

SEACON GRE (Glass Reinforced Epoxy) Electrical Dry-Mate Connectors

GRE Electrical Dry-Mate Connectors
Provide Rugged and Deepwater Connectivity
Solutions for Harsh Environments

SEACON

GRE Electrical Dry-Mate Connectors

Rugged and Deepwater Connectivity Solutions for Harsh Environments



KEY FEATURES

- Dry-mate connector
- 4 connector sizes
- 1 to 36 contacts
- Optic & oil filled available
- Up to 20,000 psig (approx. 45,000ft / 13,700m) mated
- Open face rated option available
- Right angle overmold option available
- Up to 2,800 VDC
- Up to 200 amps
- Glass reinforced epoxy, stainless steel
- Typical uses: Lights, cameras and Remotely Operated Vehicles (ROV)'s

TE Connectivity (TE)'s standard SEACON Glass Reinforced Epoxy (GRE) line of connectors consists of gold plated contacts molded in glass reinforced epoxy.

These keyed connectors are available in a wide variety of sizes with contact patterns up to 36 contacts and pressure ratings up to 20,000 psig (approx. 45,000ft/13,700m) mated. Many of these connectors are available in stainless steel for increased ruggedness.

APPLICATION

- Deep Ocean and Ship Sub-Surface Electronics
- ROV's
- Underwater Cameras and Lights
- Diver Communication Systems
- Mine Counter Measure Assemblies
- Survey Equipment

SPECIFICATIONS

- **Mated Pressure:** Up to 20,000 psig mated
- **Voltage Rating:** Up to 2,800 VDC. Please see page 19 for specific ratings
- **Current:** Up to 200 amps

MATERIALS

- **XS-BCR/CCR/CCP Body:** Glass Reinforced Epoxy (GRE) B/A XS-2748
- **MSX-BCR Body:** 316 Stainless Steel
- **Contact Inserts:** Glass Reinforced Epoxy (GRE) B/A XS-2748
- **Electrical Contacts:** Copper Alloy and Gold plated per MIL-G-45204
- **O-Ring:** Nitrile (formerly known as Buna N)

OPTIONS

- **Pressure Balanced Oil Filled (PBOF)**
- **Coax available**
- **Optic version (please see separate Fiber Optic brochure)**
- **Cable termination additional**

Notes:

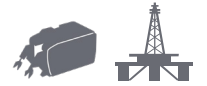
- Connectors are designed for installation on 1 atmosphere vessels. Please contact TE for recommendations if using compensated vessels.
- Torque values shown in this brochure refers to installation into dry metal threads.

TE Components . . . TE Technology . . . TE Know-how . . .

AMP | AGASTAT | CII | HARTMAN | KILOVAC | MICRODOT | NANONICS | POLAMCO | Raychem

SEACON | Rochester | DEUTSCH

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GRE Connectors

Ordering Information

XXX - X - XXX

Family Designator _____

- XSEE
- MSXEE
- XSJJ
- MSXJJ
- XSL
- MSXL
- XSM
- MSXM

Number of Contacts _____

Connector Type _____

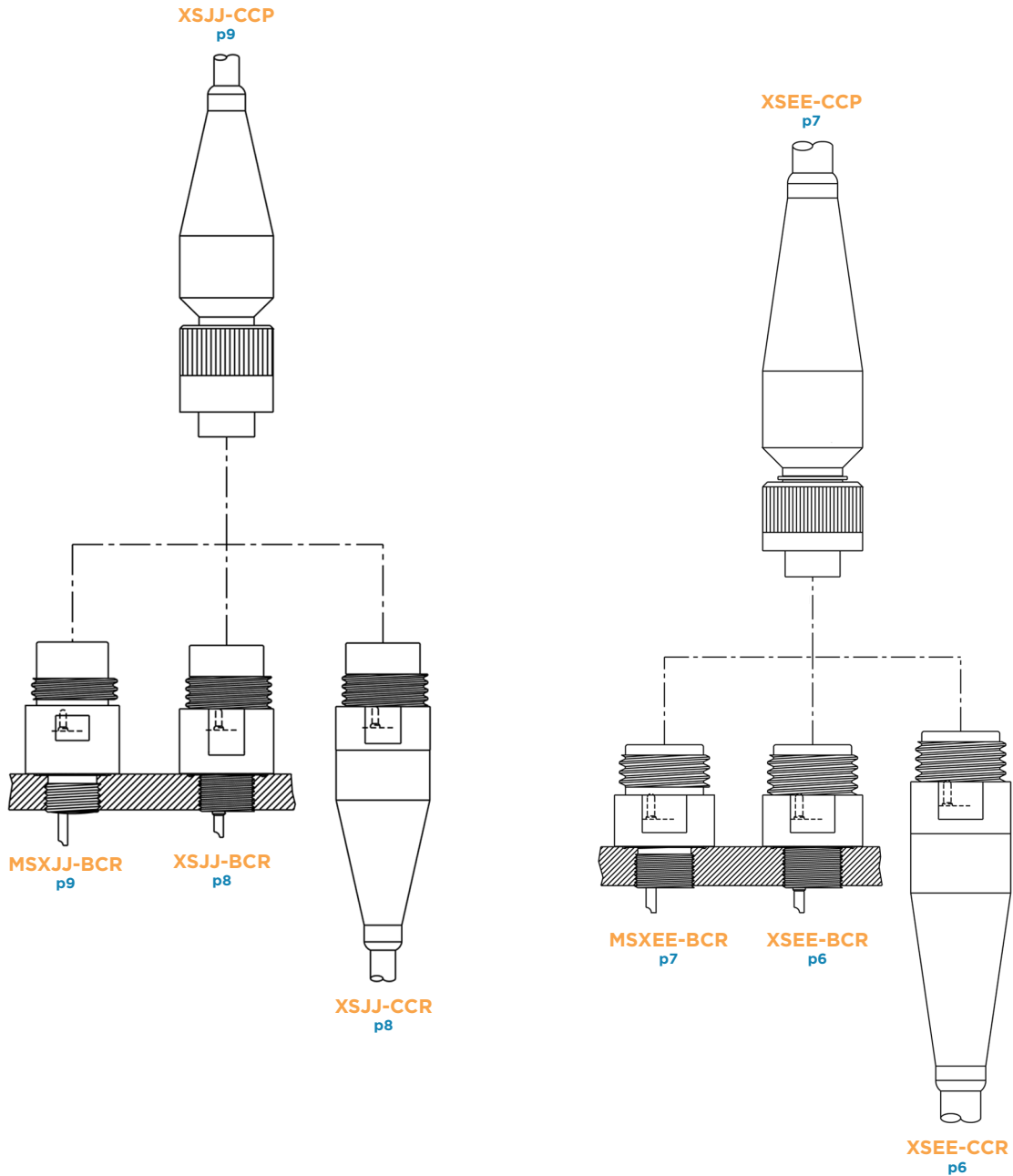
- BCR** Bulkhead Connector Receptacle
- CCR** Cable Connector Receptacle
- CCP** Cable Connector Plug

