



# ELink Fiber Optic Connectors

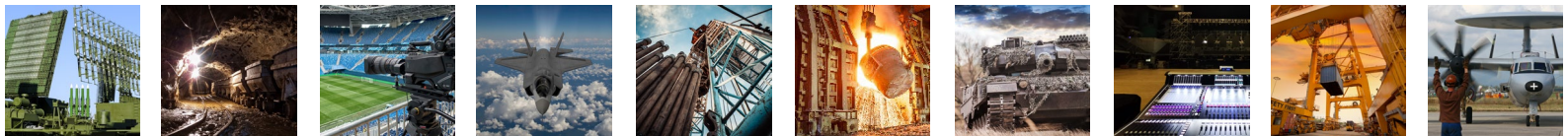


Proudly Designed, Manufactured  
& Assembled in the USA



QPC is ISO 9001:2015 and  
AS9100D Certified

Military    Aerospace    Defense    Industrial    Oil & Gas    Mining    Energy    Marine    Entertainment    Audio    Broadcast



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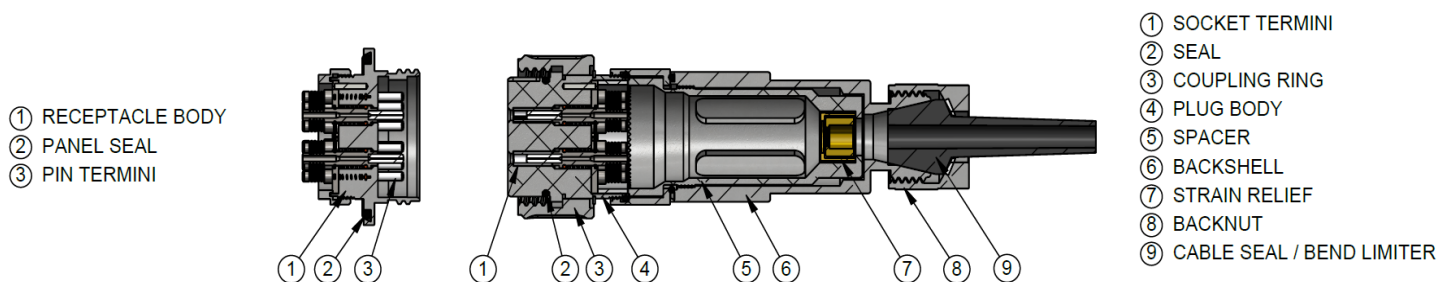
QPC's ELink Connectors are rugged, multi-channel pin/socket or hermaphroditic fiber optic connectors. ELink Plugs and Receptacles are available in aluminum with a black hard anodize finish or passivated stainless steel. The ELink Product Line features four shell sizes and allow for up to 24 discrete channels. ELink Connectors are environmentally sealed for long service life in demanding applications.

ELink Connectors are available in traditional Pin / Socket Arrangements, where the pins are installed in the receptacles and the sockets installed in the plugs. ELink Connectors are also available as Hermaphroditic configurations where multiple Plug-to-Plug Cable Assemblies can be combined to extend the length of the system.

The ELink features a genderless sealed 2.5mm terminus that is retained using a retainer plate inside the ELink Plugs and Receptacles. The alignment sleeves for the socket termini are retained in the connector bodies and use QPC's unique thick wall 2.5mm sleeves for added durability.

ELink Connectors are used in Oil & Gas, Mining, Factory Automation, Heavy Equipment, Marine, Broadcast, Medical, Military, Aerospace, and Defense for Communications, Audio / Video, and Sensing Applications.

- 4Ch / 12Ch / 18Ch / 24Ch Pin & Socket or Hermaphroditic Physical Contact Connector System
- Plugs: Integrated Backshells, Cable Strain Reliefs, and Bend Limiters
- Receptacles: Flange Mount with and without Backshells
- Cable OD: 4 Channel up to 0.28" (7.0mm) / 12 – 24 Channel up to 0.37" (9.5mm)
- Genderless Sealed 2.5mm Termini
- 18Ch / 24Ch Hermaphroditic Plugs include a Locking Ring Feature for easier De-Mating
- Sealed to IP68



## Specifications:

<b>Insertion Loss: SM (9/125µm)</b>	0.10-1.0dB Max.
<b>MM (50/125µm)</b>	0.10-1.0dB Max.
<b>MM (62.5/125µm)</b>	0.10-1.0dB Max.
<b>Return Loss: SM (9/125µm)</b>	-40dB PC; -55dB UPC
<b>Operating Temperature:</b>	-40°C to +85°C
<b>Vibration:</b>	10 to 2000Hz / 15g EIA/TIA-455-11; Cond. III
<b>Mating Durability:</b>	2000 Cycles
<b>Impact:</b>	8 Impacts @ 8FT (2.4MT); EIA/TIA-455-2
<b>Shock:</b>	50g for 11ms; EIA/TIA-455-14; Condition A
<b>IP Rating:</b>	IP68 - Dust Tight; No ingress of dust; complete protection against contact; Water Immersion Beyond 1 Meter Testing Conditions & Duration – Plug with Dust Cover and Mated Plug / Receptacle, 3 Meters for 24 Hours
<b>Material &amp; Plating Specification:</b>	Hard Anodize: 6061-T6 Aluminum; Anodize per MIL-A-8625 TYPE III CLASS 2; .0022/.0018 Thick (50% Penetration); Black Stainless Steel: 303 Stainless Steel; Passivate Per QQ-P-35
<b>Cable Retention:</b>	4 Channel: 75lbs <sup>1</sup> 12 & 18 Channel: 100lbs <sup>1</sup> 24 Channel: 400lbs <sup>1</sup>

### Specifications Notes:

<sup>1</sup> Cable retention depends on cable type.

\* All Dimensions in this document are shown in Inches (Millimeters)

## Part Number Builder; ELink Plugs and Receptacles:

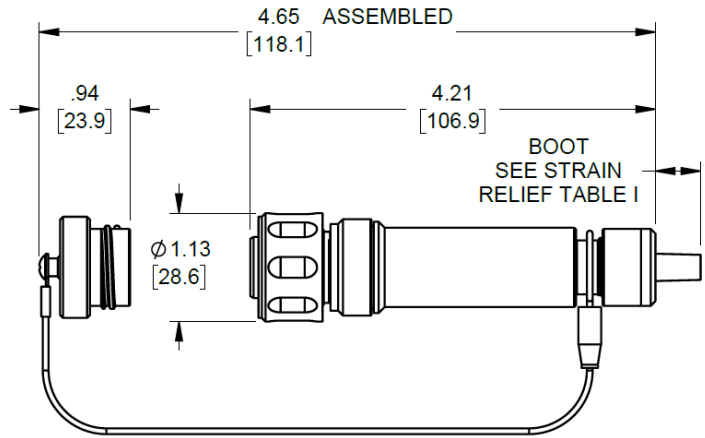
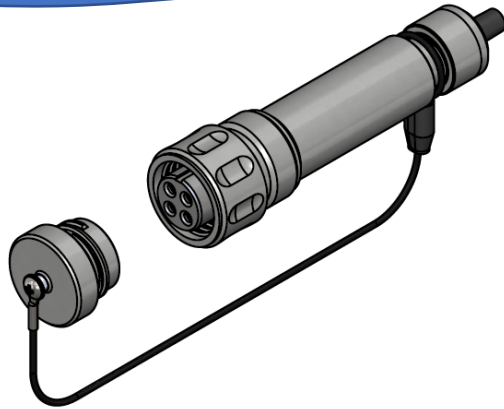
<b>Sample Part Number:</b> <b>ELINK-PHHN-18CH-S85</b>	<b>ELINK</b>	<b>-</b>	<b>PHH</b>	<b>N</b>	<b>-</b>	<b>18CH</b>	<b>-</b>	<b>S85</b>
<b>1 Series</b> ELINK								
<b>2 Product Type</b> PHH - PLUG, HERMAPHRODITIC PSM - PLUG, SOCKET TERMINI RHH - RECEPTACLE, FLANGE MOUNT, HERMAPHRODITIC RPF - RECEPTACLE, FLANGE MOUNT, PIN TERMINI								
<b>3 Material &amp; Finish Code</b> N - ALUMINUM, HARD ANODIZE, BLACK S - STAINLESS STEEL, PASSIVATED (CONSULT QPC FOR OTHER OPTIONS)								
<b>4 Channel Count</b> 04CH - 4 CHANNEL, 4x 126µm TERMINI 12CH - 12 CHANNEL, 12x 126µm TERMINI 18CH - 18 CHANNEL, 18x 126µm TERMINI 24CH - 24 CHANNEL, 24x 126µm TERMINI								
<b>5 Strain Relief</b> SEE TABLE I OR TABLE II								

### Part Number Builder Notes:

- \* All ELink Connectors Include the Standard Dust Cover
- \* For Spare Termini and Replacement Dust Cover ordering information, see Page 18

