



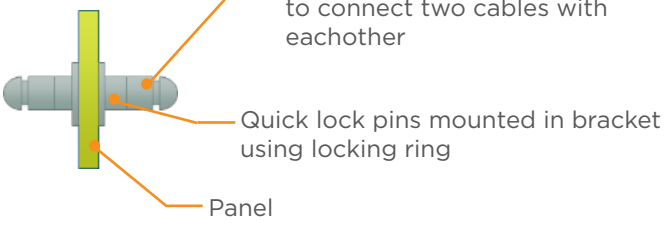

### C Standard mounting hole




### B Threaded insert

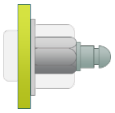
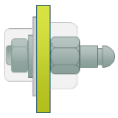
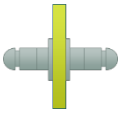



### D Bracket mounting (2x Sub-D)



## Ordering Information
Quick Lock Versions

| Quick Lock Shells | | | | | | |
|---|---|---|---|---|---|---|
| Shell Size | Positions | Picture | Part Number | Cable Outlet | | |
| | | | | 225° | 180° | 135° |
| 1 | 9p/15p |  | 1-2308319-1 | ● | ● | ● |
| 2 | 15p/26p | | 1-2308321-1 | ● | ● | ● |
| 3 | 25p/44p | | 1-2308327-1 | ● | ● | ● |
| 4 | 37p/62p | | 1-2308330-1 | ● | ● | ● |
| 5 | 50p/78p | | 1-2308338-1 | ● | ● | ● |

| | Quick Lock Pin Options | | | |
|---|---|---|---|---|
| | Picture | PN | Thread | Panel Thickness |
| A |  | 1-2308273-1 | M3 | N/A |
| | | 1-2308273-2 | 4-40 UNC | N/A |
| B |  | 1-2308265-1 | 4-40 UNC | N/A |
| | | 1-2308265-2 | 4-40 UNC | 1.0-1.3 |
| | | 1-2308265-3 | 4-40 UNC | 1.5-1.8 |
| | | 1-2308265-4 | 4-40 UNC | 1.7-2.0 |
| | | 1-2308265-5 | 4-40 UNC | 2.2-2.5 |
| | | 1-2308265-6 | M3 | N/A |
| | | 1-2308265-7 | M3 | 1.0-1.3 |
| | | 1-2308265-8 | M3 | 1.5-1.8 |
| | | 1-2308265-9 | M3 | 1.7-2.0 |
| | | 2-2308265-0 | M3 | 2.2-2.5 |
| C |  | 1-2308290-1 | M3 | 1.7-2.0 |
| D |  | 1-2308298-1 | N/A | 1.25 |
| | | 1-2308298-2 | | 1.5 |
| | | 1-2308298-3 | | 2 |
| | | 1-2308298-4 | | 2.2 |
| | | 1-2308298-5 | | 2.5 |
| | | 1-2308298-6 | | 3 |

## Cable Exit options

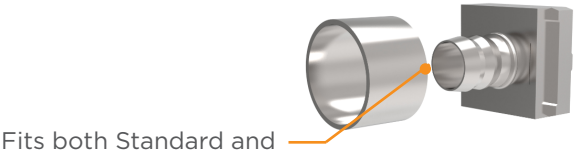
### Option 1: Crimped Strain relief

Cable rotation can lead to breakage of the individual wires in the cable. This can lead to intermittent system errors which are typically very difficult to find.

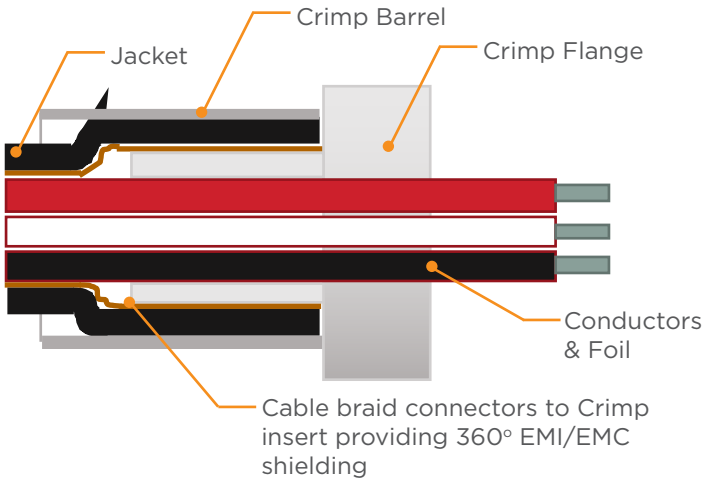
**The Solution:** Crimping the cable jacket

**Advantage:** A well defined and proven method. The crimp insert protects the conductors against damage during the crimping process.

