



10K PSI OPEN-FACE SeaKing™ 700 Underwater Connectors

10K PSI / 700 Bar / 7000m open-face or mated, dual O-ring equipped, high-density, high-voltage, fiber optic and hybrid electrical/optical subsea connectors

SeaKing is an innovative underwater connector series that eliminates a broad range of mechanical design weaknesses found in many of today's high-pressure subsea connector families. From its double O-ring seals and retractable engaging nut, to its multi-keyed mating interface, the SeaKing underwater connector represents a far more reliable approach to subsea power and signal connectivity.

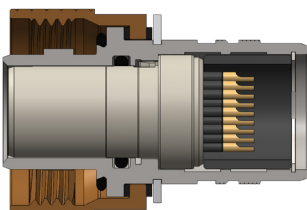
Ideally suited for deep water offshore oil & gas, military/defense, oceanographic research, and other harsh-environment subsea applications, the dry-mate connector series is built for optimal durability and reliability. Tested to 15,000 PSI (open face and mated), and equipped with integrated dual O-ring seals, marine bronze coupling nuts, corrosion-resistant stainless steel shells and high-pressure contact inserts with gold-plated signal contacts, special RF and fiber optic solutions, the Series 700 SeaKing is today's most advanced high-density signal and standard-density power underwater connector.



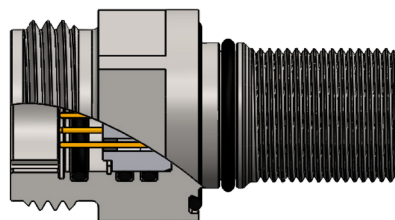
SeaKing
SEVEN HUNDRED

- High density, small form-factor connector
- Dual O-ring seals ensure high-pressure performance for every leak path
- Signal, power, RF and optical insert arrangements
- Stainless steel construction with anti-galling marine bronze engaging nut
- Full-mate inspection ports
- Easy O-ring replacement
- Key and keyway polarization

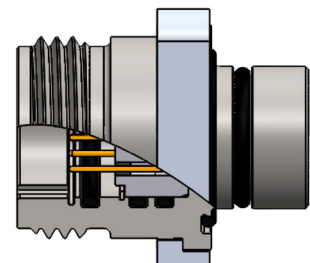
STANDARD CONFIGURATIONS



Cable Connector Plug (CCP)



Bulkhead Connector Receptacle (BCR)



Flange Connector Receptacle (FCR)



SERIES 700 10K PSI / 700 BAR / 7000 M SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

