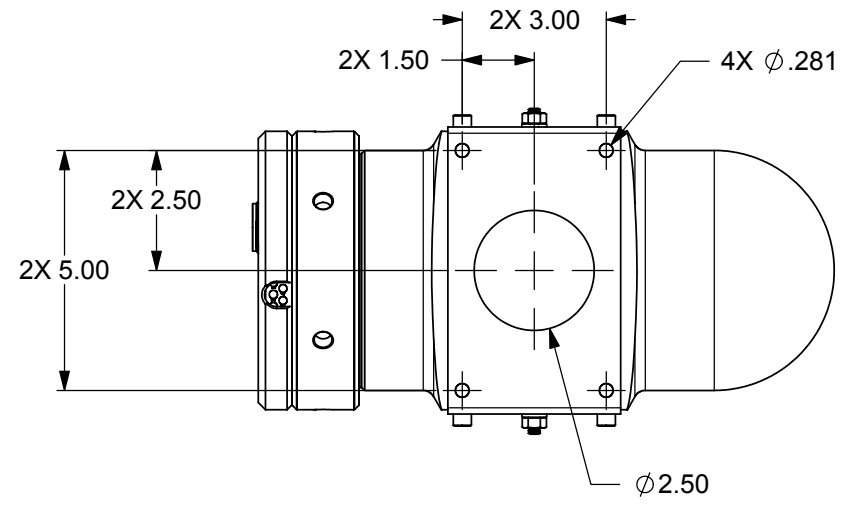
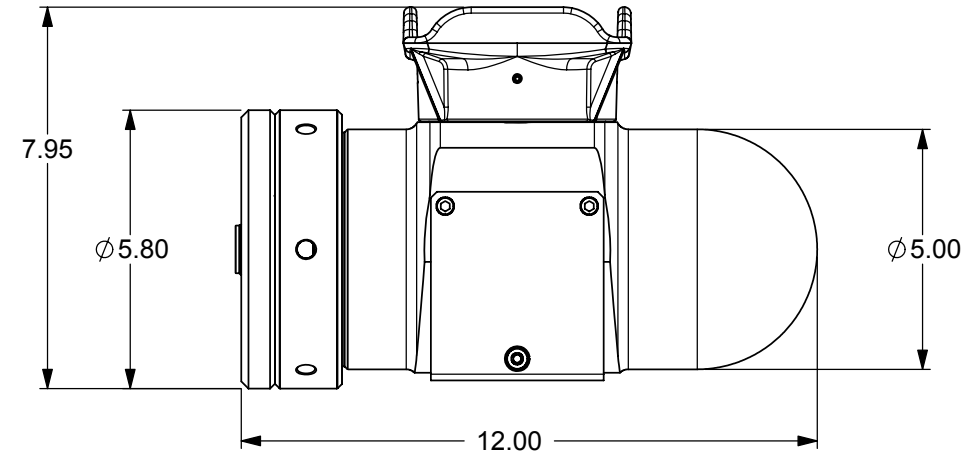
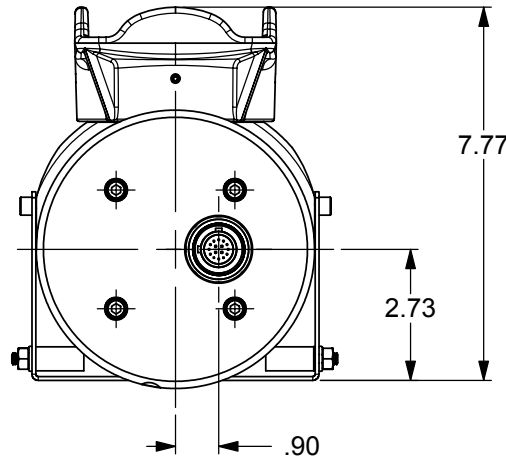
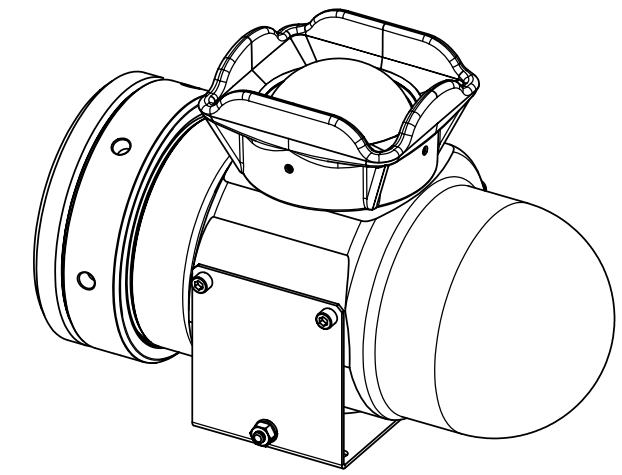
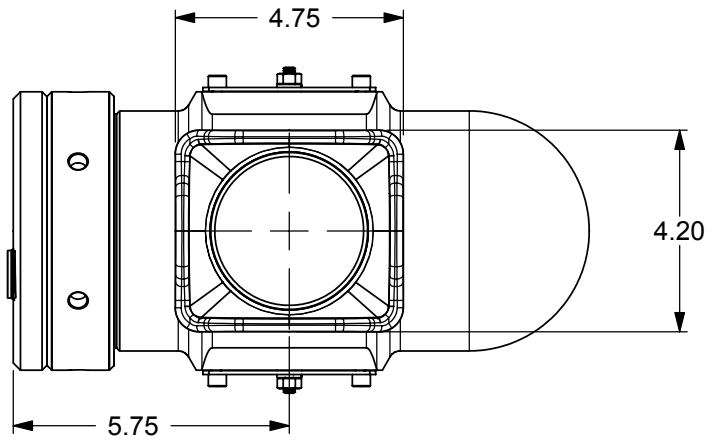


## Appendix C: Digi-seacam Drawings

8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

TABULATION BLOCK	
-01	6000 KM DEPTH
-02	TBD

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
X	R&D		



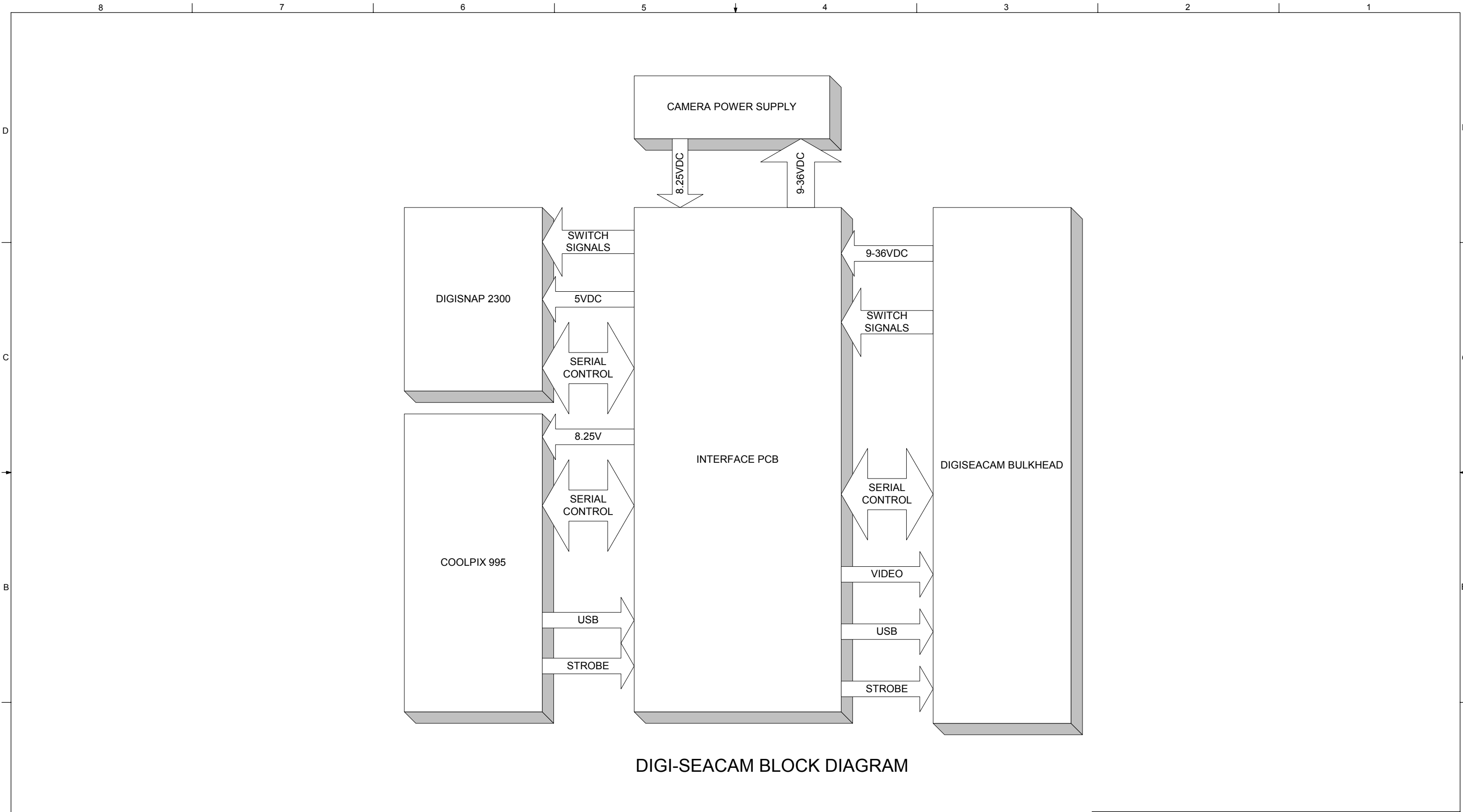
**DESIGN CONTROL DOCUMENT  
 TABULATED DOCUMENT**



APPROVALS		DATE
ORIG ENG	M. Olsson	092601
ORIG DWG	C. Nguyen	031602
CHECK		
PROD RELEASE		TBD
LAST UPDATE	C. Nguyen	031602

TITLE	<b>DIGI-SEACAM TOP ASSY</b>		
PROJECT	<b>Digi-SeaCam</b>		
SIZE	DWG. NO.	REV	
<b>B</b>	<b>735-001-001-DCD</b>	<b>X</b>	
PLOT CYCLE	SCALE	FILE NAME	SHEET
1	1:4	735-001-001_Coolpix_995_Final_DCD.SLDDRW	1 of 2

NOTES:



DIGI-SEACAM BLOCK DIAGRAM

NOTES:

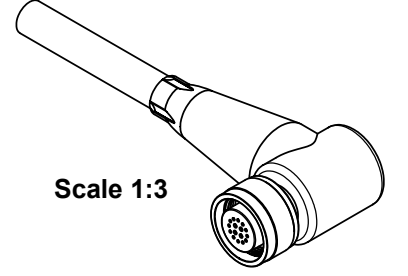
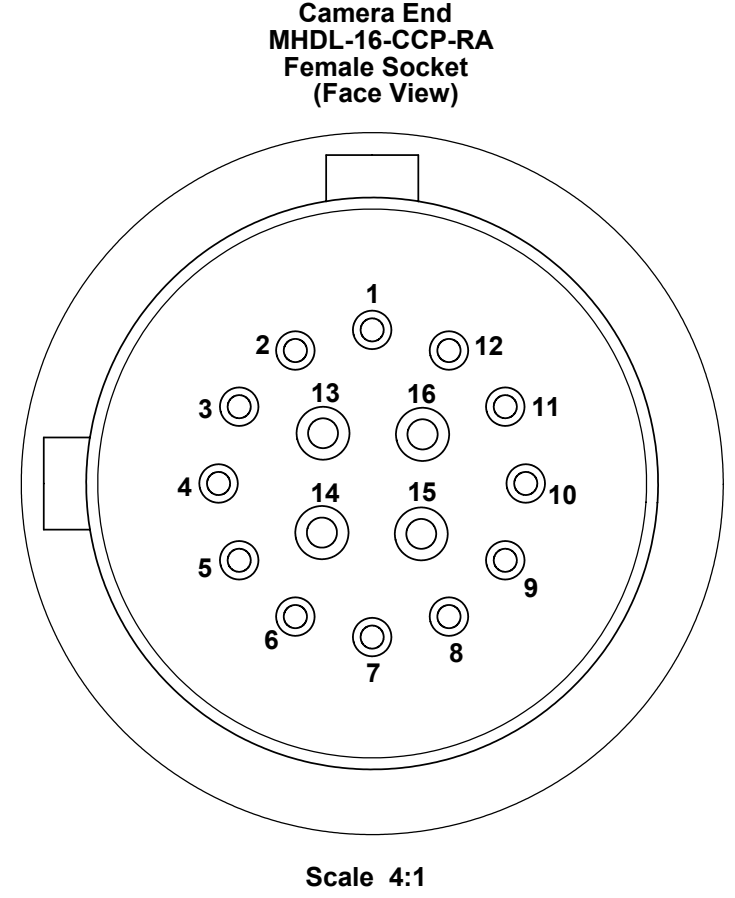
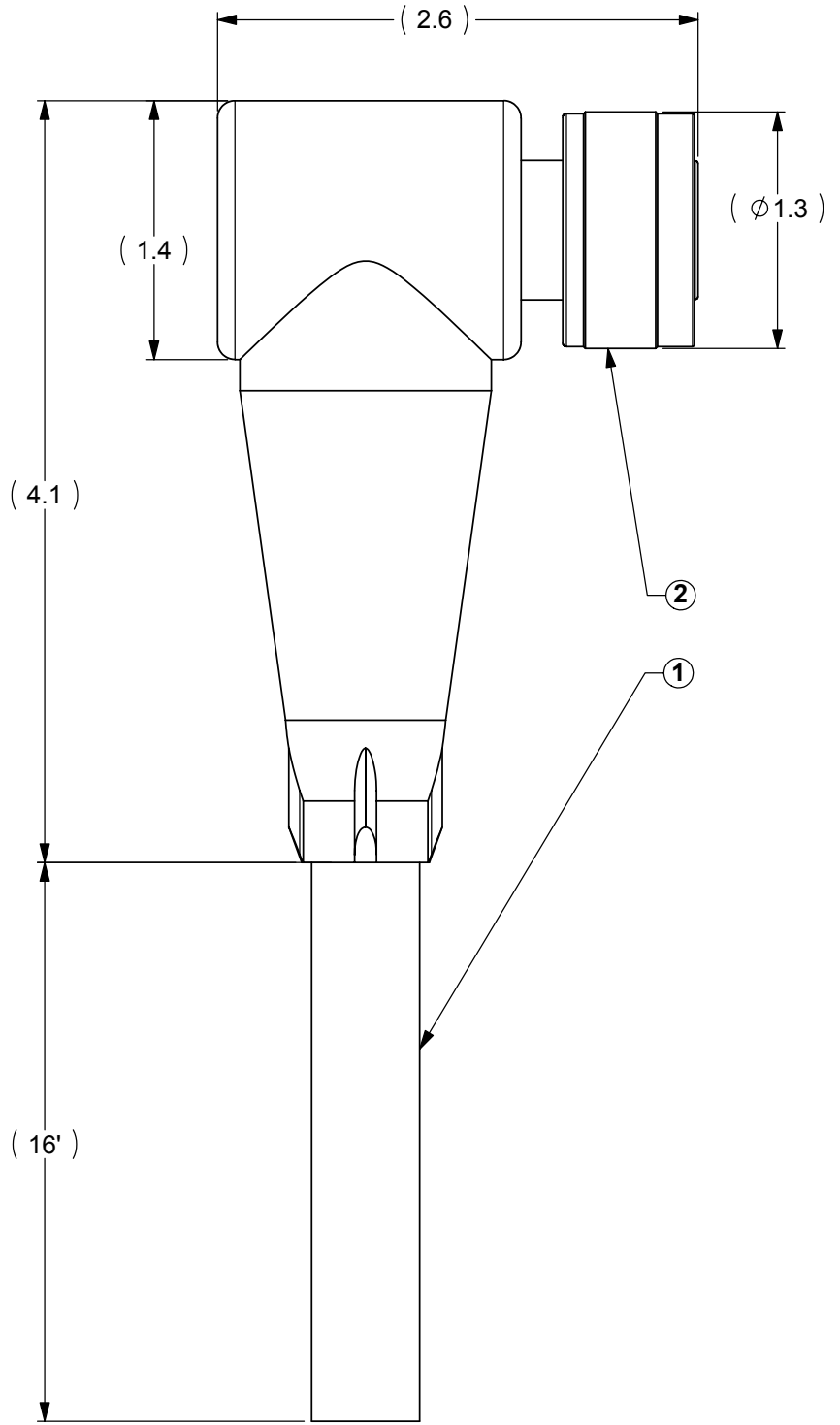
APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	C. Nguyen	031602	B	735-001-001	X
CHK			SCALE	PLOT CYCLE	CAGE CODE
			1:4	1	ODEN2
			SHEET	2 of 2	

