

SEACON[®]

UNDERWATER ELECTRICAL AND FIBER OPTIC CONNECTORS



PENETRATORS

UNDERWATER ELECTRICAL AND OPTICAL PENETRATORS

INTRODUCTION

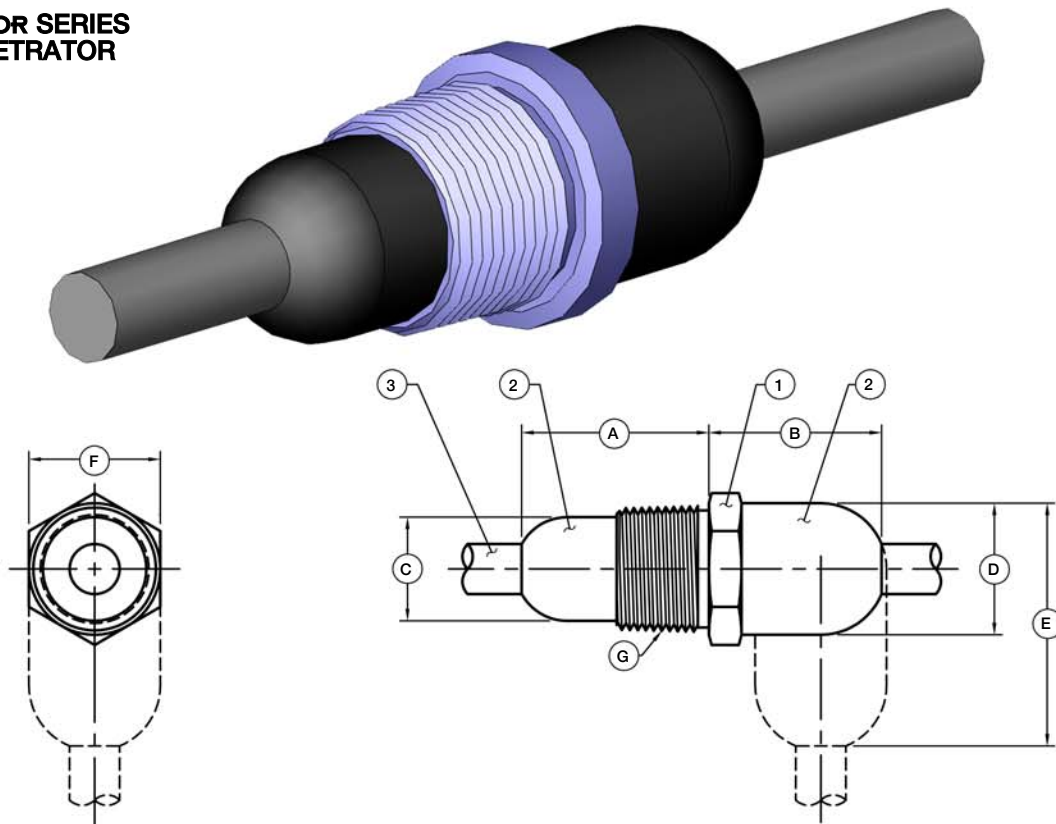
Penetrators are used in applications in which a waterproof seal needs to be made between a cable and a pressure vessel. This is often accomplished using a connector set, but if there is no requirement to separate the cable from the equipment, a penetrator may be used. A penetrator generally has fewer seals and may be physically smaller than a connector pair but hard wiring the cable to the equipment may make it less flexible in use than a connector.

We have designed and sold many penetrator products over the years. Those shown on these pages are the current standards. We may be able to provide earlier designs if necessary, but please consider those shown here.

In addition to those shown, we make many custom penetrators based on parameters supplied to us by our customers. If you do not find something that fits your requirements, please contact SEA CON® and we can assist you by recommending an existing design or developing a new one.

DIMENSION DETAILS

PENETRATOR SERIES NPT PENETRATOR



ITEM:

- 1 - NPT PENETRATOR - 316 Stainless Steel.
- 2 - NEOPRENE MOLDING (POLYURETHANE OPTIONAL).
- 3 - CABLE.

