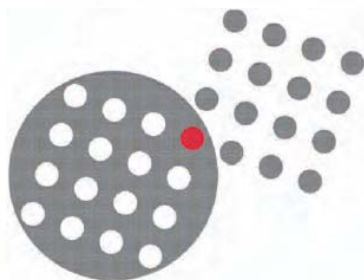
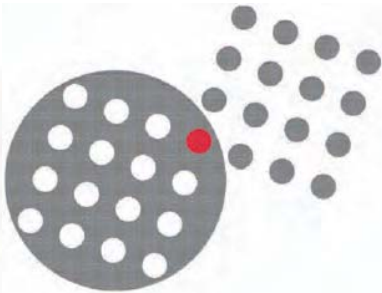
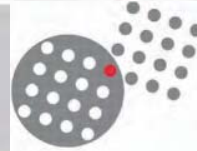


8810 Underwater electrical connectors



8810 Series



introduction

The company's reputation throughout the world is based on proven quality, availability and customer service, three qualities we feel are close to the heart of connector users.

underwater connectors range from micro-miniature single core coaxial types up to fully automatic, hydraulically actuated, multiway connectors on control system for subsea well heads.

The 8810 range described in this catalogue is designed to be wet or underwater mated and can be used at depths down to 3000 metres. The metal body shells feature rugged, square cut coupling threads to enhance the 8810's suitability for repeated coupling and uncoupling in severe environmental conditions such as those found subsea around offshore oil production platforms, and industrial diving. Connector front faces can withstand either 150 or 300 bars uncoupled wet pressure. Underwater sealing caps are available for use on connectors with live contact or for long term immersion open face.

8810 connectors are manufactured in France and in the United Kingdom, and are used extensively in a variety of underwater applications. These include a considerable range of electrical equipment found on oil platforms, e.g. flood valves, pressure transducers and hydrophones, together with submerged cathodic protection anodes and umbilical cables for sealed equipment. 8810's are also found on many manned and remote operated vehicles and underwater cameras.

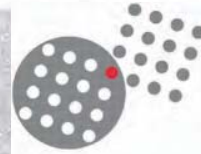
NOTA : All sizes printed in the present catalogue are in millimeter.

contents

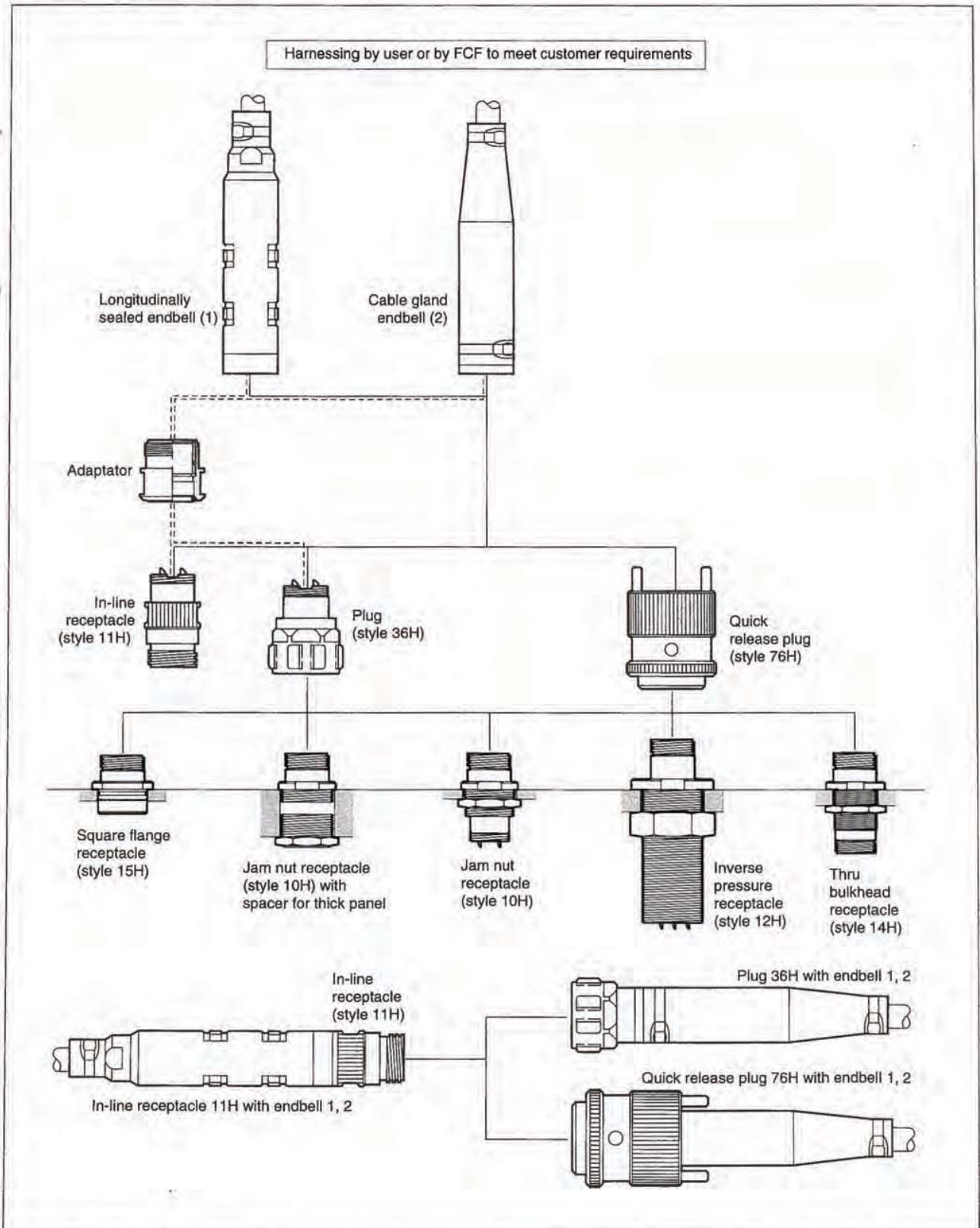
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reserves the right to make any engineering refinements, alterations or improvements deemed necessary on its products. The dimensions appearing in this catalogue are thus subject to change without notice. When dimensions are critical, detailed drawings should be requested.

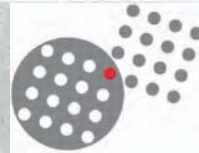
8810 Series



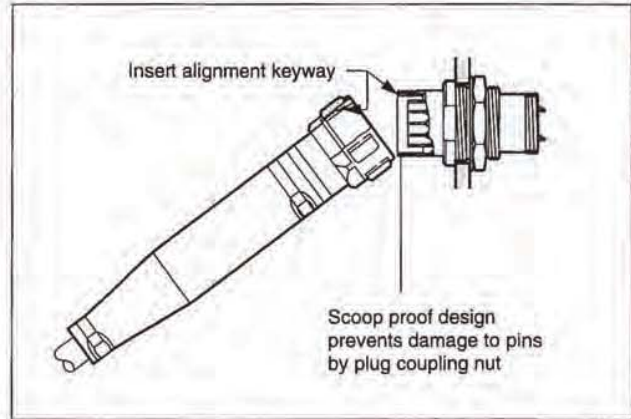
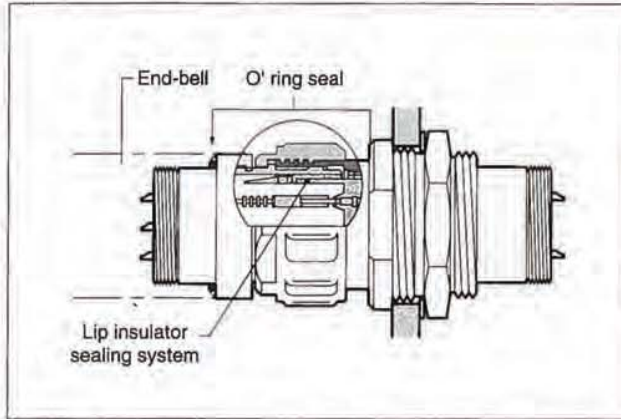
shell styles and configuration



8810 Series



construction



technical characteristics

electrical

Layouts		Contacts sizes	Test voltage (Vrms)	Working voltage in external wet conditions ambient (Vrms)	Working voltage after subsea mating conditions complied (Vrms)
Shell size	Number of contacts				
1	4	# 20	2500	500	220
2	7	# 20	2500	500	220
	4	# 16	2500	500	220
	1	ø 7 mm	3750	750	750
3	12	# 20	2500	500	220
4	19	# 20	2500	500	220
	12	# 16	2500	500	220
	4	# 8	3750	750	360
7	38	# 20	2500	500	220
5	37	# 16	2500	500	220
	1	ø 18 mm	7500	1500	1500
6	68	# 16	2500	500	220
	4	ø 10 mm	3750	750	360