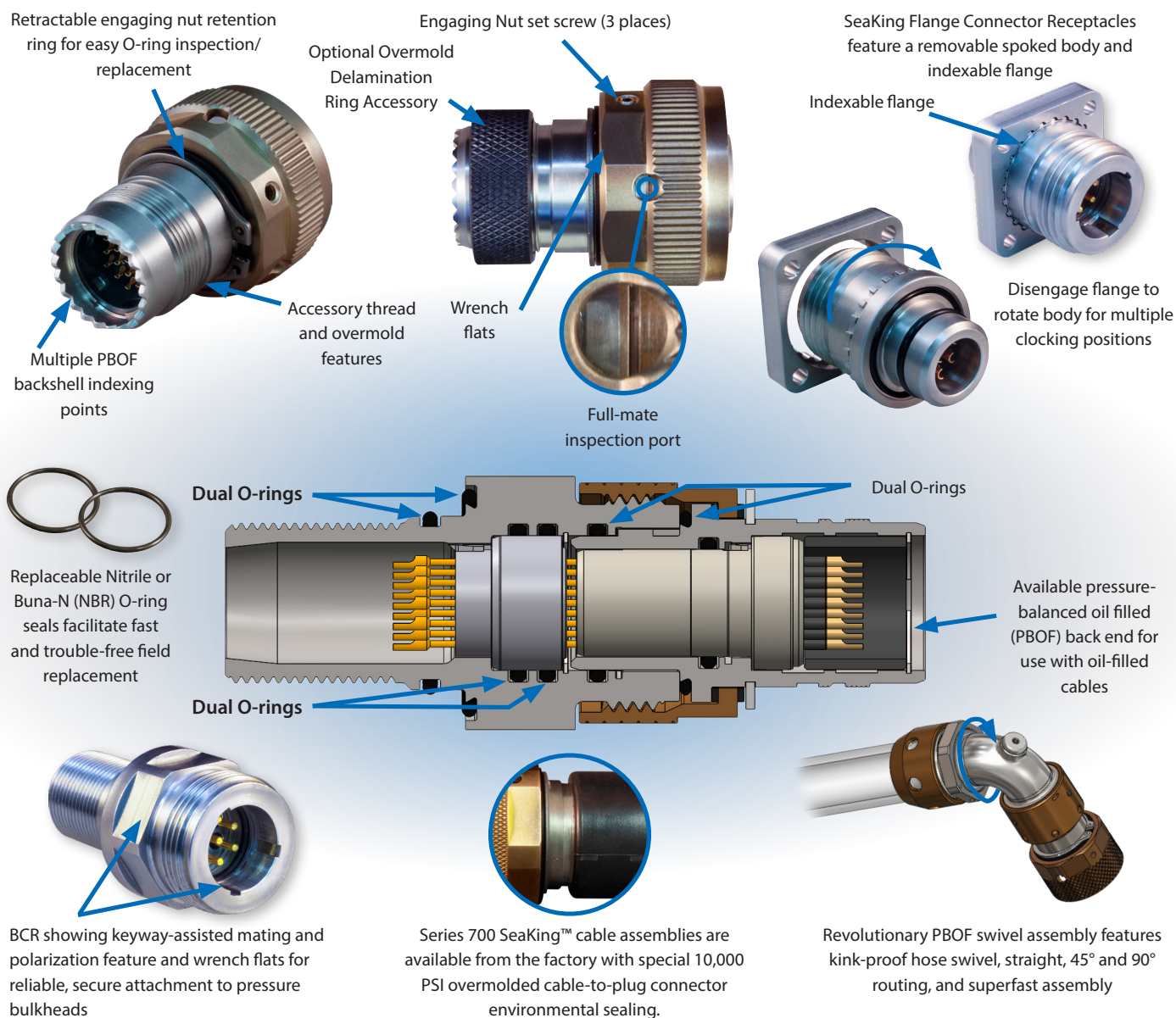


Key mechanical and environmental features

Sealing: The Series 700 SeaKing™ is the best sealed subsea connector on the market. All critical interfaces, including bulkhead seals, glass-to-metal insert seals, mating interface bore seals, and face seals are fully redundant ensuring 10K PSI protection, even in the event of a single-seal failure.

Mating: SeaKing™ utilizes a modified UNC (coarse) mating interface with added clearance to reduce bio-fouling and facilitate rapid-advance mating. The marine bronze engaging nut on the plug is equipped with wrench flats as well as knurling and is less susceptible to galling than standard steel engaging nuts. Polarized keys and keyways prevent both thread damage and mismatching.

Ease-of-Use: Multiple PBOF backshell indexing points, indexable flange FCRs, full-mate inspection ports, retractable engaging nuts, and other features make SeaKing™ the most user-friendly subsea connector on the market.





SERIES 700 10K PSI / 700 BAR / 7000 M SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

Insert arrangements and specifications



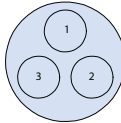
SEAKING™ INSERT ARRANGEMENTS Mating face view of receptacle insert shown (plug inserts are reversed)