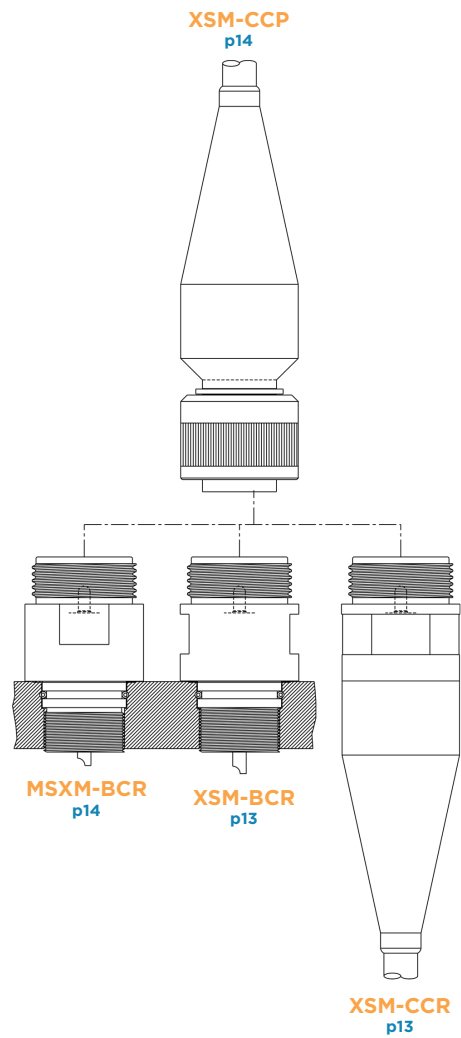
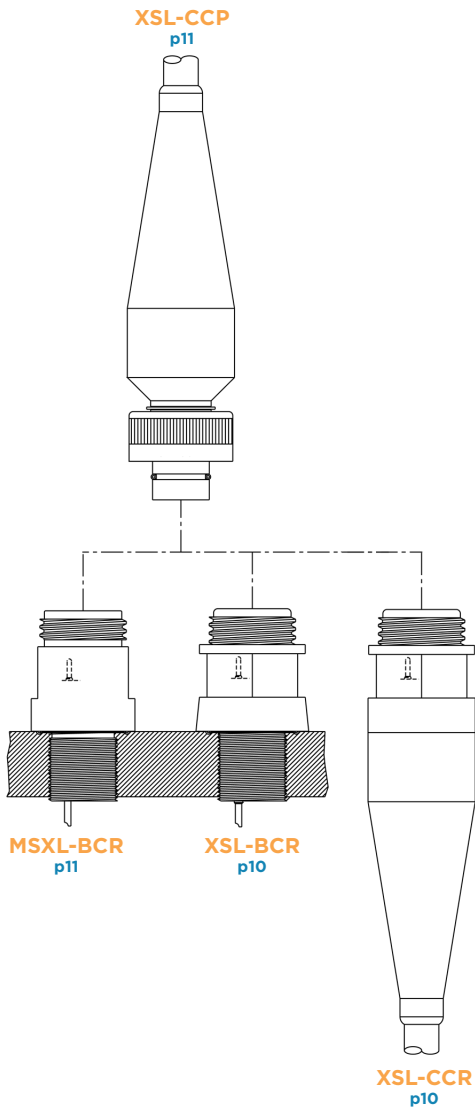