Layouts	Maximum current rating per contact (A)	Maximum bundle current capacity per contact (A)
4 cts # 20	7,5	7,5
7 cts # 20	7,5	6,5
12 cts # 20	7,5	5,5
19 cts # 20	7,5	4,5
38 cts # 20	7,5	3,5
4 cts # 16	15	14
12 cts # 16	15	12
37 cts # 16	15	6,5
68 cts # 16	15	5
1 ø 7 mm	100	100
4 # 8	45	35
1 ø 18 mm	400	400
4 ø 10+2#8	150 + 45	150 + 45

* After 5 mating/demating operations in clear water and suitable lubricate insulator (with silicone grease)

- Contact resistance $\leq 10 \text{ m}\Omega$
- Insulation resistance $\geq 100 \text{ M}\Omega$ after connection

mechanical

- Pressure resistance working pressure (Mated or non mated connectors)
 - Shell sizes 1, 2, 3, 4, 7
 - Fitted with cable gland endbell 300 bar
 - Fitted with longitudinally sealed endbell 300 bar
 - Shell sizes 5,6
 - Fitted with all endbell types 150 bar
- Endurance 500 mating/unmating operations
- Metal shell*

Nickel aluminium bronze

- Insulators
 - Moulded rubber
- Contacts
 - Gold plated copper alloy
- Band and buckles stainless steel 316L
 - * STAINLESS STEEL 316L, INCONEL, MONEL, TITANIUM, ALUMINIUM... available on request

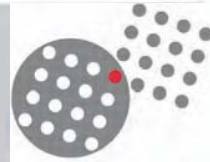
operational characteristics

- Working temperature
 - Ambient : $-30^\circ\text{C} + 70^\circ\text{C}$
 - Subsea : $-3^\circ\text{C} + 40^\circ\text{C}$
- Shocks 75 g - 11 ms (3 axis)
 - Shell size 1, 2, 3, 4, 7
 - Shell size 5 and 6 : to be defined later





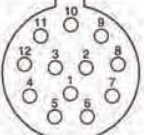
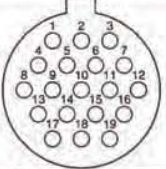
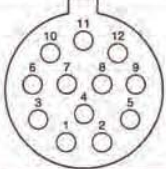
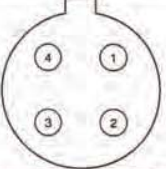
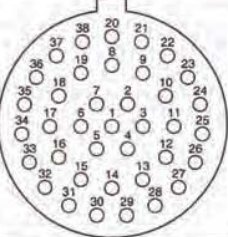
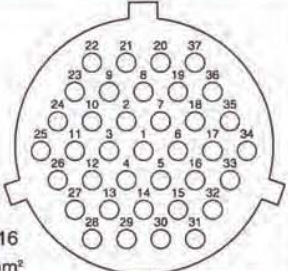
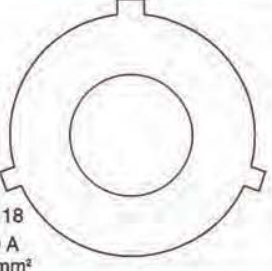
Vibrations

- 0,1 Hz to 1 Hz (25 mm amplitude peak to peak 50)
- 1 Hz to 5 Hz (0,1 g acceleration)
- 5 Hz to 22 Hz (1 mm amplitude peak to peak 2)
- 22 Hz to 50 Hz (2 g acceleration)
- Underwater explosion shock tests (Heavy weight high impact)
 - Tested in accordance with,
 - Spécification MIL-S-901C (NAVY) and HI - Test procedure n° HT 0458-TP-1 Original issue
- Grade : "A"
- Equipment classification: Hull Mounted external
- Class : "I"
- Test classification : Heavy weight
- Type : "A"
- Tested for the US Navy (NCSC)

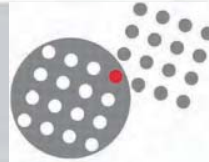
8810 Series



contact layouts (Plug back face view)

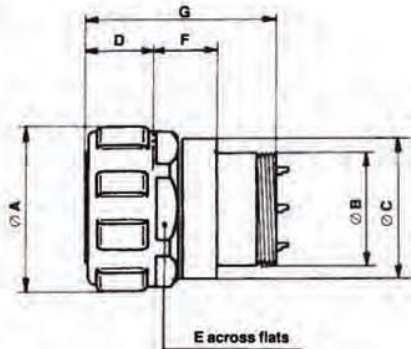
layouts		size 20 contacts	size 16 contacts	power contacts
shell size	number of contacts	contact diameter : 1.0mm wire size max : 0.93mm ² current rating per contact : 7.5A max.	contact diameter : 1.57mm wire size max : 1.34mm ² current rating per contact : 15A max.	contact diameter : see below wire size max : see below current rating : see below
1	04	4 # 20 0,93 mm ² 		
2	07 04 01	7 # 20 0,93 mm ² 	4 # 16 1,34 mm ² 	1 Ø;7 100 A 16 mm ² 
3	12	12 # 20 0,93 mm ² 		
4	19 12 04	19 # 20 0,93 mm ² 	12 # 16 1,34 mm ² 	4 # 8 45 A per contact 4 mm ² 
7	38	38 # 20 0,93 mm ² 		
5	37 01		37 # 16 1,34 mm ² 	1 Ø 18 400 A 185 mm ² 
6	68 04		No more available	8 A 4 mm ²

8810 Series



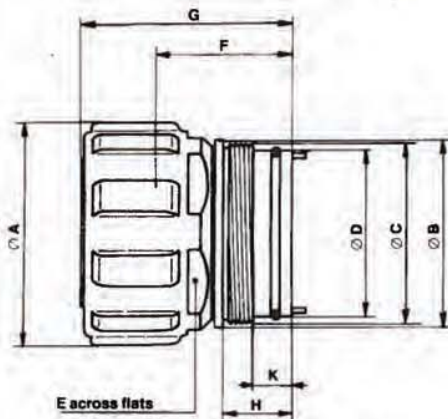
dimensional drawings - plug (series 36H)

shell sizes 1-4



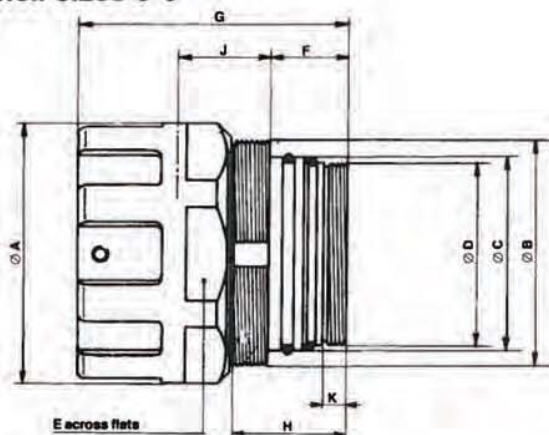
shell size	1	2	3	4
ØA max.	30	33.5	39	43.5
ØB iso	16.8 x 0.5	20 x 0.75	25.5 x 0.75	30 x 0.75
ØC max.	24.2	27.7	33.2	37.7
E max.	26	29	34	38
D max.	17.3	17.3	18.3	19.3
F max.	16.8	16.8	15.8	14.8
G max.	50.1	50.1	50.1	50.1

shell size 7



shell size	7
ØA max.	60.5
ØB max.	50
ØC iso	48 x 0.75
ØD	44.2 f8
E max.	51.5
F max.	36.3
H max.	18.6
G max.	56
K max.	10.7

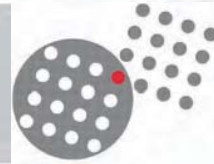
shell sizes 5-6



shell size	5	6
ØA max.	87.3	110.3
ØB iso	74 x 1.5	96 x 2
ØC	62.5 f7	82.5 f8
ØD iso	58 x 1.5	77 x 1.5
E max.	80	100
F max.	32.5	32.5
J max.	37.5	37.5
G max.	112.5	112.5
K max.	10.6	10.6
H max.	48.5	48.5