Size E

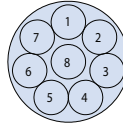
E4

4 Size #22
Contacts



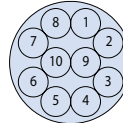
G3

3 Size #16
Contacts



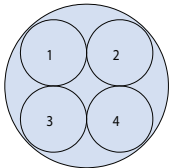
G8

8 Size #20
Contacts



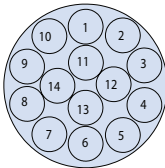
G10

10 Size #22
Contacts



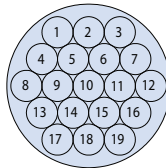
K4

4 Size #16
Contacts



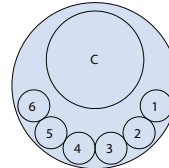
K14

14 Size #20
Contacts



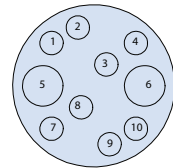
K19

19 Size #22
Contacts



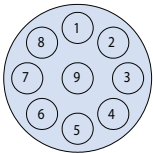
KC6

Single 75 Ohm Coax,
6 size #22 Contacts



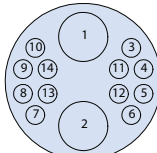
KX10

10 Contacts
2 size #16, 8 size #22



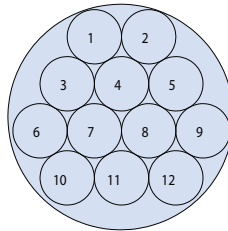
L9

9 Size #16
Contacts



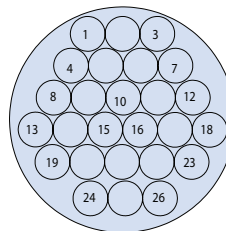
LX14

14 Contacts
2 size #12, 12 size #22



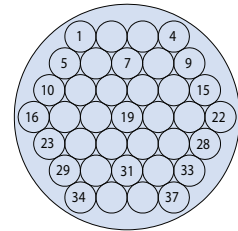
M12

12 Size #16
Contacts



M26

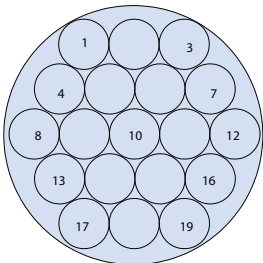
26 Size #20
Contacts



M37

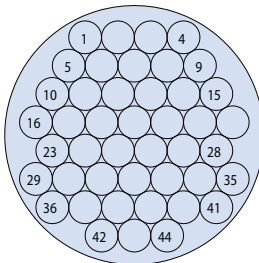
37 Size #22
Contacts

Size L



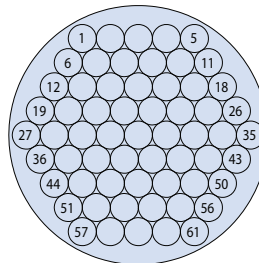
O19

19 Size #16
Contacts



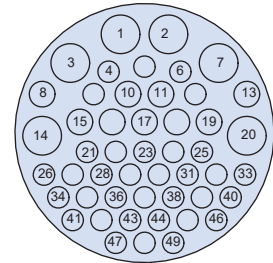
O44

44 Size #20
Contacts



O61

61 Size #22
Contacts



OX49

49 Contacts
6 size #16, 9 size #20, 34 size #22

Size O

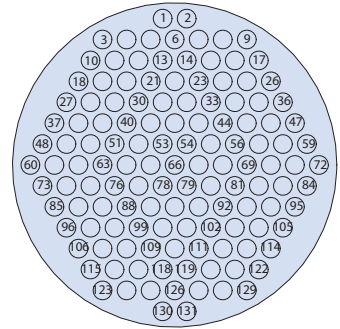
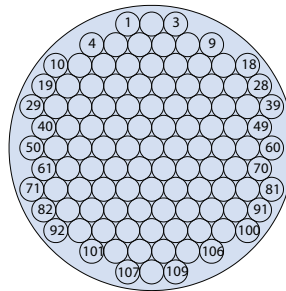
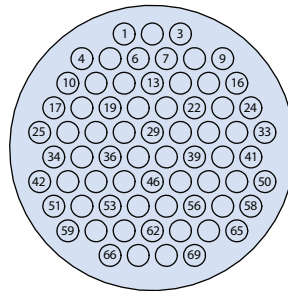
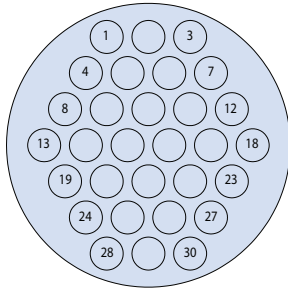
Consult factory for custom insert arrangements including a wide range of shielded RF microwave and high frequency contact configurations



SERIES 700 10K PSI / 700 BAR / 7000 M

SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

Insert arrangements and specifications



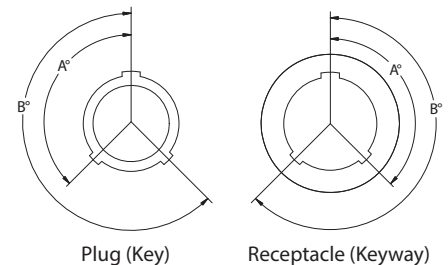
Size Q			Size R
Q30	Q69	Q109	R131
30 Size #16 Contacts	69 Size #20 Contacts	109 Size #22 Contacts	131 Size #22 Contacts

Consult factory for custom insert arrangements including a wide range of shielded RF microwave and high frequency contact configurations

All high-density signal and standard-density power insert arrangements are available across the complete range of connector styles (CCP, FCR, and BCR). High-speed Ethernet inserts as well as Pressure Balanced Oil Filled (PBOF) configurations and a purpose-designed family of pressure caps, accessories and backshells are also available, please consult the factory.

SeaKing™ bulkhead connector receptacles (BCR) and flange connector receptacles (FCR) are equipped with high-pressure glass-to-metal sealed inserts with solder contact wire termination and 10K psi open-face rating. Cable connector plugs (CCP) utilize environmental O-ring sealed inserts and are rated to 10K psi in the mated condition.