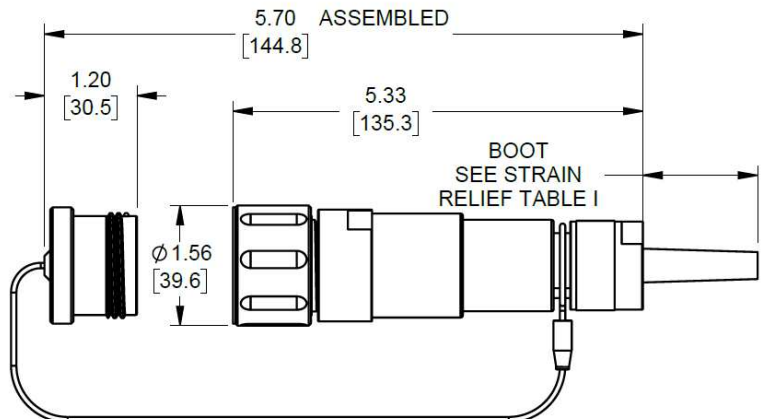
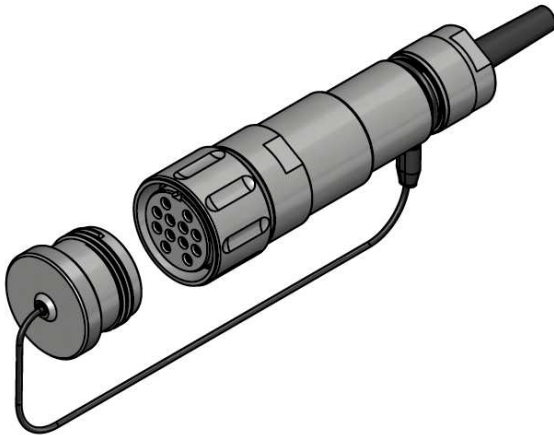
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**ELINK-PSMX-04CH-SXX**