**DeepSea** POWER & LIGHT  
 SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	600-00037	6KM DEPTH Dual Cable
2	1	MHDL-16-CCP-RA	90 DEG Right Angle Conn (Supplied by Vendor)

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
-	Released Per DCR# 2150		



- 4. Connector one end only.
- 3. Wire Bundle Jacketing : PVC
- 2. Conductor insulation : Polypropylene.
- 1 Each of these contain an aluminized Mylar Shield with drain wire. (see sheet 2)

NOTES:

TOLERANCES : Unless Otherwise Specified	
.XX Lengths ±.02	Surface Finish All 64
.XX Diameters ±.01	
.XXX Lengths ±.005	
.XXX Diameters ±.002	Surface Finish Seals 32
Holes ±.003	
Angular ±.5°	
Fractional ±1/64"	

\* All Dimensions Are Inches [mm]  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

CAGE CODE	ODEN2	DSH	QTY	NEXT ASSEMBLY	USED ON	APPLICATION

MATERIAL	As Noted in B.O.M.
SIZE/LENGTH CONDITION	N/A
ANODIZE/PLATING	N/A
POST PROCESS HEAT TREAT	N/A
COLOR	N/A
MISC/OTHER DESIGN SHRINKAGE	N/A
REF FILE PATHNAME	U:\DWGSI\706\706-000-032_MHDL-Conn_Video_Cable.SLDASM

APPROVALS		DATE
ORIG ENG	M. Olsson	020802
ORIG DWG	D.Anderson	031202
CHECK		
PROD RELEASE		031402
LAST UPDATE	R. Levin	050802

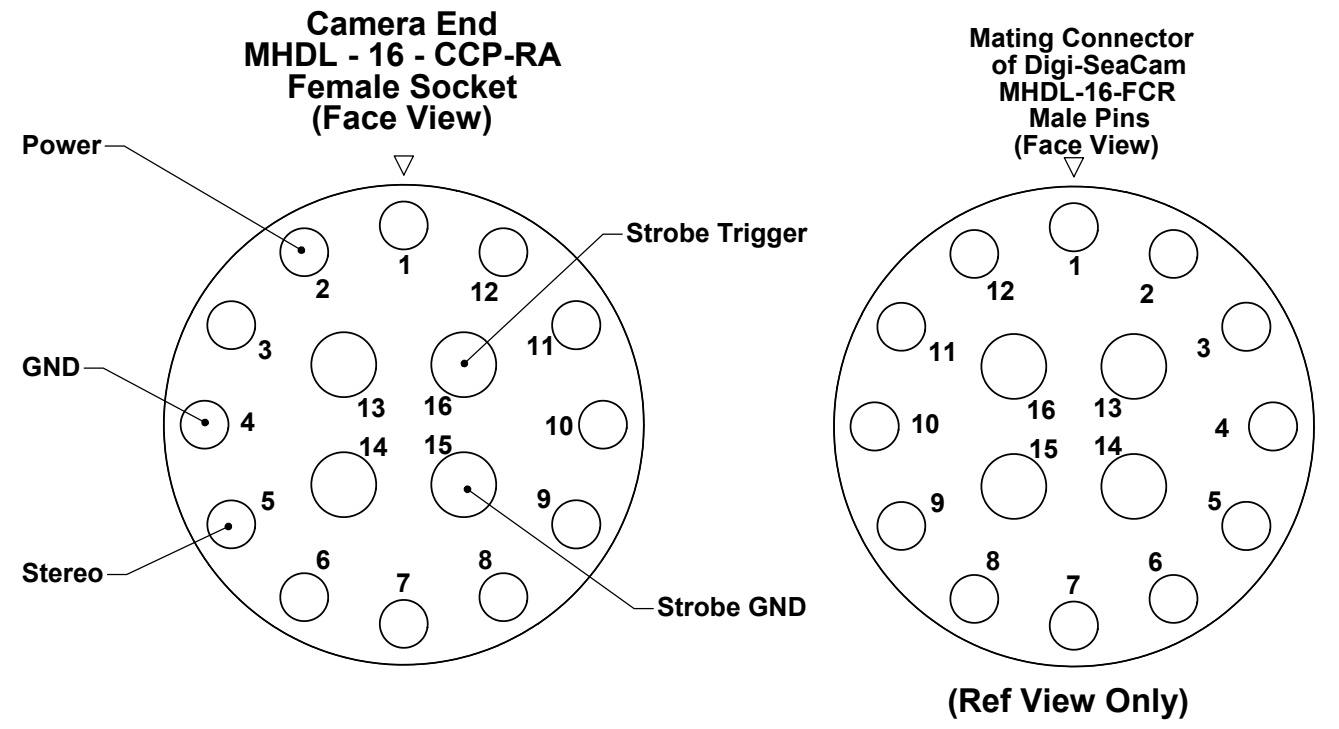
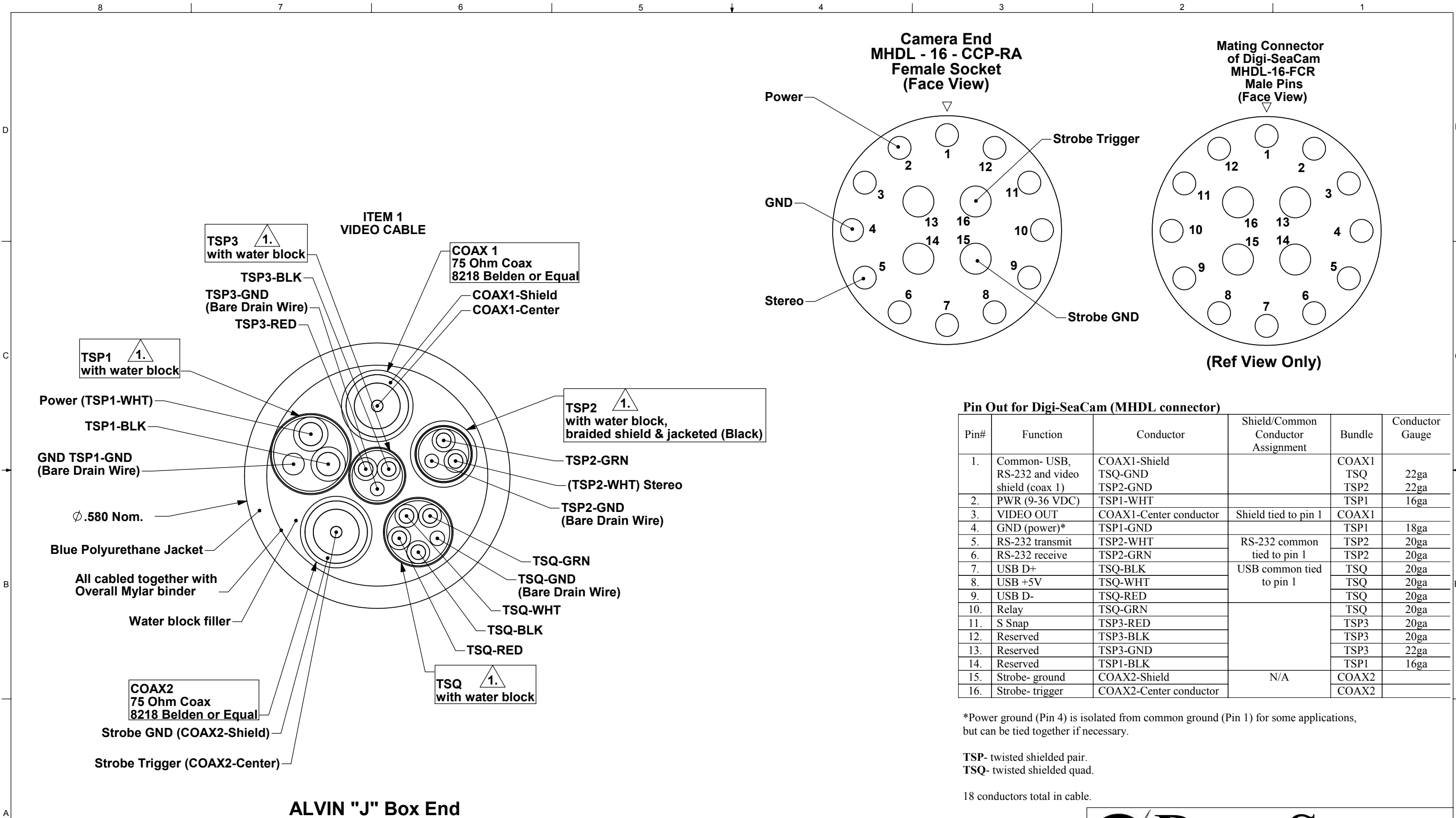
SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

TITLE: **Digi-SeaCam - Alvin Cable**

PROJECT: **Oceanographic Cable**

SIZE: **B** DWG. NO.: **706-000-032** REV: **-**

PLOT CYCLE: 1 SCALE: 1:1 FILE NAME: 706-000-032\_Alvin\_Cable.SLDDRW SHEET: 1 of 3



Pin Out for Digi-SeaCam (MHDL connector)

Pin#	Function	Conductor	Shield/Common Conductor Assignment	Bundle	Conductor Gauge
1.	Common- USB, RS-232 and video shield (coax 1)	COAX1-Shield TSQ-GND		COAX1	22ga
2.	PWR (9-36 VDC)	TSP1-WHT		TSP1	16ga
3.	VIDEO OUT	COAX1-Center conductor	Shield tied to pin 1	COAX1	
4.	GND (power)*	TSP1-GND		TSP1	18ga
5.	RS-232 transmit	TSP2-WHT	RS-232 common tied to pin 1	TSP2	20ga
6.	RS-232 receive	TSP2-GRN		TSP2	20ga
7.	USB D+	TSQ-BLK	USB common tied to pin 1	TSQ	20ga
8.	USB +5V	TSQ-WHT		TSQ	20ga
9.	USB D-	TSQ-RED		TSQ	20ga
10.	Relay	TSQ-GRN		TSQ	20ga
11.	S Snap	TSP3-RED		TSP3	20ga
12.	Reserved	TSP3-BLK		TSP3	20ga
13.	Reserved	TSP3-GND		TSP3	22ga
14.	Reserved	TSP1-BLK		TSP1	16ga
15.	Strobe- ground	COAX2-Shield	N/A	COAX2	
16.	Strobe- trigger	COAX2-Center conductor		COAX2	

\*Power ground (Pin 4) is isolated from common ground (Pin 1) for some applications, but can be tied together if necessary.

TSP- twisted shielded pair.  
TSQ- twisted shielded quad.

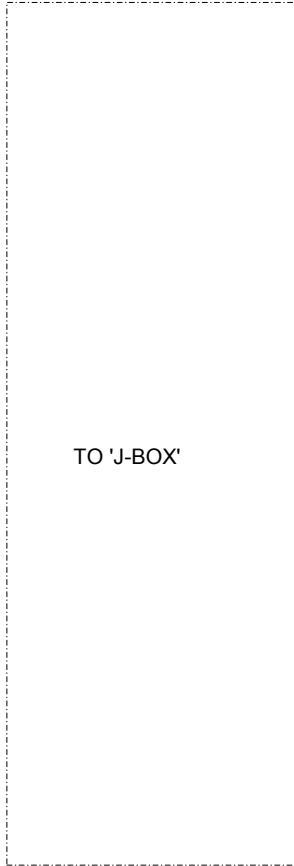
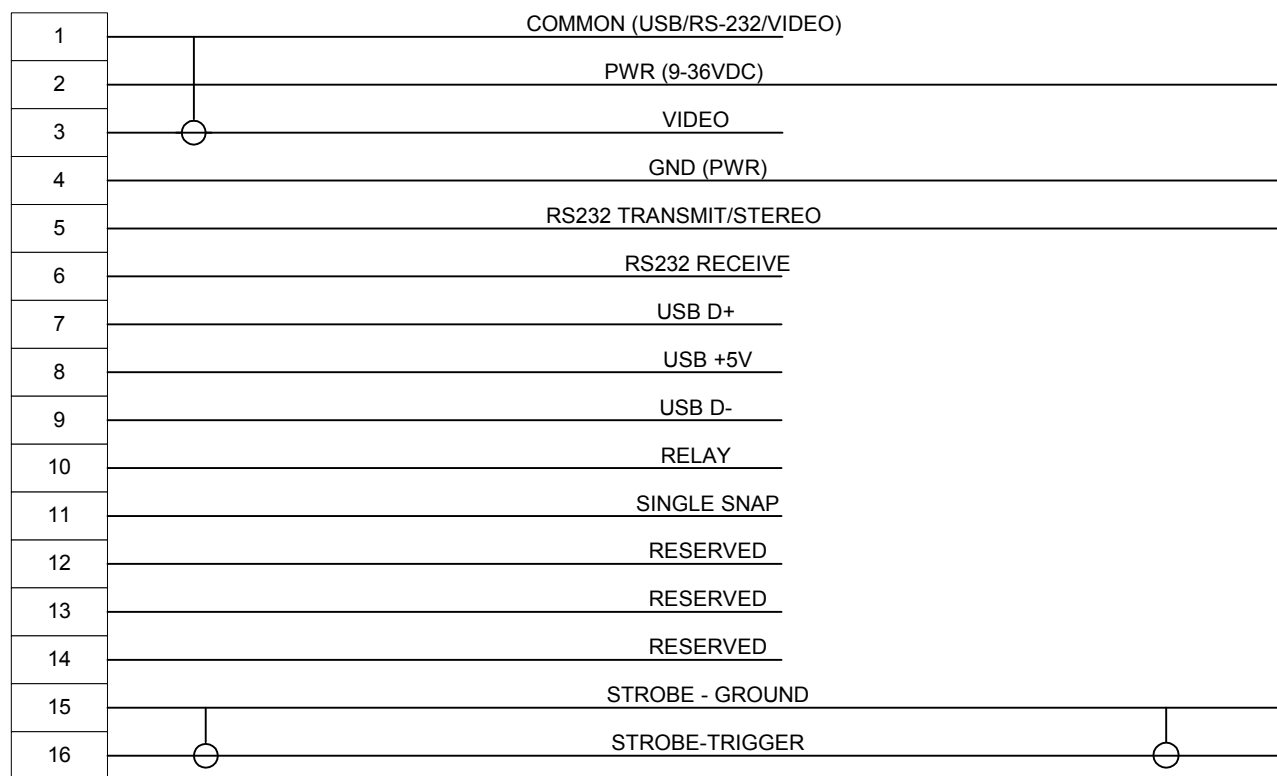
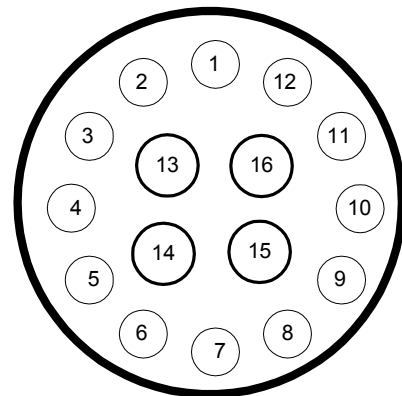
18 conductors total in cable.

APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	706-000-032	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			1:1	1	ODEN2
				SHEET	2 of 3

NOTES:

8 7 6 5 4 3 2 1

MHDL-16-CCP-RA  
Female Socket  
(FACE VIEW)



16'  
DIGI-SEACAM - ALVIN CABLE

Visio file located in:  
W:\706\000\706-000-032\_Alvin\_Cable\_Sheet3.vsd

NOTES:

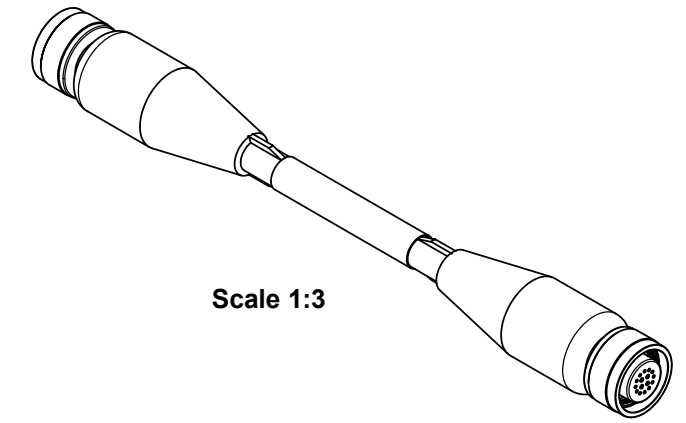
APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	706-000-032	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			1:1	1	ODEN2
			SHEET	3 of 3	

SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

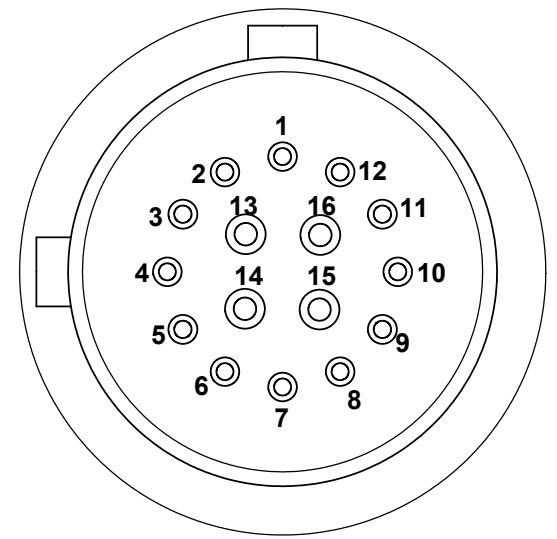
8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	2	MHDL-16-CCP	MHDL-16-CCP Straight Conn (Supplied by Vendor)
2	1	600-00037	6KM DEPTH Dual Cable

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
-	Released Per DCR# 2150		

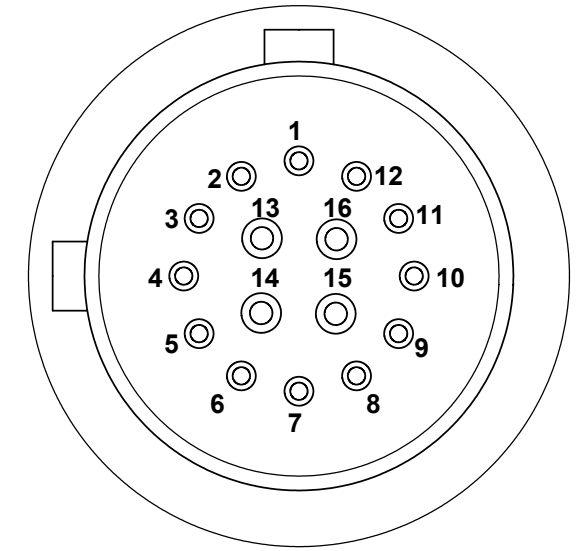


Camera End  
 MHDL-16-CCP  
 Female Socket  
 (Face View)

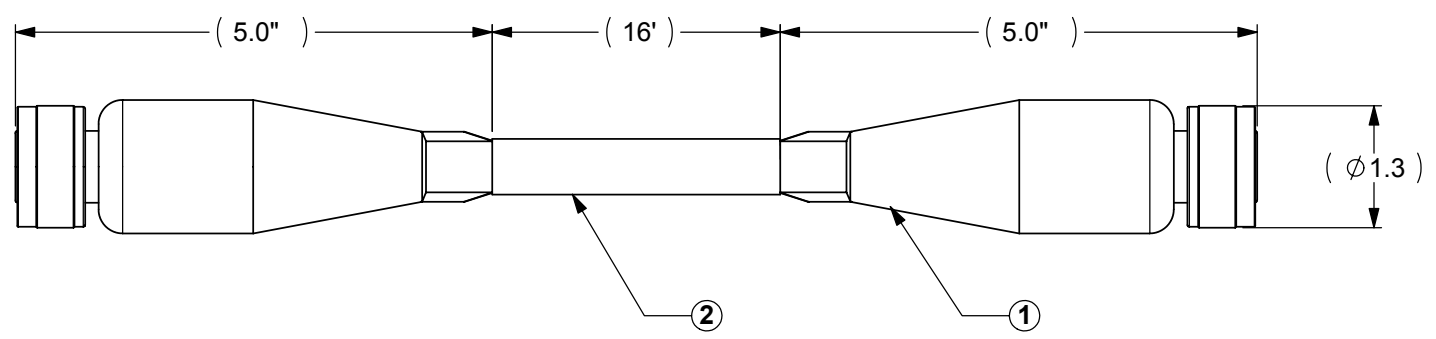


Scale 1:3

Sled End  
 MHDL-16-CCP  
 Female Socket  
 (Face View)



Scale 1:3



NOTES: This drawing Supersedes part number (706-005-001-79)

TOLERANCES : Unless Otherwise Specified

.XX Lengths	±.02	Surface	
.XX Diameters	±.01	Finish All	64
.XXX Lengths	±.005		
.XXX Diameters	±.002	Surface	
Holes	±.003	Finish Seals	32
Angular	±.5°		
Fractional	±1/64"		

\* All Dimensions Are Inches (mm)  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

CAGE CODE	DSH	QTY	NEXT ASSEMBLY	USED ON	APPLICATION
ODEN2					

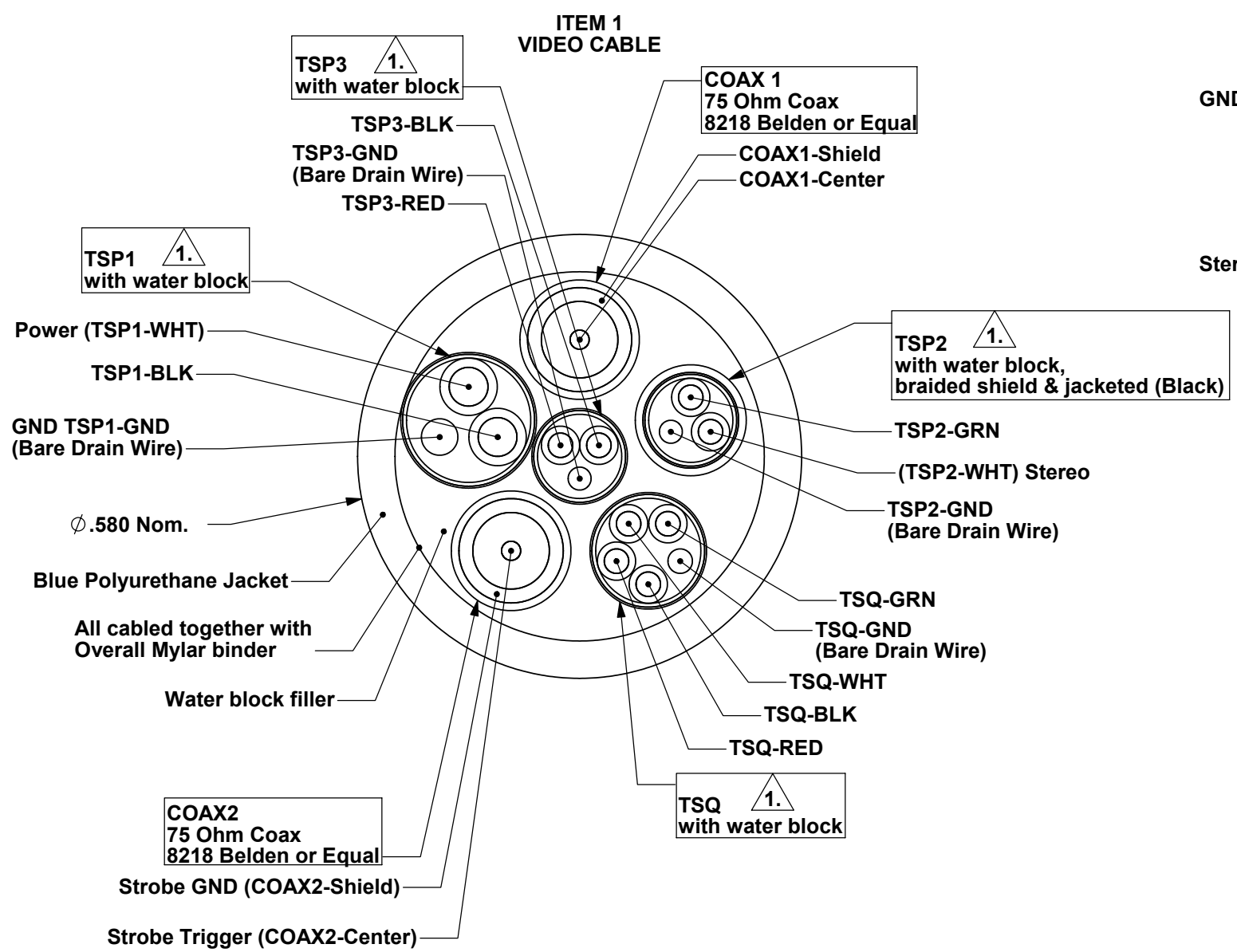
MATERIAL	SIZE/LENGTH CONDITION	ANODIZE/ PLATING	POST PROCESS HEAT TREAT	COLOR	MISC/OTHER DESIGN SHRINKAGE	REF FILE PATHNAME
As Noted in B.O.M.	N/A	N/A	N/A	N/A	N/A	U:\DWGS\1706\0001706-000-035_Sled_Cable.SLDASM

APPROVALS		DATE
ORIG ENG	J. Prsha	022502
ORIG DWG	D.Anderson	031402
CHECK		
PROD RELEASE		031402
LAST UPDATE	R. Levin	050802

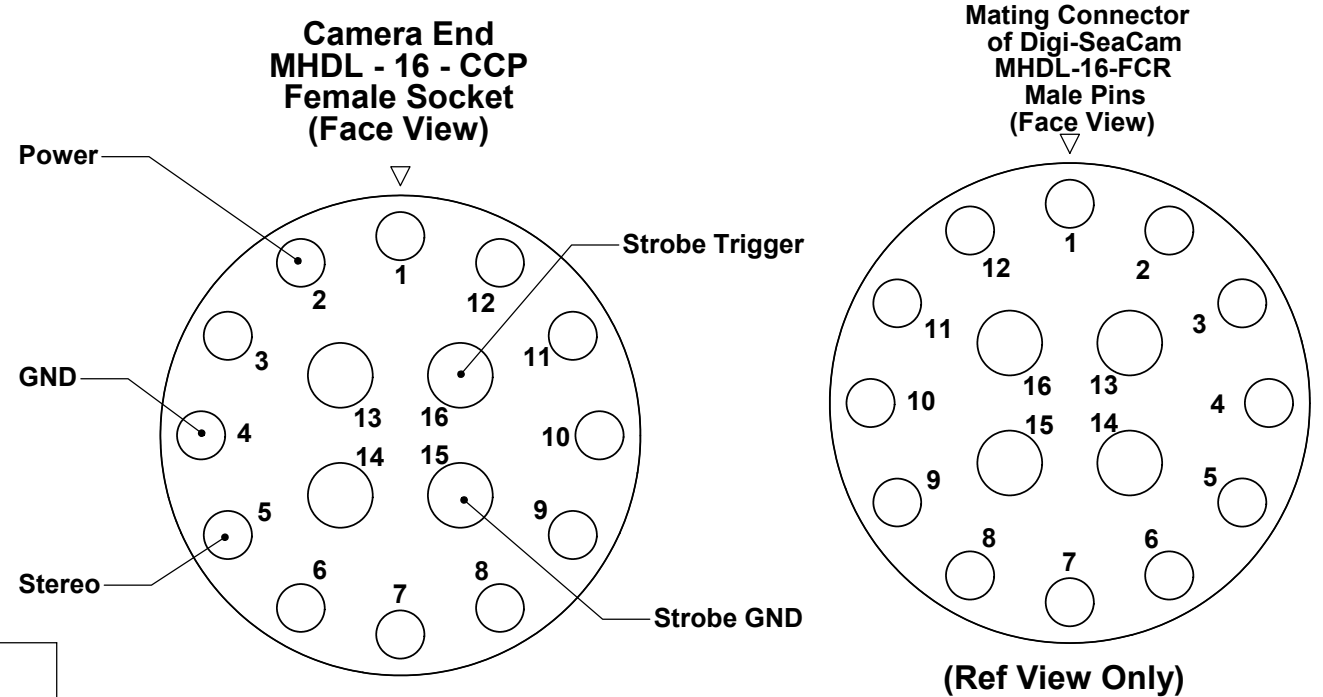
SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

TITLE	Digi-SeaCam - WHOI - Sled Cable		
PROJECT	Oceanographic Cable		
SIZE	DWG. NO.	REV	
B	706-000-035	-	
PLOT CYCLE	SCALE	FILE NAME	SHEET
2	1:2	706-000-035_Sled_Cable.SLDDRW	1 of 3

8 7 6 5 4 3 2 1



**6KM Dual Deep Cable**



**Pin Out for Digi-SeaCam (MHDL connector)**

Pin#	Function	Conductor	Shield/Common Conductor Assignment	Bundle	Conductor Gauge
1.	Common- USB, RS-232 and video shield (coax 1)	COAX1-Shield TSQ-GND TSP2-GND		COAX1 TSP1	22ga 22ga 16ga
2.	PWR (9-36 VDC)	TSP1-WHT		TSP1	18ga
3.	VIDEO OUT	COAX1-Center conductor	Shield tied to pin 1	COAX1	
4.	GND (power)*	TSP1-GND		TSP1	18ga
5.	RS-232 transmit	TSP2-WHT	RS-232 common tied to pin 1	TSP2	20ga
6.	RS-232 receive	TSP2-GRN	USB common tied to pin 1	TSQ	20ga
7.	USB D+	TSQ-BLK		TSQ	20ga
8.	USB +5V	TSQ-WHT		TSQ	20ga
9.	USB D-	TSQ-RED		TSQ	20ga
10.	Relay	TSQ-GRN		TSQ	20ga
11.	S Snap	TSP3-RED		TSP3	20ga
12.	Reserved	TSP3-BLK		TSP3	20ga
13.	Reserved	TSP3-GND		TSP3	22ga
14.	Reserved	TSP1-BLK		TSP1	16ga
15.	Strobe- ground	COAX2-Shield	N/A	COAX2	
16.	Strobe- trigger	COAX2-Center conductor		COAX2	

\*Power ground (Pin 4) is isolated from common ground (Pin 1) for some applications, but can be tied together if necessary.

TSP- twisted shielded pair.  
TSQ- twisted shielded quad.

18 conductors total in cable.

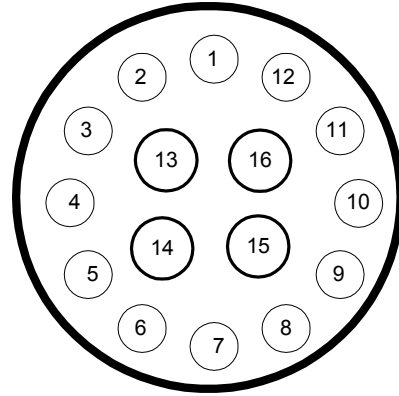
APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	706-000-035	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			1:2	2	ODEN2
				SHEET	2 of 3

NOTES:

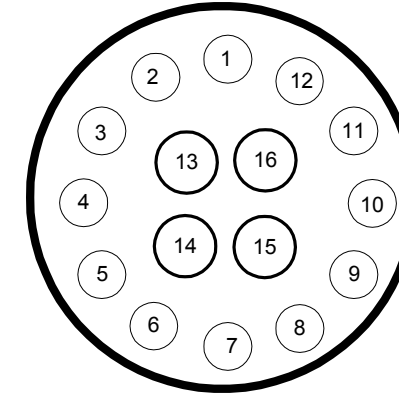
8 7 6 5 4 3 2 1



Camera Side  
MHDL-16-CCP  
Female Socket  
(FACE VIEW)



Sled End  
MHDL-16-CCP  
Female Socket  
(FACE VIEW)



← 16' →  
DIGI-SEACAM - WHOI SLED CABLE

Visio file located in:

W:\1706\000\706-000-035\_Sled\_Cable\_Sheet3.vsd

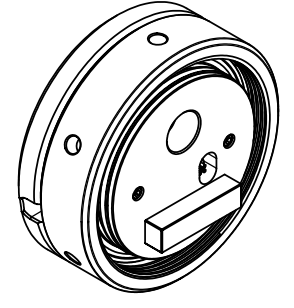
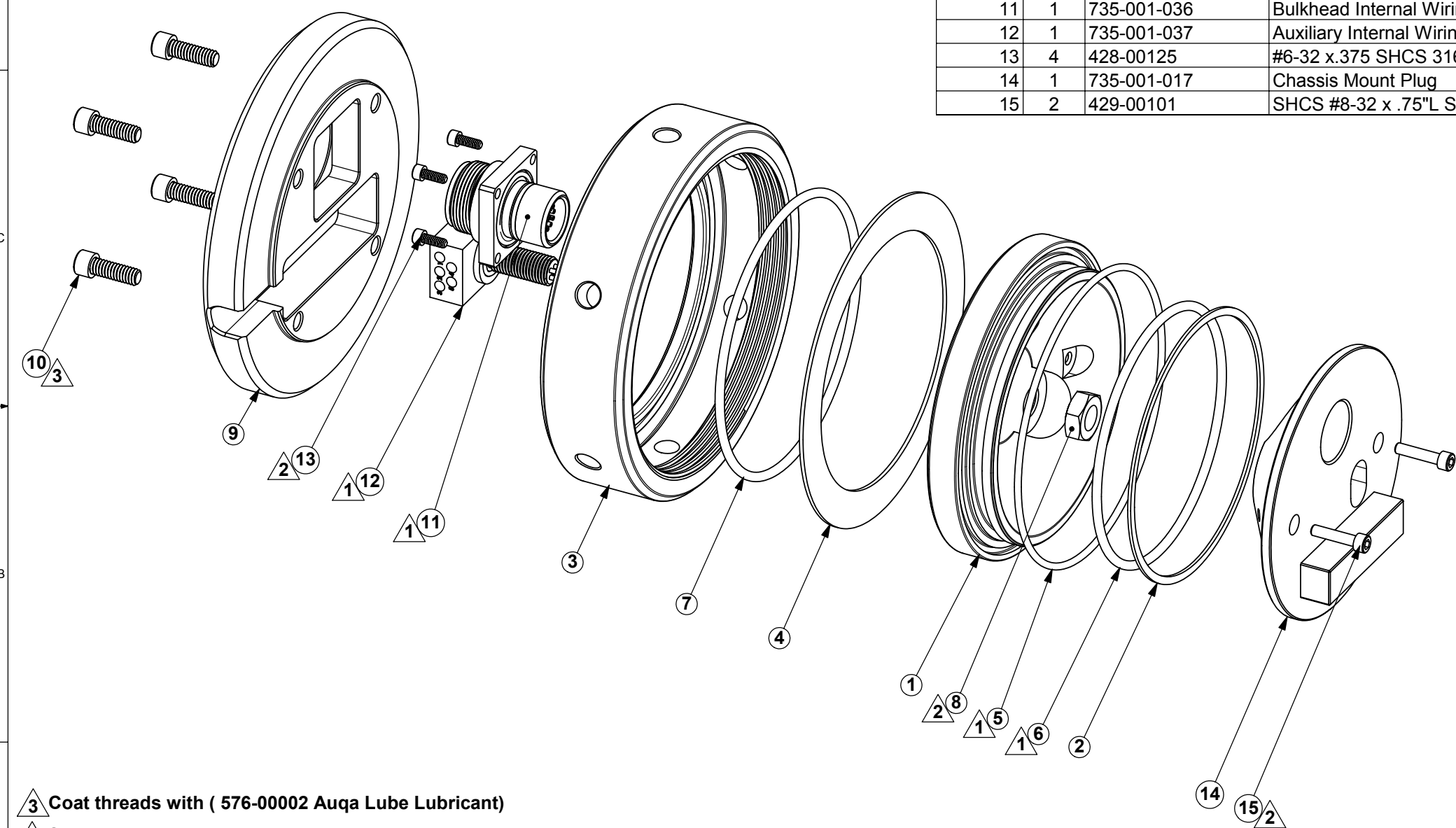
NOTES:

APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	706-000-035	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			1:1	2	ODEN2
			SHEET	3 of 3	

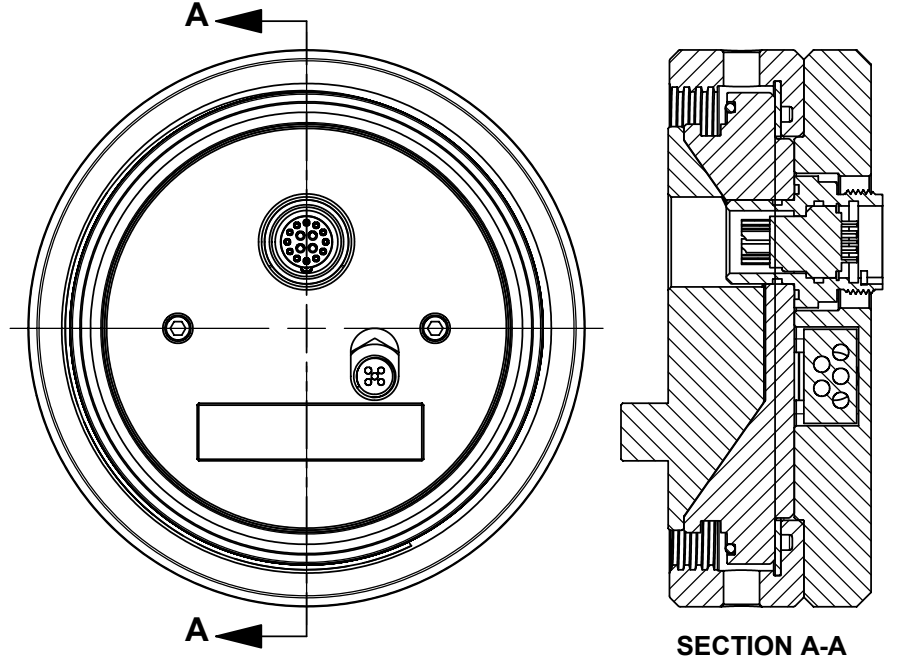
8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	735-001-019	End Cap
2	1	530-00059	Teflon Backup Ring
3	1	722-00403	Retaining Ring
4	1	722-00405	Teflon Thrust Washer
5	1	2-157 N0674-70	2-157 N0674-70 Buna O-Ring
6	1	2-242 N0674-70	2-242 N0674-70 Buna O-Ring
7	1	2-245 N0674-70	2-245 N0674-70 Buna O-Ring
8	1	420-00024	7/16" Brass Hex nut
9	1	735-001-021	Connector Cover Plate
10	4	431-00104	1/4-20 x 3/4" SHCS 316 SS
11	1	735-001-036	Bulkhead Internal Wiring
12	1	735-001-037	Auxiliary Internal Wiring
13	4	428-00125	#6-32 x .375 SHCS 316 SS
14	1	735-001-017	Chassis Mount Plug
15	2	429-00101	SHCS #8-32 x .75"L SS SCREW

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
X	R&D		



Scale 1:4



- 3 Coat threads with ( 576-00002 Auqa Lube Lubricant)
- 2 Coat threads with (584-00002 Loctite 242 Removable Threadlocker)
- 1 Lubricate O-Rings with (576-00003 DC-111 Valve & Sealant)

NOTES:

TOLERANCES : Unless Otherwise Specified	
.XX Lengths ±.02	Surface Finish All 64
.XX Diameters ±.01	
.XXX Lengths ±.005	
.XXX Diameters ±.002	Surface Finish Seals 32
Holes ±.003	
Angular ±.5°	
Fractional ±1/64"	

\* All Dimensions Are Inches [mm]  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

MATERIAL	As Noted in B.O.M.	APPROVALS	DATE
SIZE/LENGTH CONDITION	N/A	ORIG ENG	Z.Simmons 020202
ANODIZE/PLATING	N/A	ORIG DWG	Z.Simmons 031202
POST PROCESS HEAT TREAT	N/A	CHECK	
COLOR	N/A	PROD RELEASE	
MISC/OTHER DESIGN SHRINKAGE	N/A	LAST UPDATE	D.Anderson 050102

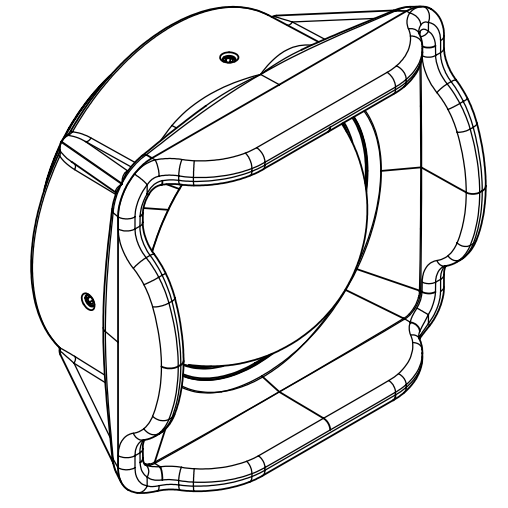
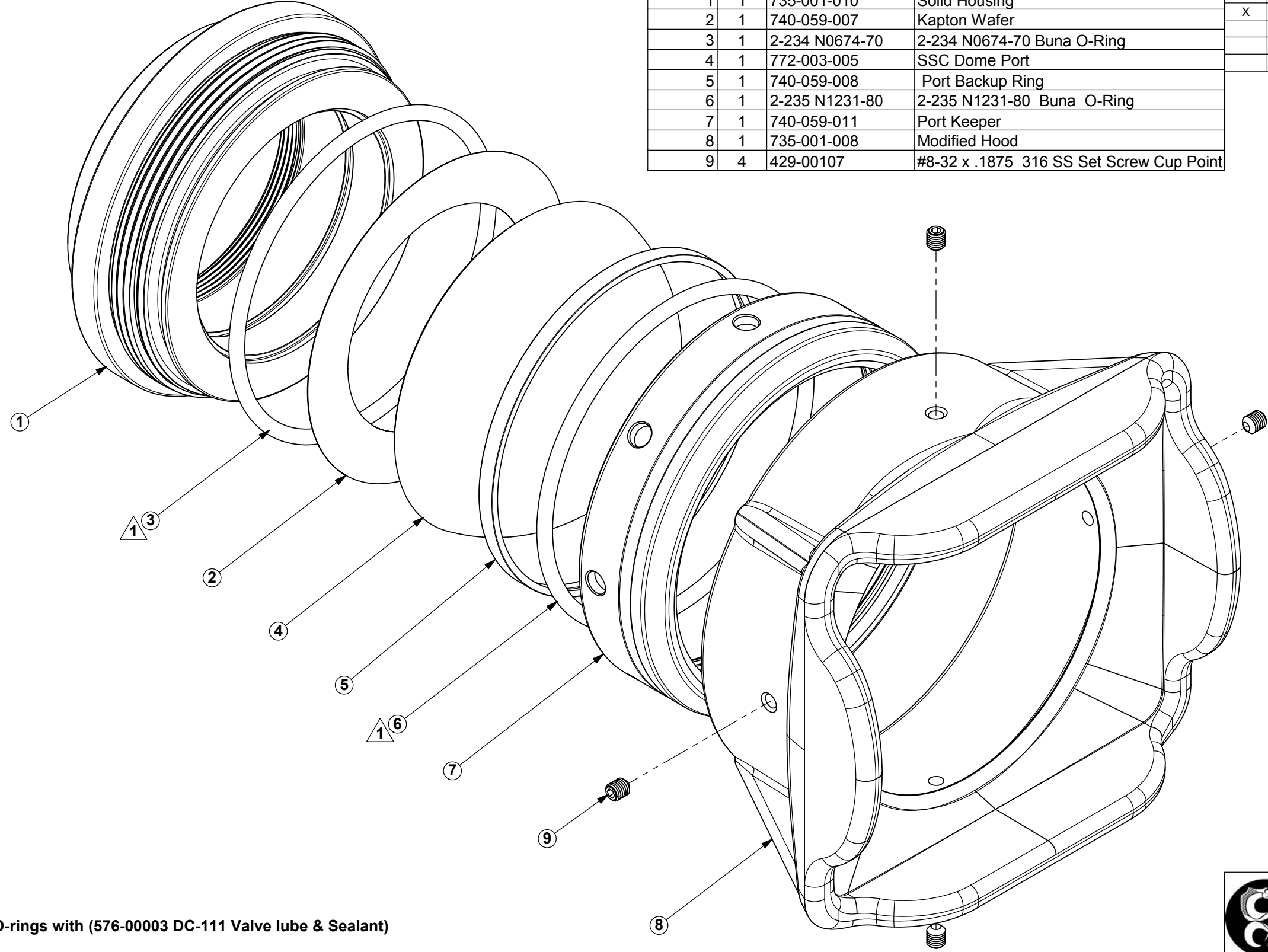
SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

TITLE	<b>Endcap Assy</b>		
PROJECT	<b>Digi-Seacam</b>		
SIZE	DWG. NO.	REV	
<b>B</b>	<b>735-001-018</b>	<b>X</b>	
PLOT CYCLE 1	SCALE 1:2	FILE NAME	735-001-018_Endcap_Assy.SLDDRW
		SHEET	1 of 1

8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	735-001-010	Solid Housing
2	1	740-059-007	Kapton Wafer
3	1	2-234 N0674-70	2-234 N0674-70 Buna O-Ring
4	1	772-003-005	SSC Dome Port
5	1	740-059-008	Port Backup Ring
6	1	2-235 N1231-80	2-235 N1231-80 Buna O-Ring
7	1	740-059-011	Port Keeper
8	1	735-001-008	Modified Hood
9	4	429-00107	#8-32 x .1875 316 SS Set Screw Cup Point

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
X	R&D		



Scale 1:2

1 Lubricate O-rings with (576-00003 DC-111 Valve lube & Sealant)

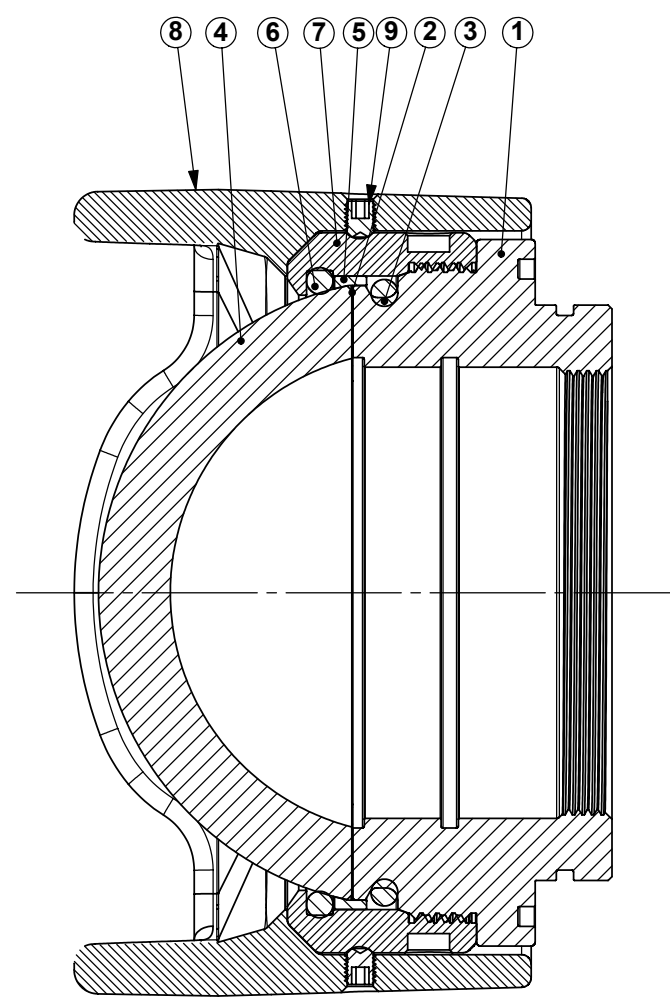
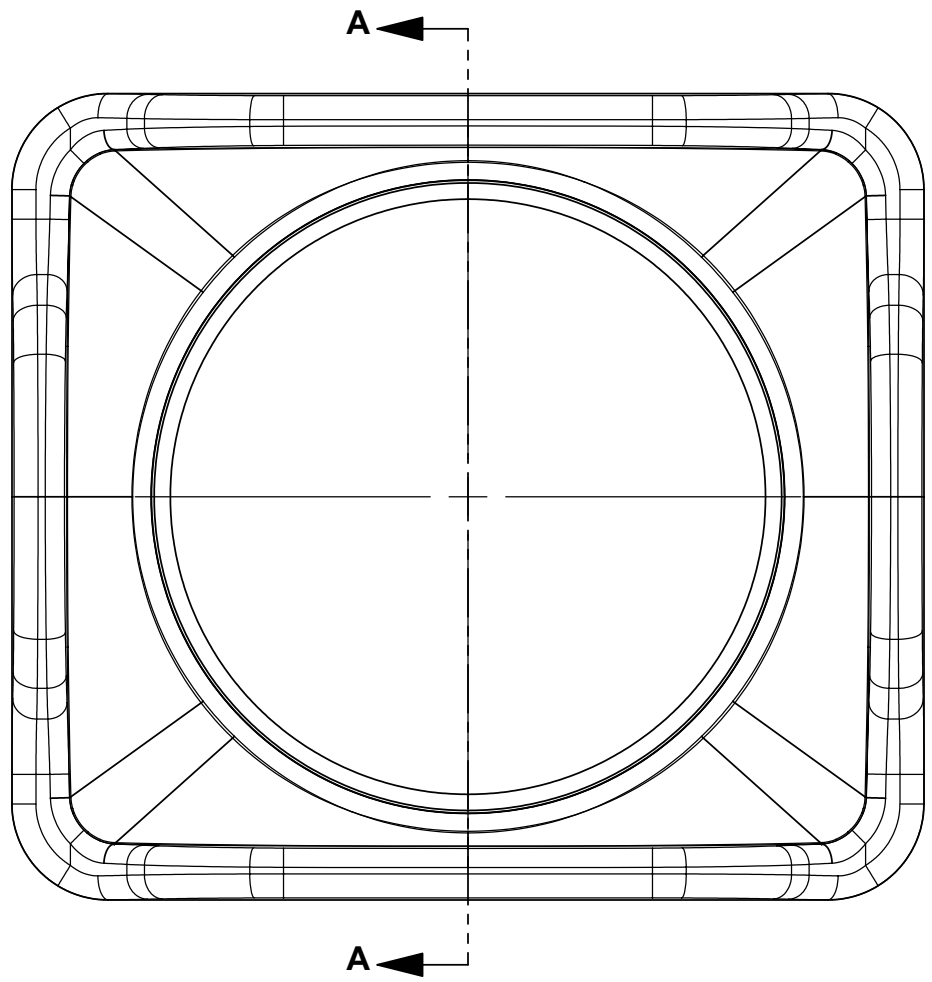
NOTES:

TOLERANCES : Unless Otherwise Specified	
.XX Lengths ±.02	Surface Finish All 64
.XX Diameters ±.01	
.XXX Lengths ±.005	
.XXX Diameters ±.002	Surface Finish Seals 32
Holes ±.003	
Angular ±.5°	
Fractional ±1/64"	

MATERIAL	As Noted in B.O.M.
SIZE/LENGTH CONDITION	N/A
ANODIZE/PLATING	N/A
POST PROCESS HEAT TREAT	N/A
COLOR	N/A
MISC/OTHER DESIGN SHRINKAGE	N/A
REF FILE PATHNAME	U:\DWGS\1735\001\735-001-022_Dome_Housing_Assy.SLDASM

APPROVALS		DATE
ORIG ENG	Z.Simmons	020102
ORIG DWG	Z.Simmons	030501
CHECK		
PROD RELEASE		
LAST UPDATE	D.Anderson	050102

TITLE		<b>Dome Housing Assy</b>	
PROJECT		<b>Digi-Seacam</b>	
SIZE	DWG. NO.	REV	
<b>B</b>	<b>735-001-022</b>	<b>X</b>	
PLOT CYCLE	SCALE	FILE NAME	SHEET
1	1:1	735-001-022_Dome_Optics_Housing_Assy.SLDDRW	1 of 2



SECTION A-A

**DeepSea** POWER & LIGHT  
 SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	D.Anderson	050102	<b>B</b>	<b>735-001-022</b>	<b>X</b>
CHK			SCALE	PLOT CYCLE	CAGE CODE
			<b>1:1</b>	<b>1</b>	ODEN2
				SHEET	<b>2 of 2</b>

NOTES:

8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
X	R&D		



Visio File Located In:  
 U:\DWGS\735\_DigitalStill\001\_Coolpix\Images\735-001-035\_Internal\_CAM\_Harness\_Wiring/

NOTES:  
 A TOLERANCES : Unless Otherwise Specified

.XX Lengths ±.02	Surface Finish All	64
.XX Diameters ±.01		
.XXX Lengths ±.005	Surface Finish Seals	32
.XXX Diameters ±.002		
Holes ±.003		
Angular ±.5°		
Fractional ±1/64"		

\* All Dimensions Are Inches [mm]  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

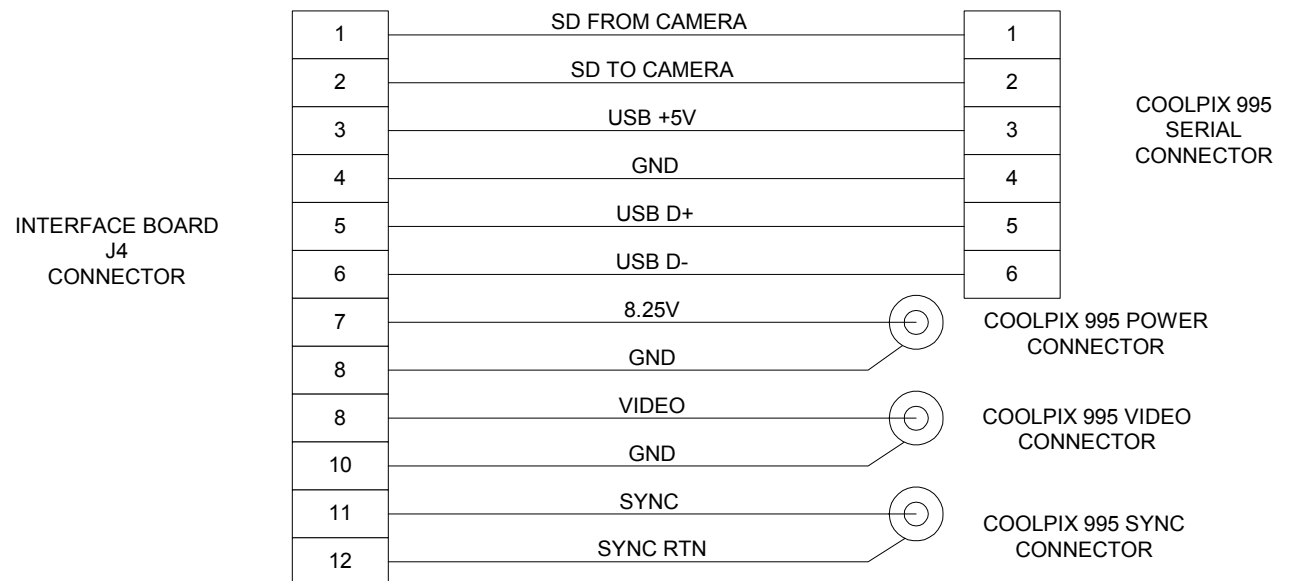
CAGE CODE	DSH	QTY	NEXT ASSEMBLY	USED ON	APPLICATION
ODEN2					

MATERIAL	Per BOM
SIZE/LENGTH CONDITION	N/A
ANODIZE/PLATING	N/A
POST PROCESS HEAT TREAT	N/A
COLOR	N/A
MISC/OTHER DESIGN SHRINKAGE	N/A
REF FILE PATHNAME	U:\DWGS\735_DigitalStill\001_Coolpix\735-001-035_Internal_CAM_Harness_Wiring.SLDASM

APPROVALS		DATE
ORIG ENG	J. Prsha	031502
ORIG DWG	R. Levin	031602
CHECK		
PROD RELEASE		TBD
LAST UPDATE	R. Levin	031602

TITLE	DIGI-SEACAM INTERNAL CAMERA HARNESS WIRING		
PROJECT	Digi-SeaCam		
SIZE	DWG. NO.	REV	
B	735-001-035	X	
PLOT CYCLE	SCALE	FILE NAME	SHEET
1	N/A	735-001-035_Internal_CAM_Harness_Wiring.SLDDRW	1 of 2

8 7 6 5 4 3 2 1



INTERFACE BOARD  
J4  
CONNECTOR

COOLPIX 995 INTERCONNECT WIRING

DIGI-SEACAM INTERNAL CAMERA HARNESS  
WIRING

NOTES:

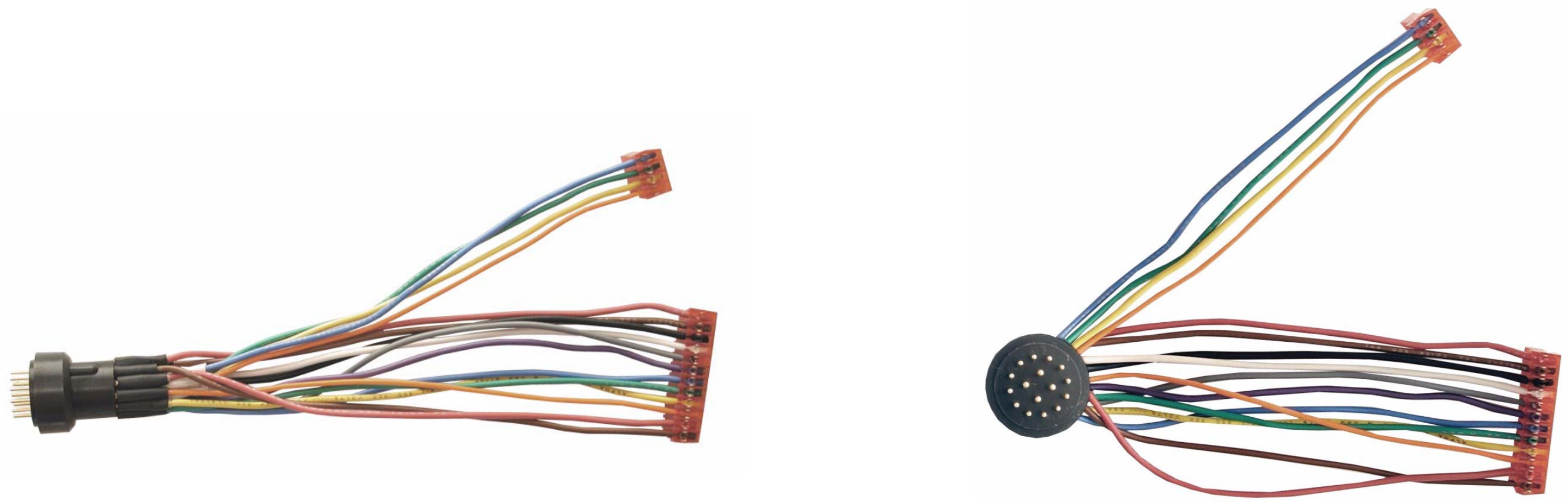
8 7 6 5 4 3 2 1

**DeepSea** POWER & LIGHT  
 SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	031602	B	735-001-035	X
CHK			SCALE	PLOT CYCLE	CAGE CODE
			N/A	1	ODEN2
			SHEET	2 of 2	

8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
-	RELEASED PER DCR# 2185		



Visio File Located In: U:\DWGS\735\_DigitalStill\001\_Coolpix\Images\735-001-036\_Bulkhead\_Internal\_Wiring\735-001-036\_Bulkhead\_Internal\_Wiring.vsd

NOTES:  
 TOLERANCES : Unless Otherwise Specified  
 .XX Lengths ±.02 Surface Finish All 64  
 .XX Diameters ±.01  
 .XXX Lengths ±.005  
 .XXX Diameters ±.002 Surface Finish Seals 32  
 Holes ±.003  
 Angular ±.5°  
 Fractional ±1/64"  
 \* All Dimensions Are Inches [mm]  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

CAGE CODE	QTY	DESCRIPTION	USED ON
ODEN2	1	735-001-018 END CAP ASSY	
		NEXT ASSEMBLY	APPLICATION

MATERIAL	SIZE/LENGTH CONDITION	ANODIZE/PLATING	POST PROCESS HEAT TREAT	COLOR	MISC/OTHER DESIGN SHRINKAGE	REF FILE PATHNAME
As Noted in B.O.M.	N/A	N/A	N/A	N/A	N/A	U:\DWGS\735_DigitalStill\001_Coolpix\735-001-036_Bulkhead_Internal_Wiring.SLDASM

APPROVALS		DATE
ORIG ENG	J. Prsha	031602
ORIG DWG	R. Levin	031602
CHECK		
PROD RELEASE		050802
LAST UPDATE	R. Levin	050802

**DeepSea** POWER & LIGHT

SAN DIEGO TEL(858)576-1261 CALIFORNIA FAX(858)576-0219 USA www.deepsea.com

TITLE		DIGI-SEACAM BULKHEAD INTERNAL WIRING	
PROJECT		Digi-SeaCam	
SIZE	DWG. NO.	REV	
B	735-001-036	-	
PLOT CYCLE	SCALE	FILE NAME	SHEET
2	N/A	735-001-036_Bulkhead_Internal_Wiring.SLDDRW	1 of 2

IMPULSE  
MHDL-16-FCR  
BULKHEAD  
CONNECTOR



INTERFACE BOARD  
J1  
CONNECTOR

INTERFACE BOARD  
J2  
CONNECTOR

DIGISEACAM BULKHEAD INTERNAL  
WIRING

Visio File Located In:  
U:\DWGS\735\_DigitalStill\001\_Coolpix\Images\735-001-036\_Bulkhead\_Internal\_Wiring\735-001-036\_Bulkhead\_Internal\_Wiring\_Sh-2.vsd

NOTES:

APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	735-001-036	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			N/A	2	ODEN2
				SHEET	2 of 2

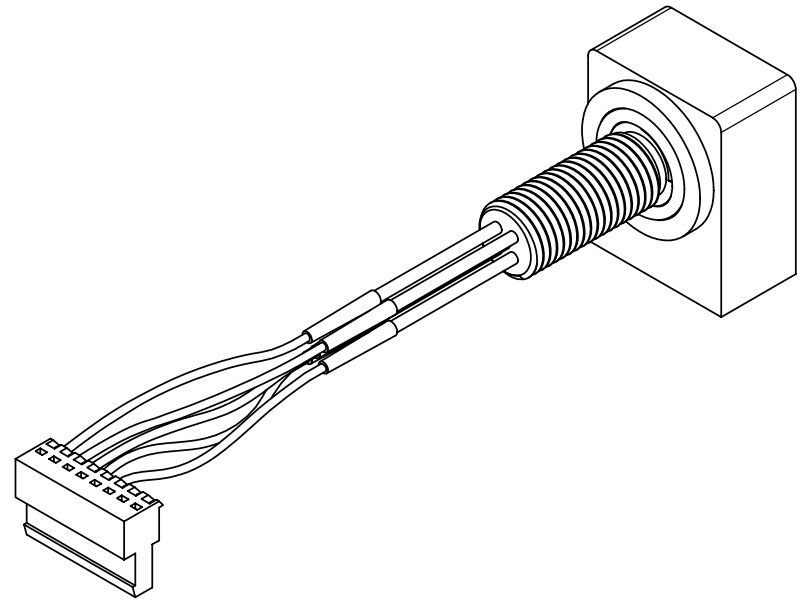
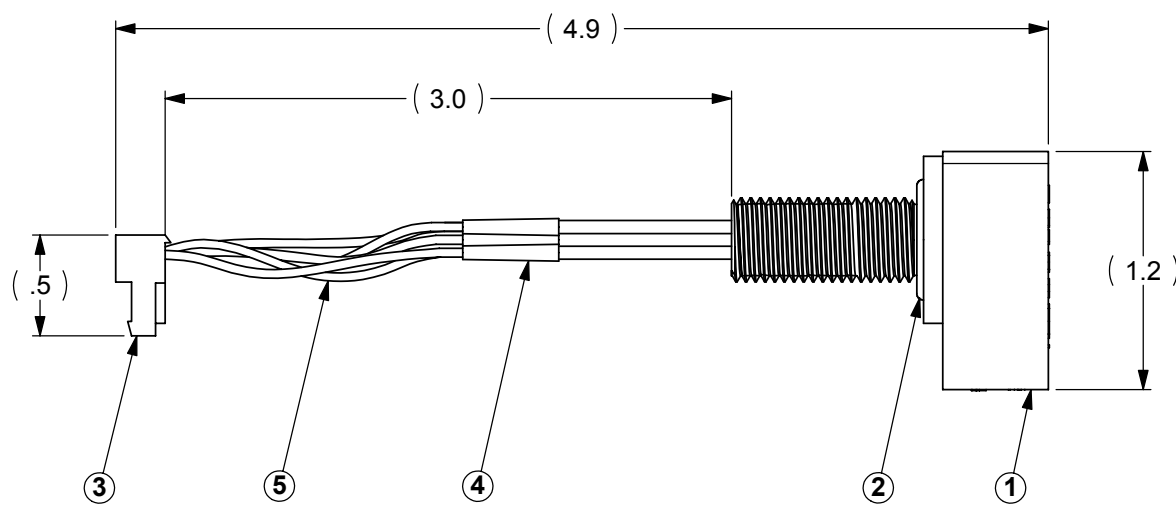
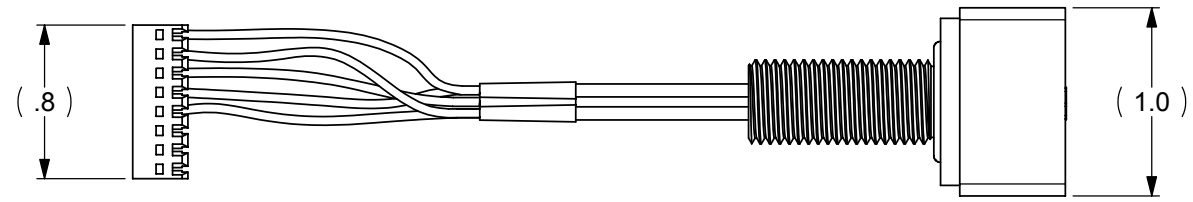




8 7 6 5 4 3 2 1  
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF DEEPSEA POWER & LIGHT INC. ANY REPRODUCTION IN PART OR WHOLE WITHOUT THE WRITTEN PERMISSION OF DEEPSEA POWER & LIGHT IS STRICTLY PROHIBITED.