PENETRATOR SIZE	A - (INCHES)	B - (INCHES)	C - Ø (INCHES)	D - Ø (INCHES)	E - (INCHES)	F - HEX (INCHES)	G - NPT
1" NPT	1.95	1.80	1.08	1.37	2.8	1.37	1-11 1/2
3/4" NPT	1.70	1.80	0.87	0.93	2.5	1.06	3/4-14
1/2" NPT	1.50	1.80	0.62	0.82	2.0	0.87	1/2-14

NOTES:

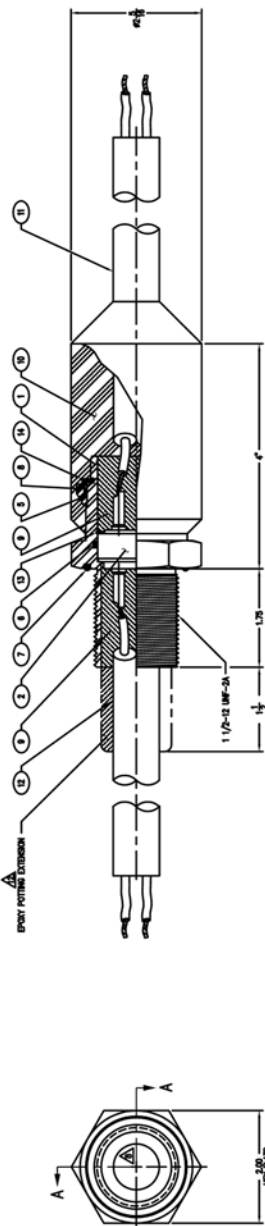
- Tin plated contact leads per MIL-T-10727, Type 1, and Fused.
- Hermetic Seal must withstand 10,000 psi test Hydrostatic Pressure.
- Test voltage 800 VAC for 3 seconds minimum without breakdown.
- Maximum contact configuration: 8 PIN.

DIMENSION DETAILS

ZONE	REV	REF	EDD #	REV DWG	DESCRIPTION	DATE	APPROVED
A			10282		REV DWG	8/7/0004	RAM
B			10472		REV TABLE; ADD CONTACT CONFIGURATIONS; ADD ITEM 15 & NOTES		
C			10833		ADD #4 AND TO TABLE	9/6/7212	C. TRAM
D			17468		REV NOTES & ADD #1, #2, #3, #4 AND #20 AND TO TABLE	9/6/7720	C. TRAM
E			17982		ADDED NOTE 13.	06/0711	A 182/17EN
F					ADD MORE INFORMATION TO TABLE	18/4/0026	A 182/17EN
G			17952		ADD MORE INFORMATION TO TABLE	06/0821	RAM

NOTES:

- △ MATERIAL: 316 SST PER MSBA-002.
- △ MATERIAL: GRE PER MSBA-004.
- △ MATERIAL: COPPER & GOLD PLATED PER MSBA-000.
- △ MATERIAL: NYLON PER MSBA-008.
- △ DELETED.
- △ MATERIAL: WHITE EPOXY PER MSBA-003.



SECTION A-A

COUTPREG® 3000 SEALANT & ASSOCIATES, INC.		
15798	1	DELIN SLEAVE (OPTIONAL; NOT SHOWN)
7035-290	15	
5108-482	14	RETAINING RING
513	1	SPOOL
UR-137	13	
12	AR	CABLE TYPE AND LENGTH TO BE SPECIFIED BY CUSTOMER
12	AR	NEOPRENE CABLE TYPE AND LENGTH TO BE SPECIFIED BY CUSTOMER
11	AR	NEOPRENE MOLDING
10	AR	NEOPRENE MOLDING
9	AR	EPOXY POTTING
8	1	O-RING
2-531	8	
2-130	7	O-RING
2-128	6	O-RING
7035-401	5	ANTI-CATHODIC DELAMINATION RING
	5	DELETED
	4	DELETED
	3	DELETED
7035-276	2	1 1/2-12 PENETRATOR INSERT
7035-235	2	1 1/2-12 PENETRATOR SHELL
7035-235	1	
ITEM	QTY	DESCRIPTION
		INFORMATION FOR THE CUSTOMER
		FOR ORDERING
		FOR ORDERING