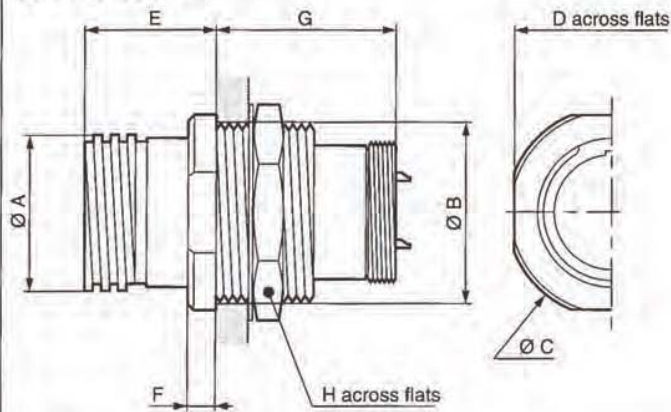
For ordering information see page 13

8810 Series



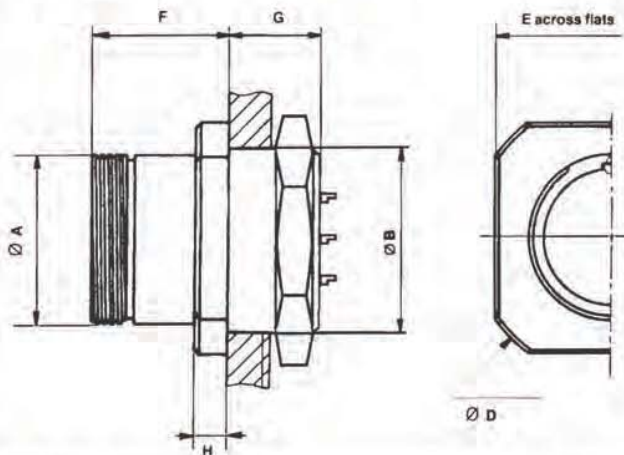
jam nut receptacle (series 10H)

shell sizes 1-4



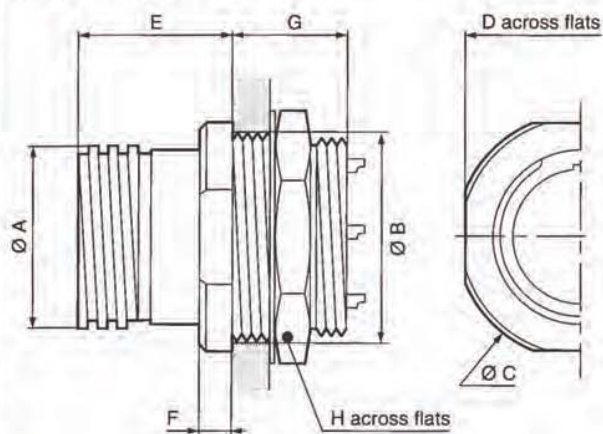
shell size	1	2	3	4
Ø A max.	22.1	25.1	30.1	34.6
Ø B iso	23.5 x 1	26.5 x 1	32 x 1	36.5 x 1
Ø C max.	35	38.5	44.5	49.5
D max.	32.1	35.1	41.6	46.1
E max.	24	24	25	26
F max.	5	5	5	5
G max.	34.5	34.5	34.5	34.5
H max.	27	30	36	41

shell size 7



shell size	7
Ø A max.	48,1
Ø B iso	51x 1
D max.	69
E max.	63
F max.	30
G max.	34
H max.	9

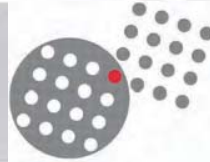
shell sizes 5-6



shell size	5	6
Ø A max.	72	93
Ø B iso	70 x 2	89 x 2
Ø C max.	94	125
D max.	85	111
E max.	60.8	60.8
F max.	14.5	14.5
G max.	74	74
H max.	80	104

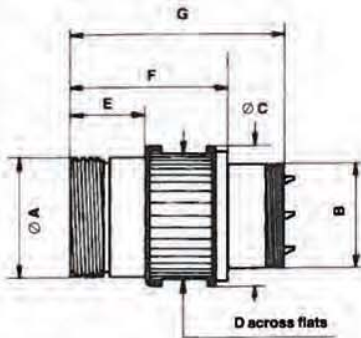
For ordering information see page 13 • For panel fixing dimensions see page 21.

8810 Series



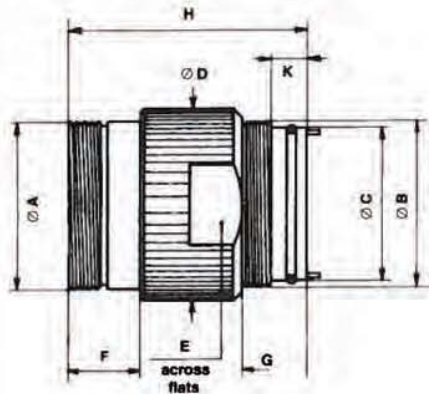
cable connecting receptacle (series 11H)

shell sizes 1-4



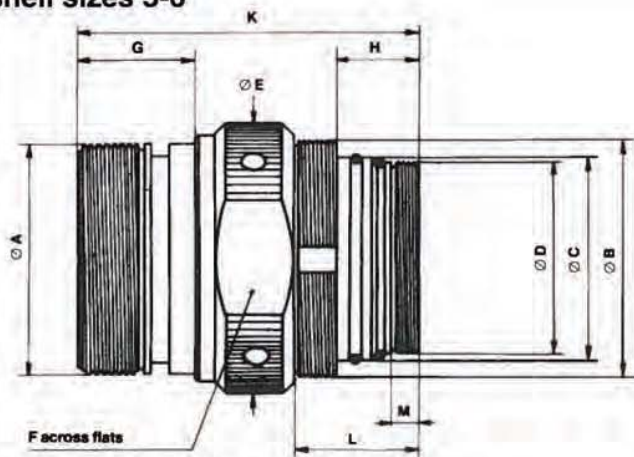
shell size	1	2	3	4
∅ A max.	22.1	25.1	30.1	34.6
∅ B iso	16.8 x 0.5	20 x 0,75	25.5 x 0.75	30 x 0.75
∅ C max.	26.5	30	35	40
D max.	24.1	27.1	32.1	36.1
E max.	19	19	20	21
F max.	42.1	42.1	43.1	44.1
G max.	58.1	58.1	59.1	60.1

shell size 7



shell size	7
∅ A max.	48.1
∅ B iso	48 x 0,75
∅ C	44.2f8
∅ D max.	55.5
E max.	50
F max.	20.7
G max.	18.6
H max.	66.9
K max.	10.7

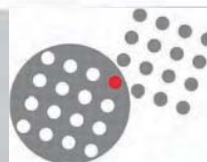
shell sizes 5-6



shell size	5	6
∅ A max.	72	93
∅ B iso	74 x 1.5	96 x 2
∅ C	62.5f7	82.5f8
∅ D iso	58 x 1.5	77 x 1.5
E max.	89.1	110.1
F max.	80	101
G max.	46.3	46.3
H max.	32.5	32.5
K max.	135.2	135.2
L max.	50.5	50.5
M max.	10.6	10.6

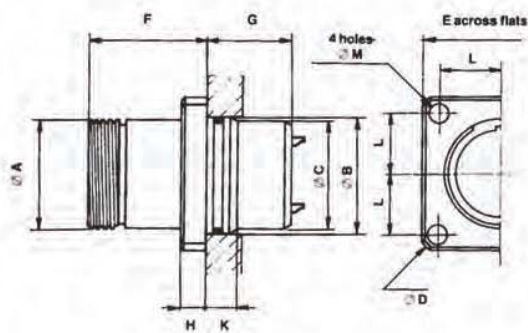
For ordering information see page 13

8810 Series



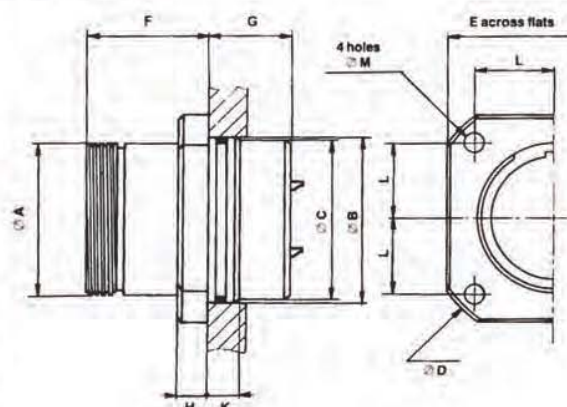
square flange receptacle (series 15H)