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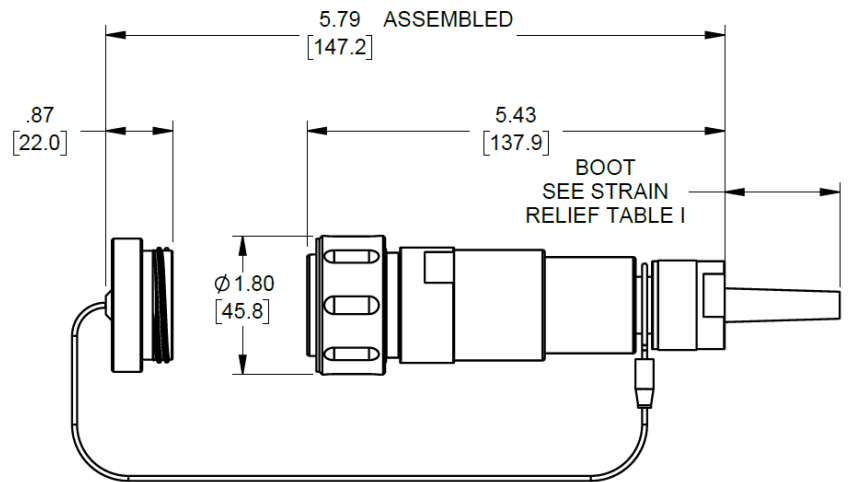
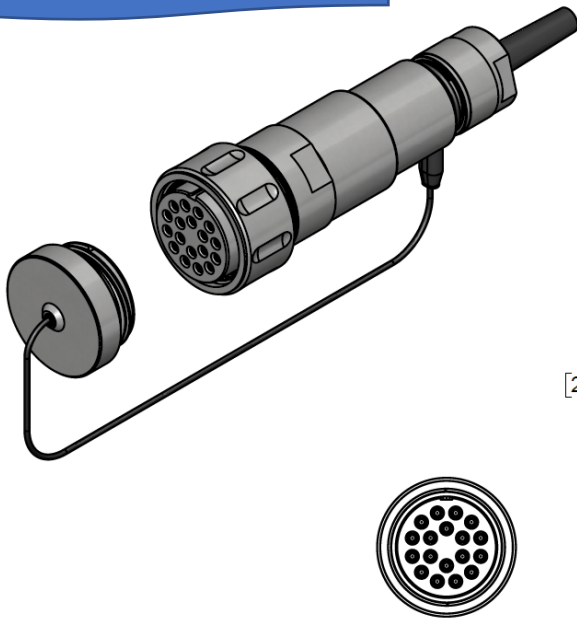
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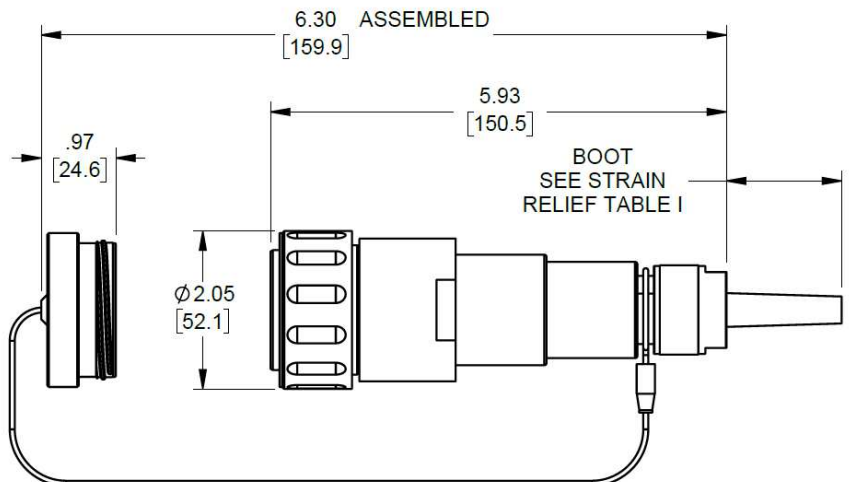
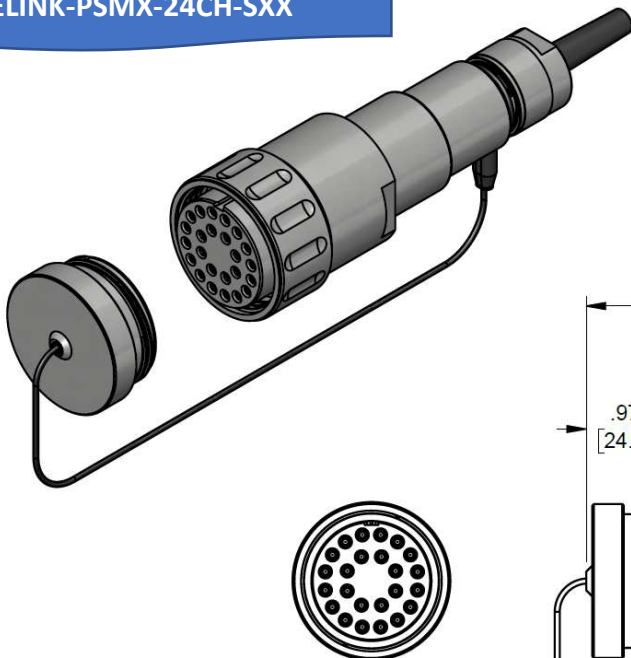
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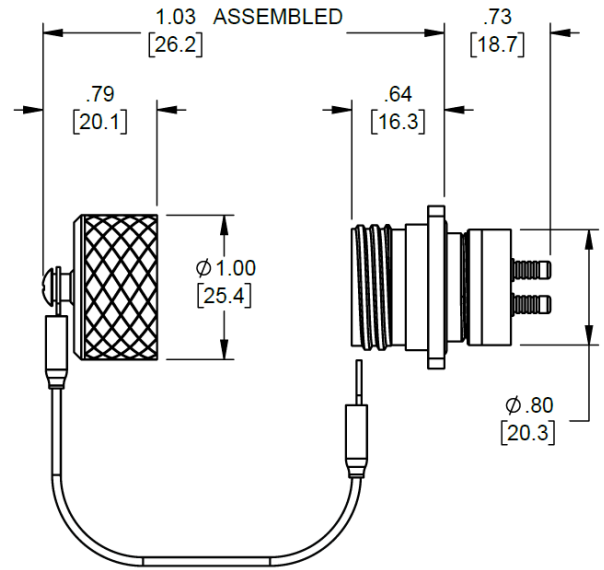
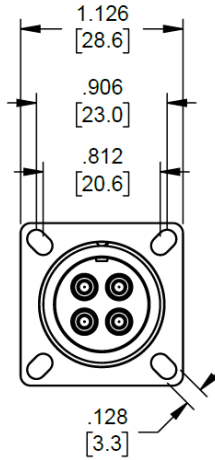
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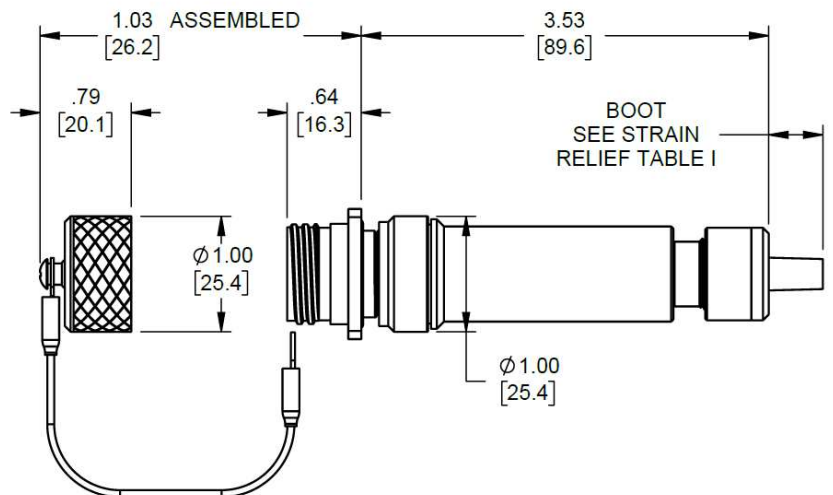
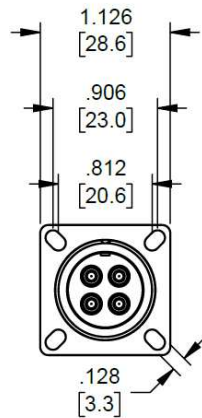
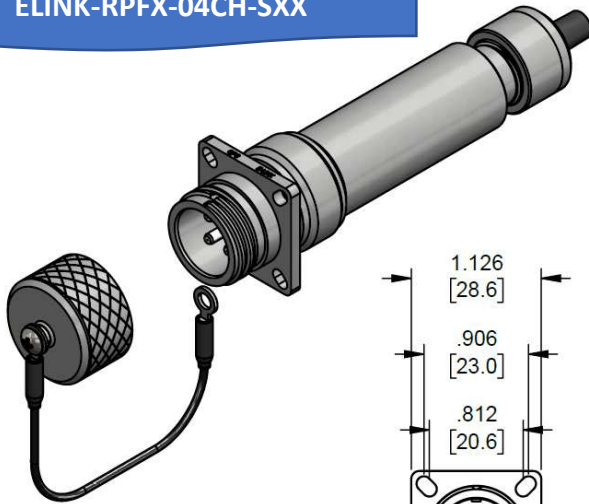
