

S E A C O N

GLOBE-CON

UNDERWATER ELECTRICAL DRY-MATE CONNECTORS



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INTRODUCTION

SEACON is pleased to announce the release of a new connector range. Originally developed for a major offshore development project, the GLOBE-CON series is a small diameter, dry-mate connector. The Bulkhead Connector Receptacle (BCR) has a GRE (Glass Reinforced Epoxy) insert with a metal shell and utilizes gold plated contacts and Viton o-rings. The Cable Connector Plug (CCP) is also manufactured from GRE and is molded in Neoprene to standard or custom cable lengths upon request, although other component materials are available for high temperature and high pressure applications. This innovative connector design also incorporates a spring ring device to improve reliability in high vibration environments.

AVAILABILITY

The GLOBE-CON series is currently available in 2 shell sizes with up to 12 contacts, however more configurations are due to be added to the range at a later date. Sturdy and robust, this connector range has the ability to withstand temperatures of upto 140 degrees Fahrenheit (although higher temperature versions are available by special order) with a mated pressure rating of 10,000 psi (22,500ft/7,000m).

APPLICATIONS

This new connector range is suitable for many applications including ROV's, Underwater Cameras, Telecommunications/Broadcasting Systems, Sensors, Digital Data Transmission and Acquisition.

TESTING

The GLOBE-CON series has undergone complete Qualification testing including:-

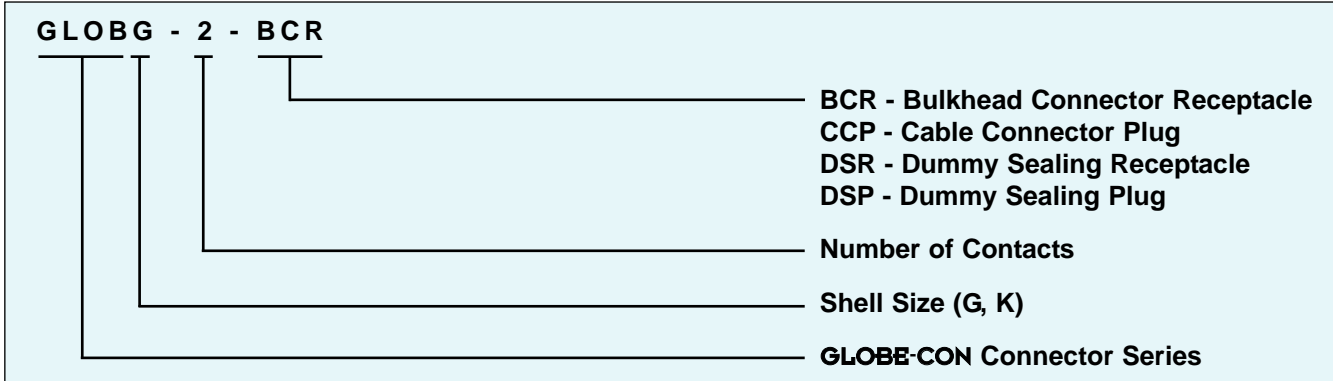
- Insulation resistance testing at >200 megohms @ 300 VDC.
- Pressure testing to 10,000 psi.
- Durability testing with 250 mate and de-mate cycles with no change in conductor or insulation resistance readings.

NOTE:

New wet-mate GLOBE-CON now available. For further information please contact SEACON.

PART NUMBER SYSTEM

EXAMPLE:



GENERAL INFORMATION

COMPONENT	MATERIAL
BULKHEAD BODY CCP	GRE/316 Stainless Steel Shell GRE/Neoprene Overmold. Other materials are available upon request for high pressure applications.
DSR DSP	316 Stainless Steel GRE
CONTACTS	Brass-gold plated
O-RING	Viton (85 Durometer)
ENGAGING NUT*	Copper Alloy 630
N-LINE CABLE** G7 K5 K12	Neoprene #28 Gage Amperage 0.20*** Neoprene #22 Gage Amperage 1.1*** Neoprene #28 Gage Amperage 0.16*** Maximum rating is for a 'fully loaded' connector. Cable rating must not be exceeded. Please contact SEAICON for higher ratings.
STANDARD LENGTH	18 inches
HOOK-UP WIRE	TFE insulated wire or Tefzel® #22/#28
SPRING RING	17-7PH
WASHER	Nylon 101
RETAINING RING	316SST (Stainless Steel)