shell sizes 1-4



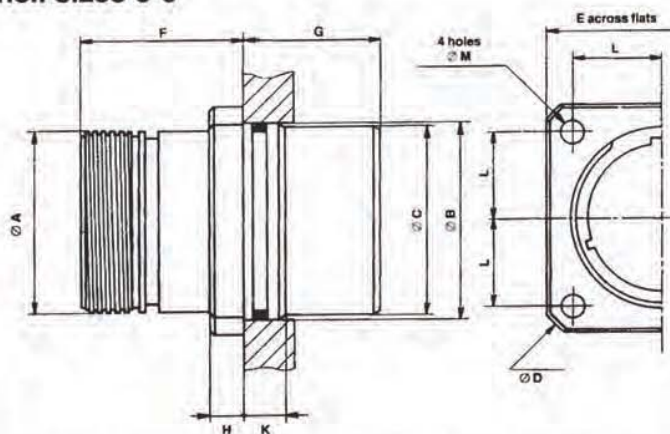
shell size	1	2	3	4
Ø A max.	22.1	25.1	30.1	34.6
Ø B (H8)	23.6	26.6	32.1	36.6
Ø C	22.9	25.9	31.3	35.8
Ø D max.	49.5	53.5	59.6	64.6
E max.	36	39	45	49
F max.	34.1	34.1	36.1	37.1
G max.	24.2	24.2	23.2	23.2
H max.	8	8	8	8
K max.	9.5	9.5	9.5	9.5
L	13.5	15	17	19
Ø M	4.7	4.7	5.7	5.7

shell size 7



shell size	7
Ø A max.	48.1
Ø B (H8)	51.4
Ø C	50.6
Ø D max.	80
E max.	66
F max.	38
G max.	26
H max.	9
K max.	9.5
L	24
Ø M	5.7

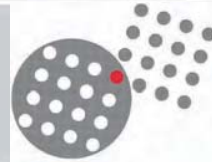
shell sizes 5-6



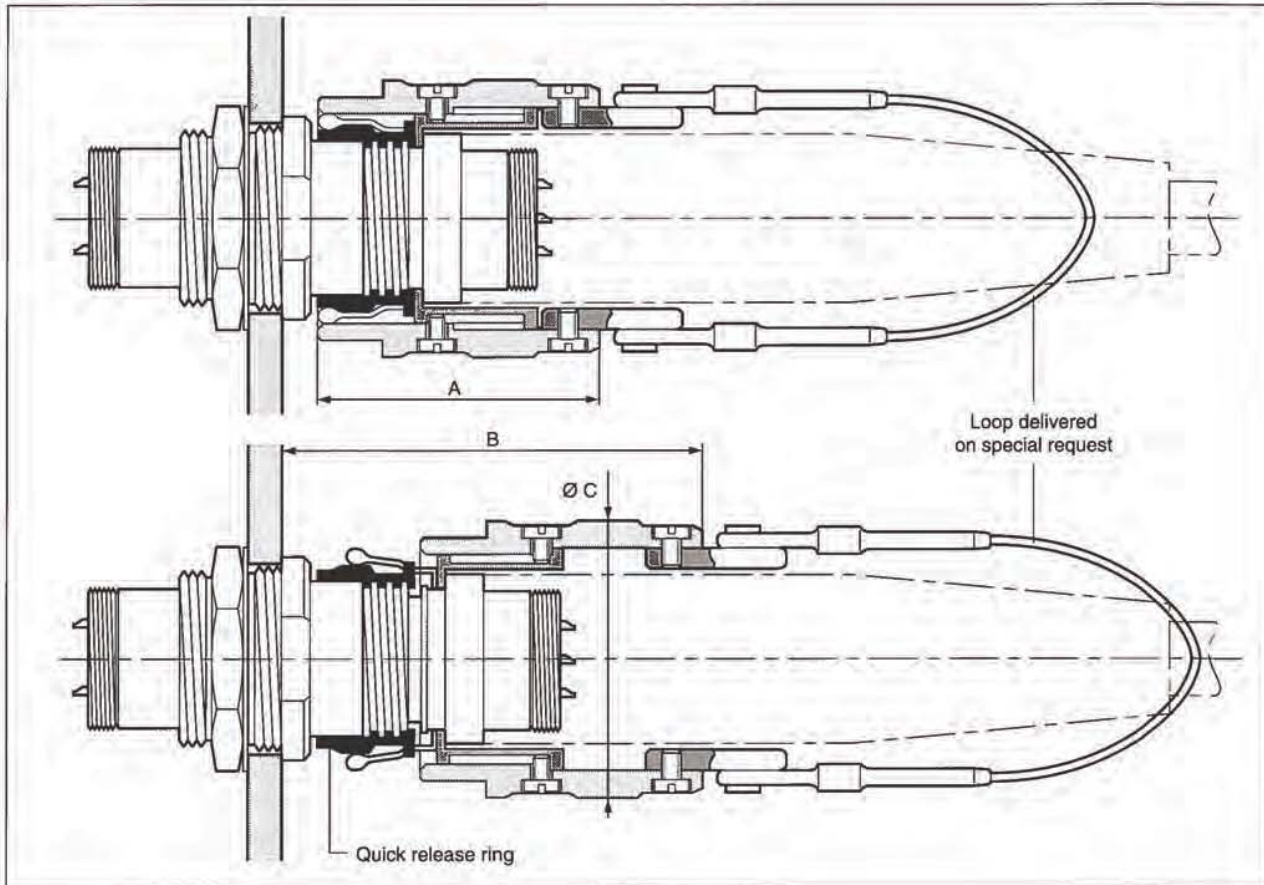
shell size	5	6
Ø A max.	72	93
Ø B (H8)	70.1	89.1
Ø C	69.2	88.2
Ø D max.	110	138
E max.	86.1	105.1
F max.	71	73.1
G max.	63.4	61.4
H max.	15	15
K max.	19	19
L	33	40
Ø M	8.7	10.7

For ordering information see page 14 • For panel fixing dimensions see page 20.

8810 Series



quick release plug (series 76H) custom design product



These special plugs can be screw coupled in the normal way, but have the extra facility to be quick released by pulling on the coupling nut. Various types of lanyard for diver operation can be used, or direct uncoupling by remote actuator achieved with fork mechanisms. These quick release plugs are available with any contact layout and can be mated with receptacle types.

NOTA I :

- Adaptors are available to enable next larger shell size clamp to be fitted. Please refer to page 16.

NOTA II :

- For shell size 4 with a cable OD > 17 mm, the adaptors 8810 - 6524 has to be used.

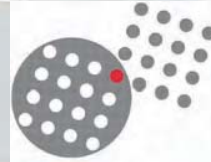
quick release accessories and dimensions

shell size	quick release ring	dimensions		
		A	B	Ø C max.
1	8810-1062	64,4	91	45,6
2	8810-1063	64,4	91	50,6
3	8810-1064	64,4	92	57,6
4	8810-1065	64,4	93	61,6
7	8810-3718	71,8	123	78,6
5	8810-1649	117,4	184	105,6
6	8810-2596	117,4	184	126,6

Shell size	Coupling (C in Nm ± 2)	Pull of force at 1 bar (F1 in daN ± 15%)	Theoretic section of pressure application (S in cm ²)
1	10	60	0,97
2	15	80	1,48
3	20	95	2,66
4	30	110	4,05
7	40	115	8
5	45	115	10,47
6	110	160	19,56

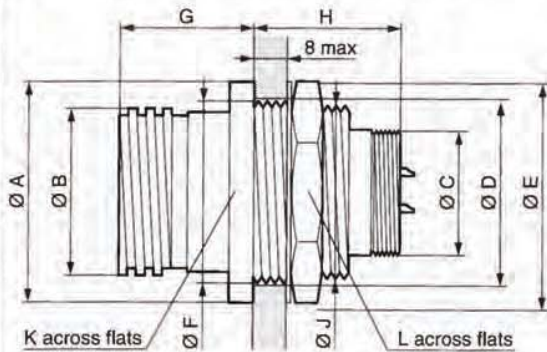
For connector ordering information see page 14.