Visual Index

Non Metallic Connector Series

XSJJ Series Supersedes the XSJ Series

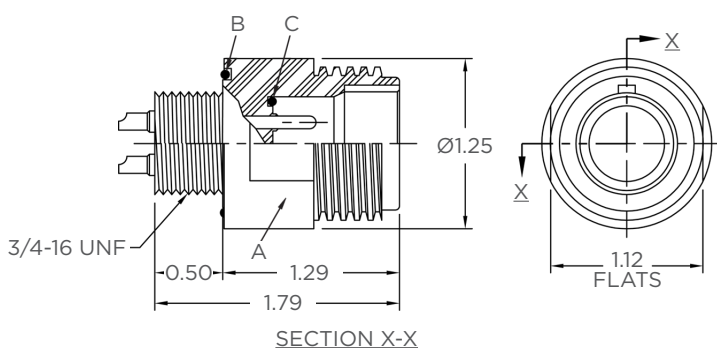






XSEE-BCR

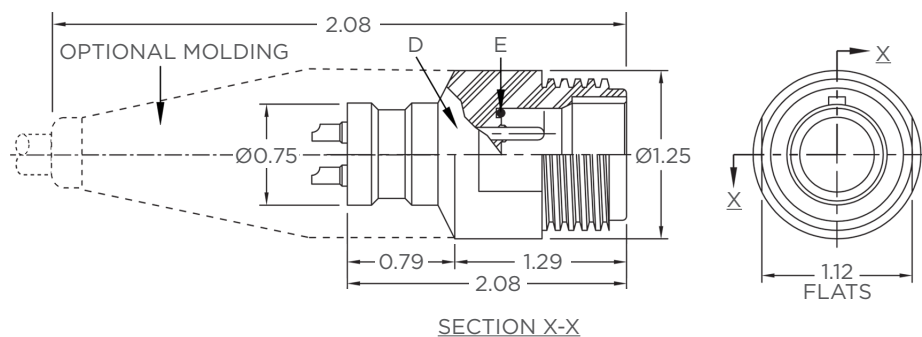
Bulkhead Connector Receptacle



A Connector Body	B O-Ring	C O-Ring	Part Number
XSEE-BCR	2-021	5-001	XSEE-X-BCR

XSEE-CCR

Cable Connector Receptacle



D Connector Body	E O-Ring	Part Number
XSEE-CCR	5-001	XSEE-X-CCR

Notes:

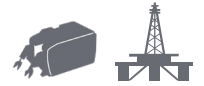
- **Body:** Glass Reinforced Epoxy B/A XS-2748.
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **O-ring:** Nitrile (formerly known as Buna N).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 75 in-lbs in dry metal threads (XSEE-BCR).
- **Maximum Cable Diameter:** 0.62 (XSEE-CCR).

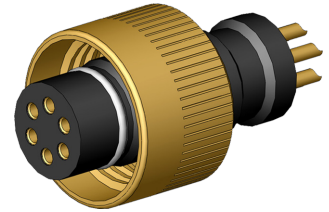
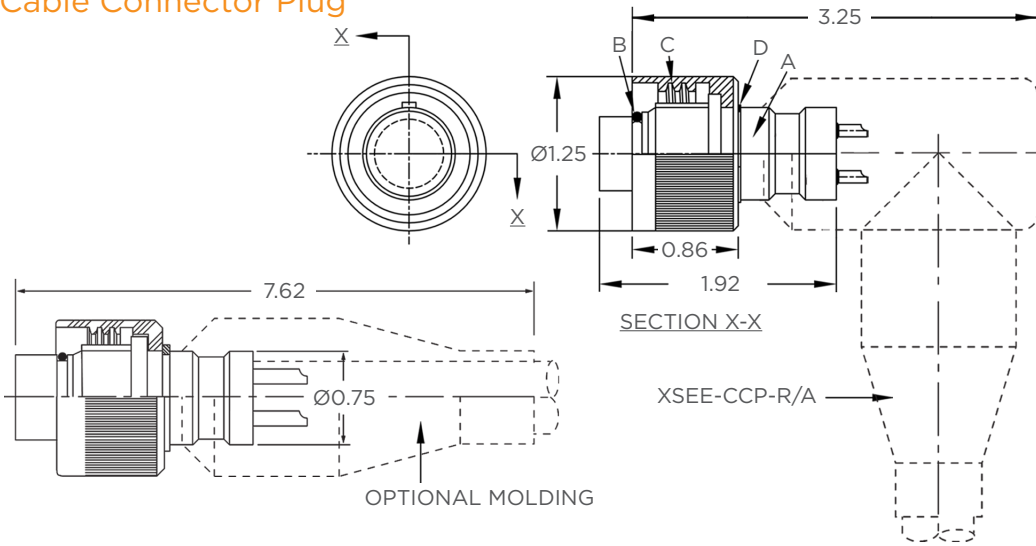
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (XSEE-BCR).
- Nut and washer set for Bulkhead Connector installation (XSEE-BCR)
- Cable and molding is optional at additional cost (XSEE-CCR).
- Open face pressure resistance.



XSEE-CCP

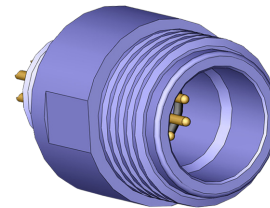
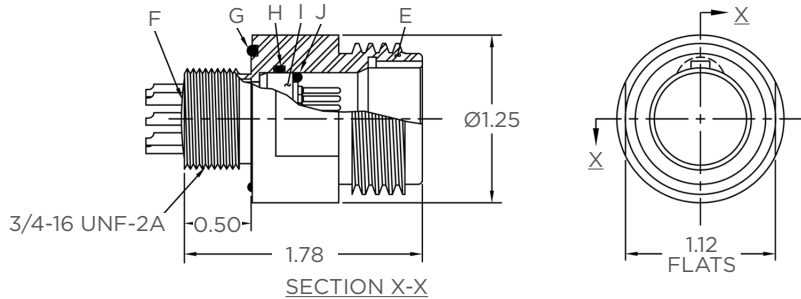
Cable Connector Plug



A Connector Body	B O-Ring	C	D Retaining Ring	Part Number
XSEE-CCP	2-015	Engaging Nut	5100-75	XSEE-X-CCP

MSXEE-BCR

Bulkhead Connector Receptacle



E Connector Shell	F	G O-Ring	H O-Ring	I	J O-Ring	Part Number
MSXEE-BCR	Potting	2-021	2-017	MSXEE-CIR	5-001	MSXEE-X-BCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748 (XSEE-CCP).
- **Shell:** 316 Stainless Steel, passivated (MSXEE-BCR).
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **O-ring:** Nitrile (formerly known as Buna N).
- **Back Potting:** White Epoxy (MSXEE-BCR).
- **Engaging Nut:** Polyacetal (XSEE-CCP).
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSEE-CCP).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Maximum Cable Diameter:** 1.000 for straight and 0.500 for right angle (XSEE-CCP).