Polarization		
Key Position	Key Rotation	
	A°	B°
Normal (N)	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°



Contact Arrangement Table				
Shell Size	Contact Size			
	#22	#20	#16	Hybrid
E	4			
G	10	8	3	
K	19	14	4	KC6: 1 Coax, 6 #22 KX10: 2 #16, 8 #22
L			9	LX14: 2 #12, 12 #22
M	37	26	12	
O	61	44	19	OX49: 6 #16, 9 #20, 34 #22
Q	109	69	30	
R	131			

Contact Specifications				
Contact Size	#22	#20	#16	#12
Amps	3	5	10	17
AWG Accomodation	22	20	16	12

SeaKing™ Performance Specifications		
Pressure Rating	Plug: 10,000 psi, mated condition Receptacles: 10,000 psi mated and open face	per ISO 13628-6
Electrical	600 VDC typical	per MIL-STD-202, Method 301
	5 GOhm insulation resistance at 500 VDC	per MIL-STD-202, Method 302
Materials	Salt Spray (corrosion)	MIL-STD-202, Method 101
	Humidity (steady state)	MIL-STD-202, Method 103
	Thermal Cycle	ISO 13628-6



SERIES 700 10K PSI / 700 BAR / 7000 M SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies



700 Series connectors CCP, FCR and BCR

700-001 CABLE CONNECTOR PLUG (CCP)



SeaKing - How To Order						
Sample Part Number	700	-001	-K19	-Z1	S	N
Product Series	700 = SeaKing™					
Shell Style	001 = cable connector plug (CCP)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	Z1 = 316 stainless steel TC = titanium					
Contact Style	S = socket					
Polarization	A, B, C, N = normal; see polarization table, pg 7					

700-006 FLANGE CONNECTOR RECEPTACLE (FCR)



SeaKing - How To Order						
Sample Part Number	700	-006	-O19	-Z1	P	N
Product Series	700 = SeaKing™					
Shell Style	006 = flange connector receptacle (FCR)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	Z1 = 316 Stainless steel TC = Titanium					
Contact Style	P = Pin					
Polarization	A, B, C, N = normal; see polarization table, pg 7					

700-007 BULKHEAD CONNECTOR RECEPTACLE (BCR)



SeaKing - How To Order						
Sample Part Number	700	-007	-K19	-Z1	P	N
Product Series	700 = SeaKing™					
Shell Style	007 = bulkhead connector receptacle (BCR)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	Z1 = 316 stainless steel TC = titanium					
Contact Style	P = pin					
Polarization	A, B, C, N = normal; see polarization table, pg 7					



SERIES 700 10K PSI / 700 BAR / 7000 M

SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

700 Series, non-metallic PEEK connectors



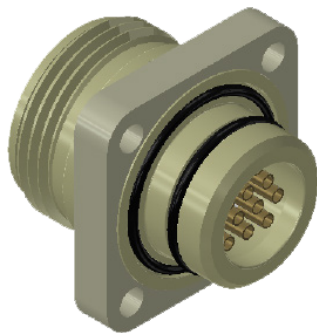
707-0149 CABLE CONNECTOR PLUG (CCP), PEEK



SeaKing - How To Order						
Sample Part Number	707-0149	-1	-M12	-K	S	N
Product Series	707-0149 = SeaKing™ CCP, non-metallic PEEK					
Shell Style	001 = cable connector plug (CCP)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	K = 30% glass reinforced peek					
Contact Style	S = socket					
Polarization	A, B, C, N = normal; see polarization table, pg 7					

10K PSI available in smaller shell sizes. Contact factory for details.

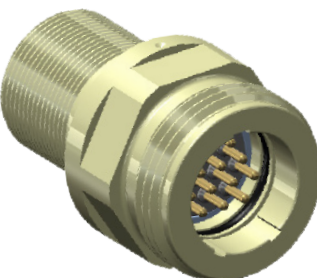
707-0149 FLANGE CONNECTOR RECEPTACLE (FCR), PEEK



SeaKing - How To Order						
Sample Part Number	707-0149	-6	-M12	-K	P	N
Product Series	707-0149 = SeaKing™ FCR, non-metallic PEEK					
Shell Style	6 = flange connector receptacle (FCR)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	K = 30% glass reinforced peek					
Contact Style	P = pin					
Polarization	A, B, C, N = normal; see polarization table, pg 7					

10K PSI available in smaller shell sizes. Contact factory for details.