ITEM NO.	QTY.	PART NO.	DESCRIPTION
1	1	140-00240	LPBH5FS BULKHEAD CONNECTOR
2	1	O-RING	O-RING 2-014 BUNA N 70 BLK
3	1	130-00355	CONNECTOR RECEPTACLE .100 IDC 8 PIN
4	0.417	620-00027	SHRINK TUBE 1/16 BLACK
5	1.667	640-00028	WIRE 24 AWG 7x32 TEFLON WHITE

REVISION HISTORY			
REV	CHANGE DESCRIPTION	APPROVED	DATE
-	RELEASED PER DCR# 2185		



NOTES:

TOLERANCES : Unless Otherwise Specified

.XX Lengths	±.02	Surface Finish All	64
.XX Diameters	±.01		
.XXX Lengths	±.005		
.XXX Diameters	±.002	Surface Finish Seals	32
Holes	±.003		
Angular	±.5°		
Fractional	±1/64"		

\* All Dimensions Are Inches [mm]  
 \* Do Not Scale Drawing  
 \* Remove & Break All Sharp Edges and Burrs  
 \* Dimensions Apply Before Plating  
 \* Bordered Dimensions Are For QC Inspection

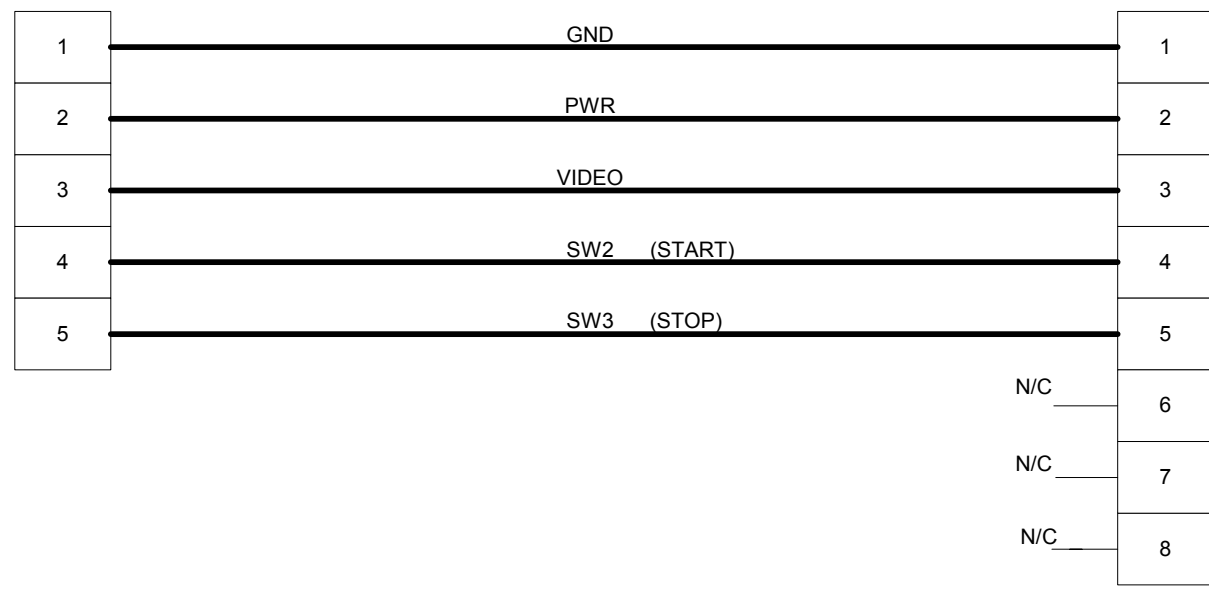
CAGE CODE	QTY	NEXT ASSEMBLY	USED ON
ODEN2	1	735-001-018	Endcap Assy

MATERIAL	As Noted in B.O.M.
SIZE/LENGTH CONDITION	N/A
ANODIZE/PLATING	N/A
POST PROCESS HEAT TREAT	N/A
COLOR	N/A
MISC/OTHER DESIGN SHRINKAGE	N/A
REF FILE PATHNAME	U:\DWGS\735_DigitalStill\001_Coolpix\735-001-037_Auxiliary_Internal_Wiring.SLDASM

APPROVALS		DATE
ORIG ENG	J. Prsha	031602
ORIG DWG	R. Levin	031602
CHECK		
PROD RELEASE		050802
LAST UPDATE	R. Levin	050802

**DeepSea** POWER & LIGHT  
 SAN DIEGO CALIFORNIA USA  
 TEL(858)576-1261 FAX(858)576-0219 www.deepsea.com

TITLE	DIGI-SEACAM AUXILIARY INTERNAL WIRING		
PROJECT	Digi-SeaCam		
SIZE	DWG. NO.	REV	
B	735-001-037	-	
PLOT CYCLE	SCALE	FILE NAME	SHEET
3	1:1	735-001-037_Auxiliary_Internal_Wiring.SLDDRW	1 of 2



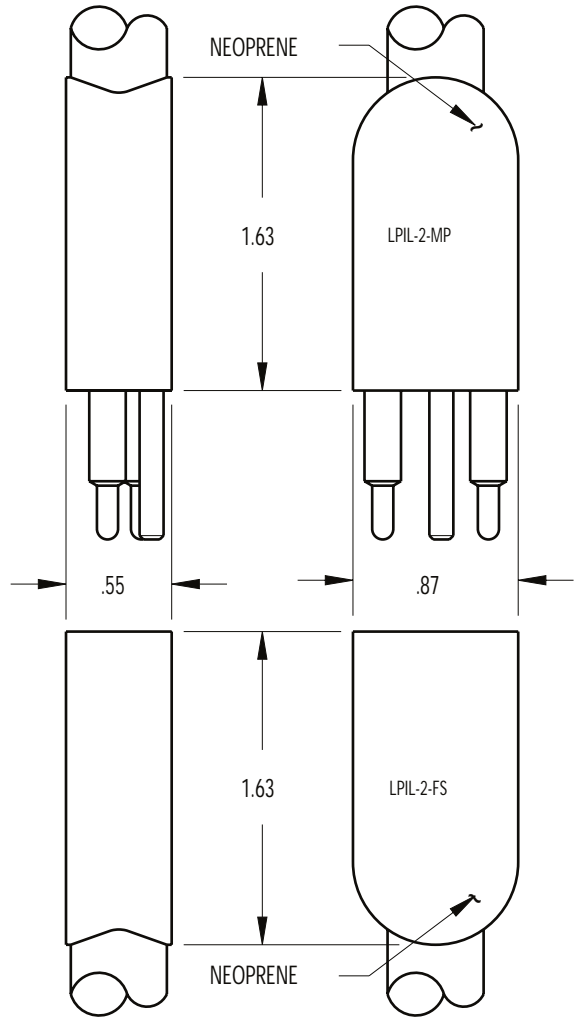
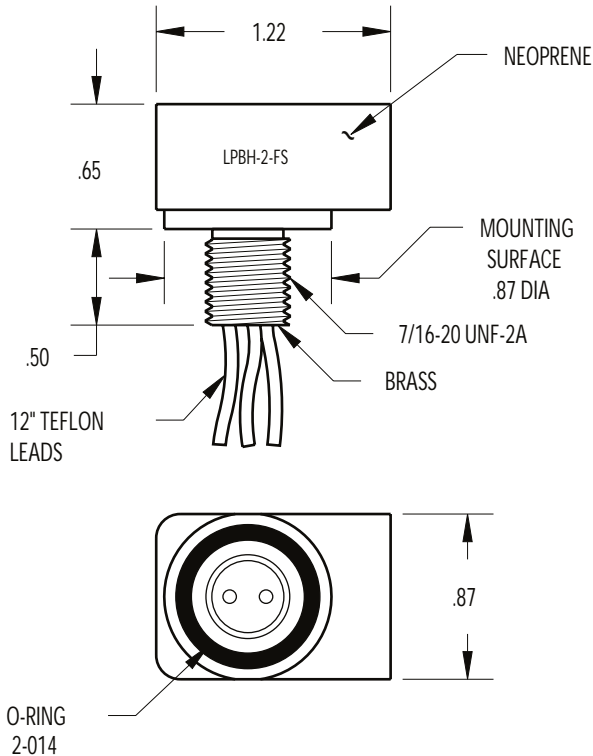
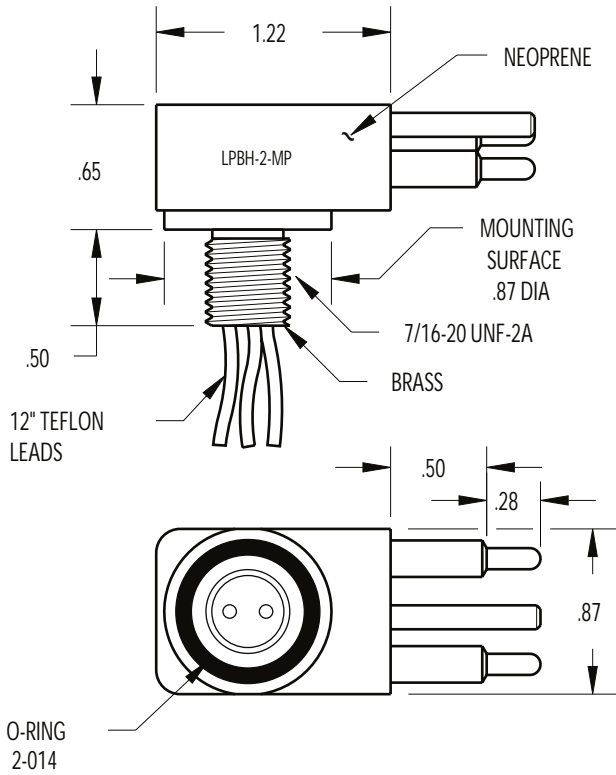
IMPULSE  
LPBH5FS  
BULKHEAD  
CONNECTOR

INTERFACE BOARD  
J3  
CONNECTOR

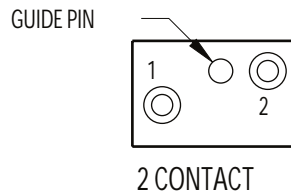
Images In: U:\DWGS\735\_DigitalStill\001\_Coolpix\Images\735-001-037\_Auxiliary\_Internal\_Wiring\735-001-037\_Auxiliary\_Internal\_Wiring.vsd

NOTES:

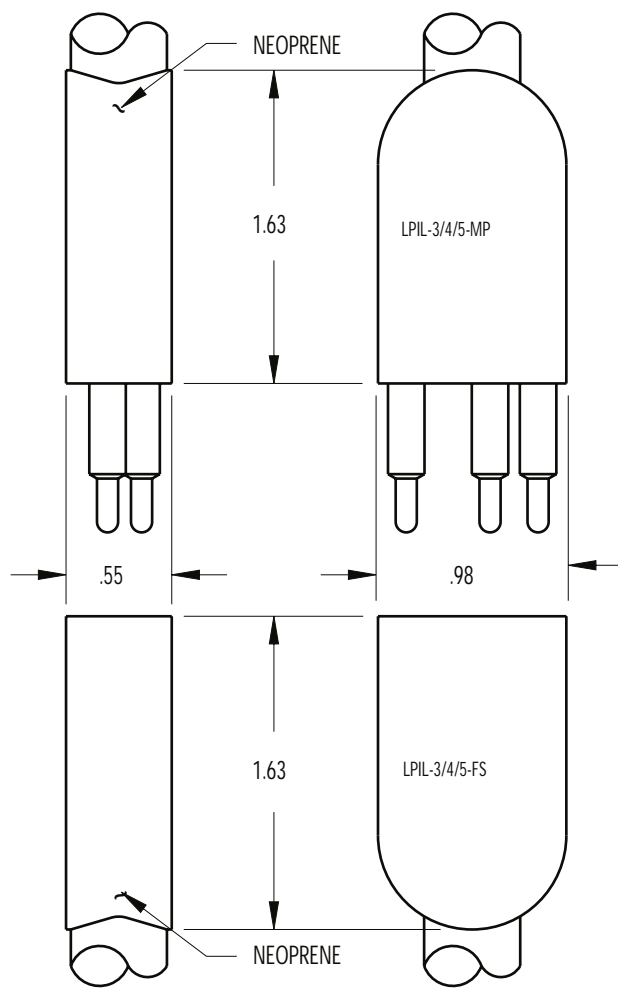
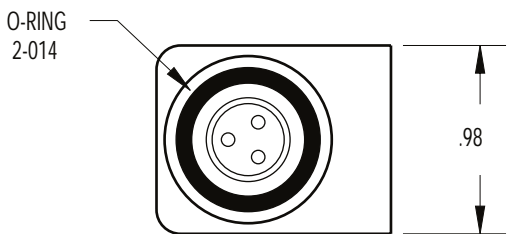
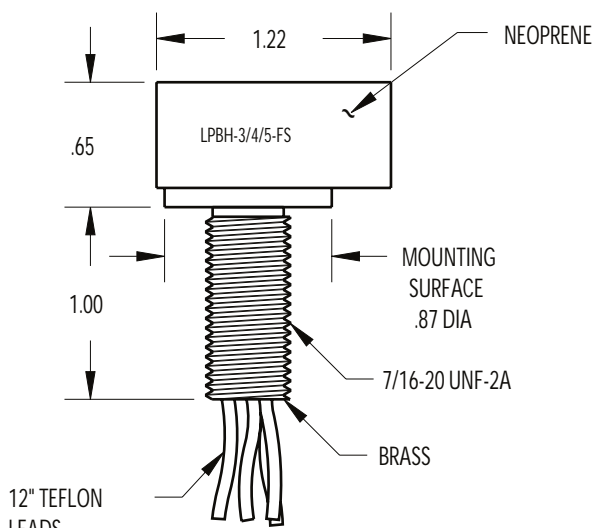
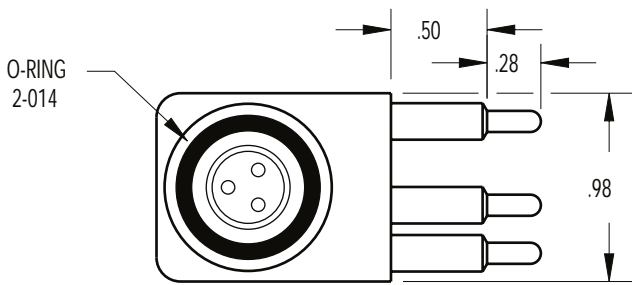
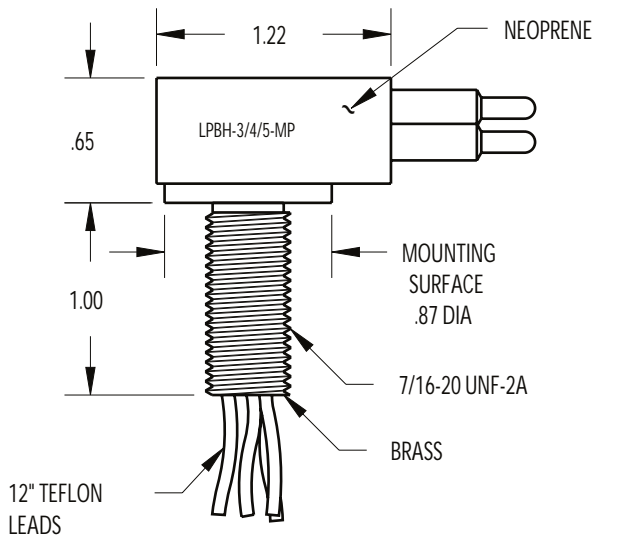
APPROVALS		DATE	SIZE	DWG. NO.	REV
DWG	R. Levin	050802	B	735-001-037	-
CHK			SCALE	PLOT CYCLE	CAGE CODE
			N/A	3	ODEN2
				SHEET	2 of 2



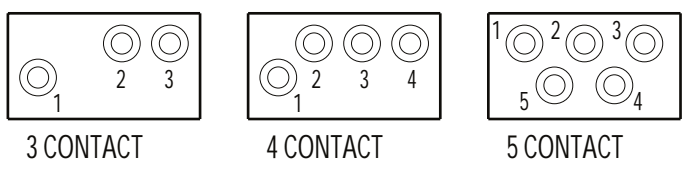
CONTACT  
CONFIGURATION  
(MP FACE VIEW)