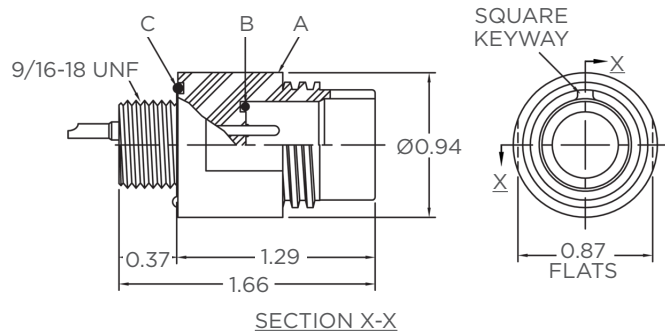
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (MSXEE-BCR).
- Nut and washer set for Bulkhead Connector installation (MSXEE-BCR).
- Cable and molding is optional at additional cost (XSEE-CCP).
- Open face pressure resistance.



XSJJ-BCR

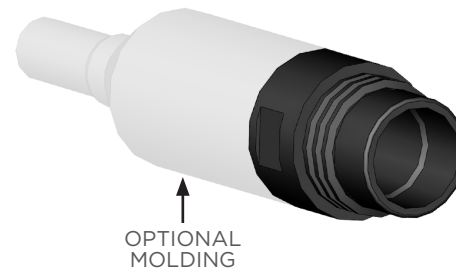
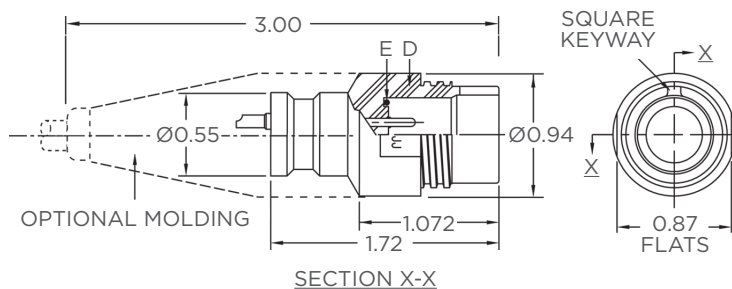
Bulkhead Connector Receptacle



A Connector Body	B O-Ring	C O-Ring	Part Number
XSJJ-BCR	5-058	5-254	XSJJ-X-BCR

XSJJ-CCR

Cable Connector Receptacle



D Connector Body	E O-Ring	Part Number
XSJJ-CCR	5-058	XSJJ-X-CCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748.
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **Insert:** Glass Reinforced Epoxy B/A XS-2748 (MSXJ-BCR).
- **O-ring:** Nitrile (formerly known as Buna N).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 20 in-lbs in dry metal threads.
- **Maximum Cable Diameter:** 0.750 (XSJJ-CCR).

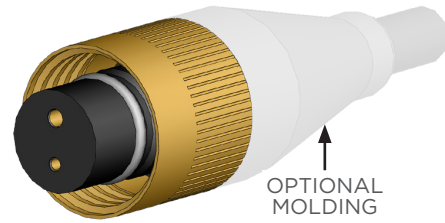
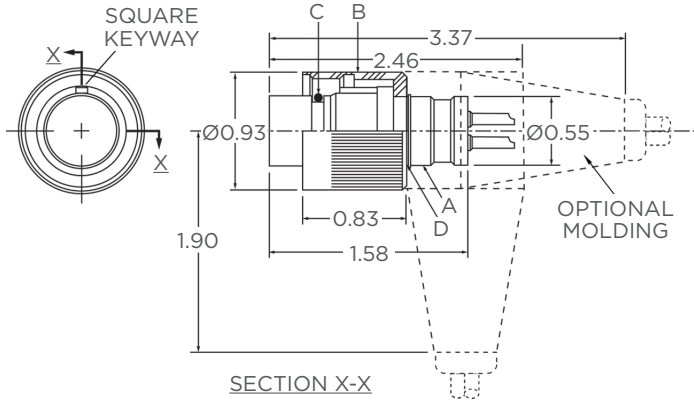
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (MSXJ-BCR).
- Nut and washer set for Bulkhead Connector installation (MSXJ-BCR).
- Cable and molding is optional at additional cost (XSJJ-CCR).
- Open face pressure resistance.



XSJJ-CCP

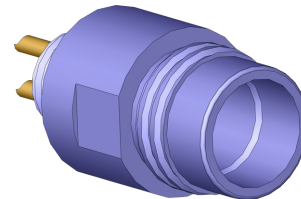
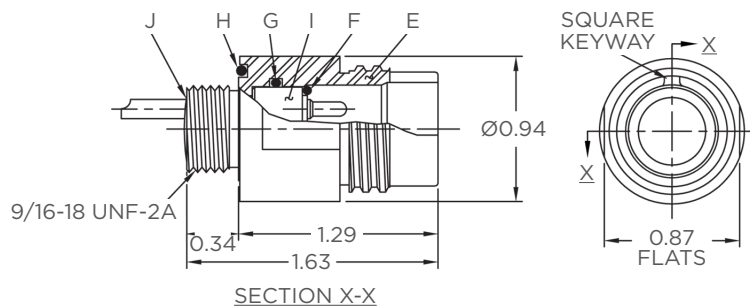
Cable Connector Plug



A Connector Body	B	C O-Ring	D Retaining Ring	Part Number
XSJJ-CCP	Engaging Nut	2-013	5100-55	XSJJ-X-CCP

MSXJJ-BCR

Bulkhead Connector Receptacle



E Connector Shell	F O-Ring	G O-Ring	H O-Ring	I	J	Part Number
MSXJJ-BCR	5-058	2-015	5-254	MSXJJ-CIR	Potting	MSXJJ-X-BCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748 (XSJJ-CCP).
- **Shell:** 316 Stainless Steel, passivated (MSXJJ-BCR).
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **Engaging Nut:** Polyacetal (XSJJ-CCP).
- **O-ring:** Nitrile (formerly known as Buna N).
- **Insert:** Glass Reinforced Epoxy B/A XS-2748 (MSXJJ-BCR).
- **Back Potting:** White Epoxy (MSXJJ-BCR).
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSJJ-CCP).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 20 in-lbs in dry metal threads.
- **Maximum Cable Diameter:** 0.875 (XSJJ-CCP).