ASSY PART NO.	INSERT NO.	NO. OF CONTACTS	CONTACT GAUGE	MAXIMUM HYDROSTATIC TEST PRESSURE	MAXIMUM NITROGEN TEST PRESSURE
7003-109-1	7003-276-1	1	1/0 ANG	3000 PSI	1000 PSI
7003-109-4	7003-276-4	4	4 ANG	3000 PSI	1000 PSI
7003-109-4A	7003-276-4A	4	4 ANG	3000 PSI	1000 PSI
7003-109-10	7003-276-10	10	(3) 1/4 ANG	5000 PSI	1000 PSI
7003-109-16	7003-276-16	16	(3) 1/4 ANG	5000 PSI	1000 PSI
7003-109-23	7003-276-23	23	14 ANG	7000 PSI	1000 PSI
7003-109-24	7003-276-24	24	(3) 1/4 (20) 1/2 ANG	5000 PSI	1000 PSI
7003-109-25	7003-276-25	25	14 ANG	7000 PSI	1000 PSI
7003-109-28	7003-276-28	28	18 ANG	7000 PSI	1000 PSI
7003-109-30	7003-276-30	30	18 ANG	7000 PSI	1000 PSI
7003-109-42	7003-276-42	42	20 ANG	3000 PSI	1000 PSI

[illegible]

...	...	...
-----	-----	-----

2

ADMINISTRATIVE

3

4

1

4)

1

--	--

1

1

1

1

1

1

1

1

1

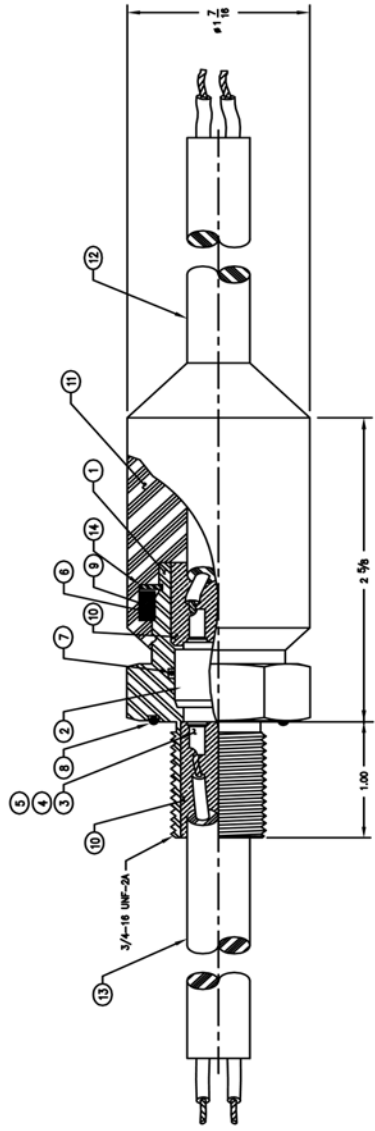
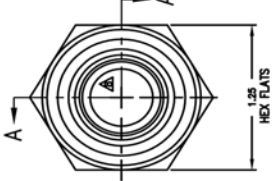
1

1

8 7 6 5 4 3 1

NOTES:

- △ MATERIAL: 316 STAINLESS STEEL PER QQ-S-783.
- △ MATERIAL: GLASS REINFORCED EPOXY PER B/A XS-2748.
- △ MATERIAL: COPPER ALLOY AND GOLD PLATED PER MIL-C-45204.
- △ MATERIAL: BUNA-N-70 DURO.
- △ DELETED.
- △ WHITE EPOXY PER B/A 8373.
- △ NEOPRENE PER B/A X-8727.
- △ REFERENCE TABLE FOR CONTACT CONFIGURATIONS.
- △ MATERIAL: PH 15-7 MO. OR EQUIVALENT STAINLESS STEEL.



SECTION A-A

PART NO.	NO. OF CONTACTS	CONTACT GAUGE
7093-108-2	2	14 AWG
7093-108-3	3	14 AWG
7093-108-6	6	16 AWG
7093-108-8	8	20 AWG
7093-108-10	10	20 AWG