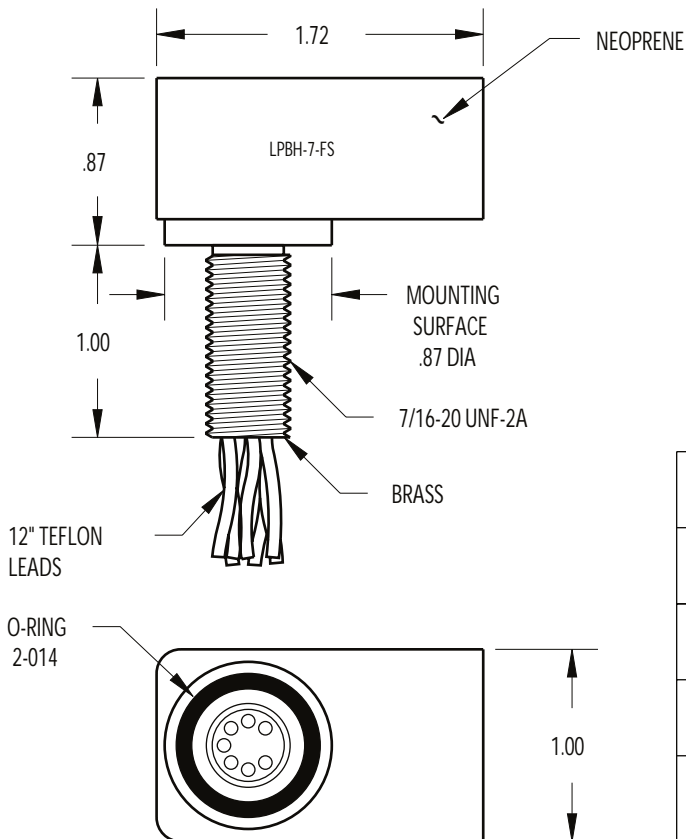
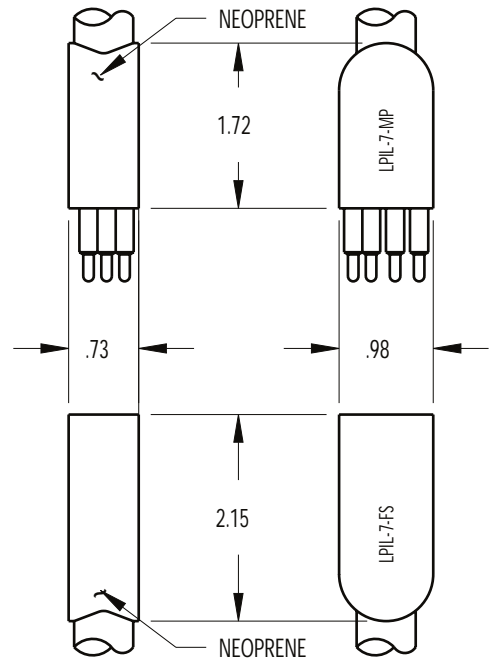
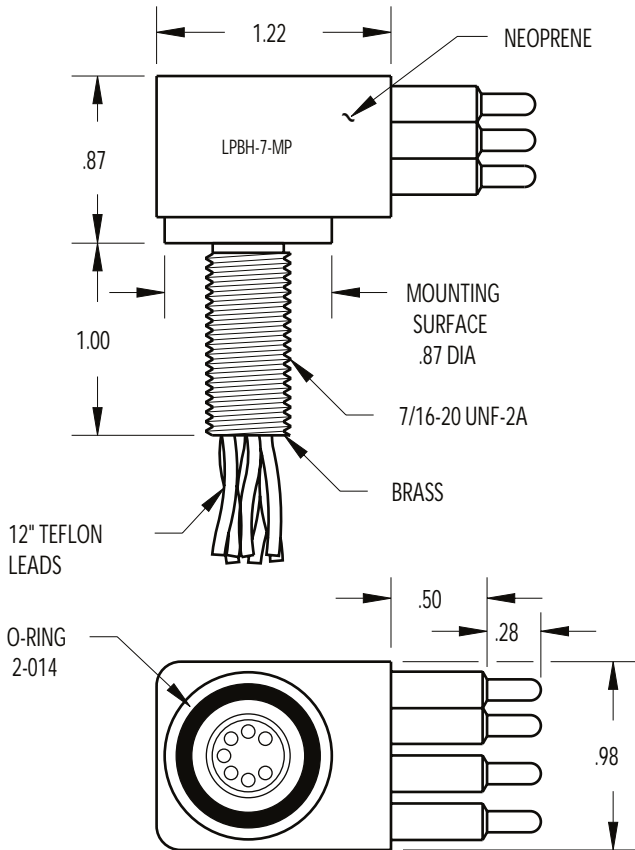
MOUNTING TORQUE FOR LPBH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR LPBH-2-FS, LPIL-2-FS	LPDC-2-MP
DUMMY PLUG FOR LPBH-2-MP, LPIL-2-MP	LPDC-2-FS
NOTE: Bulkhead body available in stainless steel. Standard 1/2" thread length.	



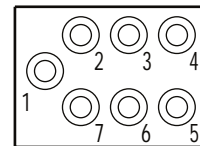
CONTACT  
CONFIGURATION  
(MP FACE VIEWS)



MOUNTING TORQUE FOR LPBH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR LPBH-3/4/5-FS, LPIL-3/4/5-FS	LPDC-3/4/5-MP
DUMMY PLUG FOR LPBH-3/4/5-MP, LPIL-3/4/5-MP	LPDC-3/4/5-FS
NOTE: Bulkhead body available in stainless steel. Standard 1" thread length.	

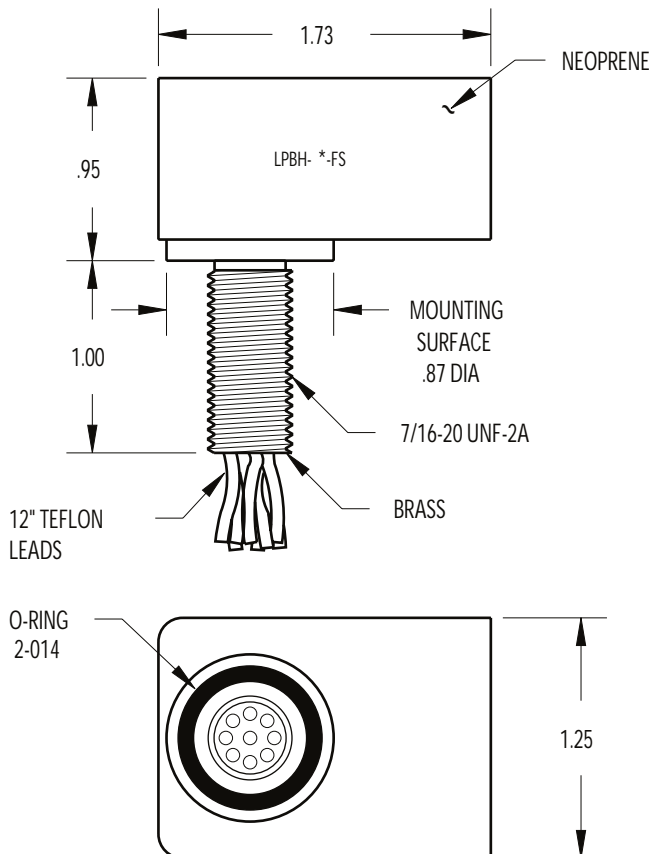
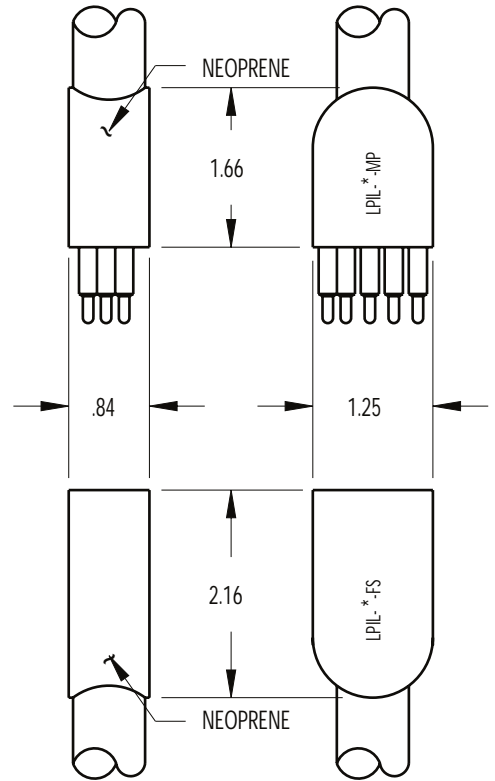
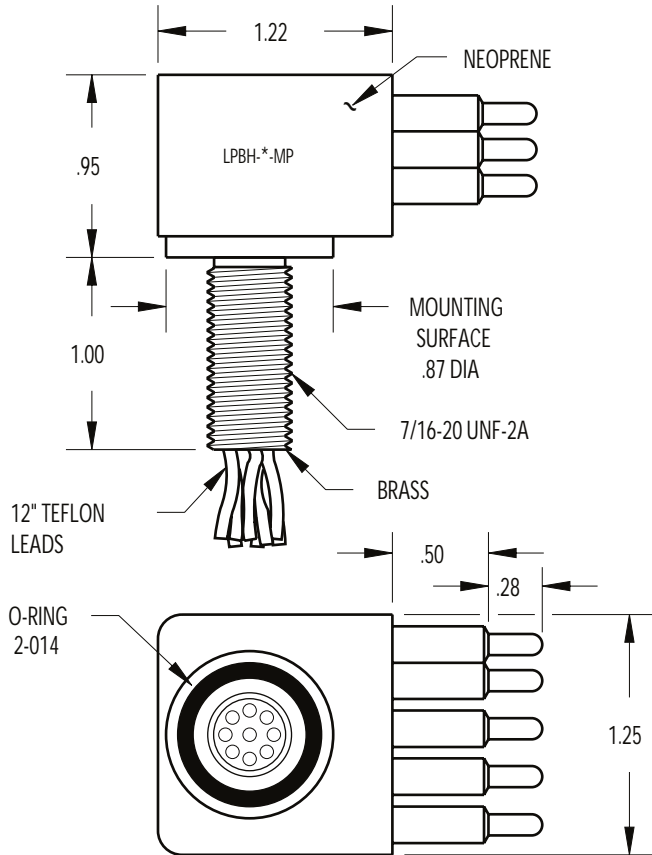


CONTACT  
CONFIGURATION  
(MP FACE VIEW)

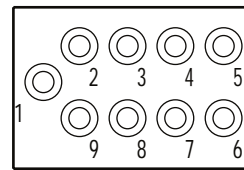


7 CONTACT

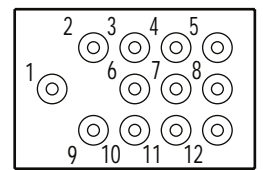
MOUNTING TORQUE FOR LPBH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR LPBH-7-FS, LPIL-7-FS	LPDC-7-MP
DUMMY PLUG FOR LPBH-7-MP, LPIL-7-MP	LPDC-7-FS
NOTE: Bulkhead body available in stainless steel. Standard 1" thread length.	



CONTACT  
CONFIGURATION  
(MP FACE VIEW)

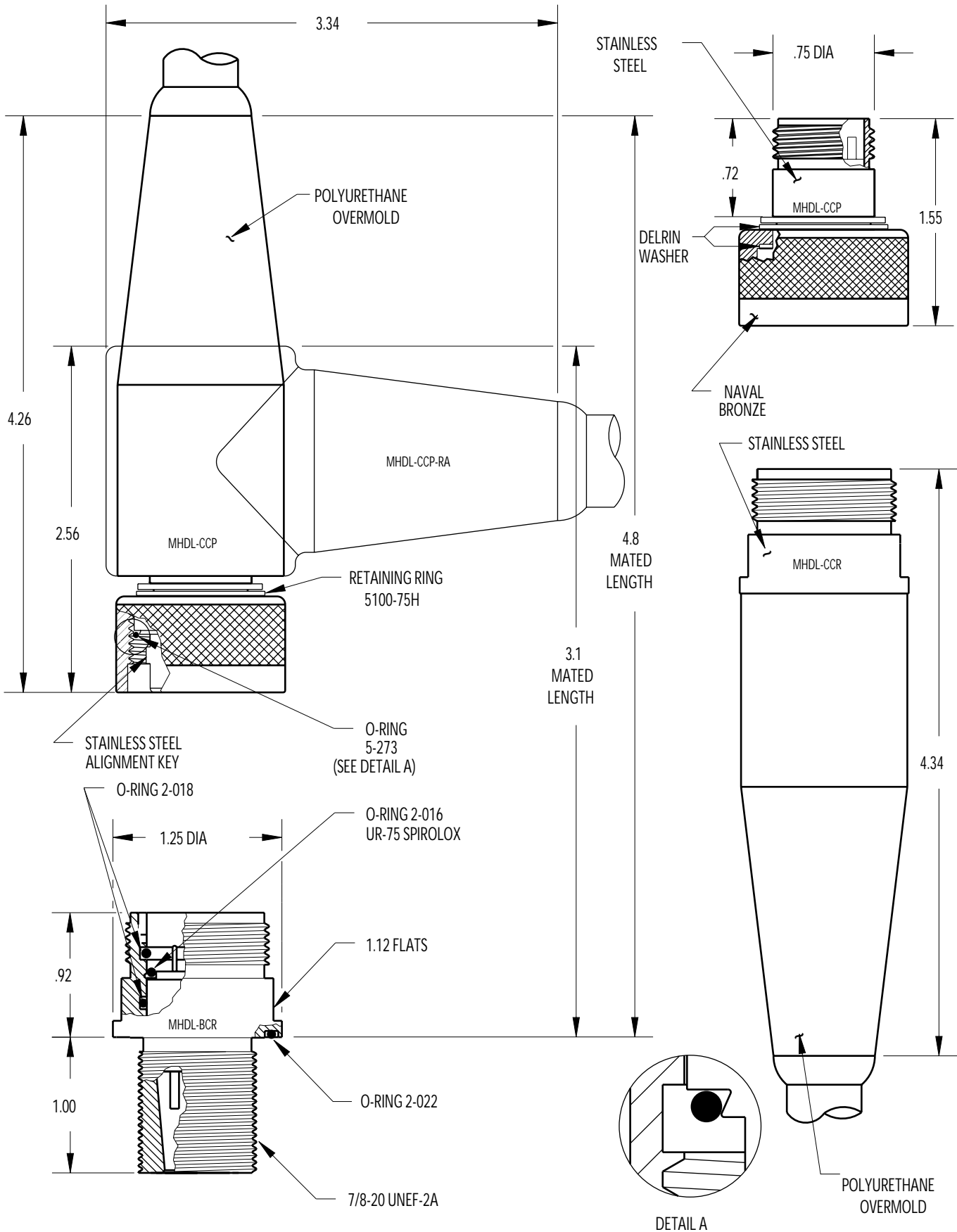


9 CONTACT

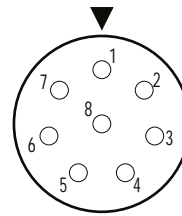
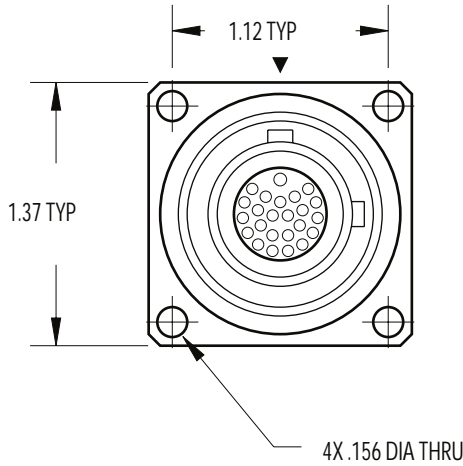


12 CONTACT

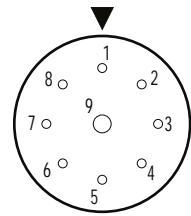
MOUNTING TORQUE FOR LPBH-FS/MP	not to exceed 100 in/lbs
MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR LPBH-9-FS, LPIL-9-FS	LPDC-9-MP
DUMMY PLUG FOR LPBH-9-MP, LPIL-9-MP	LPDC-9-FS
NOTE: Bulkhead body available in stainless steel. Standard 1" thread length.	