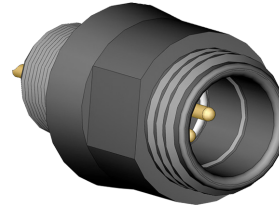
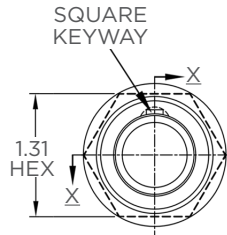
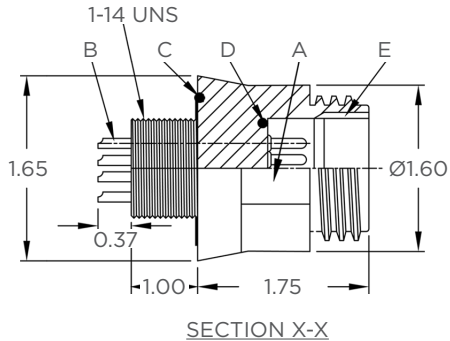
Options:

- Cable and molding is optional at additional cost (XSJJ-CCP).
- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (MSXJJ-BCR).
- Nut and washer set for Bulkhead Connector installation (MSXJJ-BCR).
- Open face pressure resistance.



XSL-BCR

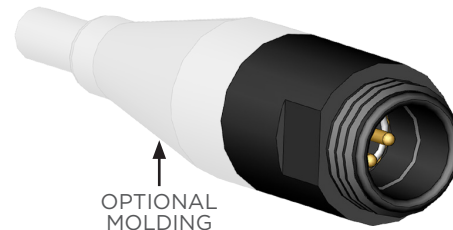
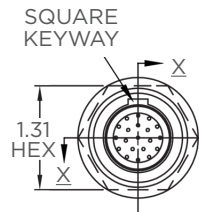
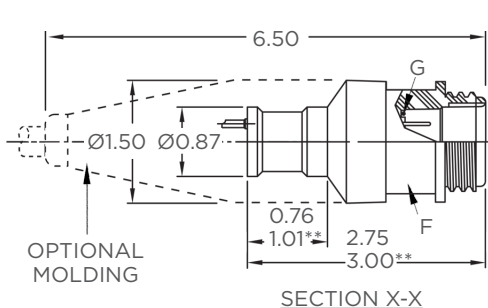
Bulkhead Connector Receptacle



A Connector Body	B	C O-Ring	D O-Ring*	E	Part Number
XSL-BCR	Electrical Contact (Solder Pots)	2-123	2-016	Keyway	XSL-X-BCR

XSL-CCR

Cable Connector Receptacle



F Connector Body	G O-Ring*	Part Number
XSL-CCR	2-016	XSL-X-CCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748.
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **O-ring:** Nitrile (formerly known as Buna N).
- * XSL-20-BCR/CCR utilizes o-ring 5-254.
- ** XSL-20-CCR dimensions only.
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 20,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 130 in-lbs in dry metal threads (XSL-BCR).
- **Maximum Cable Diameter:** 0.87 (XSL-CCR).

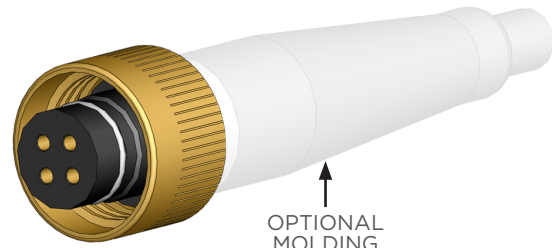
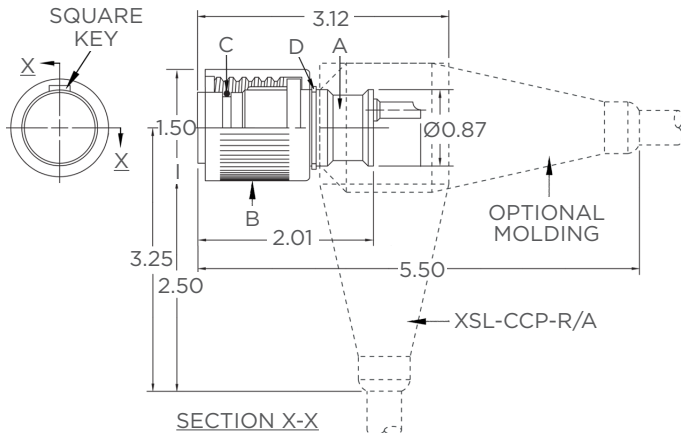
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (XSL-BCR).
- Nut and washer set for Bulkhead Connector installation (XSL-BCR).
- Cable and molding is optional at additional cost (XSL-CCR).
- Open face pressure resistance.