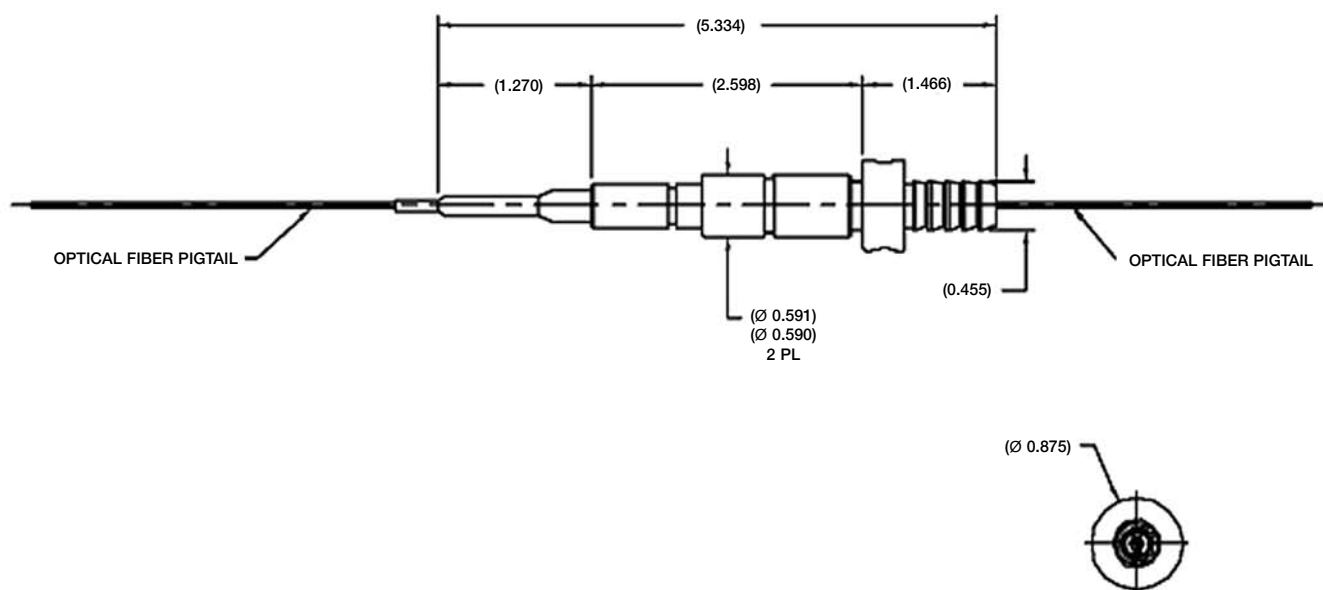
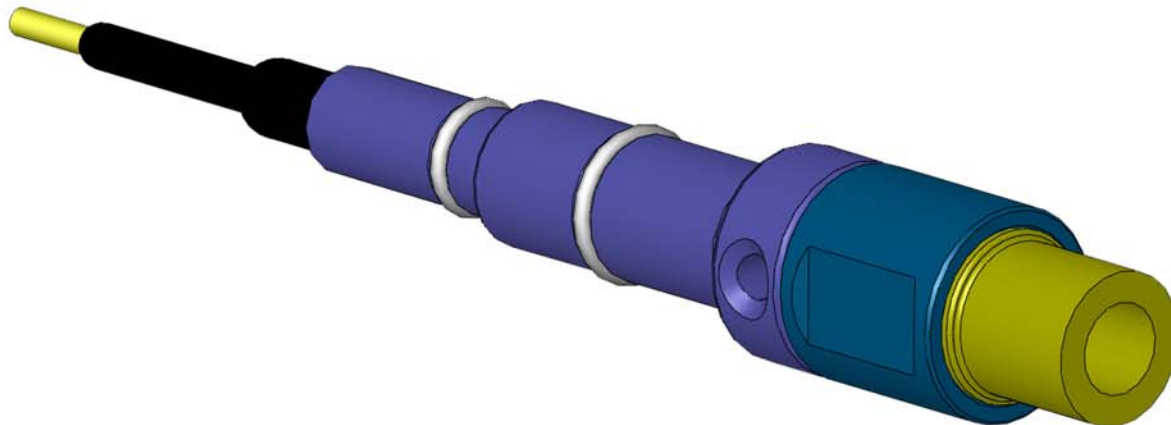
COPYRIGHT © 1984 BEAUFORTER & ASSOCIATES, INC.

14	1	5108-43H	RETAINING RING																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
----	---	----------	----------------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

SEACON	BRANTNER & ASSOCIATES, INC.	CONTRACT NO.	DATE
MAIN PLANT 1240 KERNON WAY EL CAJON, CALIF. 92020			9/40/119
3/4-16 PENETRATOR & ASSY		APPROVALS	
SIZE 15789		DRN T. TRAN	
DWG. NO. 7093-108		CHECK K. NORTHUP	
REV. B		TESTS	
		DO NOT SCALE DRAWING	
		SCALE 2/1	
		SHEET 1 OF 1	