8810 Series



reverse plug & receptacle custom design product

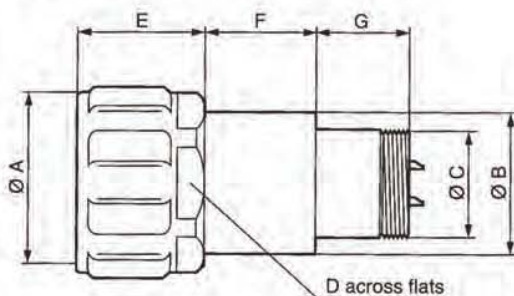
jam nut receptacle (séries 10HR)



This addition to the 8810 range of connectors was designed to overcome the problem sometimes encountered on internal equipment, when receptacle pin contacts are live. Although the 8810 has a scoop proof design, preventing damage to pins by the mating plug body, pins with power present a potential electric shock hazard. By offering female inserts in special receptacles and male inserts in the corresponding plug, a safe system can be designed.

shell size	ØA	ØB	ØC	ØD	ØE	ØF	G	H	ØJ	K	L
1	38	25	M16,8	M26,5	37,5	26,6	23,8	25,55	M25	35	30
2	44	30	M20	M32	44,5	32,1	23,8	25,55	M30,5	41,5	36
3	49	34,5	M25,5	M36,5	48,5	36,6	23,8	25,55	M35	46	41
4	56	38	M30	M42	55	42,1	23,8	25,55	M40,5	53	47

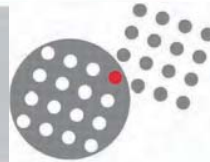
plug (séries 36HR)



shell size	ØA	ØB	ØC	D	E	F	G
1	33,5	24	M16,8	29	24	19,75	16
2	39	27,5	M20	34	24	19,75	16
3	43,5	33	M25,5	38	24	19,75	16
4	46,5	37,5	M30	42	24	19,75	16

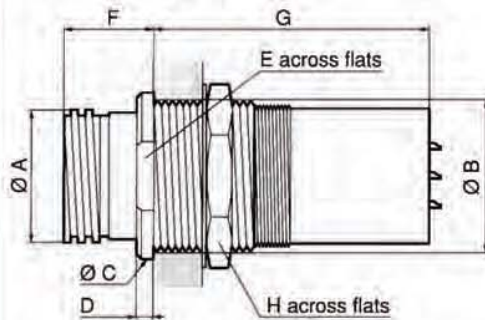
For ordering information see page 13 - For panel fixing dimensions see page 21.

8810 Series



inverse pressure receptacle (séries 12 H)

custom design product



inverse pressure receptacle

Designed for those applications which require the full external wet pressure of 300 bars whilst also allowing up to 150 bars dry pressure on the rear of the receptacle. A differential pressure of up to 150 bars is possible but positive pressure must be maintained on the front face. The inverse pressure receptacle is wet mateable and is only available in shell sizes 1 to 4.

shell size	1	2	3	4
Ø A max.	22,1	25,1	30,1	34,6
Ø B iso	23,5 x 1	26,5 x 1	32 x 1	36,5 x 1
Ø C max.	35	38,5	44,5	49,5
D max.	5	5	5	5
E max.	32,1	35,1	41,6	46,1
F max.	23	23	25	26
G max.	67,5	67,5	67,5	67,5
H max.	27	30	36	41

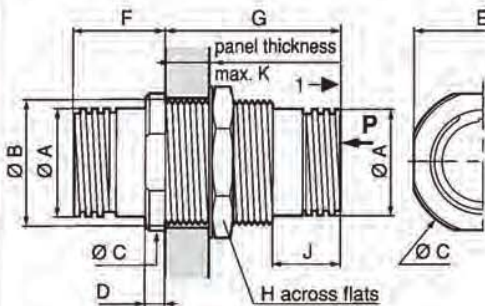
For order information see page 14

For panel fixing dimensions see page 21.

thru bulkhead receptacle (séries 14 H)

thru bulkhead receptacle (14H)

This receptacle is mateable with standard 8810 plugs in both sides of a bulkhead allowing composite cables to be quickly attached inside a pressure vessel without the need to solder the terminations. Externally, the wet pressure capability is the same as the standard 8810 receptacle. *The internal side must be kept dry in shell sizes 1 to 4 as no water purging mechanism is included.* P = 0 bar although a peripheral sealing O ring is provided in shell sizes 5 and 6 to enable immersion after dry mating i.e. only on side is wet mateable. (Not available in all layouts or shell size 7).

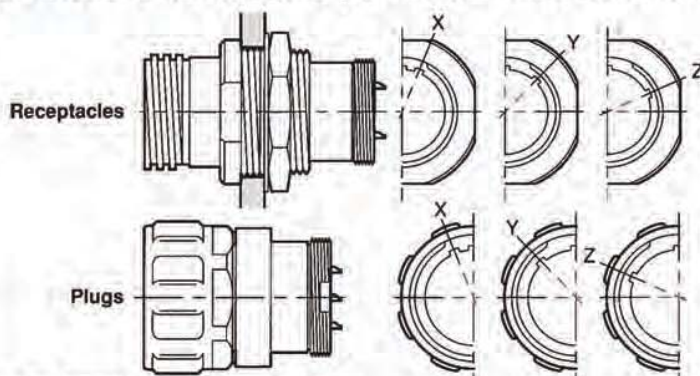


	shell size					
	1	2	3	4	5	6
Ø A max.	22,1	25,1	30,1	34,6	72	93
Ø B iso	23,5 x 1	26,5 x 1	32 x 1	36,5 x 1	75 x 2	96 x 2
Ø C max.	35	38,5	44,5	49,5	98	125
D max.	5	5	5	5	14,5	14,5
E max.	32,1	35,1	41,6	46,1	89	111
F max.	24	24	25	26	60,8	60,8
G max.	49,2	49,2	50,2	51	121	121
H max.	27	30	36	41	85	111
J max.	18,1	18,1	19,1	20,1	46,3	46,1
H max.	26	26	26	26	60	60

For order information see page 14

For panel fixing dimensions see page 21.

alternative orientations (X, Y and Z - add suffix to end of standard number)



Extra keyways are available on request on plugs and receptacles to prevent cross coupling of connectors with the same contact layout. One extra keyway is provided at one of three alternative polar positions.

receptacles

polar positions :

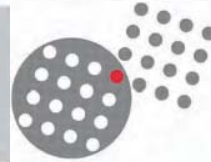
X = 22° from major keyway

Y = 44° from major keyway

Z = 66° from major keyway

Available on special request.

8810 Series



ordering information standard connectors

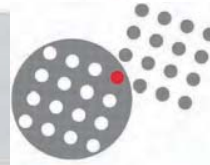
shell size	no. of contacts	plug (36 H) see page 6	jam nut receptacle (10 H) see page 7	cable connecting receptacle (11 H) see page 8
1	4	8810-36H-1-04SA	8810-10H-1-04PA	8810-11H-1-04PA
2	7	8810-36H-2-07SA	8810-10H-2-07PA	8810-11H-2-07PA
2	4	8810-36H-2-04S	8810-10H-2-04P	8810-11H-2-04P
2	1	8810-36H-2-01SA	8810-10H-2-01PA	8810-11H-2-01PA
3	12	8810-36H-3-12SA	8810-10H-3-12PA	8810-11H-3-12PA
4	19	8810-36H-4-19SA	8810-10H-4-19PA	8810-11H-4-19PA
4	12	8810-36H-4-12SA	8810-10H-4-12PA	8810-11H-4-12PA
4	4	8810-36H-4-04SA	8810-10H-4-04PA	8810-11H-4-04PA
7	38	8810-36H-7-38SA	8810-10H-7-38P	8810-11H-7-38PA
5	37	8810-36H-5-37SA	8810-10H-5-37PA	8810-11H-5-37PA
5	1	8810-36H-5-01SA	8810-10H-5-01PA	8810-11H-5-01PA
6	68	8810-36H-6-68SA	8810-10H-6-68PA	8810-11H-6-68PA
6	4 + 2	8810-36H-6-04SA	8810-10H-6-04PA	8810-11H-6-04PA

For alternative orientations see page 12.

ordering information reverse connectors custom design product

shell size	no. of contacts	plug (36 HR) see page 11	jam nut receptacle (10 HR) see page 11
1	4	8810-36H-1R-04P	8810-10H-1R-04S
2	7	8810-36H-2R-07P	8810-10H-2R-07S
2	4	8810-36H-2R-04P	8810-10H-2R-04S
2	1	8810-36H-2R-01P	8810-10H-2R-01S
3	12	8810-36H-3R-12P	8810-10H-3R-12S
4	19	8810-36H-4R-19P	8810-10H-4R-19S
4	12	8810-36H-4R-12P	8810-10H-4R-12S
4	4	8810-36H-4R-04P	8810-10H-4R-04S

