

# TrustLink Metal Shell Connectors Rugged reliability - excellent performance



Built with advanced technology, robust materials, and MacArtney connectivity expertise, the TrustLink MS series is made of stainless steel and comes in three shell sizes that are compatible with industry standards. These high-density connectors are suitable for the harshest marine environments due to their rugged durability and reliability, and the compact modular design is advantageous where limited space is a factor.

The TrustLink MS range is available in several configurations from 4 to 37 electrical contacts and a Hybrid with 2FO and 4E contacts, offering excellent flexibility to subsea equipment and system operators.

Manufactured as standard in stainless steel, the TrustLink connector has a life expectancy of 25 years with cathodic protection and regular maintenance. Titanium is also an available option, offering a life expectancy of 25 years in subsea environments with no additional protection.

All electrical connectors and bulkheads can be supplied unterminated and are available globally from MacArtney entities

### Reversed male/female inserts

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The TrustLink series allows mounting of either a male or a female insert in the same housing, making it a very versa-

### **Highlighted specifications**

- Depth rating 600 bar/8,700 psi
- Available in 3 standard shell sizes
- Up to 25 A rating
- Designed and tested to the EN 60664-1 and EN 50393-Table 5 standard

#### Features and benefits

- Available globally from MacArtney entities
- CCP connectors are available in overmould and boot versions
- Interchangeable and reversible male/female inserts
- Compact modular design
- Anti-seizing surface
- Available in multiple configurations

### **Applications**

- ROV/AUV/trenchers
- Naval systems and equipment
- Oceanographic systems, equipment and instrumentation solutions
- Seismic/ocean bottom systems
- Subsea nodes
- Underwater camera, video and lighting
- Survey systems and instrumentation
- Offshore oil and gas systems
- Subsea renewable systems
- Power supply for underwater pumps
- Underwater telemetry systems
- Dredging
  - Harsh environment monitoring systems

### **Options**

- Can be supplied with moulding and termination
- Water blocked in case of cable damage
- Available for pressure balanced systems.
- Back pressure rated to 600 Bar
- Other materials are available on request









# Specifications - size

### **Electrical**

	4 contacts	8 contacts	12 contacts
Contact size:	14 AWG	18 AWG	20 AWG
Contact size:	2.1 mm <sup>2</sup>	0.8 mm <sup>2</sup>	0.5 mm <sup>2</sup>
Voltage rating:	600 VAC/VDC	600 VAC/VDC	250 VAC/VDC
Dielectric withstand:	4,000 VAC	4,000 VAC	2,500 VAC
Current rating Up to 4 contacts loaded:	25 A	12 A	12 A
Current rating Up to 10 contacts loaded:		8 A	7 A
Current rating All contacts loaded:	25 A	8 A	7 A

**Materials Environmental** 

Metal shell housing: Diamond polished AISI 316\*

Diamond polished Titanium G II

Locking sleeves: Diamond polished

Nickel Aluminium Bronze

C63000\*

Diamond polished Titanium G II Diamond polished AISI 316\*

Diamond polished Titanium G II

POM Dust cap:

Electrical insert: Glass reinforced high perfor-

mance thermoplastic

O-ring: FPM-75

Qualified pressure tested: Mated 720 bar/10,400 psi Depth rating: Mated 600 bar/8,700 psi

Temperature rating:

Water: -4 to 70°C/25 to 158°F Air: -25 to 70°C/13 to 158°F -25 to 70°C/13 to 158°F Storage:

### **Standards**

Creepage distances

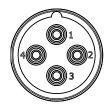
EN 60664-1, tables F2 and F4 and clearance:

Electrical low voltage

EN 50393, table 5 tests:

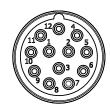
Pressure cap:

# Face view (male)

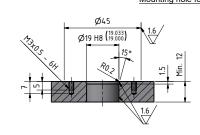


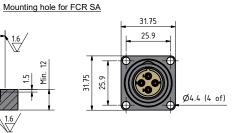
Mounting hole for BCR SA





Ø20.57 H8 (20.607)