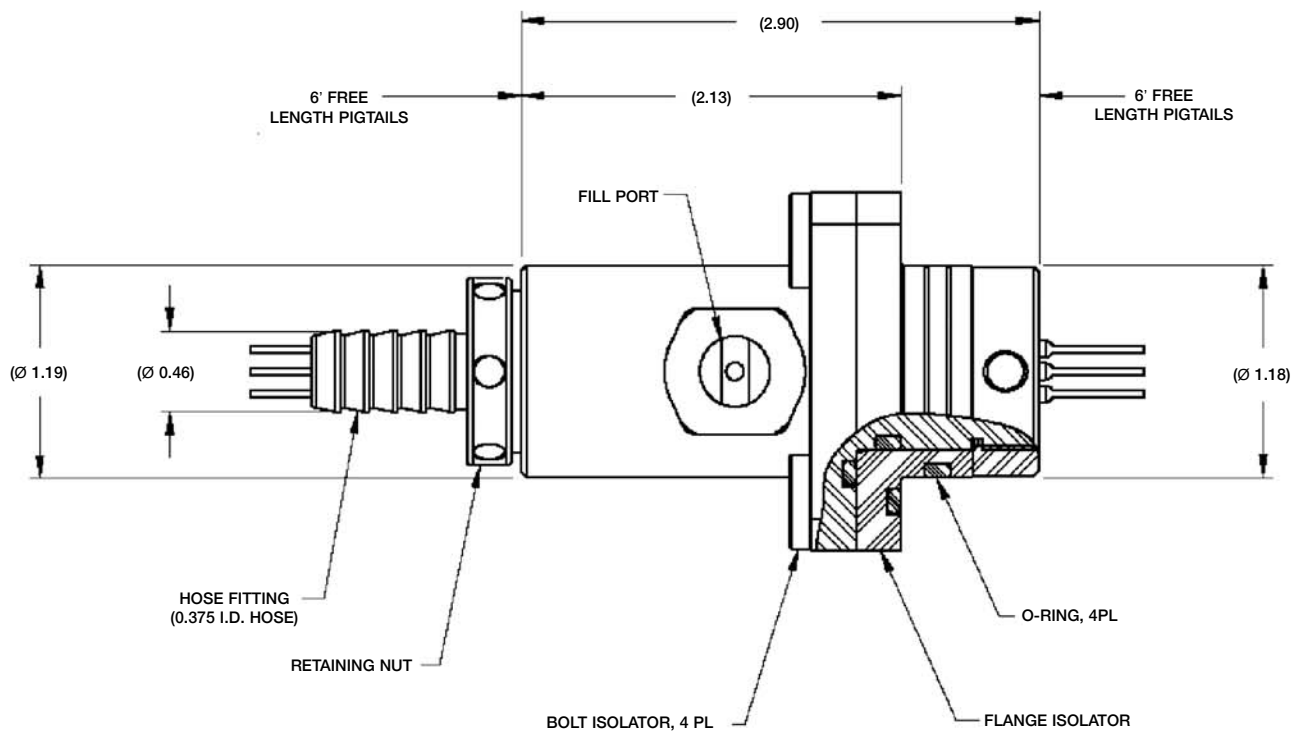
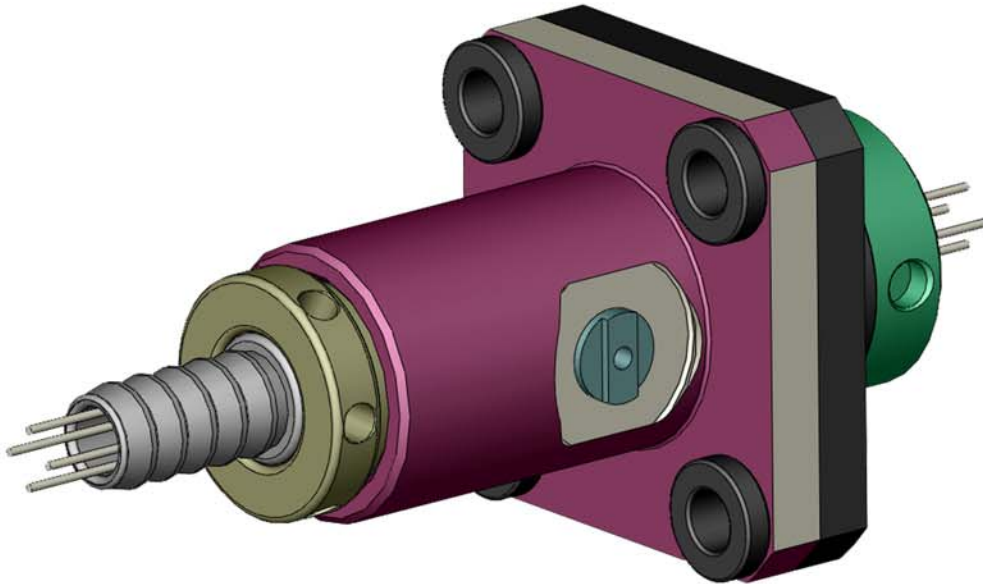
DIMENSION DETAILS