707-0149 BULKHEAD CONNECTOR RECEPTACLE (BCR), PEEK



SeaKing - How To Order						
Sample Part Number	707-0149	-7	-M12	-K	P	N
Product Series	707-0149 = SeaKing™ BCR, non-metallic PEEK					
Shell Style	7 = bulkhead connector receptacle (BCR)					
Shell Size-Insert Arrangement	See SeaKing insert arrangements table (pgs. 6-7)					
Shell Material	K = 30% glass reinforced peek					
Contact Style	P = pin					
Polarization	A, B, C, N = normal; see polarization table, pg 7					

10K PSI available in smaller shell sizes. Contact factory for details.



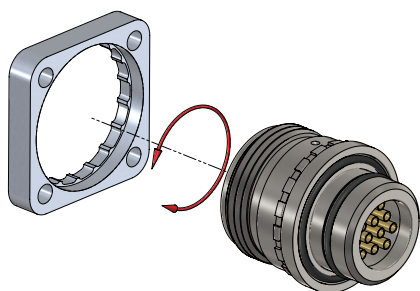
SERIES 700 10K PSI / 700 BAR / 7000 M

SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

Receptacles with GRE insert

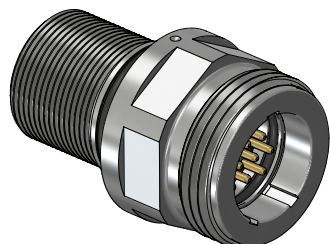


700-026 FLANGE CONNECTOR RECEPTACLE (FCR), WITH GRE INSERT, 10K PSI MATED CONDITION



SeaKing - How To Order					
Sample Part Number	700-026	-M12	-Z1	P	N
Product Series	700-026 = SeaKing™ flange connector receptacle (FCR) with GRE insert				
Shell Size-Insert Arrangement	See insert arrangement table (pgs. 6-7)				
Shell Material	Z1 = 316 stainless steel TC = titanium				
Contact Style	P = pin				
Polarization	A, B, C, N = normal; see polarization table, pg 7				

700-027 BULKHEAD CONNECTOR RECEPTACLE (BCR), WITH GRE INSERT, 10K PSI MATED CONDITION



SeaKing - How To Order					
Sample Part Number	700-027	-M12	-Z1	P	N
Product Series	700 = SeaKing™ 027 = bulkhead connector receptacle (BCR) with GRE insert				
Shell Size-Insert Arrangement	See insert arrangements table (pgs. 6-7)				
Shell Material	Z1 = 316 stainless steel TC = titanium				
Contact Style	P = pin				
Polarization	A, B, C, N = normal; see polarization table, pg 7				



SERIES 700 10K PSI / 700 BAR / 7000 M



SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

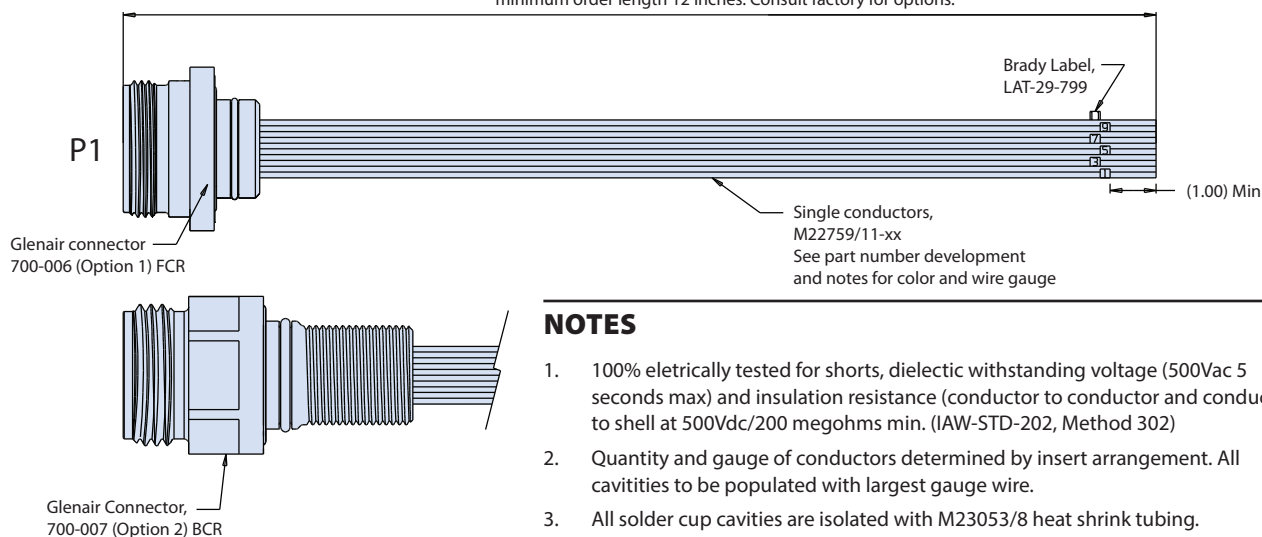
Single-ended connector receptacle pigtail assembly