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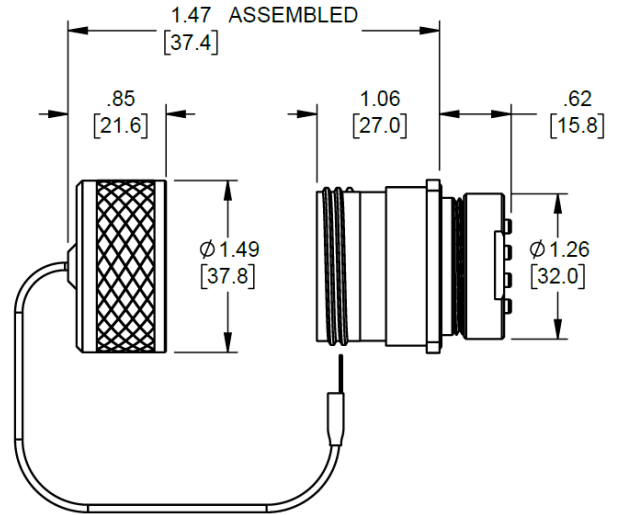
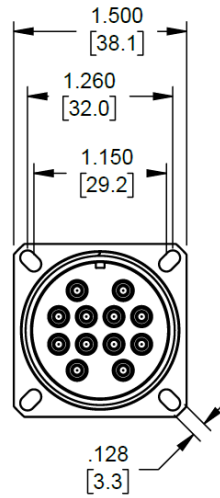
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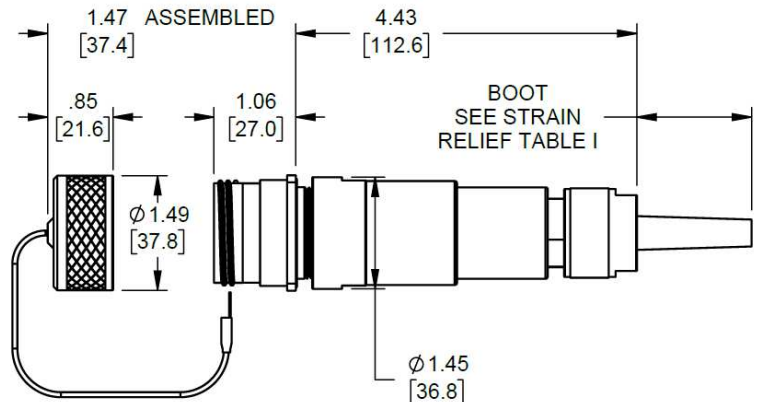
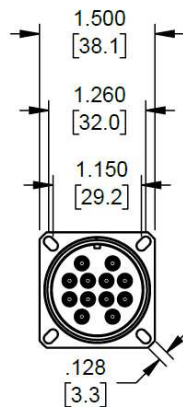
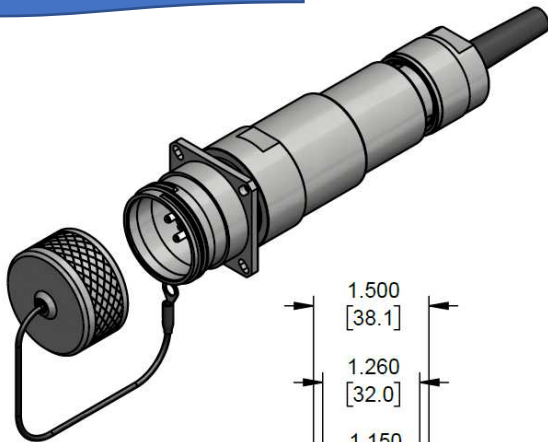
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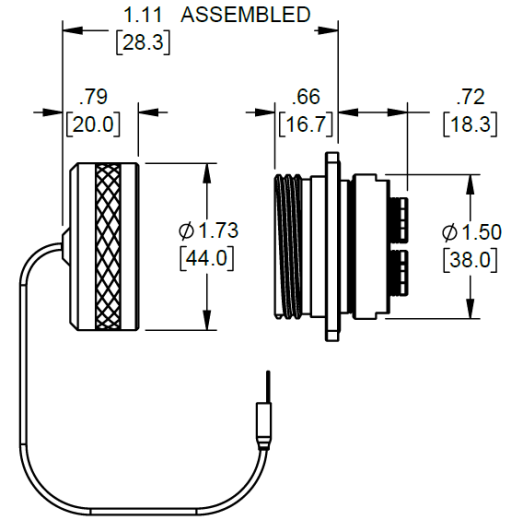
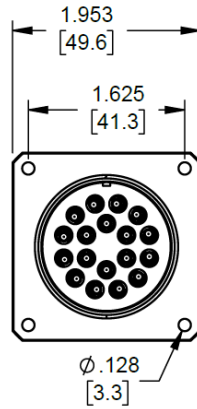
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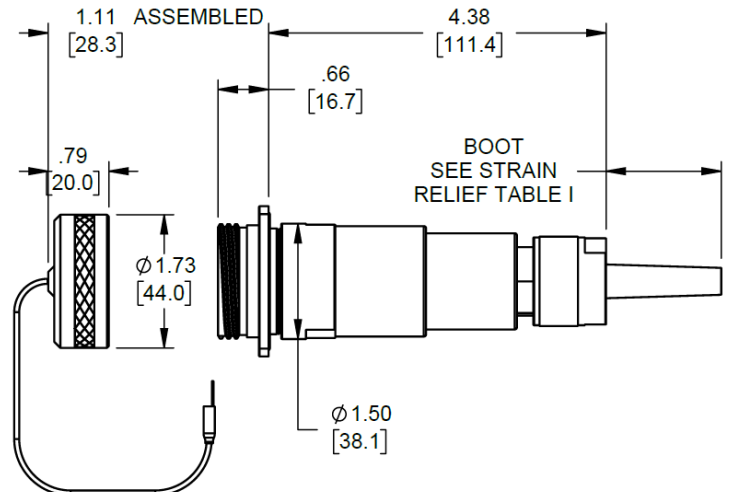
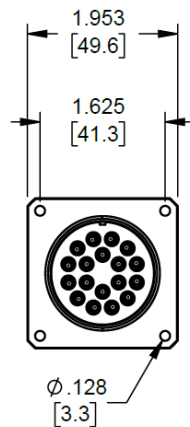