PENETRATOR SERIES FIBER OPTIC SINGLE PENETRATOR



DIMENSION DETAILS

PENETRATOR SERIES FIBER OPTIC FOUR CHANNEL PENETRATOR



**SEA CON®**

1700 Gillespie Way,
El Cajon, California 92020, USA.
TEL: +1 (619) 562-7071
FAX: +1 (619) 562-9706
E-Mail: seacon@seaconworldwide.com
Website: www.seaconworldwide.com

**SEA CON US GULF AREA SALES OFFICE**

14511 Old Katy Road, Suite 300,
Houston, Texas 77079, USA.
TEL: +1 (281) 599-3509
FAX: +1 (281) 599-3517
E-Mail: gulfcoastsales@seaconworldwide.com
Website: www.seaconworldwide.com

**SEA CON US EAST COAST SALES OFFICE**

50 Airport Road,
Westerly, RI 02891, USA.
TEL: +1 (401) 348-0155
FAX: +1 (401) 348-0227
E-Mail: eastcoastsales@seaconworldwide.com
Website: www.seaconworldwide.com

**SEA CON FLORIDA SALES OFFICE**

Building B, Suite 22,
3959 South Nova Road,
Port Orange, Florida 32127, USA.
TEL: +1 (281) 802-5504
E-Mail: steven.thumbbeck@seacon-ap.com
Website: www.seaconworldwide.com

**SEA CON ADVANCED PRODUCTS, LLC**

1321 Nelius Road, P.O. Box 767,
Bellville, Texas 77418, USA.
TEL: +1 (979) 865-8846
FAX: +1 (979) 865-8859
E-Mail: sales@seacon-ap.com
Website: www.seacon-ap.com

**SEA CON BRAZIL**

Rua Conde de Bonfim 120 sala 212,
Tijuca, Rio de Janeiro,
Brazil, CEP: 20520-053.
TEL #1: +55 (21) 3592-0920
TEL #2: +55 (21) 3594-0920
CELL: +55 (21) 8849-3336
E-Mail: renata@seacon-ap.com
Website: www.seaconworldwide.com

**SEA CON (europe) LTD**

Seacon House, Hewett Road,
Capton Hall Industrial Estate,
Great Yarmouth, Norfolk, NR31 0RB, UK.
TEL: +44 (0) 1493-652733
FAX: +44 (0) 1493-652840
E-Mail: sales@seaconeurope.com
Website: www.seaconeurope.com

**SEA CON GLOBAL PRODUCTION**

Callejon Terrazos #8, Local 2-C,
Las Brisas 1ra. Seccion,
Tijuana, B.C., Mexico C.P. 22610.
TEL: +52 (664) 626-2726
FAX: +52 (664) 686-8922
E-Mail: sales@seaconglobal.com
Website: www.seaconglobal.com
Dial from U.S.A. TEL: +1 (619) 308-7901
TOLL FREE: (888) 562-7072
FAX: +1 (619) 308-7900

**SEA CON PHOENIX, LLC**

15 Gray Lane, Suite 108,
Hopkinton Industrial Park,
Ashaway, RI 02804, USA.
TEL: +1 (401) 637-4952
FAX: +1 (401) 637-4953
E-Mail: sales@seaconphoenixllc.com
Website: www.seaconphoenixllc.com

SPECIAL ASSEMBLIES

SEA CON® maintains all facilities necessary to furnish complete under-water 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 CUSTOMISED CONNECTORS AND CABLE ASSEMBLIES** to suit your individual needs.

All reasonable efforts have been taken to ensure that the information contained herein is accurate at the date of publication, but no representation or warranty as to the accuracy or completeness of such information is intended or to be implied by its inclusion herein. Any and all representations and warranties pertaining to the information and products referred to herein shall be set forth in **SEA CON®** standard sales order form. In addition, **SEA CON®** reserves the right to make changes to the contents hereof without notice, therefore it is suggested that at the time of inquiry, the appropriate sales office or factory be contacted directly for verification of published specifications and products availability.

© 2012 **SEA CON®**

ALL RIGHTS RESERVED



REV II