7071-0012 FLANGE OR BULKHEAD CONNECTOR RECEPTACLE PIGTAIL ASSEMBLY

SeaKing - How To Order							
Sample Part Number	7071-0012	-1	-Z1	P	N	P	N
Product Series	7071-0012 = SeaKing™						
Receptacle Style	1 = 700-006 (FCR) 2 = 700-007 (BCR)						
Insert Arrangement	See insert arrangements table (pgs. 6-7)						
Shell Material/Finish	Z1 = 316 stainless steel TC = titanium						
Cable Length	In inches						
Wire Coloring	A = all white B = 10 color repeating; IAW MIL-STD-681						
Polarization	A, B, C, N = normal (see polarization table, pg 7)						

Alternate Key Positions		
Key Position	Key Rotation	
	A°	B°
Normal (N)	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

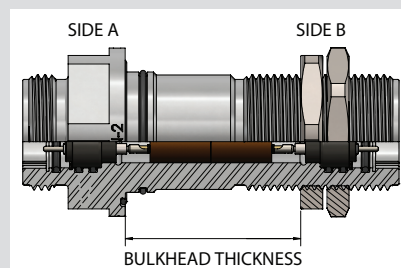
"Length" (see part number development) tolerance:
+1.80/-0.00 for "L" less than or equal to 60.00 inches.
+3%/-0.00 for "L" greater than 60.00 inches.
minimum order length 12 inches. Consult factory for options.



NOTES

1. 100% electrically tested for shorts, dielectric withstanding voltage (500Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell at 500Vdc/200 megohms min. (IAW-STD-202, Method 302)
2. Quantity and gauge of conductors determined by insert arrangement. All cavities to be populated with largest gauge wire.
3. All solder cup cavities are isolated with M23053/8 heat shrink tubing.

NEW! 700-010 BULKHEAD CONNECTOR FEED-THRU (BCF), INCONEL INSERT, 10K PSI OPEN FACE RATED



Bulkhead Thickness			
Dash No.	Bulkhead	Dash No.	Bulkhead
1	1.00 - 1.50	4	2.50 - 3.00
2	1.50 - 2.00	5	3.00 - 3.50
3	2.00 - 2.50	6	3.50 - 4.00

SeaKing - How To Order								
Sample Part Number	700-010	-M12	-Z1	P	N	P	N	-2
Product Series	700-010 = SeaKing™ bulkhead connector feed-thru (BCF)							
Shell Size-Insert Arrangement	See insert Arrangements Table (pgs. 6-7)							
Shell Material	Z1 = 316 stainless steel TC = titanium							
Side A, Contact Style	P = pin S = socket							
Side A, Polarization	A, B, C, N = normal (see polarization table, pgs. 6-7)							
Side B, Contact Style	P = pin S = socket							
Side B, Polarization	A, B, C, N = normal; see polarization table, pg 7							
Bulkhead Thickness	1, 2, 3, 4, 5, 6; see bulkhead thickness table							