CATEGORY	VALUE
OPEN FACE PRESSURE	Upto 10,000 psi by special order
MATED PRESSURE	10,000 psi (700 bar)
VOLTAGE RATING	300 VDC
INSULATION RESISTANCE	>200 megohms @ 300 VDC
OPERATING TEMPERATURE	25° to 140°F (-4° to 60°C) - Higher temperature versions are available by special order. Please contact SEAICON for further details.
BULKHEAD MOUNTING TORQUE	GLOBG 12 inch lbs GLOBK 30 inch lbs (see note below)
MATING CYCLES WITH NO CHANGES IN RESISTANCE OR IR READING	250
TORQUE VALUES REFERS TO INSTALLATION INTO DRY METAL THREADS	

NOTES:

* Contact SEAICON for special order materials.

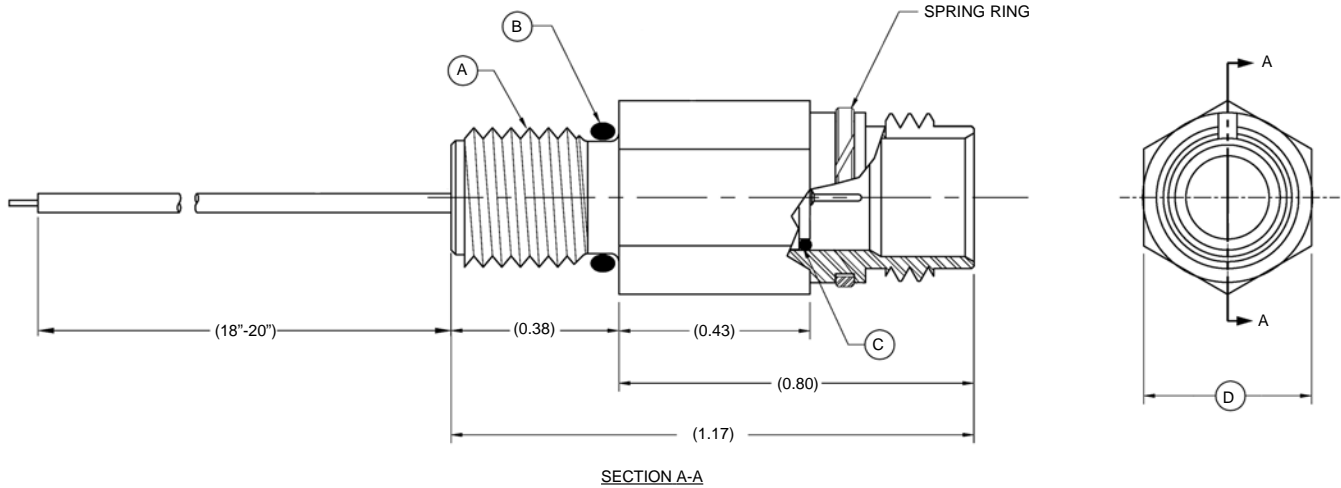
** Incorporation of special order cables will be determined on a case by case basis.

*** Cables are supplied with overall shield and are not connected.

Connectors are designed for installation onto one atmosphere vessels. Please contact SEAICON for recommendations if using compensated vessels.

**GLOBE-CON SERIES
GLOB-BCR**

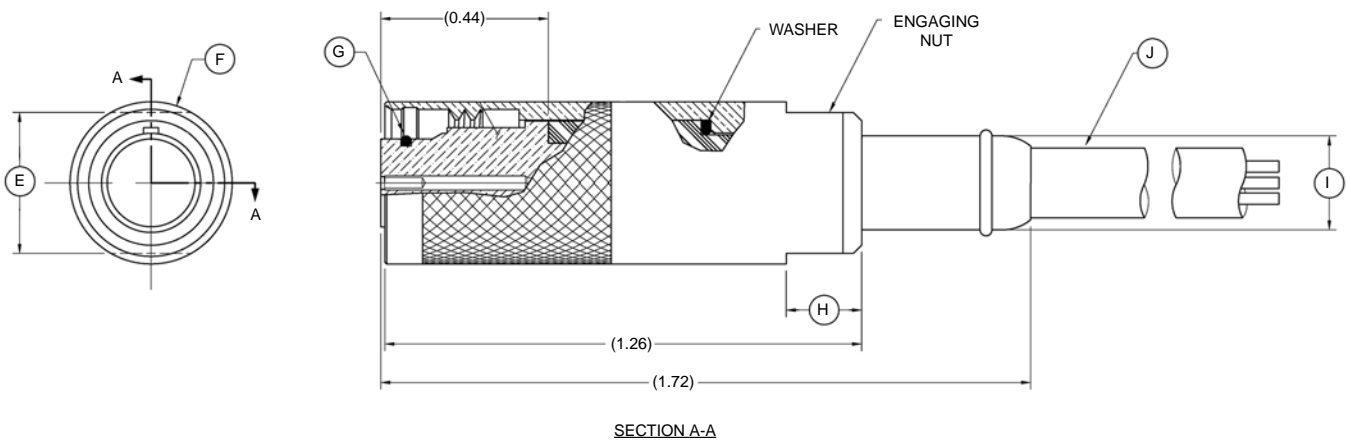
GLOBE-CON Bulkhead Connector Receptacle
Mates with GLOB-CCP
Dummy Connector: GLOB-DSP