XSL-CCP

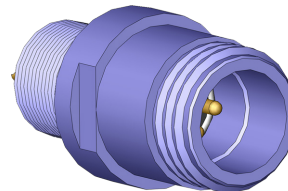
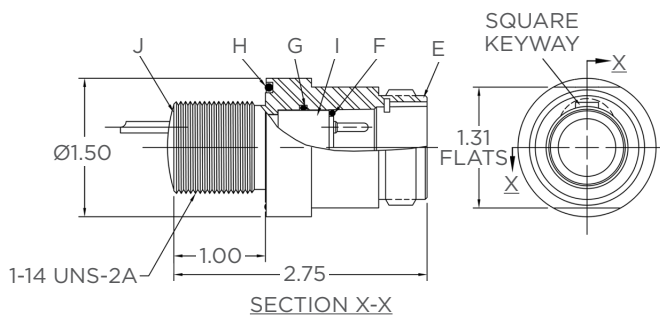
Cable Connector Plug



A Connector Body	B	C O-Ring	D Retaining Ring	Part Number
XSL-CCP	ENGAGING NUT	2-017	5100-87	XSL-X-CCP

MSXL-BCR

Bulkhead Connector Receptacle



E Connector Shell	F O-Ring	G O-Ring	H O-Ring	I	J	Part Number
MSXL-CCR	2-017	2-019	2-123	MSXL-CIR	Potting	MSXL-X-CCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748 (XSL-CCP).
- **Shell:** 316 Stainless Steel, passivated (MSXL-BCR).
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **Insert:** Glass Reinforced Epoxy B/A XS-2748 (MSXL-BCR).
- **O-ring:** Nitrile (formerly known as Buna N).
- **Engaging Nut:** Polyacetal (XSL-CCP).
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSL-CCP).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 20,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Maximum Cable Diameter:** 0.87 (includes XSL-CCP-R/A).
- **Mounting Torque:** 130 in-lbs in dry metal threads (MSXL-BCR).

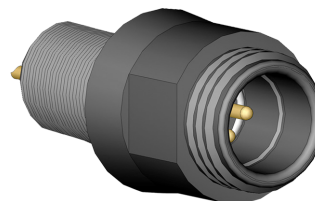
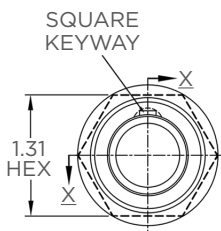
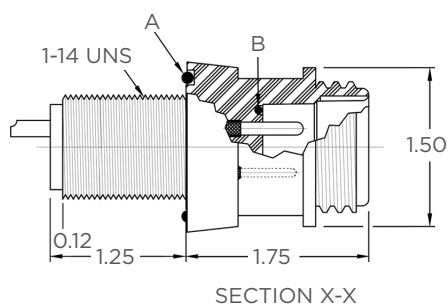
Options:

- Cable and molding is optional at additional cost (XSL-CCP).
- 18 inch TFE insulated wire pigtails are an option as are customer specified tails (MSXL-BCR).
- Nut and washer set for Bulkhead Connector installation (MSXL-BCR).
- Open face pressure resistance.



XSL-BCR-PBOF

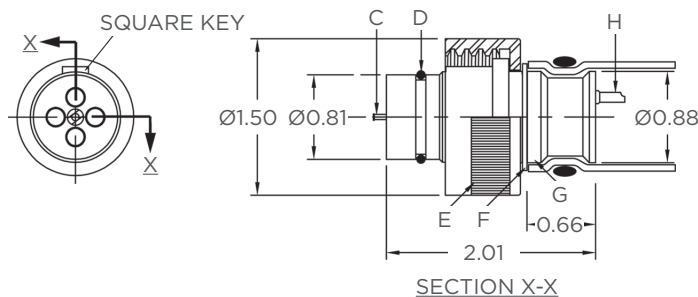
Bulkhead Connector Receptacle - Pressure Balanced Oil Filled



Connector Body	A O-Ring	B O-Ring	Part Number
XSL-BCR-PBOF	2-123	2-016	XSL-X-BCR-PBOF

XSL-CCP-PBOF

Cable Connector Plug - Pressure Balanced Oil Filled



Connector Body	C	D O-Ring	E	F	G	H	Part Number
XSL-CCP-PBOF	Oil Compensated Valve	2-017	Engaging Nut	Retaining Ring	Diameter on Body for Tubing Termination	Solder Pots	XSL-X-CCP-PBOF

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748.
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **O-ring:** Nitrile (formerly known as Buna N).
- Internal o-ring is 2-016 for all patterns, however XSL-12 and 20 utilize o-ring 5-254.
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSL-CCP-PBOF).
- **Recommended Tubing Size:** 0.75 ID (Tubing not supplied with parts unless specified) (XSL-CCP-PBOF).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 130 in-lbs in dry metal threads (XSL-BCR-PBOF).

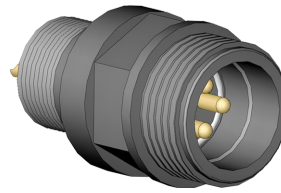
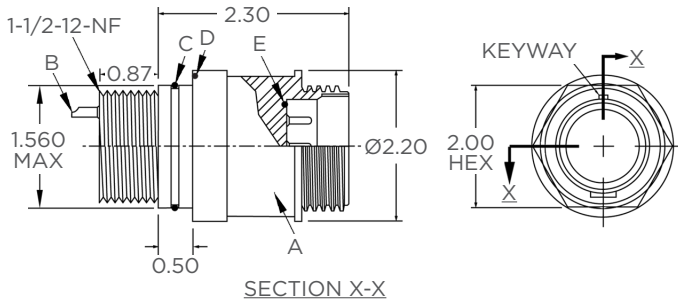
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails.
- Nut and washer set for Bulkhead Connector installation (XSL-BCR-PBOF).