**Creating Unparalleled EMI Shielding all around the connector.**



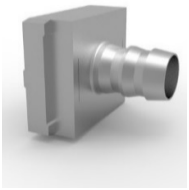
Fits both Standard and Quick Lock hoods.




| How to select the correct crimp flange | | |
|---|---|---|
| Step | Description | Example |
| 1 | Measure the outside cable diameter (3 times on different places at different angles) | OD = 6.5mm |
| 2 | Strip the cable and remove the cable braiding |  |
| 3 | Measure the diameter of the inner cable bundle including the foil | ID = 4.4mm |
| 4 | Select the crimp flange with a hole diameter next up to the cable bundle diameter | PN = 2-2308349-1, ID = 4.5mm, OD = 5.5mm |
| 5 | Calculate the recommended barrel inner diameter with the following formula: **Recommended Inner crimp barrel diameter = OD of crimp flange + 2x(thickness of the cable jacket) + 0.2mm** | Thickness cable jacket = 6.5 -4.4)/2 = 1.05mm Barrel ID = 5.5mm + 2x 1.05 + 0.2mm = 7.8mm |
| 6 | Select the crimp barrel with the next size up | PN = 1-2308350-7, ID = 8.0mm, OD = 9.0mm |
| 7 | Order the correct crimp tool & crimp insert using the crimp barrel selection matrix | PN = 1-2823557-1 & 1-2823558-3 |
| 8 | Prepare a cable sample and check if the pull out force meets your requirements. Contact TE Connectivity representative in case of any questions. | |

## Ordering Information

### Crimp Strain relief

| Crimp flanges (Can be used with all shells) | | | | |
|---|---|---|---|---|
| Picture | Size 1-4 QD shells 1-3 Std Shells P/N | Size 5 QD shells or size 4-5 Std Shells P/N | Inner diameter / cable diameter | Outer diameter |
|  | 2-2308349-4 | 1-2308348-1 | 3.0 | 4.0 |
| | 2-2308349-3 | 1-2308348-2 | 3.5 | 4.5 |
| | 2-2308349-2 | 1-2308348-3 | 4.0 | 5.0 |
| | 2-2308349-1 | 1-2308348-4 | 4.5 | 5.5 |
| | 2-2308349-0 | 1-2308348-5 | 5.0 | 6.0 |
| | 1-2308349-9 | 1-2308348-6 | 5.5 | 6.5 |
| | 1-2308349-8 | - | 5.7 | 6.7 |
| | 1-2308349-7 | 1-2308348-7 | 6.0 | 7.0 |
| | 1-2308349-6 | 1-2308348-8 | 6.5 | 7.5 |
| | 1-2308349-5 | 1-2308348-9 | 7.0 | 8.0 |
| | 1-2308349-4 | 1-2308348-0 | 7.6 | 8.5 |
| | 1-2308349-3 | 2-2308348-1 | 8.0 | 9.0 |
| | 1-2308349-2 | 2-2308348-2 | 8.5 | 9.5 |
| | 1-2308349-1 | 2-2308348-3 | 9.0 | 10.0 |
| | - | 2-2308348-4 | 9.5 | 10.5 |
| | - | 2-2308348-5 | 10.0 | 11.0 |
| | - | 2-2308348-6 | 10.5 | 11.5 |
| | - | 2-2308348-7 | 11.0 | 12.0 |

| Crimp barrel (in combination wth crimp flanges) | | | | |
|---|---|---|---|---|
| Picture | Part Number | Barrel Inner diame-ter/cable diameter | Barrel Outer diameter | PN recommended crimp insert |
|  | 1-2308350-1 | 5.0 | 6.0 | 1-2823558-8 |
| | 1-2308350-2 | 5.5 | 6.5 | 1-2823558-9 |
| | 1-2308350-3 | 6.0 | 7.0 | 2-2823558-0 |
| | 1-2308350-4 | 6.5 | 7.5 | 2-2823558-1 |
| | 1-2308350-5 | 7.0 | 8.0 | 2-2823558-2 |
| | 1-2308350-6 | 7.5 | 8.5 | 2-2823558-3 |
| | 1-2308350-7 | 8.0 | 9.0 | 2-2823558-4 |
| | 1-2308350-8 | 8.5 | 9.5 | 2-2823558-5 |
| | 1-2308350-9 | 9.0 | 1.0.0 | 2-2823558-6 |
| | 2-2308350-0 | 9.5 | 10.5 | 2-2823558-7 |
| | 2-2308350-1 | 10.0 | 11.0 | 2-2823558-8 |
| | 2-2308350-2 | 10.5 | 11.5 | 2-2823558-9 |
| | 2-2308350-3 | 11.0 | 12.0 | 3-2823558-0 |
| | 2-2308350-4 | 11.5 | 12.5 | 3-2823558-1 |
| | 2-2308350-5 | 11.7 | 13.0 | 3-2823558-2 |
| | 2-2308350-6 | 12.0 | 13.0 | 3-2823558-3 |
| | 2-2308350-7 | 12.5 | 13.5 | 3-2823558-4 |
| | 2-2308350-8 | 13.0 | 14.0 | 3-2823558-5 |
| | 2-2308350-9 | 13.7 | 15.0 | 3-2823558-6 |
| | 3-2308350-0 | 14.0 | 15.0 | 3-2823558-7 |
| | 3-2308350-1 | 14.5 | 15.5 | 3-2823558-8 |
| | 3-2308350-2 | 16.0 | 17.0 | 3-2823558-9 |