CONNECTOR	A - SAE THREAD	B - O-RING	C - O-RING	D - HEX FLATS (INCHES)
GLOBG-BCR	5/16-24 UNF-2A	06-10239-2	06-10193-2	0.37
GLOBK-BCR	3/8-24 UNF-2A	06-10301-2	06-10315-2	0.50

**GLOBE-CON SERIES
GLOB-CCP**

GLOBE-CON Cable Connector Plug
Mates with GLOB-BCR
Dummy Connector: GLOB-DSR

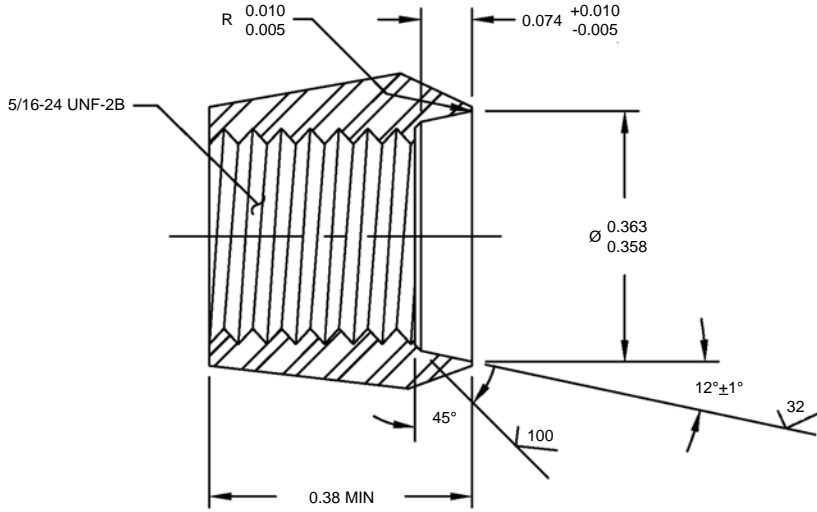


CONNECTOR	E - Ø (INCHES)	F - Ø (INCHES)	G - O-RING	H - LENGTH (INCHES)	I - Ø (INCHES)	J - STD/MAX CABLE Ø
GLOBG-CCP	0.37	0.43	06-10193-2	0.200	0.26	#28 AWG 0.182 STD/0.190MAX*
GLOBK-CCP	0.50	0.56	06-10315-2	0.250	0.37	#22 AWG 0.200 STD/0.250 MAX* #28 AWG 0.215 STD/0.250 MAX*

* Incorporation of special cables will be determined on a case by case basis.