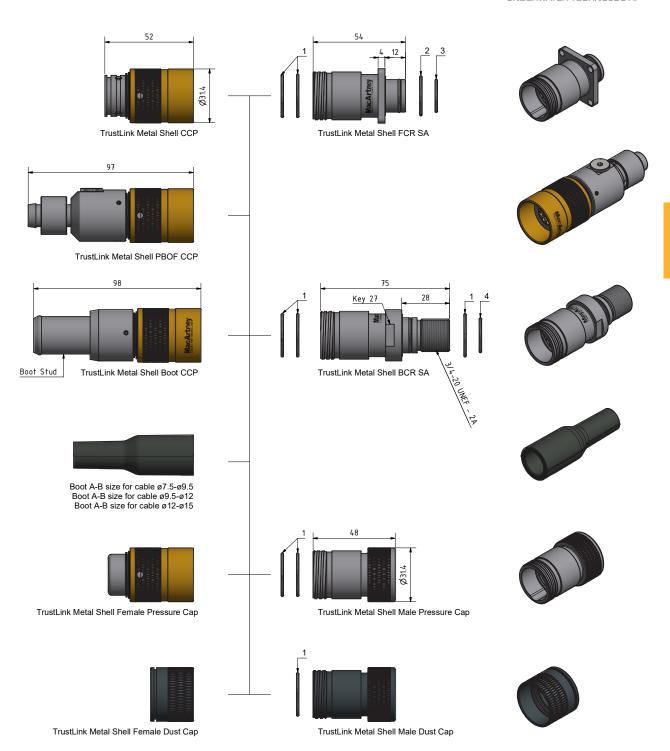




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<sup>\*</sup>Other materials on request





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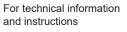
1. ø22.5 x 1.5 FPM-75

2. ø20.5 x 1.5 FPM-75

3. ø16.5 x 1.5 FPM-75

4. ø17.5 x 1.5 FPM-75

All measurements in millimetres (mm)







# Specifications - size B

# **Electrical**

	16 contacts		19 contacts
Contact size:	2 x 16 AWG	14 x 20 AWG	20 AWG
Contact size:	1.3 mm <sup>2</sup>	0.5 mm <sup>2</sup>	0.5 mm <sup>2</sup>
Voltage rating:	600 VAC/VDC	250 VAC/VDC	250 VAC/VDC
Dielectric withstand:	4,000 VAC	2,500 VAC	2,500 VAC
Current rating Up to 4 contacts loaded:	20 A	12 A	12 A
Current rating Up to 10 contacts loaded:	11 A	7 A	7 A
Current rating All contacts loaded:	9 A	6 A	6 A

# Materials

Pressure cap:

Metal shell housing: Diamond polished AISI 316\*
Diamond polished Titanium G II

Locking sleeves: Diamond polished

Nickel Aluminium Bronze

C63000\*

Diamond polished Titanium G II

Diamond polished AISI 316\*

Diamond polished Titanium G II

Dust cap: POM

Electrical insert: Glass reinforced high perfor-

mance thermoplastic

O-ring: FPM-75

# **Environmental**

Qualified pressure tested: Mated 720 bar/10,400 psi
Depth rating: Mated 600 bar/8,700 psi
Temperature rating:
Water: -4 to 70°C/25 to 158°F

Water: -4 to 70°C/25 to 158°F
Air: -25 to 70°C/13 to 158°F
Storage: -25 to 70°C/13 to 158°F

### **Standards**

Creepage distances and clearance:

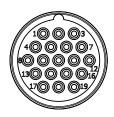
EN 60664-1, tables F2 and F4

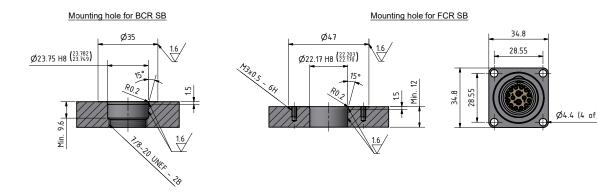
Electrical low voltage

tests: EN 50393, table 5

### Face view (male)



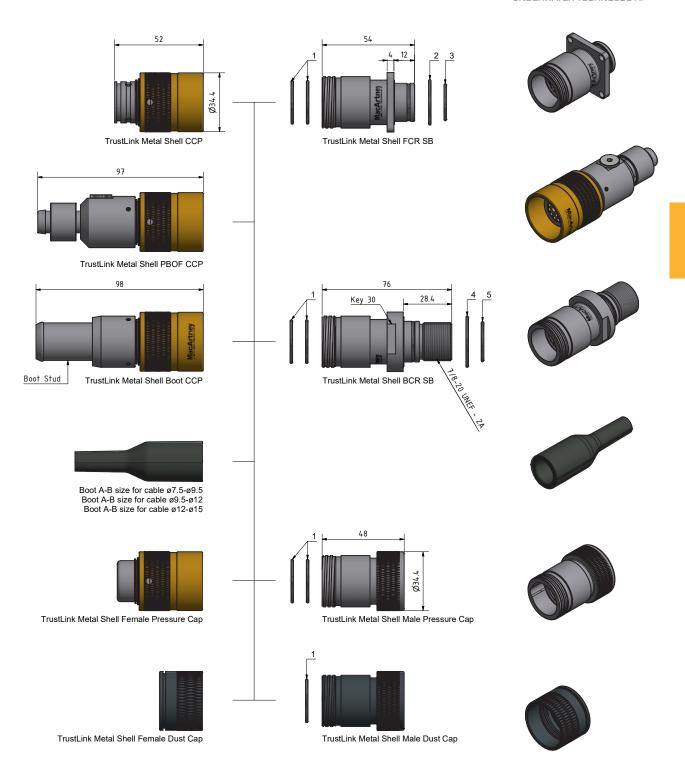




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<sup>\*</sup>Other materials on request

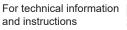




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- 1. ø22.5 x 1.5 FPM-75
- 2. ø23.5 x 1.5 FPM-75
- 3. ø18.5 x 1.5 FPM-75
- 4. ø27.0 x 1.5 FPM-75
- 5. ø20.5 x 1.5 FPM-75

All measurements in millimetres (mm)



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# Specifications - size C

### **Electrical**

 Z6 contacts
 37contacts

 Contact size:
 20 AWG
 20 AWG

 Contact size:
 0.5 mm²
 0.5 mm²

 Voltage rating:
 250 VAC/VDC
 250 VAC/VDC

 Dielectric withstand:
 2,500 VAC
 2,500 VAC

Current rating

Up to 4 contacts loaded: 12 A 12 A

Current rating

Up to 10 contacts loaded: 7 A 7 A

Current rating

All contacts loaded: 5 A 5 A

### **Materials**

Metal shell housing: Diamond polished AISI 316\*

Diamond polished Titanium G II

Locking sleeves: Diamond polished

Nickel Aluminium Bronze

C63000\*

Diamond polished Titanium G II

Pressure cap: Diamond polished AISI 316\*

Diamond polished Titanium G II

Dust cap: POM

Electrical insert: Glass reinforced high perfor-

mance thermoplastic

O-ring: FPM-75

### **Environmental**

Qualified pressure tested: Mated 720 bar/10,400 psi
Depth rating: Mated 600 bar/8,700 psi

Temperature rating:

Water: -4 to 70°C/25 to 158°F
Air: -25 to 70°C/13 to 158°F
Storage: -25 to 70°C/13 to 158°F

### **Standards**

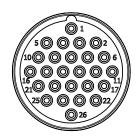
Creepage distances

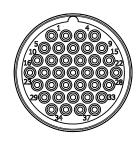
and clearance: EN 60664-1, tables F2 and F4

