

S E A C O N



66 SERIES

UNDERWATER ELECTRICAL DRY-MATE CONNECTORS

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INTRODUCTION

SEACON (europa) Ltd is pleased to announce the release of a new range of underwater electrical dry-mate connectors to compliment the existing 55 SERIES. The new 66 SERIES of reverse gender connectors enable power to be applied to the bulkhead connector yet still be safe to use. Manufactured utilizing tried and tested methods and materials, this new range also incorporates shorter locking sleeves to ensure easier mating capability.

Other key features include:-

- Industry Standard Compatibility
- Proven Sealing Technology
- Heavy Duty Stub Acme Threads*
- Pressure Rated Blanking Caps available

AVAILABILITY

The 66 SERIES is currently available in two shell sizes; 16 and 20 with two configurations (8#16/13#16), however more configurations will be added to the range if required.

APPLICATIONS

This new connector range is suitable for a variety of applications including ROV's, underwater cameras, diver communications, lights and pan and tilts.

TESTING

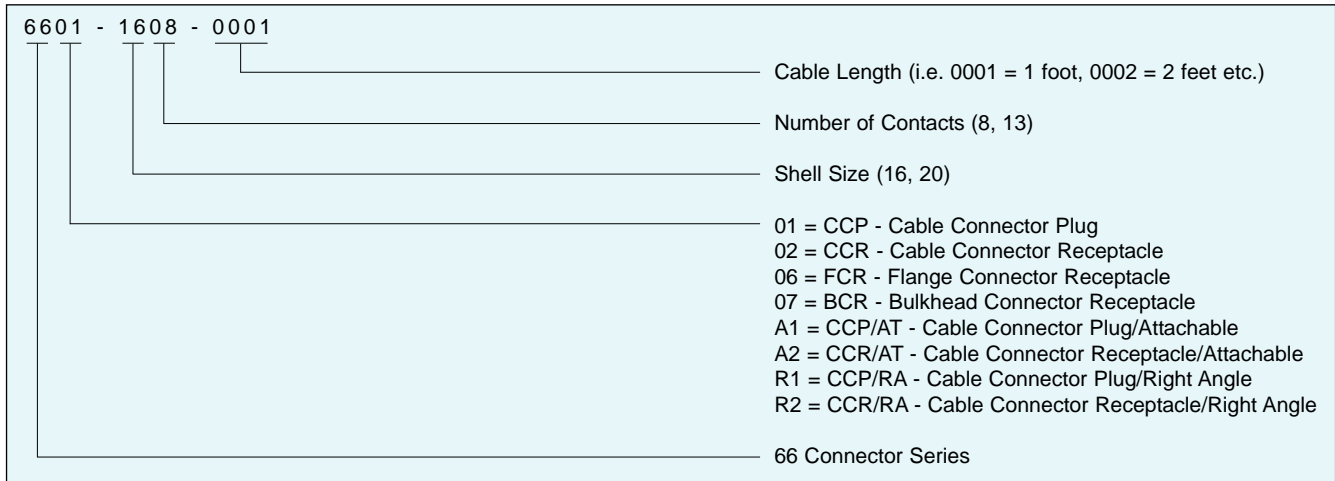
Please contact SEACON for details.

SPECIAL ASSEMBLIES

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

Please contact SEACON for further information

PART NUMBER SYSTEM - EXAMPLE



GENERAL INFORMATION

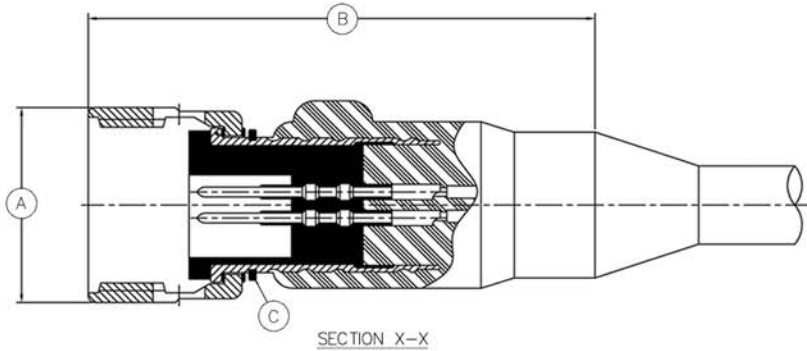
COMPONENT	MATERIAL
CONNECTOR BODY BCR/CCP/FCR	316L Stainless Steel Shell / Neoprene internals.
CONTACTS	Gold plated per MIL-G-45204.
O-RING	Nitrile N70.
ENGAGING NUT	316L Stainless Steel coated with special anti-galling compound.
IN-LINE CABLE	Neoprene. Other materials are also available. Please contact SEACON® for details.
SPIRAL RETAINING RING	316L Stainless Steel.