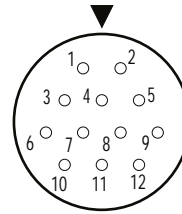
CONTACT CONFIGURATION  
(BCR FACE VIEW)



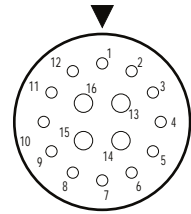
8#16



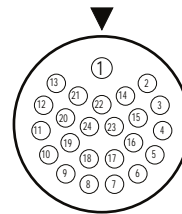
1#16  
8#22



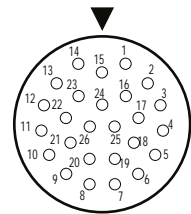
12#20



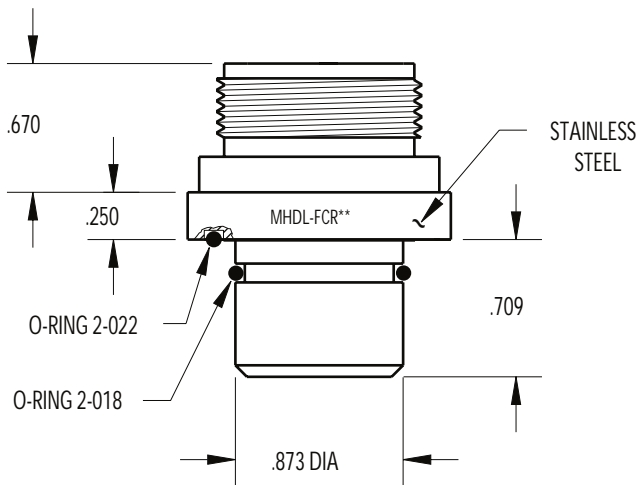
4#20  
12#22



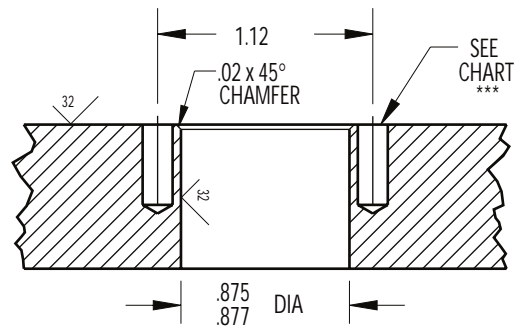
1#20  
23#22



26#22



MOUNTING INSTRUCTIONS



MOUNTING TORQUE FOR MHDL-BCR	not to exceed 200 in/lbs	MATED PRESSURE RATING (psi)	10,000
DUMMY PLUG FOR MHDL-BCR/FCR/CCR	MHDL-SCP	DUMMY PLUG FOR MHDL-CCP	MHDL-SCR

NOTE: CCP is not terminated to cable unless specified.

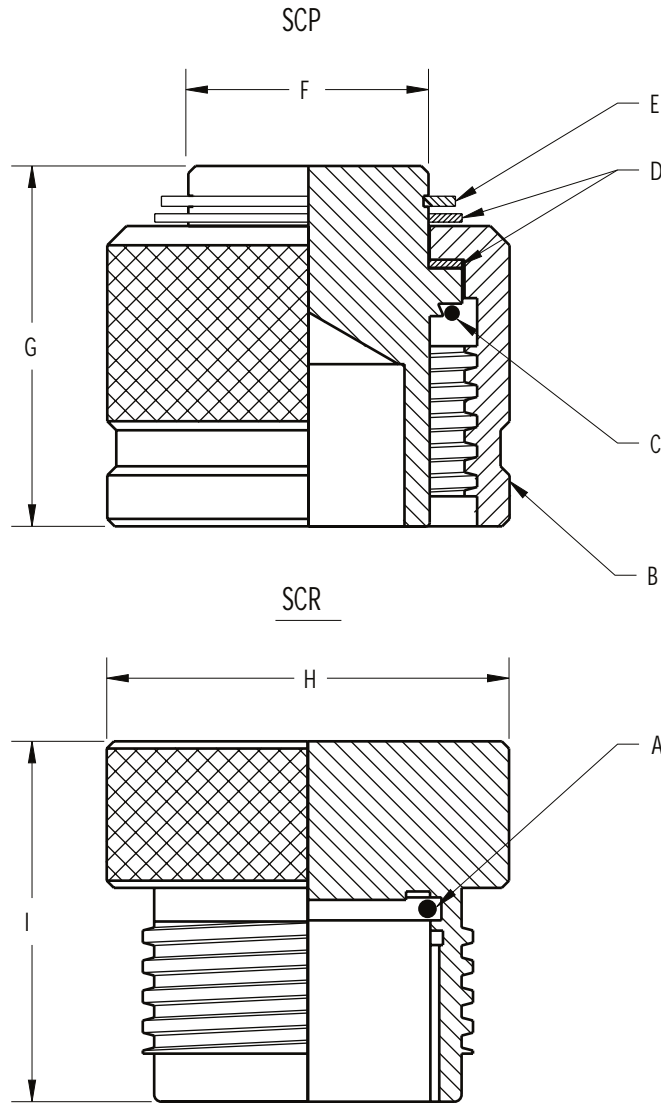
\* Please specify number of contacts.

\*\* Internal assembly same as MHDL-BCR (facing page).

\*\*\* Blind tapped hole not to penetrate bulkhead, minimum full thread depth 2 times bolt diameter.

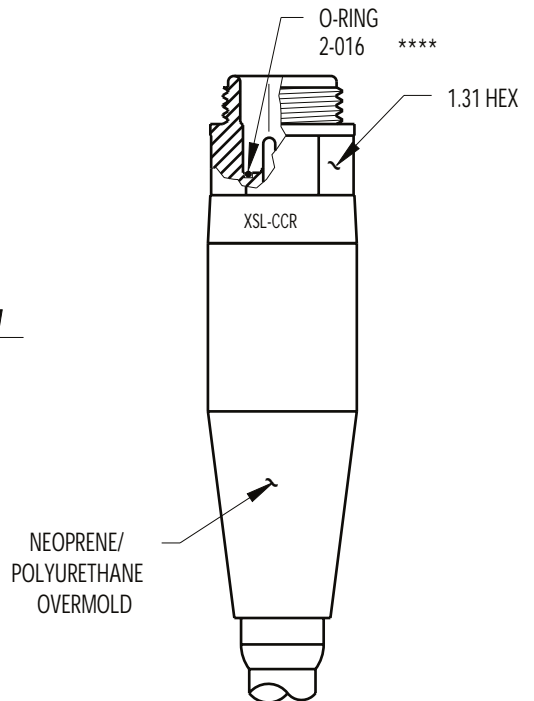
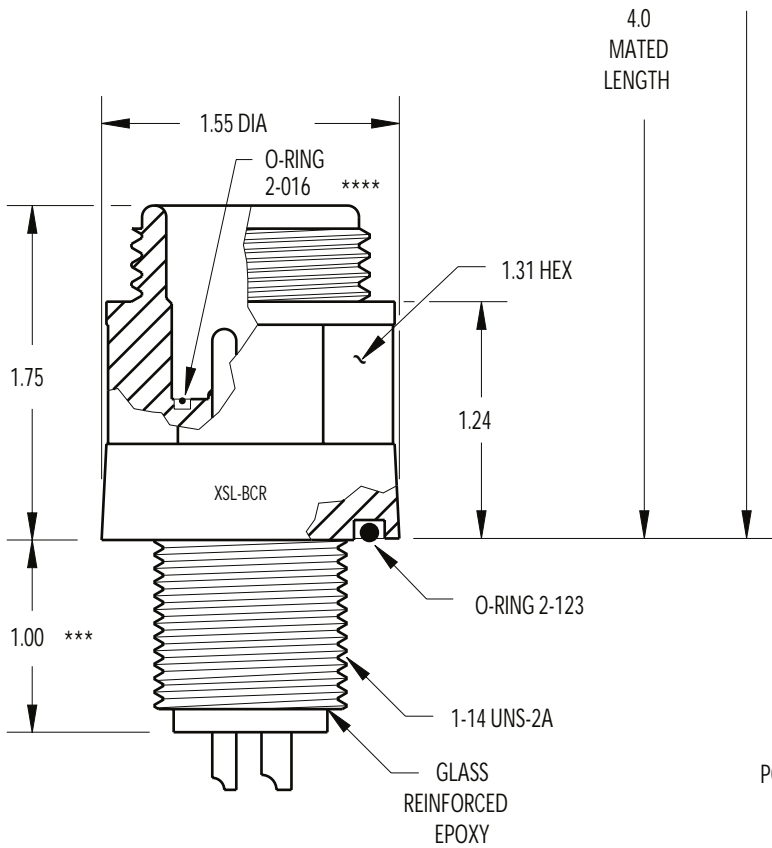
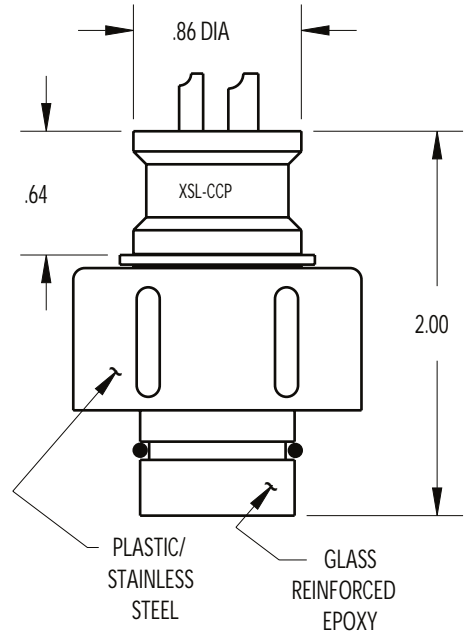
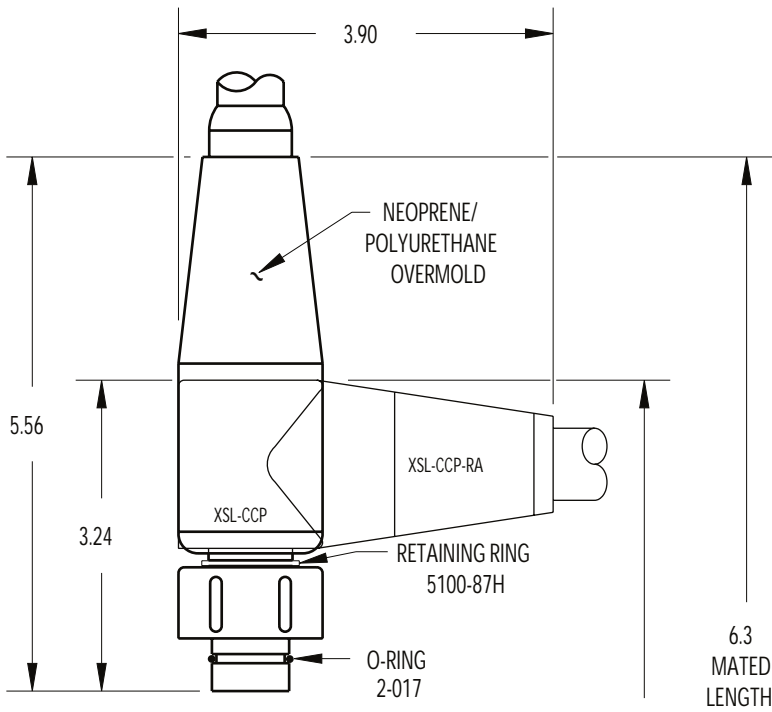
\*\*\*\* Oil filled version available upon request.

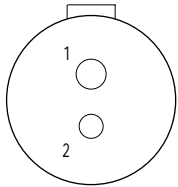
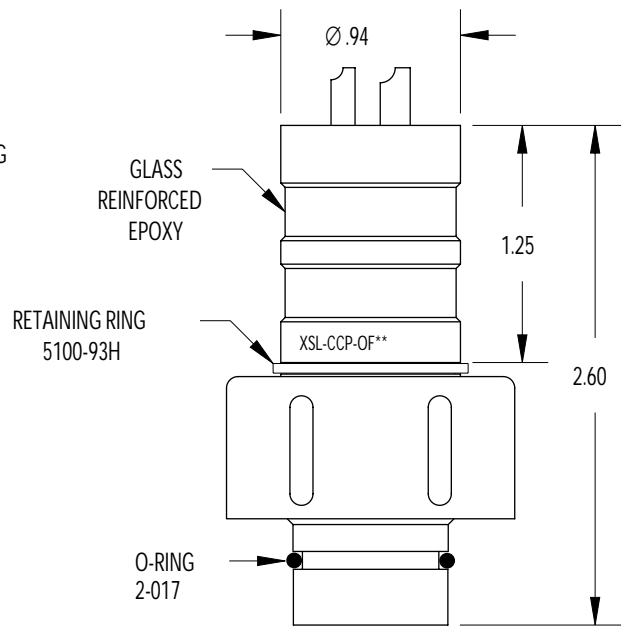
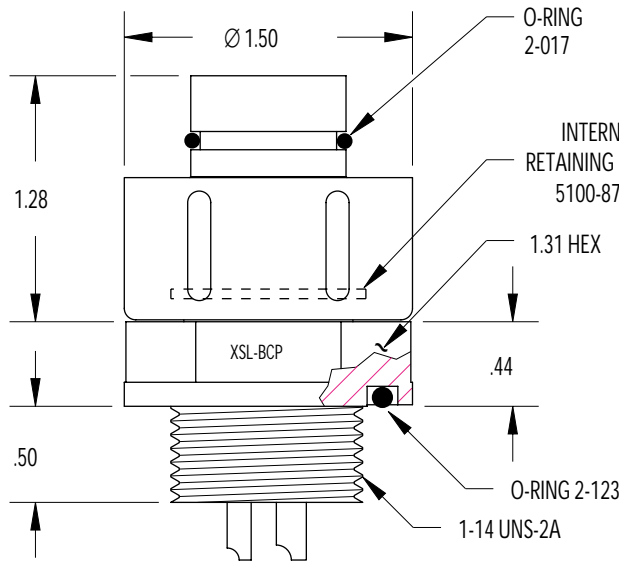




CONNECTOR SIZE	MHDG	MHDL	MHDM	MHDO
A O-RING	2-016	2-018	2-020	2-023
B ENGAGING NUT	605165	605280	602004	605450
C O-RING	2-017	5-273	2-022	2-022
D DELRIN WASHER (2X)	605101	605273	605005	605430
E RETAINING RING	5100-68	5100-75	5100-100	5100-112
F DIA	.69	.75	1.00	1.12
G	1.05	.95	.97	1.25
H DIA	1.00	1.25	1.43	1.62
I	1.00	.90	.87	1.25
MATED PRESSURE RATING (psi)	10,000	10,000	10,000	10,000

SCALE NONE

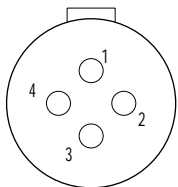




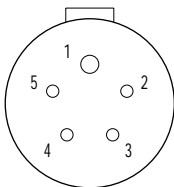
1#8/1#10  
600 VDC

CONTACT CONFIGURATION  
(BCR FACE VIEWS)

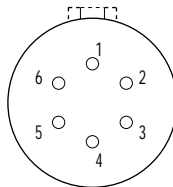
NOTE: Please specify narrow (.125) or wide (.250) key when ordering.



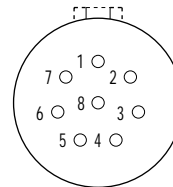
4#10  
600 VDC



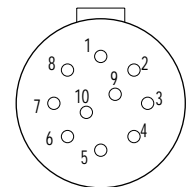
1#14/4#16  
500 VDC



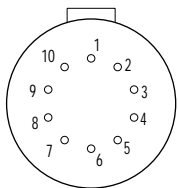
6#16  
500 VDC



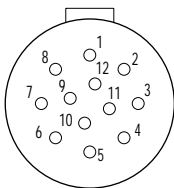
8#16  
500 VDC



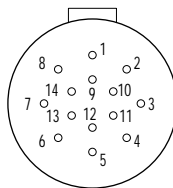
10#16  
400 VDC



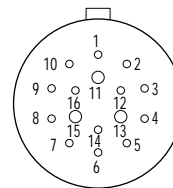
(PBOF)10#20  
200 VDC



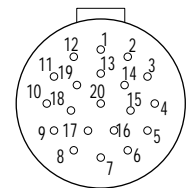
12#16  
200 VDC



14#20  
200 VDC



3#16/13#20  
200 VDC



20#20  
200 VDC

MOUNTING TORQUE FOR XSL-BCR/BCP	not to exceed 130 in/lbs	MATED PRESSURE RATING (psi)	20,000
DUMMY PLUG FOR XSL-BCR/CCR	XSL-*-SCP	DUMMY PLUG FOR XSL-CCP/BCP/CCP/CCP-OF	XSL-*-SCR

NOTE: CCP/CCR are not terminated to cable unless specified.  
 \* Please specify number of contacts.  
 \*\* Extended backshell for Oil Filled assemblies.  
 \*\*\* Also available in .50 thread length, 5-12 contacts only.  
 \*\*\*\* XSL-20-BCR, XSL-20-CCR and XSL-20-SCR use o-ring 5-254.