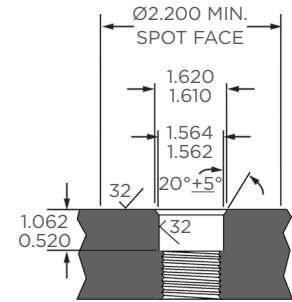
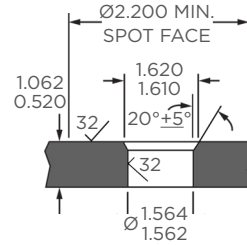
XSM-BCR

Bulkhead Connector Receptacle



Threaded Mounting Option

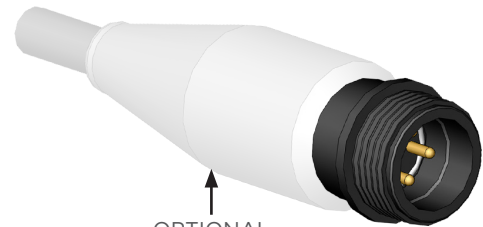
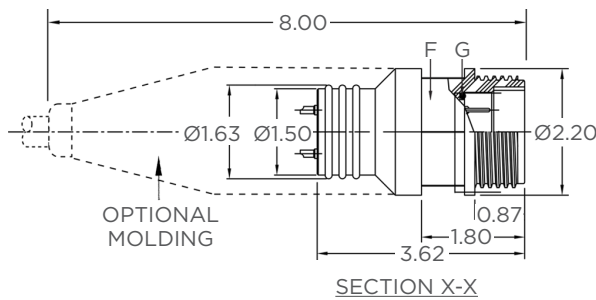
Through Bore Option



A Connector Body	B	C O-Ring	D O-Ring	E O-Ring	Part Number
XSM-BCR	Electrical Contact	2-126	2-132	2-122	XSM-X-BCR

XSM-CCR

Cable Connector Receptacle



OPTIONAL MOLDING

F Connector Body	G O-Ring	Part Number
XSM-CCR	2-122	XSM-X-CCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748.
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **O-ring:** Nitrile (formerly known as Buna N).
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSM-CCP).
- See page 19 for all contact configurations available.

Options:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Mounting Torque:** 200 in-lbs in dry metal threads (XSM-BCR).
- **Maximum Cable Diameter:** 1.125 (XSM-CCP).

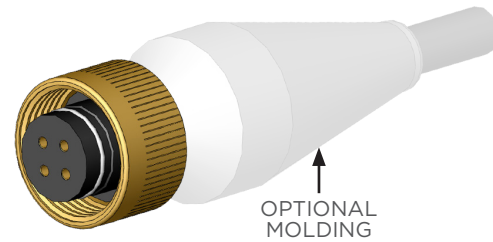
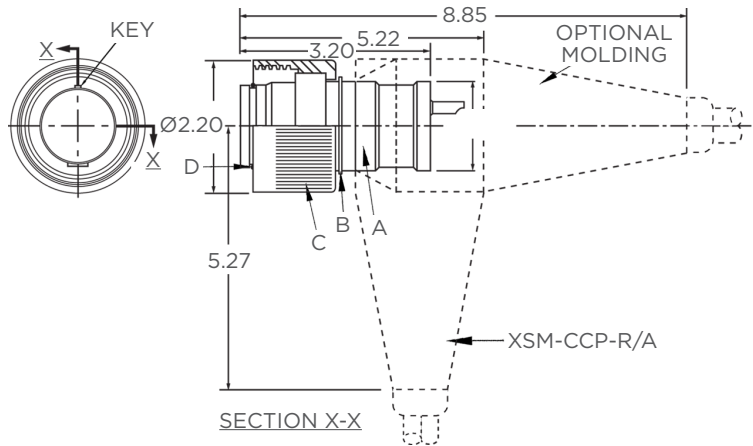
Options:

- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (XSM-BCR).
- Nut and washer set for Bulkhead Connector installation (XSM-BCR).
- Cable and molding is optional at additional cost (XSM-CCP).
- Open face pressure resistance.



XSM-CCP

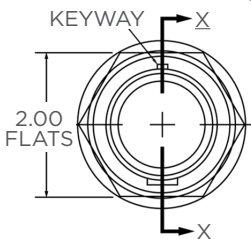
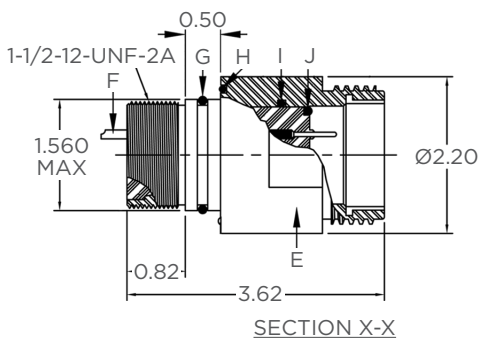
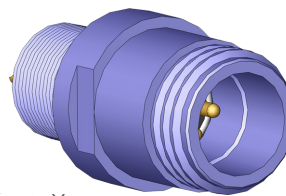
Cable Connector Plug



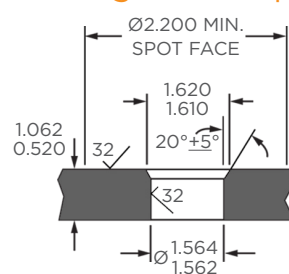
A Connector Body	B Retaining Ring	C Engaging Nut	D O-Ring	Part Number
XSM-CCP	5600-137H	Stainless Steel	2-026	XSM-X-CCP

MSXM-BCR

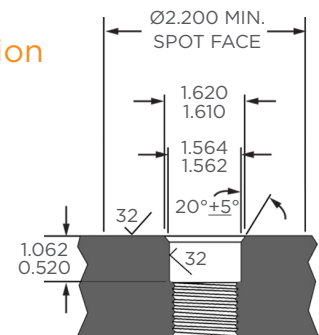
Bulkhead Connector Receptacle



Through Bore Option



Threaded Mounting Option



E Connector Shell	F	G O-Ring	H O-Ring	I O-Ring	J O-Ring	Part Number
MSXM-BCR	Electrical Contact	2-126	2-132	2-126	2-122	MSXM-X-BCR

Notes:

- **Body:** Glass Reinforced Epoxy B/A XS-2748 (XSM-CCR).
- **Shell:** 316 Stainless Steel, passivated (MSXM-BCR).
- **Contacts:** Copper Alloy and Gold plated per MIL-G-45204.
- **Insert:** Glass Reinforced Epoxy B/A XS-2748 (MSXM-BCR).
- **O-ring:** Nitrile (formerly known as Buna N).
- **Retaining Ring:** Stainless Steel, PH 15-7 MO (XSM-CCP).
- See page 19 for all contact configurations available.