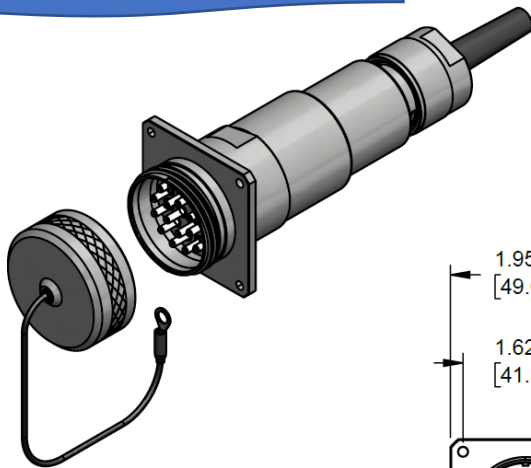
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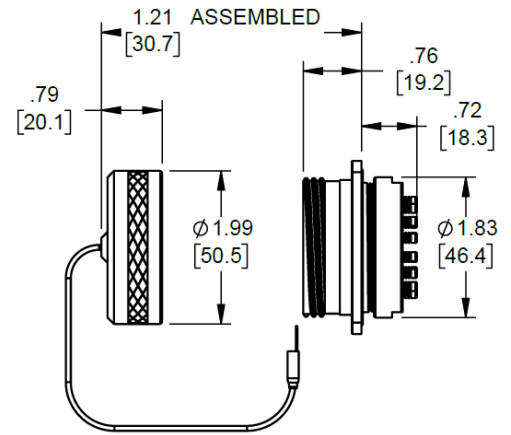
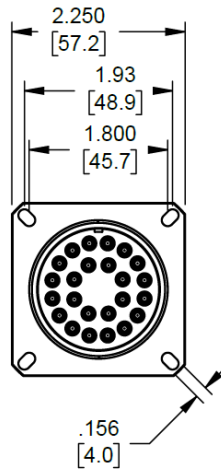
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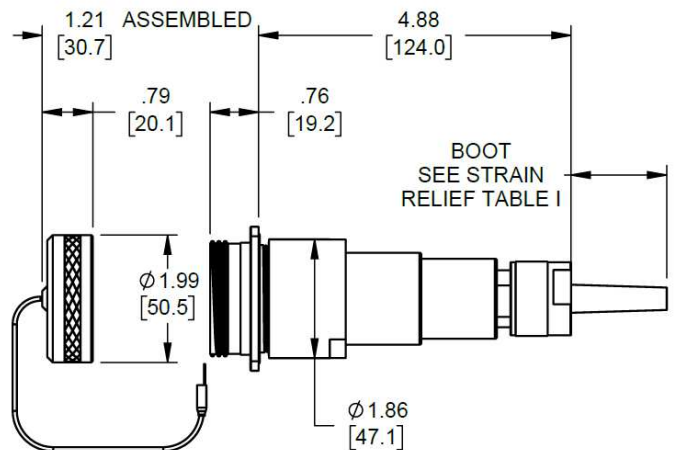
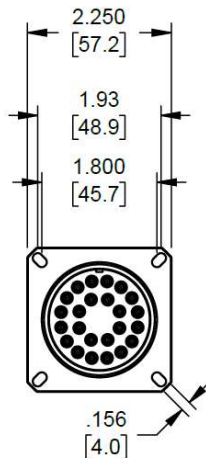
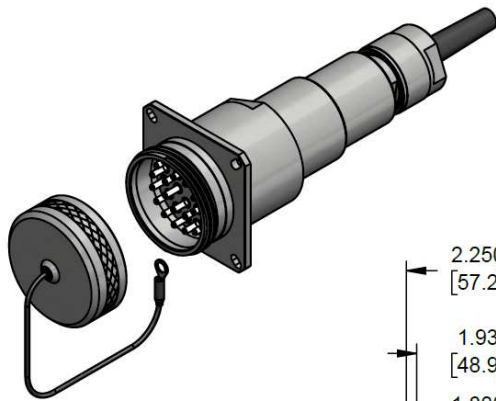
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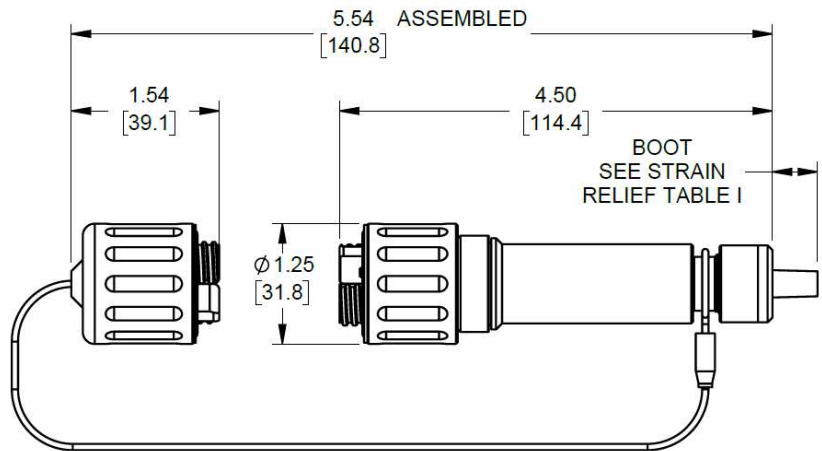
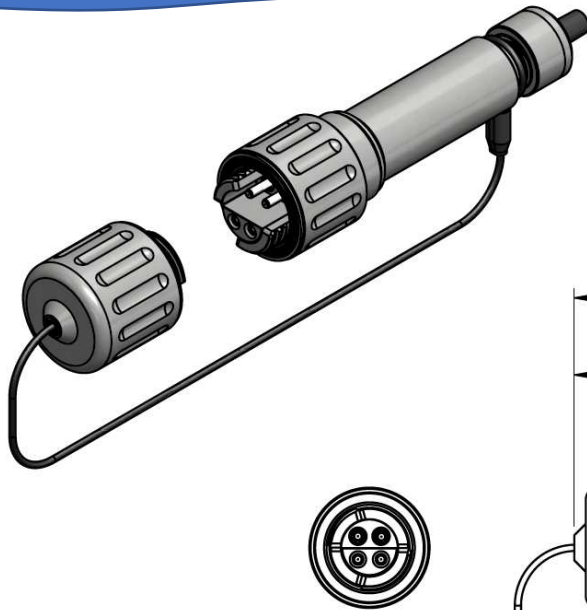
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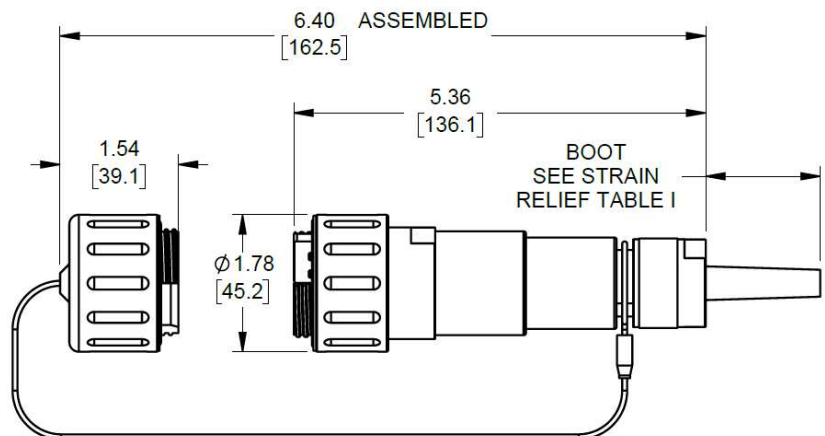