Electrical low voltage

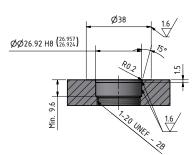
tests: EN 50393, table 5

### Face view (male)

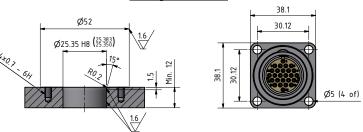




### Mounting hole for BCR SC



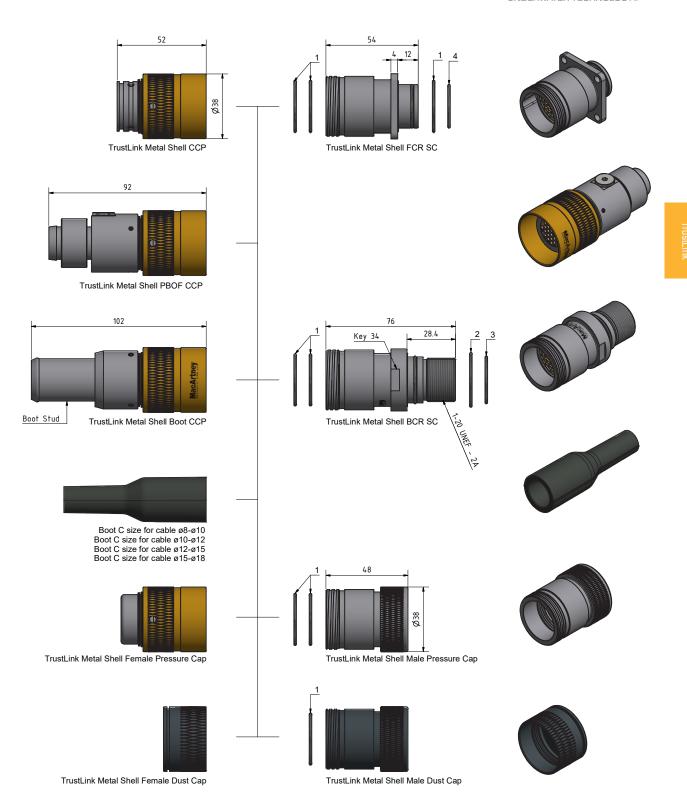
### Mounting hole for FCR SC



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<sup>\*</sup>Other materials on request

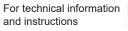




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- 1. ø27.5 x 1.5 FPM-75
- 2. ø29.0 x 1.5 FPM-75
- 3. ø25.0 x 1.5 FPM-75
- 4. ø22.5 x 1.5 FPM-75

All measurements in millimetres (mm)



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# Specifications - hybrid

### **Electrical**

4 contacts

Contact size: 2 x 16 AWG
Voltage rating: 600 VAC/800 VDC

Contact size: 2 x 20 AWG
Voltage rating: 250 VAC/350 VDC

Current rating -

all contacts loaded: 5 A

### **Materials**

Metal shell housing: Diamond polished AISI 316\*

Locking sleeves: Diamond polished

Nickel Aluminium Bronze

C63000\*

Pressure cap: Diamond polished AISI 316\*

Dust cap: POM

Insert: Stainless steel
O-ring: FPM-75

# Optical (single mode)

Wavelength: 1,310 to 1,550 nm Attenuation: Max 2.5 dB,

Typical 1.0-1.5 dB (when mated)

Fibre types: 9/125 µm

Connector back reflection: 40 dB (typical) 32 dB (max)

Optical passes: 2 passes

# Optical specifications (multi mode)

Wavelength: 850 to 1,300 nm Attenuation: Max 2.5 dB

Typical 1.0-1.5 dB (when mated)

Fibre types:  $50/125 \mu m$  Optical passes: 2 passes

### Environmental

Qualified pressure tested: Mated 720 bar/10,400 psi

Depth rating: Mated 600 bar/8,700 psi (dry box)

Temperature rating:

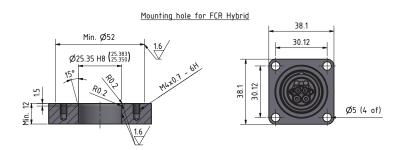
Water: -4 to 70°C/25 to 158°F
Air: -25 to 70°C/13 to 158°F
Storage: -25 to 70°C/13 to 158°F

# Recommended cable

Type 3644 CC or 3780 CC



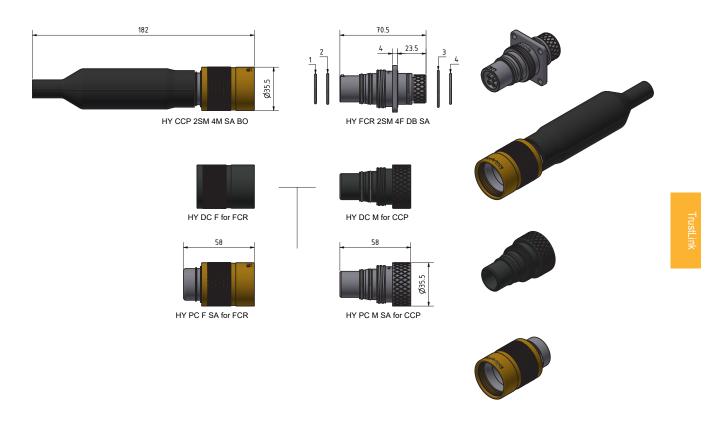




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<sup>\*</sup>Other materials on request





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1. ø20.35 x 1.78 FPM-75

2. ø21.95 x 1.78 FPM-75

3. ø27.50 x 1.50 FPM-75

4. ø22.50 x 1.50 FPM-75

All measurements in millimetres (mm)

For technical information and instructions

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