Specifications:

- **Pressure:** Atmospheric to 10,000 psi mated.
- **Temperature Range:** -57°C to +93°C (-70°F to +200°F).
- **Maximum Cable Diameter:** 1.125 (XSM-CCP).
- **Mounting Torque:** 200 in-lbs in dry metal threads (MSXM-BCR).

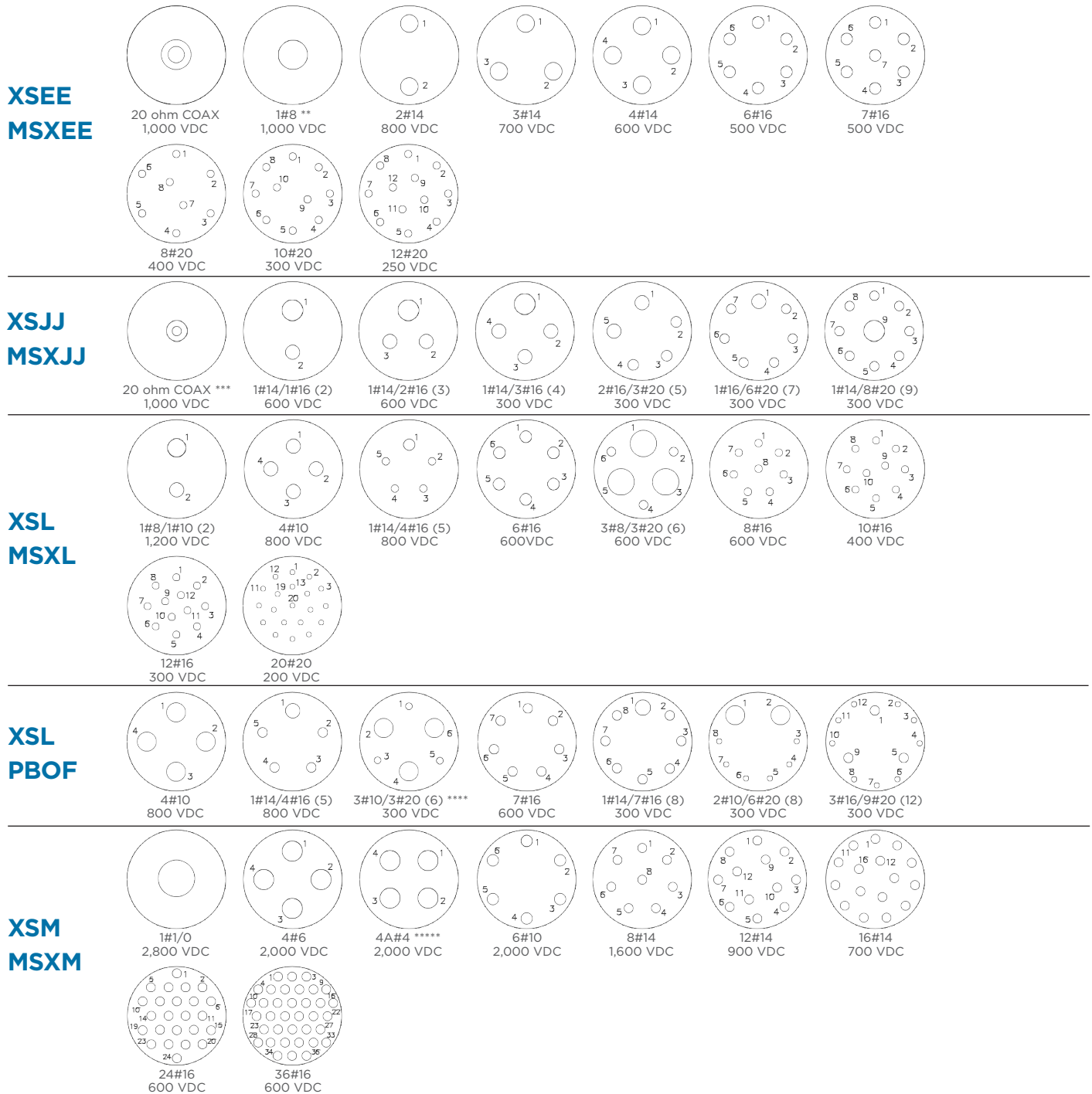
Options:

- Cable and molding is optional at additional cost (XSM-CCP).
- 18 inch TFE insulated wire pigtailed are an option as are customer specified tails (MSXM-BCR).
- Nut and washer set for Bulkhead Connector installation (MSXM-BCR).
- Open face pressure resistance.



Contact Configurations

BCR Face View Only* - Not to Scale



Notes:

- Current ratings maybe impacted by cable selection.
- * For CCP face view contact configurations available please contact TE.
- ** Currently not available in MSXEE-BCR.
- *** Currently not available in XSJJ/MSXJJ.
- **** Currently not available in MSXL-BCR.
- ***** Currently not available in XSM-BCR.

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