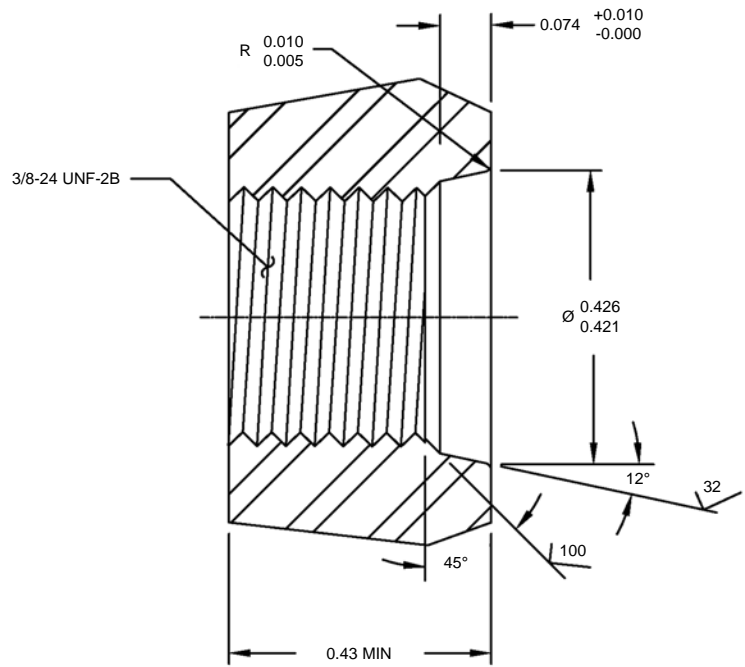
**GLOBE-CON SERIES
GLOBG-BCR**

GLOBE-CON Bulkhead Connector Receptacle
THREADING REQUIREMENT



**GLOBE-CON SERIES
GLOBK-BCR**

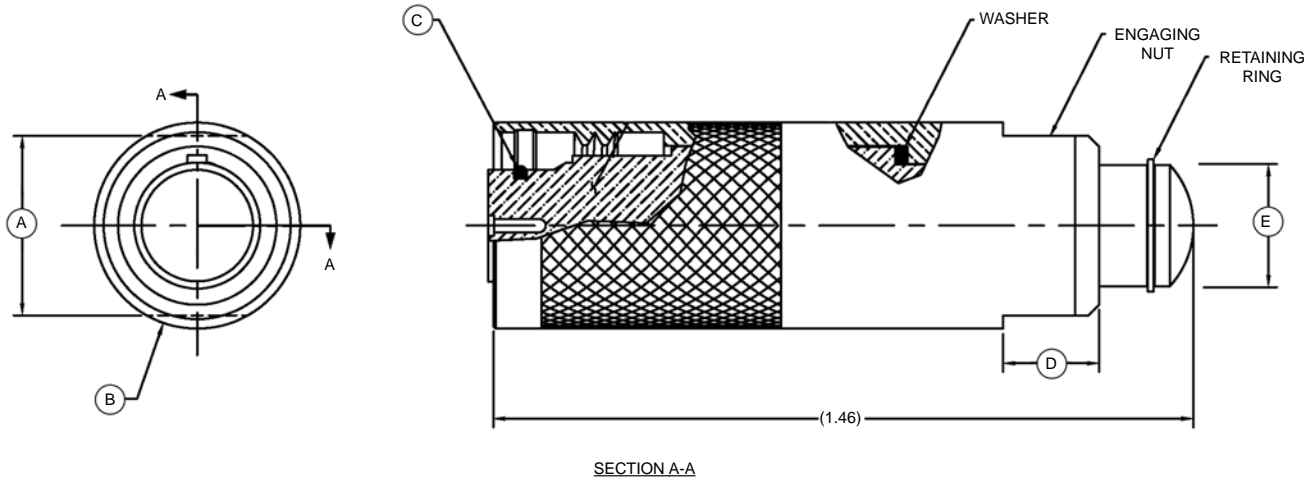
GLOBE-CON Bulkhead Connector Receptacle
THREADING REQUIREMENT



For Boss dimensions, please reference SAE J1926 and MS16142 of the Parker O-Ring Handbook.

**GLOBE-CON SERIES
GLOB-DSP**

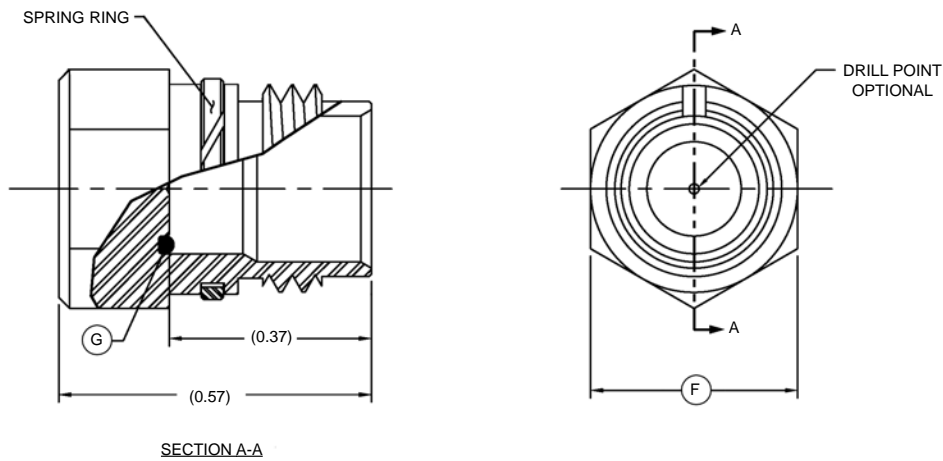
GLOBE-CON Dummy Sealing Plug
Mates with GLOB-BCR