8810 Series



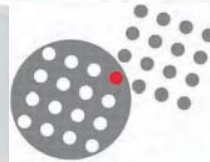
ordering information other receptacles custom design product

shell size	no. of contacts	inverse pressure receptacle (12 H) see page 12	thru bulkhead receptacle (14 H) see page 12	square flange receptacle (15 H) see page 9
1	4	8810-12H-1-04PA	8810-14H-1-04PA	8810-15H-1-04P
2	7	8810-12H-2-07PA	8810-14H-2-07PA	8810-15H-2-07P
2	4	8810-12H-2-04P	8810-14H-2-04PA	8810-15H-2-04P
2	1	8810-12H-2-01PA	8810-14H-2-01PA	8810-15H-2-01P
3	12	8810-12H-3-12PA	8810-14H-3-12PA	8810-15H-3-12P
4	19	8810-12H-4-19PA	8810-14H-4-19PA	8810-15H-4-19P
4	12	8810-12H-4-12P	8810-14H-4-12PA	8810-15H-4-12P
4	4	8810-12H-4-04PA	8810-14H-4-04PA	8810-15H-4-04P
7	38	-	-	8810-15H-7-38PA

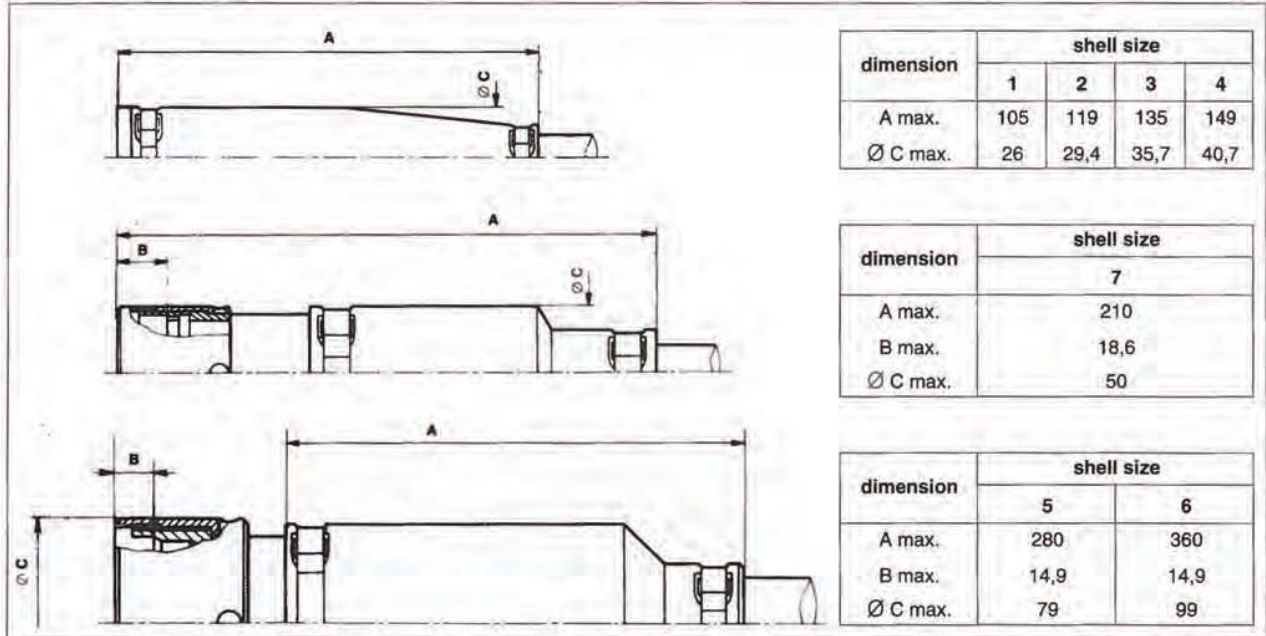
ordering information quick release plug custom design product (see page 10)

shell size	no. of contacts	quick release plug
1	4	8810-76H-1-04SA
2	7	8810-76H-2-07SA
2	4	8810-76H-2-04S
2	1	8810-76H-2-01SA
3	12	8810-76H-3-12SA
4	19	8810-76H-4-19SA
4	12	8810-76H-4-12SA
4	4	8810-76H-4-04SA
7	38	8810-76H-7-38SA
5	37	8810-76H-5-37SA
5	1	8810-76H-5-01SA
6	68	8810-76H-6-68SA
6	4 + 2	8810-76H-6-04SA

8810 Series



standard endbell

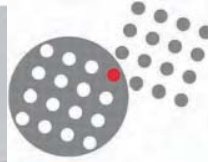


ordering information standard endbell

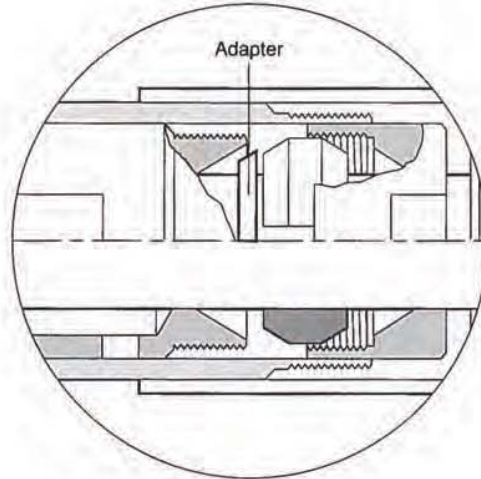
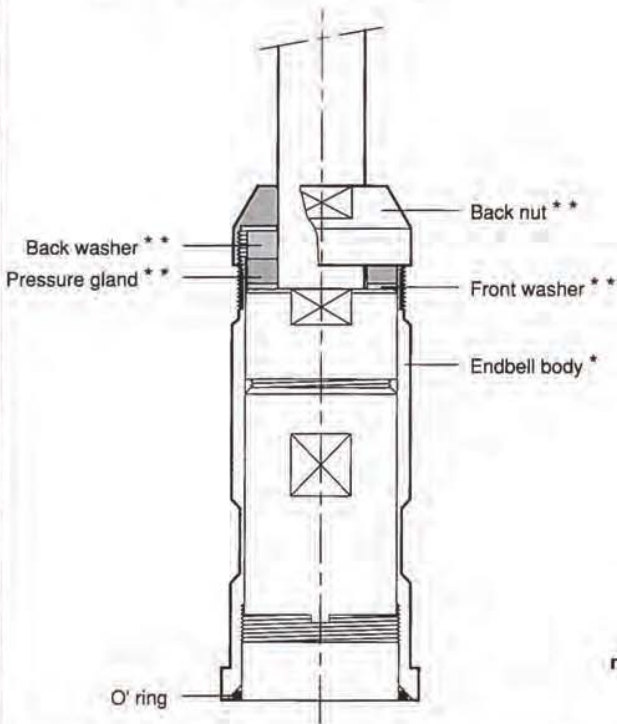
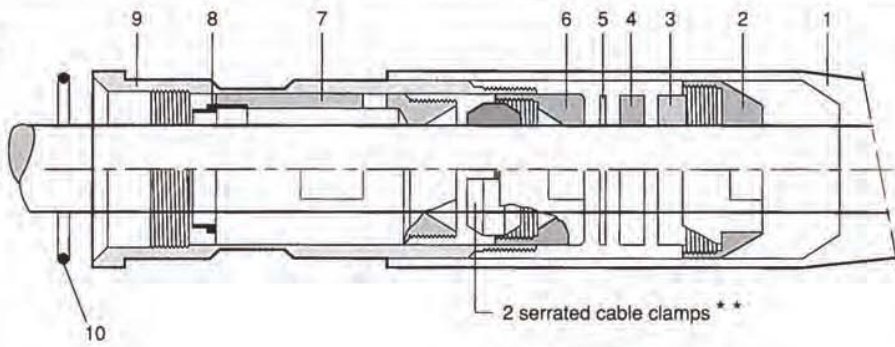
shell size	cable diameter	part number	shell size	cable diameter	part number
1	7.8-8.8	8810-13-078-088	7	18.0-20.0	8810-73-180-200
1	8.7-9.7	8810-13-087-097	7	20.0-22.0	8810-73-200-220
1	9.5-10.5	8810-13-095-105	7	22.0-24.0	8810-73-220-240
1	10.5-11.5	8810-13-105-115	7	24.0-26.0	8810-73-240-260
2	9.3-10.3	8810-23-093-103	7	26.0-28.0	8810-73-260-280
2	10.3-11.3	8810-23-103-113	5	15.0-20.0	8810-53-150-200
2	11.0-12.0	8810-23-110-120	5	20.0-25.0	8810-53-200-250
2	12.0-13.0	8810-23-120-130	5	25.0-30.0	8810-53-250-300
3	9.5-11.0	8810-33-095-110	5	30.0-35.0	8810-53-300-350
3	11.0-12.5	8810-33-110-125	6	22.0-28.0	8810-63-220-280
3	12.5-14.0	8810-33-125-140	6	28.0-34.0	8810-63-280-340
3	14.0-15.5	8810-33-140-155	6	34.0-40.0	8810-63-340-400
4	11.2-12.7	8810-43-112-127	6	40.0-45.0	8810-63-400-450
4	12.7-14.2	8810-43-127-142	6	45.0-50.0	8810-63-450-500
4	14.0-15.5	8810-43-140-155	Adaptators are available to enable next larger shell size clamp to be fitted • Please refer page 16.		
4	15.5-17.0	8810-43-155-170			

NOTA : Custom design end-bells are developed for other cable OD dimensions please consult us.