SERIES 700 10K PSI / 700 BAR / 7000 M

SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

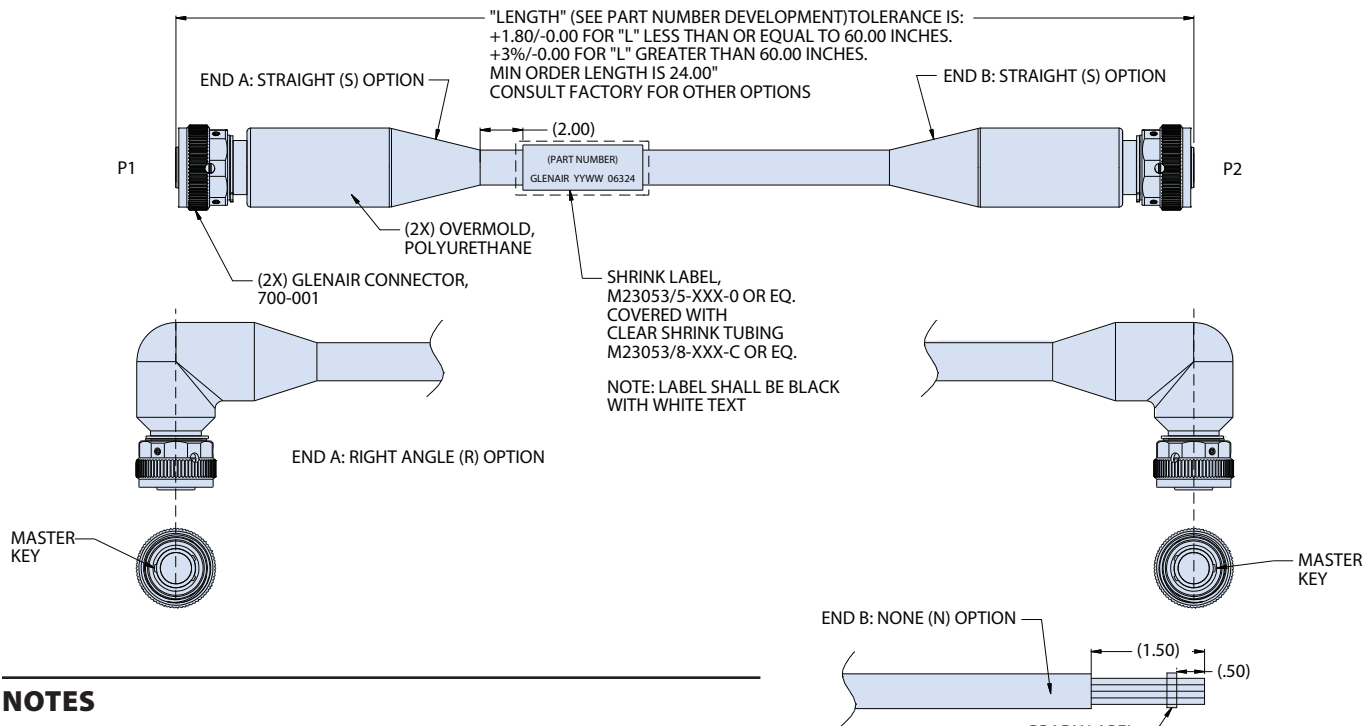
Single ended or back-to-back, cable assembly



SeaKing - How To Order									
Sample Part Number	7071-0007	-S	R	Z1	-K19	N	-24	11	
Series	7071-0007 = SeaKing™ cable connector plug (CCP) assembly								
P1	R = right angle S = straight								
P2	R = right angle S = straight N = none								
Shell Material/Finish	Z1 = 316 stainless steel TC = titanium								
Insert Arrangement	See insert arrangement table (pgs. 6-7)								
Polarization	A, B, C, N = normal; see polarization table, pg 7								
Cable Length	In inches								
Cap Options	10, 11, 20, 21; omit for none								

Alternate Key Positions		
Key Position	Key Rotation	
	A°	B°
Normal (N)	150°	210°
A	75°	210°
B	95°	230°
C	140°	275°

Cap Options	
Sym	Description
10	Protective cap, no lanyard
11	Protective cap, with lanyard
20	Pressure cap, no lanyard
21	Pressure cap, with lanyard



NOTES

- 100% electrically tested for shorts, dielectric withstanding voltage (at 500Vac 5 seconds max) and insulation resistance (conductor to conductor and conductor to shell) at 500Vdc/200 megohms min. IAW MIL-STD-202, Method 302)
- Unit pack: 1 ea. In poly bag, heat-sealed. Include dust cap. Tag and bag per illustration.
- Max pressure rating 10000 psi
- For connector dimensions, materials, finishes, refer to drawing 700-001.
- For insert arrangements refer to drawing 709-099 contact manufacturer for builds with combo insert arrangements
- All configurations are wired one to one.
- Pressure rated cable. Polyurethane jacket wire AWG shall be per contact size.



SERIES 700 10K PSI / 700 BAR / 7000 M SeaKing™ High-Pressure Subsea Connectors, Cables, and PBOF Assemblies