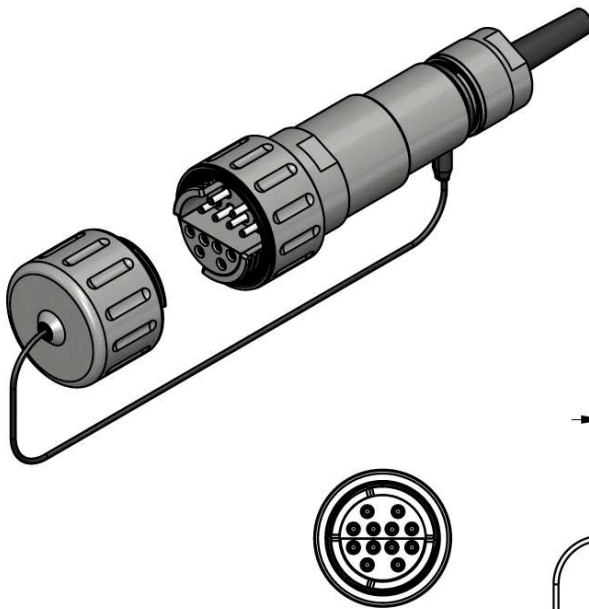
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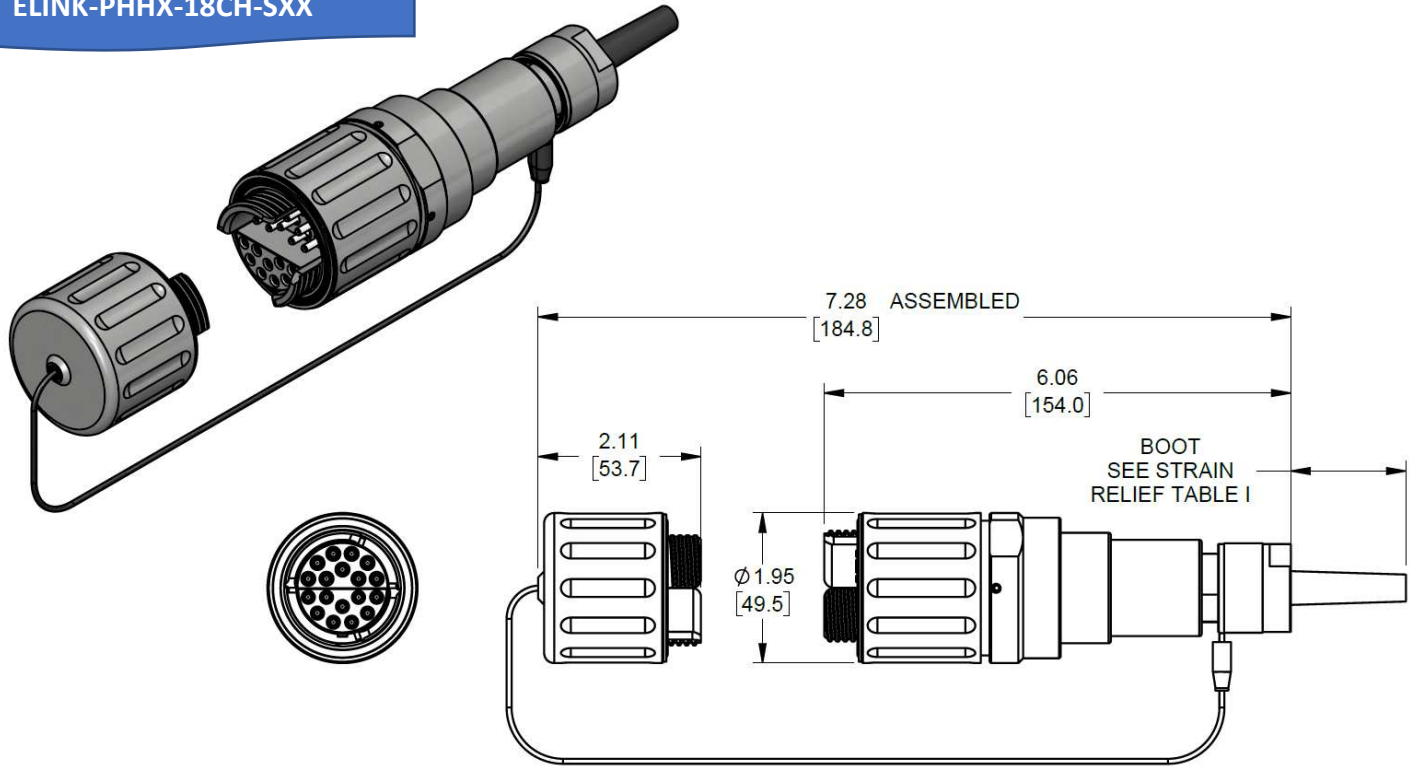
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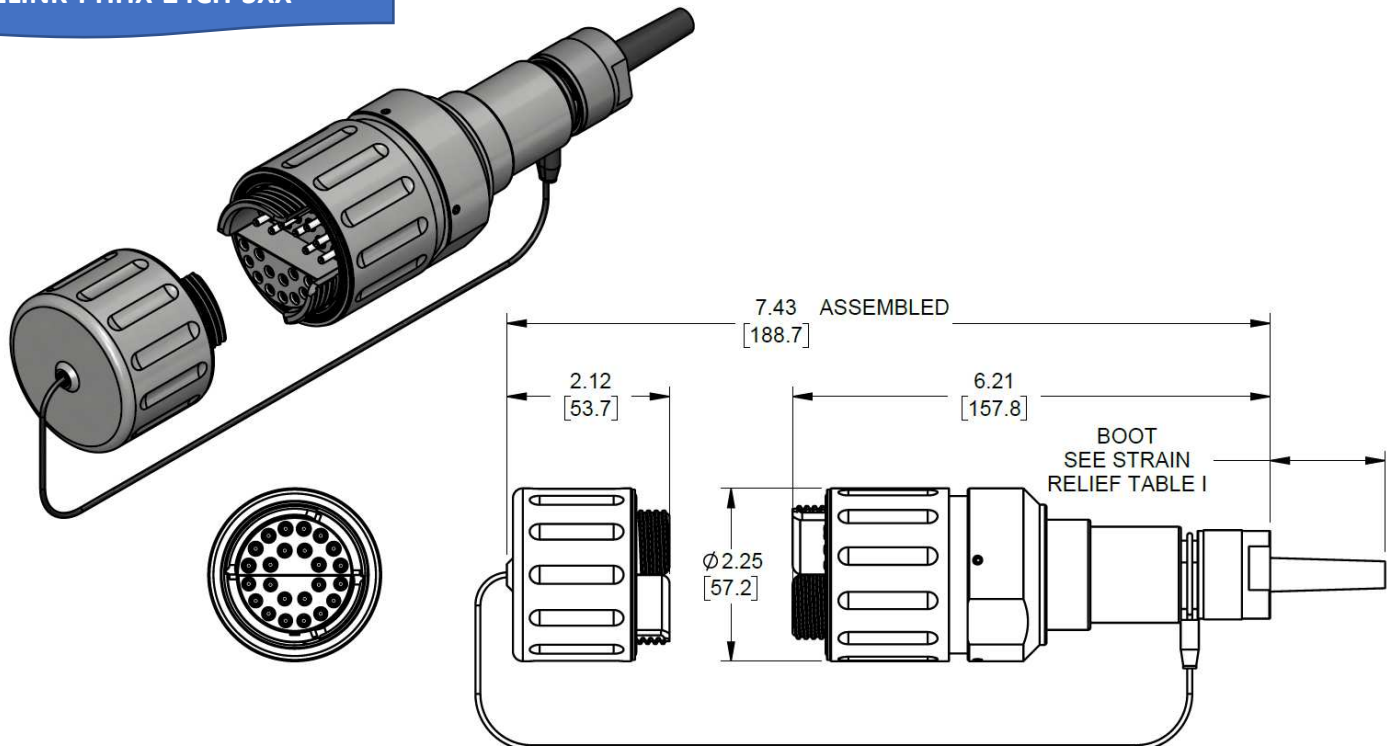
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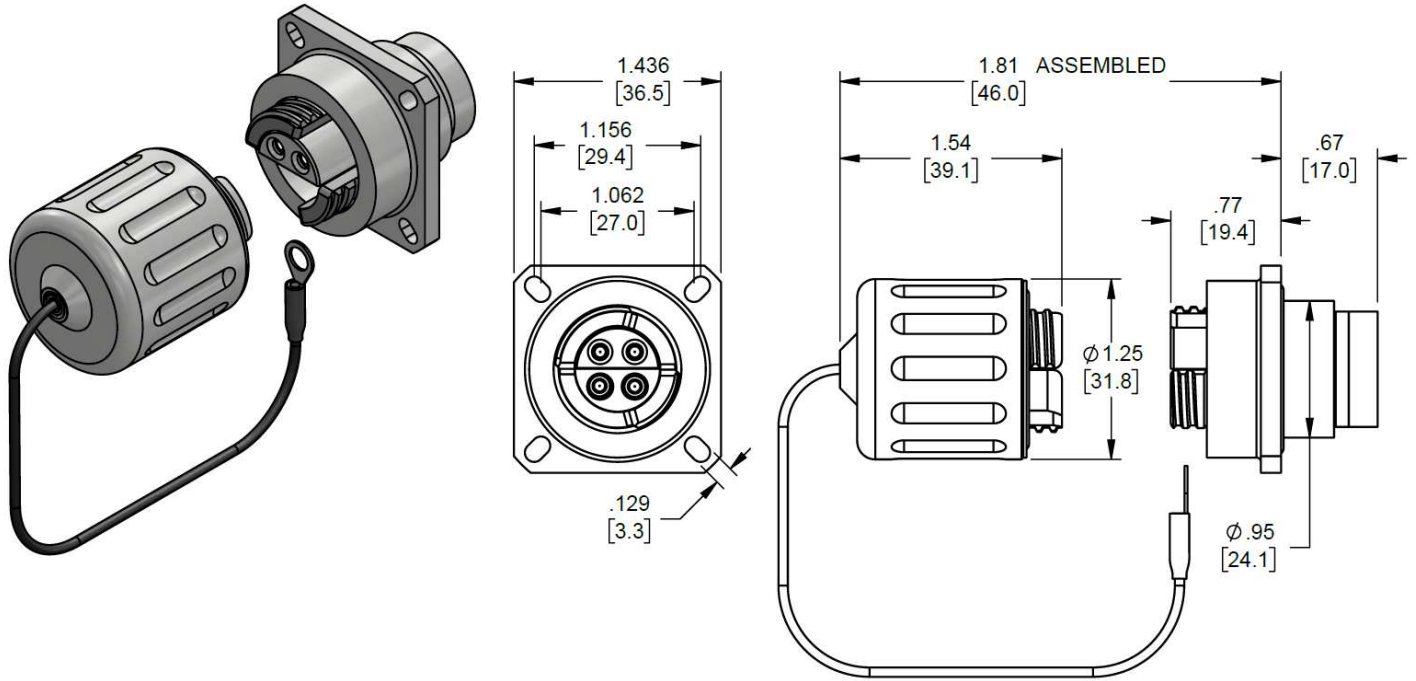
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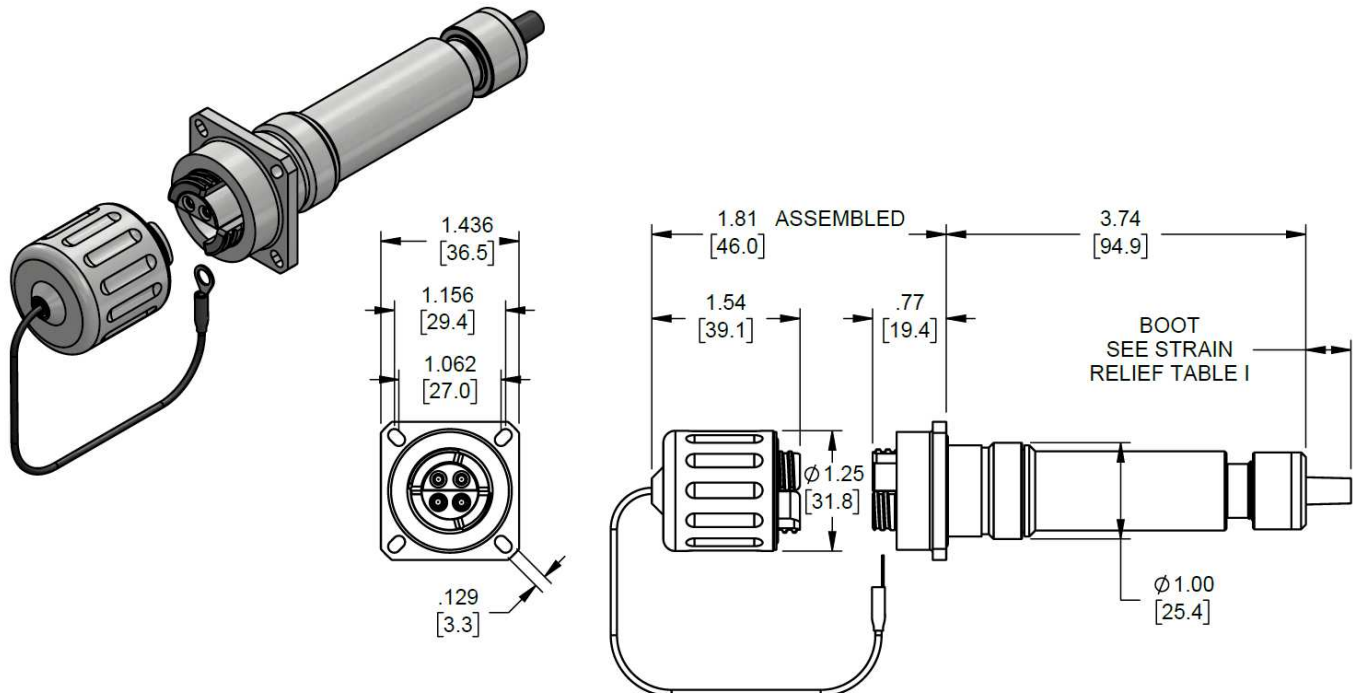
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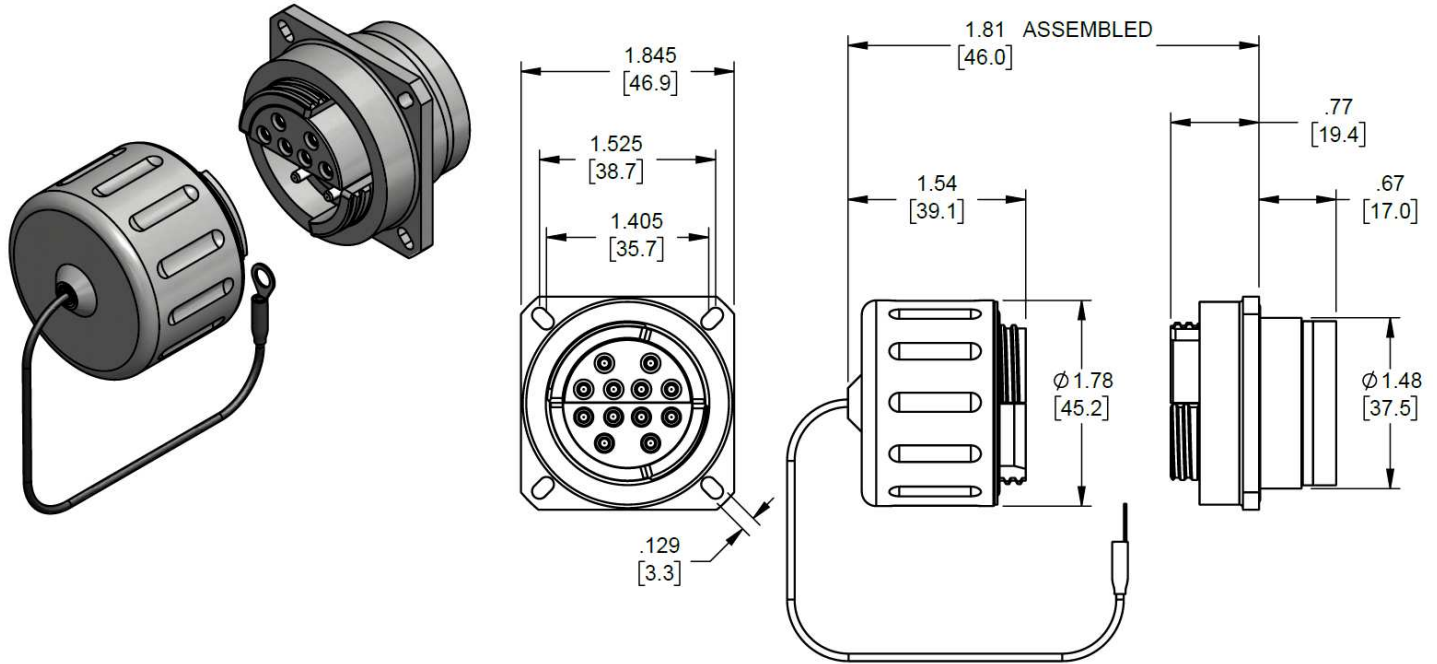
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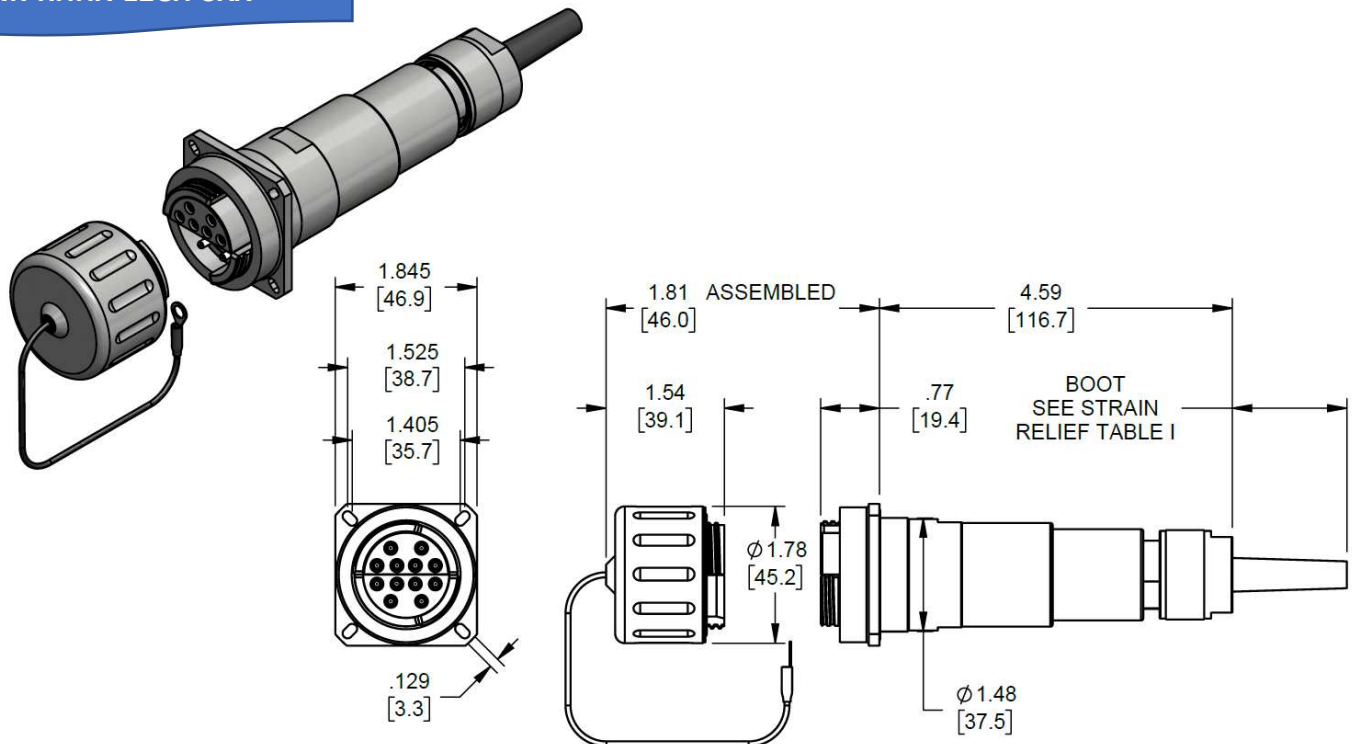