CONNECTOR	A - Ø (INCHES)	B - Ø (INCHES)	C - O-RING	D - LENGTH (INCHES)	E - Ø (INCHES)
GLOBG-DSP	0.37	0.43	06-10193-2	0.200	0.26
GLOBK-DSP	0.50	0.56	06-10315-2	0.250	0.37

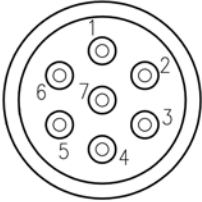
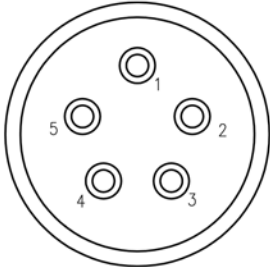
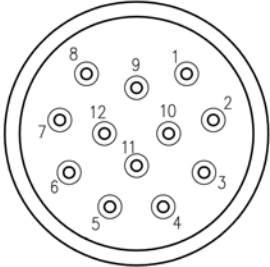
**GLOBE-CON SERIES
GLOB-DSR**

GLOBE-CON Dummy Sealing Receptacle
Mates with GLOB-CCP



CONNECTOR	F - HEX FLATS (INCHES)	G - O-RING
GLOBG-DSR	0.37	06-10193-2
GLOBK-DSR	0.50	06-10315-2

NOTE:
Contact pattern must be specified when ordering dummy connectors.

SIZE	GLOBE-CON SERIES CONTACT CONFIGURATIONS AVAILABLE (MALE FACE VIEW ONLY)*
G	 <p data-bbox="310 432 412 453">GLOBG-7#28</p>
K	<div style="display: flex; justify-content: space-around;"> <div data-bbox="245 541 513 806">  <p data-bbox="326 821 428 842">GLOBK-5#22</p> </div> <div data-bbox="607 541 875 806">  <p data-bbox="688 821 790 842">GLOBK-12#28</p> </div> </div>

* For female face view contact configurations available please contact SEACON.

HANDLING PROCEDURES AND SPECIAL CAPABILITIES

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Website: www.seaconphoenix.com

Even though these procedures appear simple, only qualified technicians should perform the installation and maintenance. Connectors are designed for installation on one atmosphere vessels. Contact SEACON for recommendations if using compensated vessels.

INSTALLATION PROCEDURES

Torque values referenced in this literature assume installation into dry metal threads. For other applications, please contact SEACON for recommendations. All connectors should be clean and free from moisture prior to mating.

Bulkhead Connector Receptacle (BCR): Lubricate the BCR o-ring with an appropriate silicone grease before installing. This lubrication should be applied to form an adequate film. Excessive lubrication is detrimental to the operation of the connector.

Cable Connector Plug (CCP): Lubricate the o-ring and sealing areas using an appropriate silicone grease (the engaging nut can be moved back to provide access to these seals). The retaining ring will need to be moved to the alternate groove provided for this purpose. After the seals are replaced, the nut and ring will need to be put back in their working positions.

CARE AND MAINTENANCE

After mating, the GLOBE-CON connector requires no maintenance. It is recommended that upon disconnecting or retrieving a system that utilizes the GLOBE-CON series, the GLOBE-CON connectors should be dried, cleaned, regreased and remated prior to deploying or storage. It is recommended that when not mated, the BCR or CCP should be protected with a Dummy Sealing Receptacle (DSR) or Dummy Sealing Plug (DSP).

CABLE AND CONTINUITY PRESERVATION

Avoid sharp bends in cables. Cables subjected to vibration and exposed to seawater drag should be adequately clamped to prevent fatigue and possible failure.

FIBER OPTIC MAINTENANCE INSTRUCTIONS

SEACON maintains all facilities necessary to furnish complete underwater and environmental electrical connector/cable systems, including Research and Development, Engineering, Manufacturing, Quality Control and Pressure Testing. As well as supplying our standard 'off-the-shelf' items, we have the capability to design and manufacture SPECIAL CUSTOMIZED CONNECTORS AND CABLE ASSEMBLIES to suit your individual needs.

SEACON prides itself with the ability to perform stringent quality conformance testing procedures which are in accordance with MIL-SPEC programs.

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