CATEGORY	VALUE
OPEN FACE PRESSURE	Up to 10,000 psi.
MATED PRESSURE	10,000 psi.
VOLTAGE RATING	600 VDC / 440 VAC.
CURRENT	7 amps (contacts 13 amps) and cable dependent.
BULKHEAD MOUNTING TORQUE	16 shell size = 125 inch/lbs*. 20 shell size = 165 inch/lbs*.

NOTE:
· * Torque values refers to installation into dry metal threads.

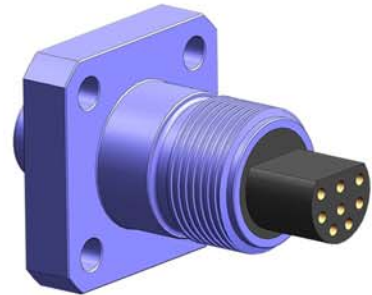
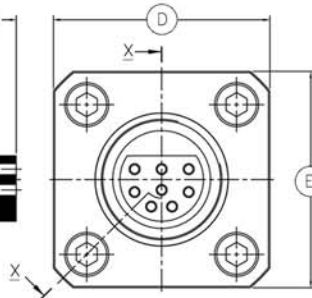
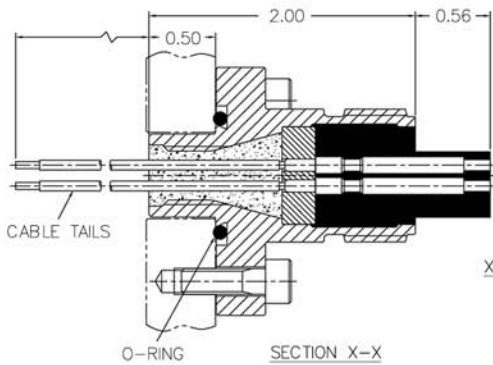
66 SERIES
6601-CCP

66 SERIES Cable Connector Plug
Mates with 66-BCR/CCR/FCR
Dummy Connector: 66-DSR



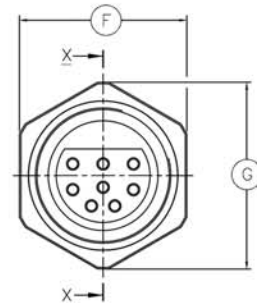
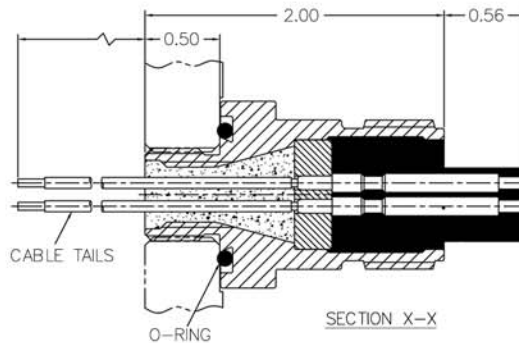
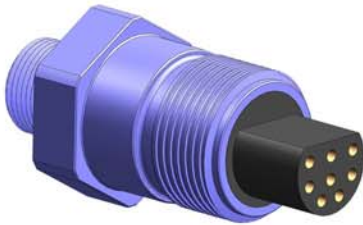
66 SERIES
6606-FCR

66 SERIES Flanged Connector Receptacle
Mates with 66-CCP
Dummy Connector: 66-DSP



66 SERIES
6607-BCR

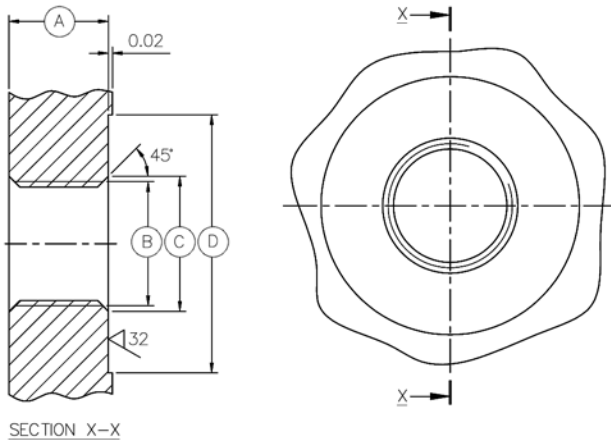
66 SERIES Bulkhead Connector Receptacle
Mates with 66-CCP
Dummy Connector: 66-DSP



CONNECTOR	A - Ø (INCHES)	B - LENGTH (INCHES)	C	A - LENGTH (INCHES)	B - LENGTH (INCHES)	C - LENGTH (INCHES)	D - LENGTH (INCHES)
6601 / 6606 / 6607-16	1.17	3.04 APPROX	SPIRAL RETAINING RING	1.625	1.625	1.12	1.25
6601 / 6606 / 6607-20	1.45	3.70 APPROX	CIRCLIP	1.75	1.75	1.25	1.40