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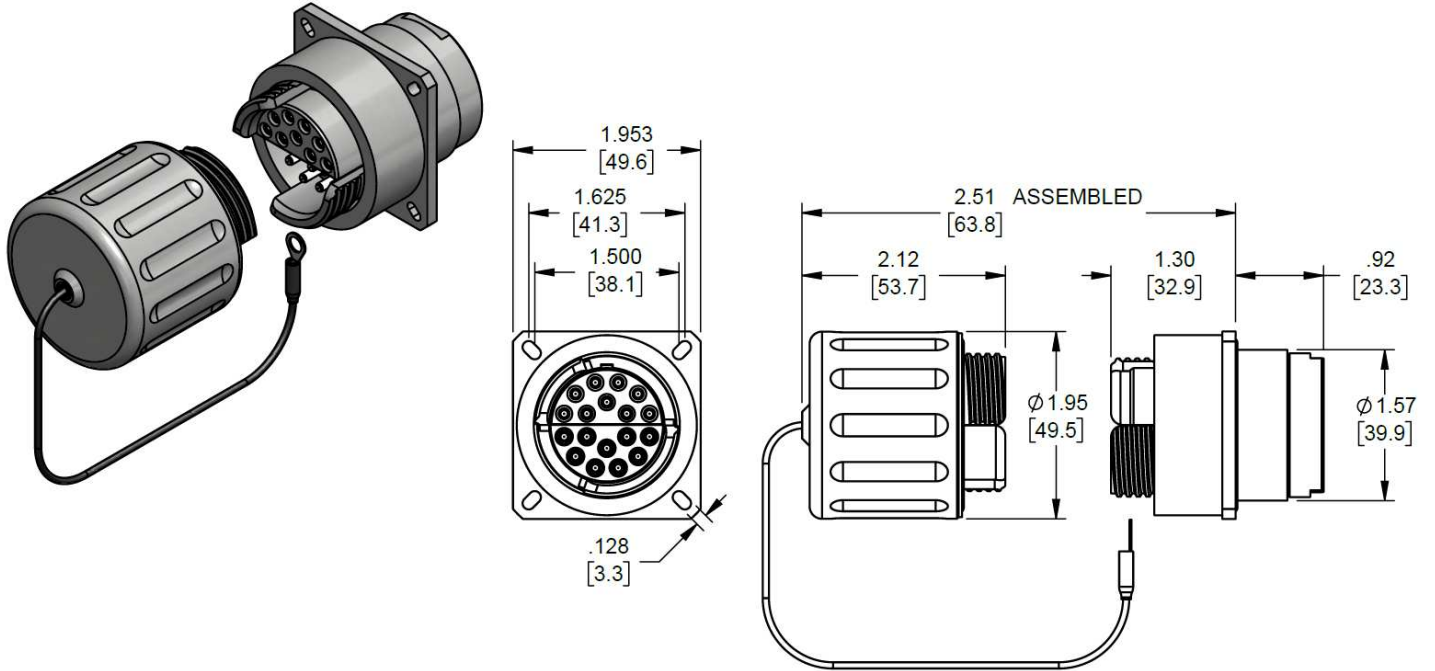
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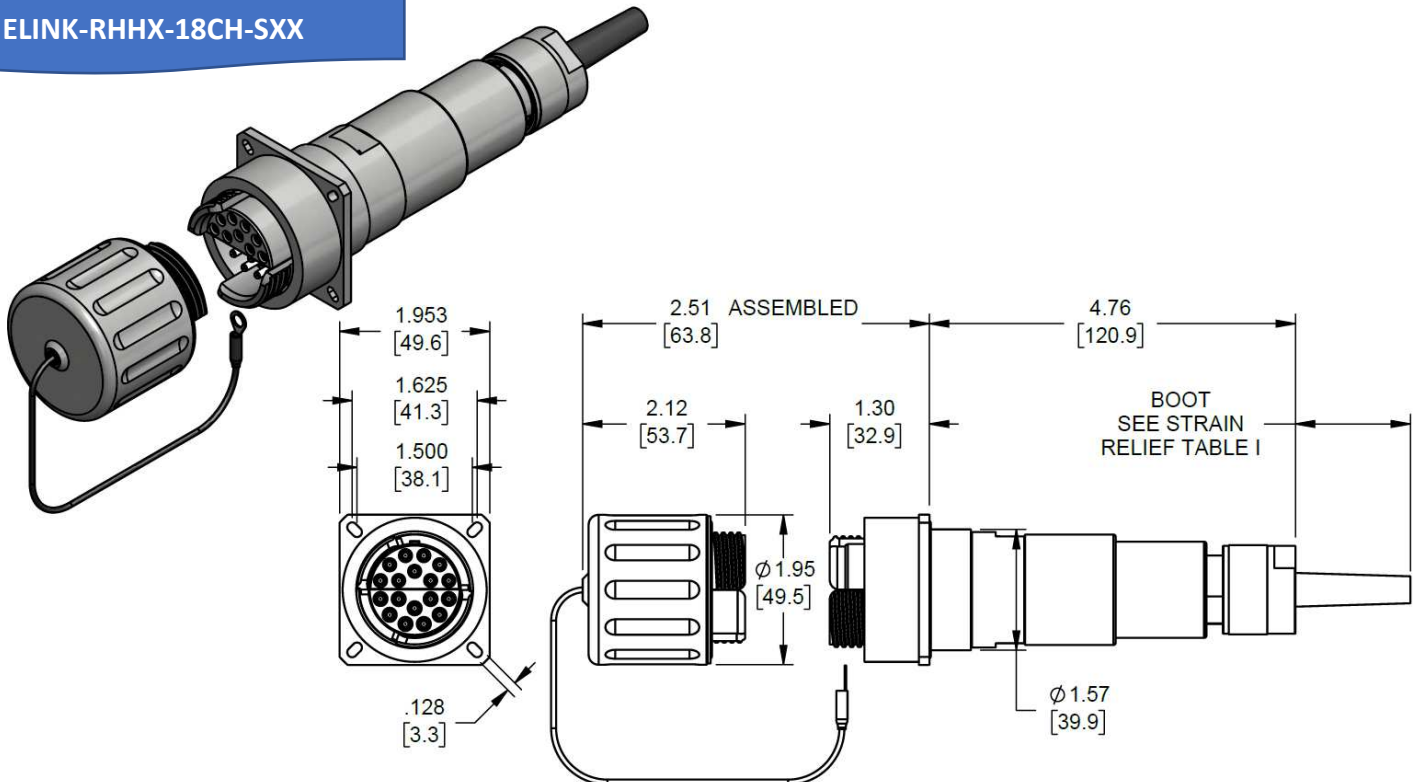
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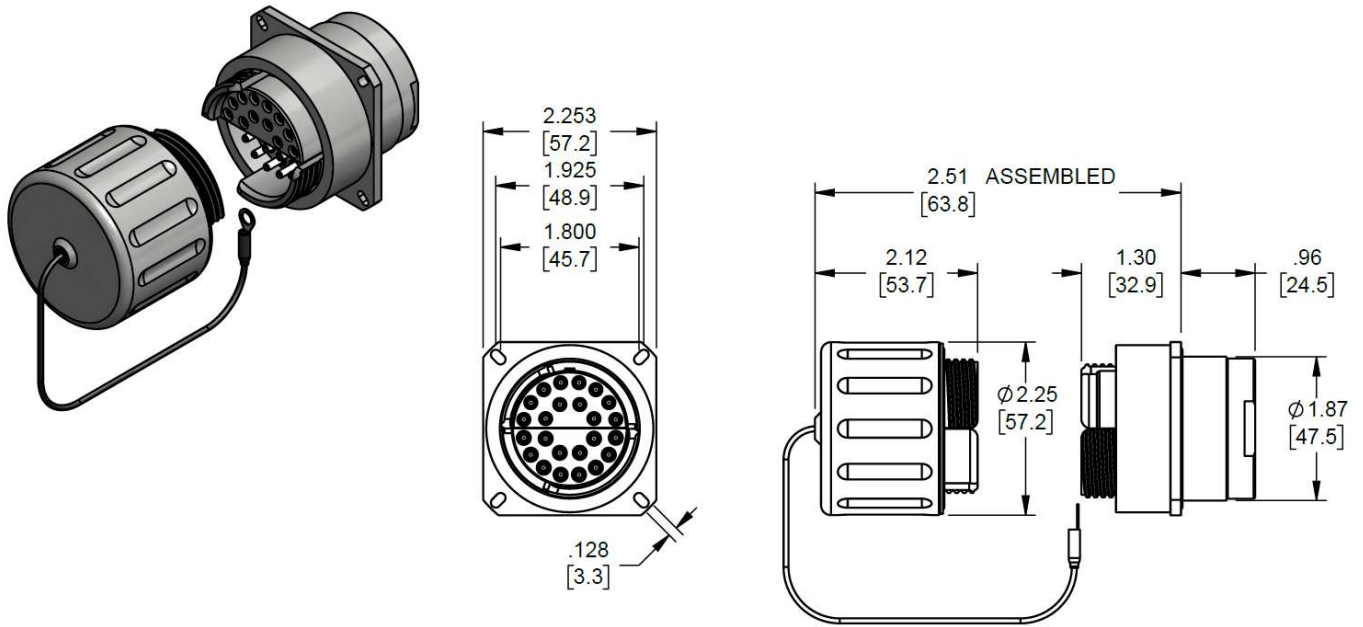
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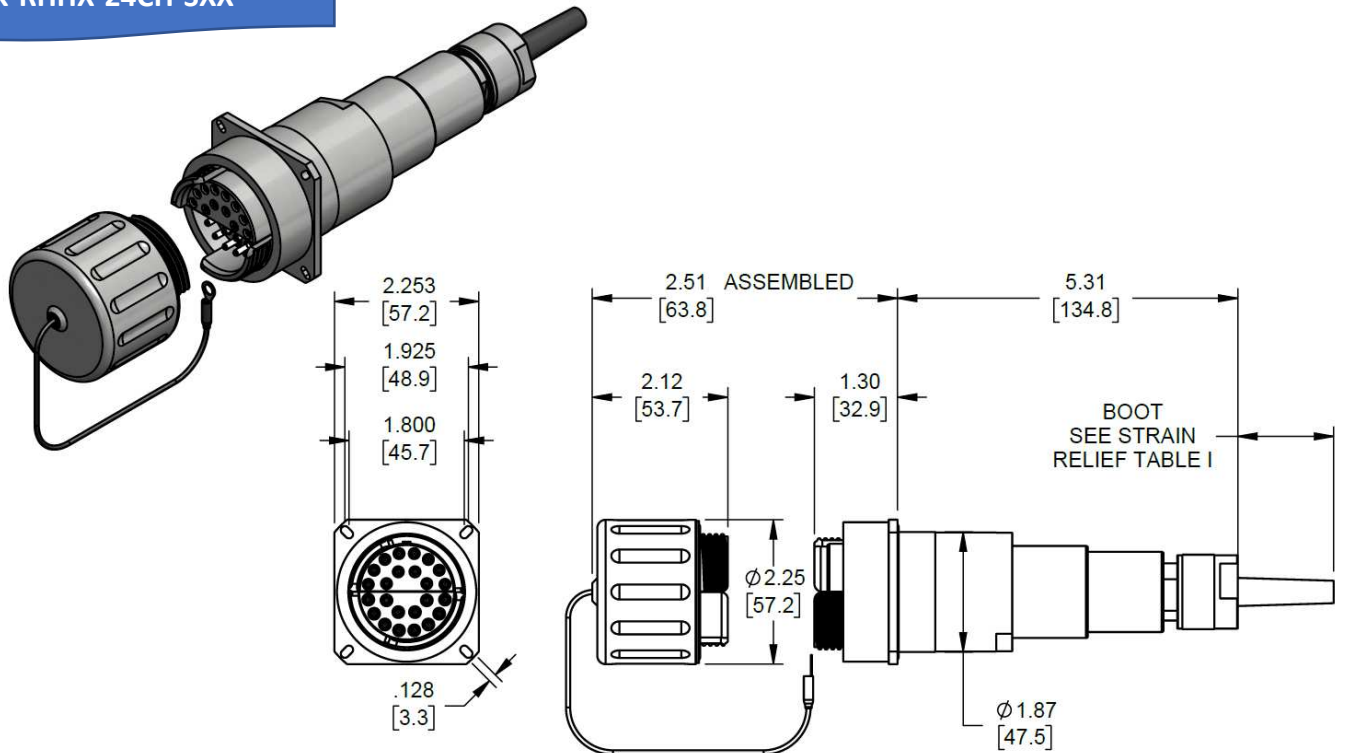
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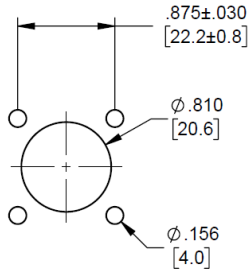
**ELink; 24Ch Receptacle; Hermaphroditic; Backshell; Dust Cover:**