PBOF assembly fittings and accessories

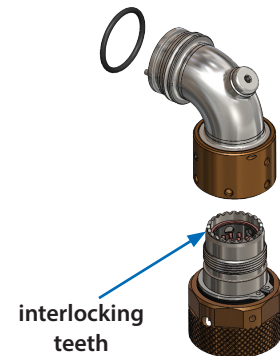


REVOLUTIONARY PBOF SWIVEL HOSE ATTACHMENT ACCESSORIES

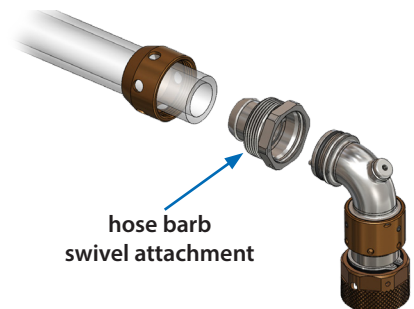
Hose barb fittings for PBOF assemblies are the perennial weak link in subsea oil & gas applications. Kinked and twisted hoses, leaky fittings, corroded hose clamps, and other performance problems characterize most existing solutions. The Glenair PBOF swivel hose attachment for SeaKing™ connectors solves these problems and more. Designed from the sea floor up to perform flawlessly and reliably, this revolutionary attachment puts an end to the long list of field maintenance problems associated with oil-filled cable applications.

- Straight, 45°, and 90° “full radius” angle and profile hose routing
- Hose angle adjustment feature eliminates risk of oil leakage
- Corrosion-resistant materials used throughout
- Threaded couplers with safety set-screws for fail-safe leak and decoupling protection—no special tools required for assembly
- Compact PBOF compression fitting with 340° hose swivel action
- Support for the broad range of hose diameters and wall thicknesses

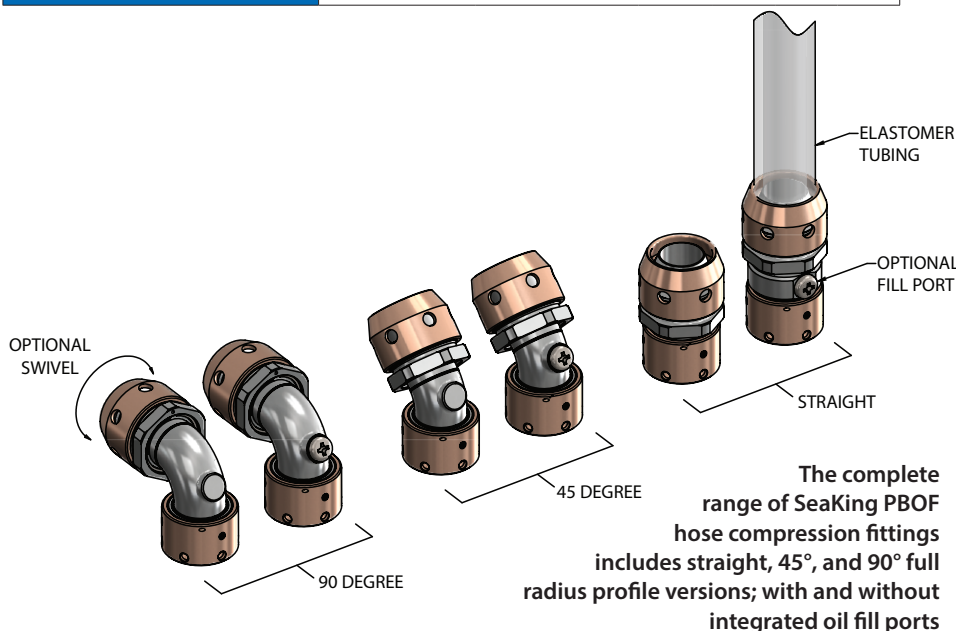
SeaKing PBOF Attachment Accessory Kits - How To Order					
Sample Part Number	709-003	K	-L	1	S
Product Series	709-003 = SeaKing™ PBOF accessory				
Shell Size	G, K, M, O, Q				
Angular Function	L = Straight M = 45° N = 90°				
Fill Port Option	0 = No fill port 1 = With fill port				
Swivel/Fixed Option	S = Swivel F = Fixed				



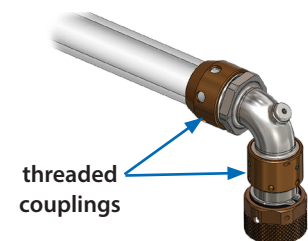
Interlocking teeth on SeaKing™ plug connectors interface with corresponding teeth on the PBOF swivel hose attachment to facilitate easy indexing and routing of hose assemblies



Revolutionary swivel hose barb compression attachment eliminates twisting and damage in PBOF assemblies



The complete range of SeaKing PBOF hose compression fittings includes straight, 45°, and 90° full radius profile versions; with and without integrated oil fill ports



Threaded PBOF compression nut and connector coupling nut (with additional safety set screw) provide for fast and easy assembly and prevent leaks and assembly decoupling

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Glenair:

[7071-0070-m12-z1pn-48](#)