**66 SERIES
6607-BCR
INTERFACE DETAILS**

66 SERIES Bulkhead Connector Receptacle

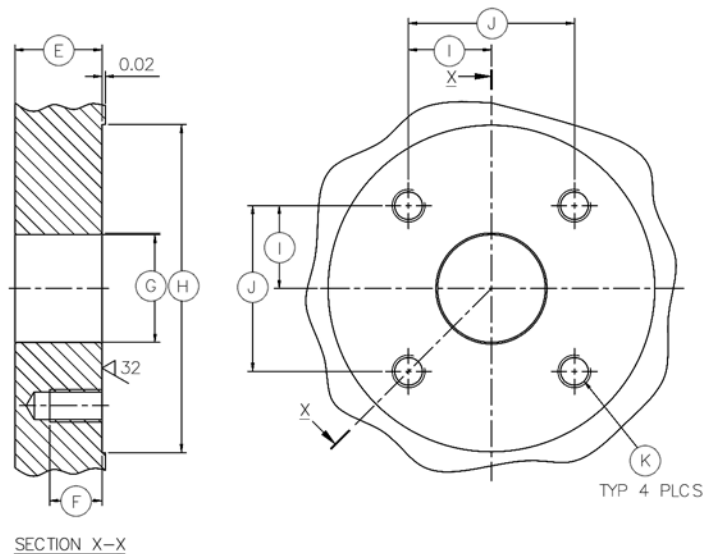


BCR INTERFACE MOUNTING INFORMATION

CONNECTOR	A - MIN LENGTH (INCHES)	B - THREAD	C - Ø (INCHES)	D - MIN Ø (INCHES)
6607-16	0.50	5/8-18 UNF 2B	0.68	1.30
6607-20	0.50	3/4 -16 UNF 2A	0.79	1.44

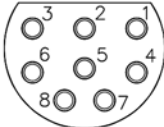
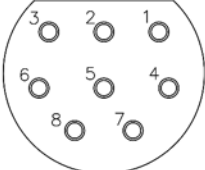
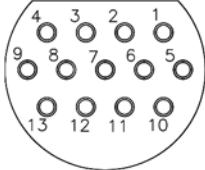
**66 SERIES
6606-FCR
INTERFACE DETAILS**

66 SERIES Flange Connector Receptacle



FCR INTERFACE MOUNTING INFORMATION

CONNECTOR	E - MIN LENGTH (INCHES)	F - TYPICAL Ø (INCHES)	G - Ø (INCHES)	H - Ø (INCHES)	I - LENGTH (INCHES)	J - LENGTH (INCHES)	K - THREAD	RECOMMENDED FIXING SCREW LENGTH
6606-16	0.525	0.315	0.65	2.13	0.5625	1.125	M5x0.8p 6H	16mm
6606-20	0.625	0.375	0.77	2.33	0.625	1.25	M5x0.8p 6H	18mm

SIZE	66 SERIES CONTACT CONFIGURATIONS AVAILABLE (CCP FACE VIEW ONLY - NOT TO SCALE)
16	 <p data-bbox="285 317 367 359">66XX-1608 8#16</p>
20	 <p data-bbox="302 615 383 657">66XX-2008 8#16</p>  <p data-bbox="570 615 651 657">66XX-2013 13#16</p>

NOTE:

· Shell size 16 only available in 8#16 configuration.

HANDLING PROCEDURES AND SPECIAL CAPABILITIES

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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.

BULKHEAD CONNECTOR (BC): The BC may be installed using one of two methods. The preferred method is to spotface the bulkhead surface and thread the hole, then screw the connector by means of a nut and washer. The bored hole (or threaded hole) should be free of any "burrs" and all o-ring sealing surfaces polished to a number 32 finish. Lubricate the BC o-ring with an appropriate silicon spray or grease before installing. This lubrication should be applied to form an adequate film. Excessive lubrication is detrimental to the operation of the connector. Bulkhead nut, if used, should not be over-torqued.

IN-LINE CONNECTOR: Lubricate the sealing areas around the male pins, using an appropriate silicon spray, or grease lightly.

CARE AND MAINTENANCE

The 55 & 66 SERIES connectors require very little maintenance. They are designed to be used in harsh environments and thus limited amounts of dirt and grit do not affect their performance.

It is recommended that, upon disconnecting or retrieving the system, the connectors be cleaned, to storage (if possible, remate with dummy plugs). Prior to deployment the following maintenance procedure is recommended:

1. Demate the connector set.
2. Flush connector interface with fresh water (deionized water if available), remove all dirt, grit and grease.
3. Inspect for damage in sealing areas, excessive corrosion, debonding of the cable and connector interface and cuts in the cable jacket.
4. Apply thin film of dielectric compound (DC) grease, silicon based, to sealing areas of male connector and across the face of the female connector*. If the BC is removed from its housing then replace facial o-ring and make sure that o-rings are lubricated and in good condition.
5. Mate the connector halves, wipe away any excess grease off the interface line of the mated set.

* **CAUTION:** The use of some oil-based propellants in spray cans can cause conductivity problems in neoprene.

CABLE AND CONTINUITY PRESERVATION

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

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