8810 Series



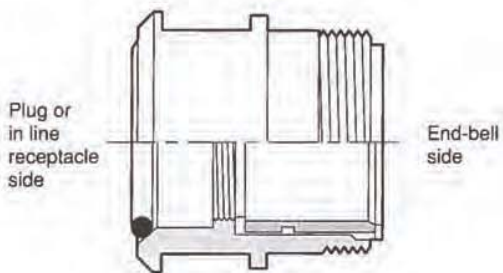
- ** Special parts
- * Common parts
- 1 - Boot **
- 2 - Back nut **
- 3 - Back washer **
- 4 - Pressure gland **
- 5 - Front washer **
- 6 - Spacer nut *
- 7 - Spacer *
- 8 - Potting endbell *
- 9 - End bell body *
- 10 - O'ring *



In case of power contacts, the shells size 2 and 4 have an adapter fitted between the spacer and the serrated cable clamps

note The serrated cable clamps are fitted immediately before screwing the spacer nut to the spacer

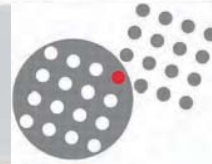
adaptor



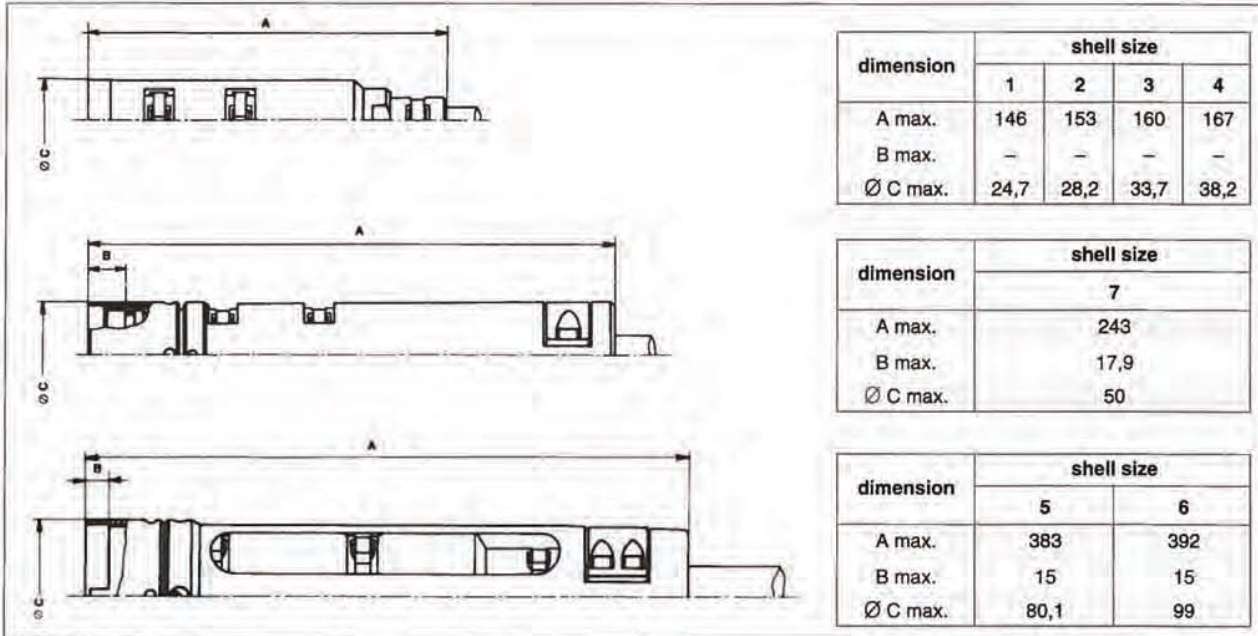
plug or in line shell	end-bell shell	adaptor part number
1	2	8810-44
2	3	8810-45
3	4	8810-46
1	3	8810-47
2	4	8810-48

Adaptor can be fitted either on cable gland or longitudinally sealed end-bell.

8810 Series



longitudinally sealed endbell



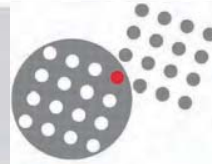
ordering information longitudinally sealed endbell

size	cable diameter	part number		shell size	cable diameter	part number	
1	7.8-8.8	8810-1-	-078-088	7	18.0-20.0	8810-7-	-180-200
1	8.7-9.7	8810-1-	-087-097	7	20.0-22.0	8810-7-	-200-220
1	9.5-10.5	8810-1-	-095-105	7	22.0-24.0	8810-7-	-220-240
1	10.5-11.5	8810-1-	-105-115	7	24.0-26.0	8810-7-	-240-260
2	9.3-10.3	8810-2-	-093-103	7	26.0-28.0	8810-7-	-260-280
2	10.3-11.3	8810-2-	-103-113	5	15.0-20.0	8810-5-	-150-200
2	11.0-12.0	8810-2-	-110-120	5	20.0-25.0	8810-5-	-200-250
2	12.0-13.0	8810-2-	-120-130	5	25.0-30.0	8810-5-	-250-300
3	9.5-11.0	8810-3-	-095-110	5	30.0-35.0	8810-5-	-300-350
3	11.0-12.5	8810-3-	-110-125	6	22.0-28.0	8810-6-	-220-280
3	12.5-14.0	8810-3-	-125-140	6	28.0-34.0	8810-6-	-280-340
3	14.0-15.5	8810-3-	-140-155	6	34.0-40.0	8810-6-	-340-400
4	11.2-12.7	8810-4-	-112-127	6	40.0-45.0	8810-6-	-400-450
4	12.7-14.2	8810-4-	-127-142	6	45.0-50.0	8810-6-	-450-500
4	14.0-15.5	8810-4-	-140-155	Adaptors are available to enable next larger shell size clamp to be fitted • Please refer to page 16.			
4	15.5-17.0	8810-4-	-155-170				

Insert appropriate contact reference - see page 5.
Ex : Nb of contacts : 04, 07, 12, 19.

NOTA : Custom design end-bells are developed for other cable OD dimensions please consult us.

8810 Series



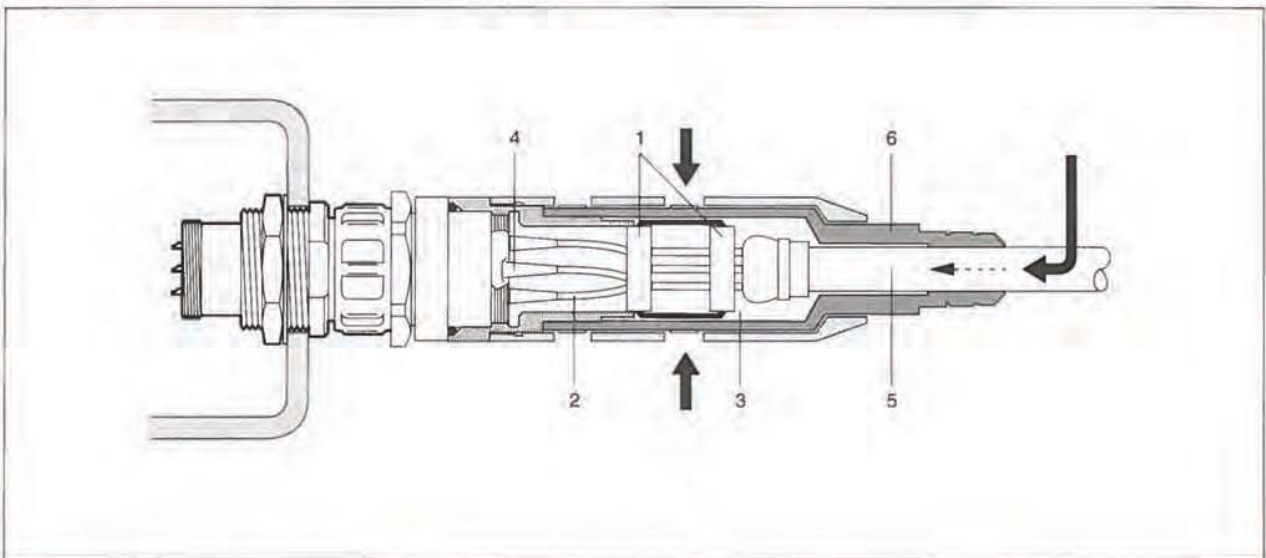
The problem of hosing. This problem has been of such concern to users of underwater cable that in some cases extraordinary lengths have been gone to in attempt to avoid its occurrence. Basically the phenomenon occurs because a cable electrical system is made and sealed at atmospheric pressure and when immersed a significant pressure differential appears between the outside water and the internal components of the electrical system. (As a rule of thumb, pressure

increases at the rate of 1 atmosphere per 10 metres depth, so that the pressure differential would be 1000p.s.i. at 680 metres depth). In the event that a cable becomes cut or severed, the pressure differential causes water to enter the cable and hose down inside flooding the equipment at the deeper end.