## Recommended Tooling



**Cable Jacket stripping tool**
2119000-1



**Crimp flange insert tool**
1-2314418-1 for small size flanges
1-2314418-2 for large size flanges



**Crimp tool**
1-2823557-1

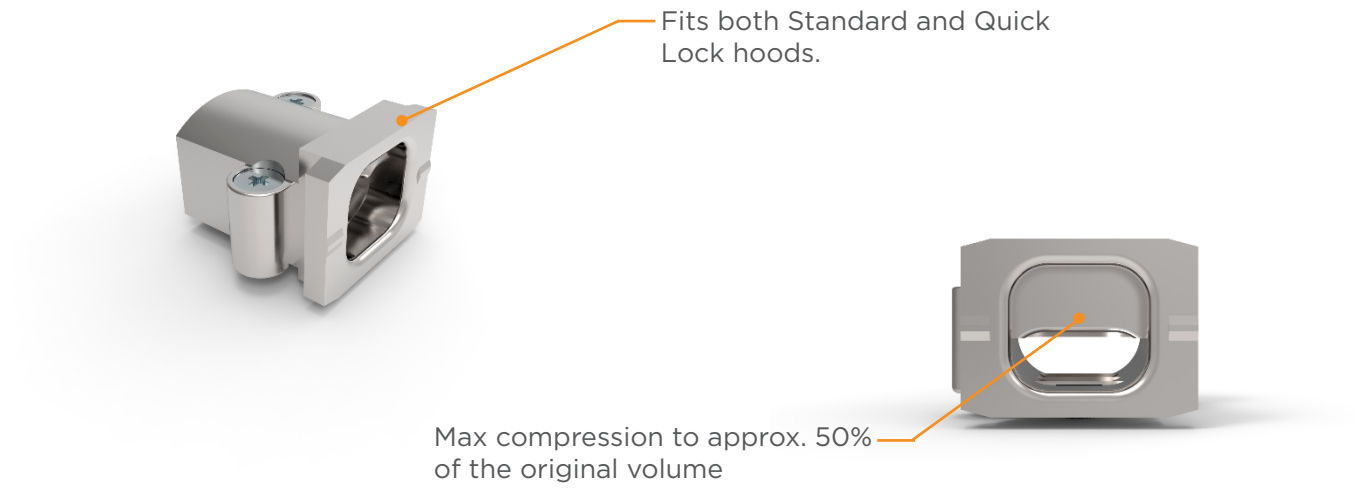


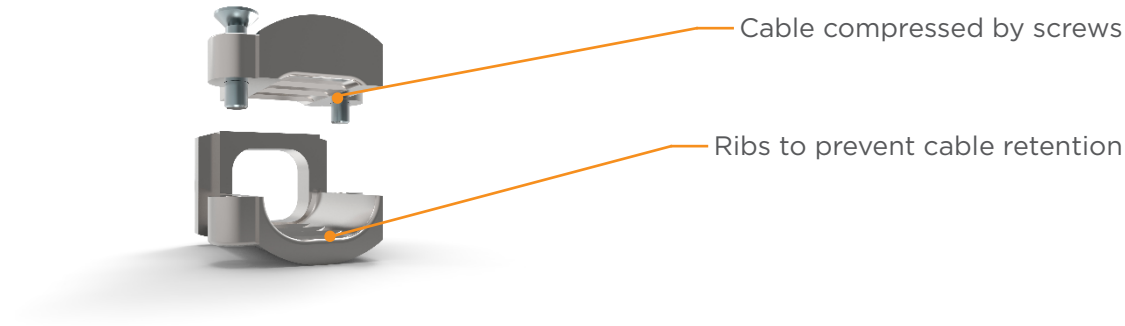
**Crimp Insert**
X-2823558-X (see table for recommended crimp insert)

## Cable Exit Options

### Option 2: Cable outlet with screws

For quick and easy installation requiring no special tools our cable outlet with screws option suits those needing a fast and simple installation. With a two piece cable clamp to allow for effective strain relief this cable exit is fitted with ribs to prevent cable retention.




## Ordering Information

| Fits on shells | | Cable diameter | Part Number |
|---|---|---|---|
| Standard shell | Quick Lock shell | | |
| Size 1-3 (small) | Size 1-4 | 4-7mm | 1-2308272-1 |
| | | 7-10mm | 1-2308272-2 |
| | | 9-12mm | 1-2308272-3 |
| | | 11-14mm | 1-2308272-4 |
| Size 4-5 (Large) | Size 5 | 8-10mm | 1-2308272-5 |
| | | 11-14mm | 1-2308272-6 |
| | | 14-16mm | 1-2308272-7 |

NOTES

## LET'S CONNECT

We make it easy to connect with our experts and are ready to provide all the support you need. Just call your local support number or visit www.te.com/industrial to chat with a Product Information Specialist.

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