Among the precautions taken to avoid the problem is that of filling the cable with a mastic material. This has been found to give

only temporary protection and also the effects of armouring the cable against damage. However this can often have the effect of making the cable impractically inflexible.

The Souriau solution is the longitudinal endbell which when wired onto standard Souriau 8810 connectors effectively prevents water from short-circuiting the electrical connector.



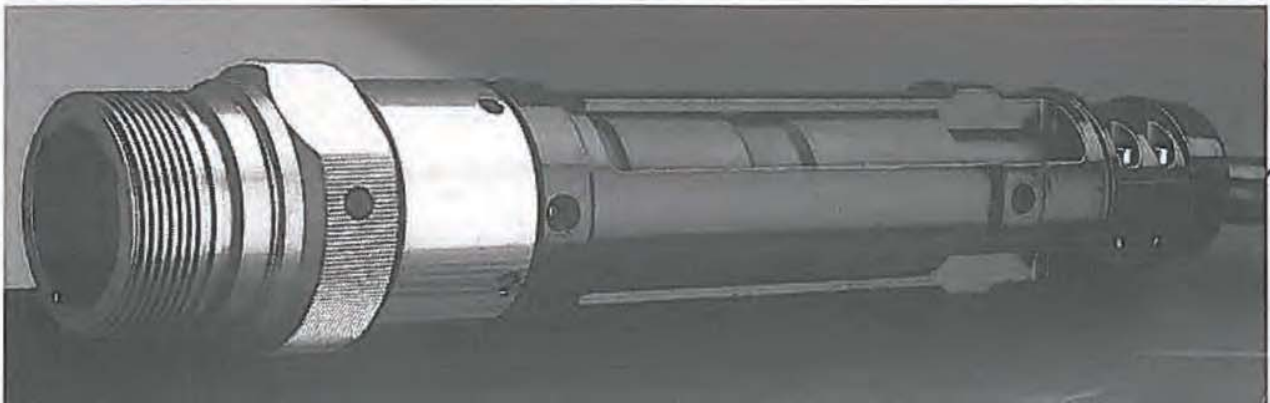
The endbell operates by balancing the pressure on the internal parts of the cable connector assembly against the water pressure trying to enter. This can be achieved to some extent on oil filled systems but unlike oil-filled designs the Souriau endbell does not use a true fluid and thus the material does not flow away. In this way longer term protection is given and a high mechanical strength

provides excellent cable traction force resistance.

Referring to the drawing, the endbell works as follows. Two separators (1) space the individual wires apart in order to allow a flexible compound (3) to surround them. In the event that a cable becomes damaged the water pressure in the cable is balanced by that exerted (via pressure windows in the assembly) onto a sleeve (6) and

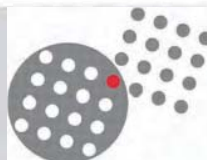
so onto the compound. The water is thus prevented from entering the endbell and reaching the contacts (4). Conventional wire sealing is also provided by the sleeve (6) which clamps around the cable (5).

The 8810 longitudinally sealed endbell operates at depth down to a maximum of 3000 metres and at temperatures between -30°C and $+70^{\circ}\text{C}$.



Please check with us regarding minimum cable acceptance diameters available for particular connector/endbell sizes.

8810 Series



sealing cap & test cap

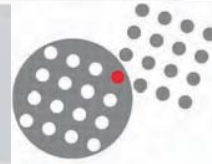
sealing cap for receptacle (SCR)		sealing cap for plug (SCP)				
layout ref.→	1-04	2-04	2-07	3-12	4-12	4-19
(SCR)	8810-2861	8810-6459	8810-2862	8810-2863	8810-6213	8810-2864
(SCP)	8810-2878	8810-6460	8810-2879	8810-2880	8810-6212	8810-2881
(TCR)	8810-2844	8810-6834	8810-2845	8810-2846	8810-6836	8810-2847
(TCP)	8810-2902	8810-6835	8810-2903	8810-2904	8810-6837	8810-2905

underwater test cap (with contacts) for receptacle (TCR)		underwater test cap (with contacts) for plug (TCP)					
layout ref.→	7-38	5-37	6-68	2-01	4-04	5-01	6-04
(SCR)	8810-2752	8810-2480	8810-2866	8810-2867	8810-2868	8810-2869	8810-2870
(SCP)	8810-6230	8810-2882	8810-2883	8810-2884	8810-2885	8810-2886	8810-2887
(TCR)	8810-6838	8810-2848	8810-2849	8810-2850	8810-2851	8810-2852	8810-2853
(TCP)	8810-6839	8810-2906	8810-2908	8810-2909	8810-2910	8810-2911	8810-2912

protective cap

shell size	Protective cap for receptacle in line receptacle and thru bulkhead	Protective cap for plug
1	8810-1197	8810-2916
2	8810-1198	8810-2888
3	8810-1199	8810-2889
4	8810-1200	8810-2890
7	8810-2205	8810-3214
5	8810-1201	8810-2891
6	8810-1202	8810-2892

8810 Series



installation instructions

1. mounting of receptacle and thru bulkhead

1.1. panel materials

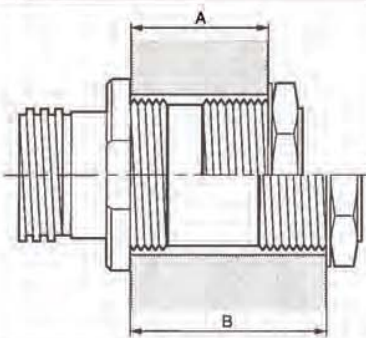
To avoid corrosion, choose materials for your panel according to the connector shell material : nickel aluminium bronze or passivated 316 L stainless steel (on request).

1.2. panel thickness

shell size	minimum thickness (mm)	maximum thickness (mm)	
		receptacle* (10 H)	thru bulkhead receptacle
1	2.5	8	26
2	2.5	8	26
3	2.5	8	26
4	2.5	8	26
7	3	22	-
5	4	25	60
6	4	25	60

* If your panel is thicker than the figures indicated above, use a spacer.

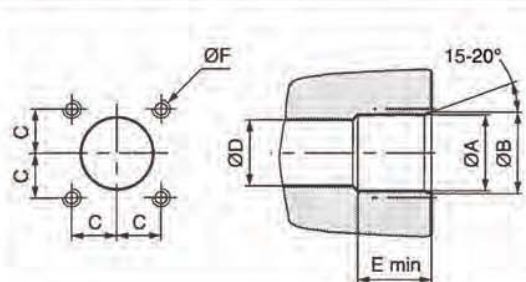
1.3. spacers



shell size	panel thickness (A) in mm	spacer part number	panel thickness (B) in mm	spacer part number
1	8 to 40	8810-2922	40 to 60	8810-2926
2	8 to 40	8810-2923	40 to 60	8810-2927
3	8 to 40	8810-2924	40 to 60	8810-2928
4	8 to 40	8810-2925	40 to 60	8810-2929
5	25 to 80	8810-2956	80 to 100	8810-2958
6	25 to 80	8810-2957	80 to 100	8810-2959

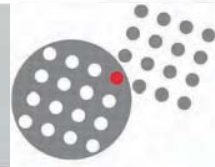
If your panel is thicker, please consult us.

1.4. panel fixing dimensions for square flange receptacle (15H)



shell size	Ø A	Ø B	C	Ø D	E min.	Ø F
1	23.6	25	13.5	23.1	10	M4
2	26.6	28.1	15	26.1	10	M4
3	32.1	33.4	17	31.5	10	M5
4	36.6	38.1	19	36	10	M5
7	51.4	53.1	24	50.8	10	M5
5	70.1	71.9	33	69.4	20	M8
6	89.1	91.4	40	88.4	20	M10

8810 Series



customised connectors