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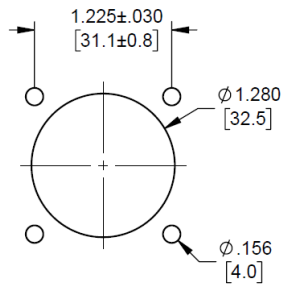


**ELink Receptacle Panel Cutouts**

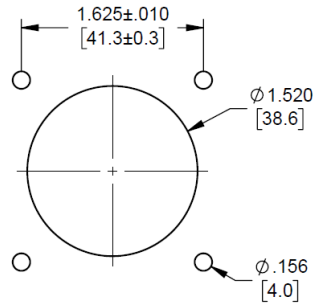
**Pin / Socket Without Backshell**



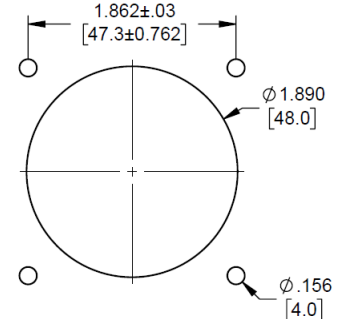
**4 Channel**



**12 Channel**

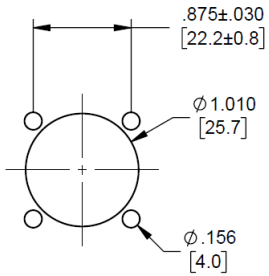


**18 Channel**

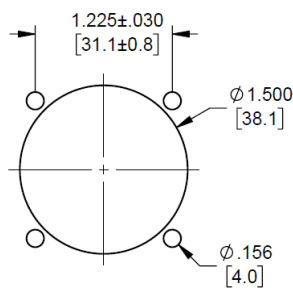


**24 Channel**

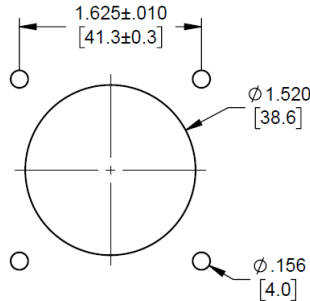
**Pin / Socket With Backshell**



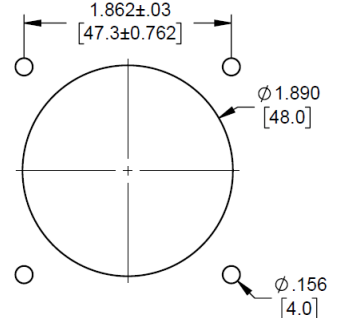
**4 Channel**



**12 Channel**

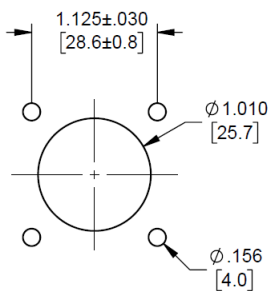


**18 Channel**

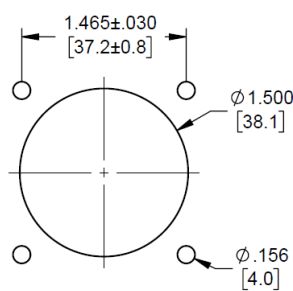


**24 Channel**

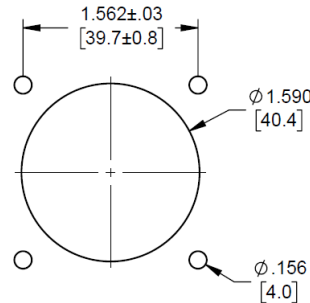
**Hermaphroditic With and Without Backshell**



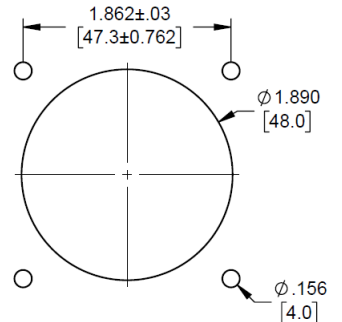
**4 Channel**



**12 Channel**



**18 Channel**



**24 Channel**

**Table I – ELink Strain Relief Options (Plugs / Receptacles with Backshell):**

Cable OD in (mm)	4 Channel		12 / 18 / 24 Channel	
	Strain Relief Identifier	Strain Relief Length in (mm)	Strain Relief Identifier	Strain Relief Length in (mm)
0.200 - 0.236 (5.1 - 6.0)	S60	0.47 (11.9)	-	-
0.240 - 0.276 (6.1 - 7.0)	S70	0.47 (11.9)	-	-
0.142 - 0.177 (3.6 - 4.5)	-	-	S045	1.43 (36.3)
0.181 - 0.217 (4.6 - 5.5)	-	-	S055	1.43 (36.3)
0.220 - 0.256 (5.6 - 6.5)	-	-	S065	1.43 (36.3)
0.260 - 0.295 (6.6 - 7.5)	-	-	S075	0.95 (24.1)
0.299 - 0.335 (7.6 - 8.5)	-	-	S085	0.36 (9.1)
0.339 - 0.374 (8.6 - 9.5)	-	-	S095	0.36 (9.1)

**Table II – ELink Strain Relief Options (Receptacles without Backshell)**

Cable OD	Strain Relief Identifier
900µm	S00
2mm	S02
3mm	S03

## ELink Termini:

PART NUMBER	DESCRIPTION
ELINK-TRM	Terminus Assembly; ELink; 2.5mm Ferrule OD; 126µm Singlemode/Multimode
ELINK-SAS	Alignment Sleeve; ELink; 2.5mm ID; Split; Thick Wall (0.63mm)
ELINK-CMP-2MM	Crimp Sleeve, 2.0mm, Stainless Steel
ELINK-CMP-3MM	Crimp Sleeve, 3.0mm, Stainless Steel

## ELink Replacement Dust Covers (Aluminum):

PART NUMBER	DESCRIPTION
ELINK-DCPSN-04CH	Dust Cover; ELink; Plug; Male; Aluminum; Hard Anodize; Black; 4CH
ELINK-DCPSN-12CH	Dust Cover; ELink; Plug; Male; Aluminum; Hard Anodize; Black; 12CH
ELINK-DCPSN-18CH	Dust Cover; ELink; Plug; Male; Aluminum; Hard Anodize; Black; 18CH
ELINK-DCPSN-24CH	Dust Cover; ELink; Plug; Male; Aluminum; Hard Anodize; Black; 24CH
ELINK-DCRPN-04CH	Dust Cover; ELink; Receptacle; Female; Aluminum; Hard Anodize; Black; 4CH
ELINK-DCRPN-12CH	Dust Cover; ELink; Receptacle; Female; Aluminum; Hard Anodize; Black; 12CH
ELINK-DCRPN-18CH	Dust Cover; ELink; Receptacle; Female; Aluminum; Hard Anodize; Black; 18CH
ELINK-DCRPN-24CH	Dust Cover; ELink; Receptacle; Female; Aluminum; Hard Anodize; Black; 24CH
ELINK-DCPHN-04CH	Dust Cover; ELink; Plug; Hermaphroditic; Aluminum; Hard Anodize; Black; 4CH
ELINK-DCPHN-12CH	Dust Cover; ELink; Plug; Hermaphroditic; Aluminum; Hard Anodize; Black; 12CH
ELINK-DCPHN-18CH	Dust Cover; ELink; Plug; Hermaphroditic; Aluminum; Hard Anodize; Black; 18CH
ELINK-DCPHN-24CH	Dust Cover; ELink; Plug; Hermaphroditic; Aluminum; Hard Anodize; Black; 24CH
ELINK-DCRHN-04CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Aluminum; Hard Anodize; Black; 4CH
ELINK-DCRHN-12CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Aluminum; Hard Anodize; Black; 12CH
ELINK-DCRHN-18CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Aluminum; Hard Anodize; Black; 18CH
ELINK-DCRHN-24CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Aluminum; Hard Anodize; Black; 24CH



## ELink Replacement Dust Covers (Stainless Steel):

PART NUMBER	DESCRIPTION
ELINK-DCPSS-04CH	Dust Cover; ELink; Plug; Male; Stainless Steel; Passivated; 4CH
ELINK-DCPSS-12CH	Dust Cover; ELink; Plug; Male; Stainless Steel; Passivated; 12CH
ELINK-DCPSS-18CH	Dust Cover; ELink; Plug; Male; Stainless Steel; Passivated; 18CH
ELINK-DCPSS-24CH	Dust Cover; ELink; Plug; Male; Stainless Steel; Passivated; 24CH
ELINK-DCRPS-04CH	Dust Cover; ELink; Receptacle; Female; Stainless Steel; Passivated; 4CH
ELINK-DCRPS-12CH	Dust Cover; ELink; Receptacle; Female; Stainless Steel; Passivated; 12CH
ELINK-DCRPS-18CH	Dust Cover; ELink; Receptacle; Female; Stainless Steel; Passivated; 18CH
ELINK-DCRPS-24CH	Dust Cover; ELink; Receptacle; Female; Stainless Steel; Passivated; 24CH
ELINK-DCPHS-04CH	Dust Cover; ELink; Plug; Hermaphroditic; Stainless Steel; Passivated; 4CH
ELINK-DCPHS-12CH	Dust Cover; ELink; Plug; Hermaphroditic; Stainless Steel; Passivated; 12CH
ELINK-DCPHS-18CH	Dust Cover; ELink; Plug; Hermaphroditic; Stainless Steel; Passivated; 18CH
ELINK-DCPHS-24CH	Dust Cover; ELink; Plug; Hermaphroditic; Stainless Steel; Passivated; 24CH
ELINK-DCRHS-04CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Stainless Steel; Passivated; 4CH
ELINK-DCRHS-12CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Stainless Steel; Passivated; 12CH
ELINK-DCRHS-18CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Stainless Steel; Passivated; 18CH
ELINK-DCRHS-24CH	Dust Cover; ELink; Receptacle; Hermaphroditic; Stainless Steel; Passivated; 24CH

## ELink Tools:

PART NUMBER	DESCRIPTION
TK-053	ELink Tool Kit (Includes all items below)
PT-451	Fiber Optic Termini Spring Compression Tool (ELink, QFoca, QDrive)
PT-615	Square Drive Strap Wrench, 3/8" Square Drive (NOTE: For 4 Channel ELink Only)
PT-540	Hydraulic Hand Crimping Tool
PT-542	Die Set, 0.444 Hex for Hydraulic Hand Crimper
PT-005	Fiber Optic Termini Crimp Tool, 2mm & 3mm (Hex Sizes .091 / .128 / .147)

**Notes & Sketches:**

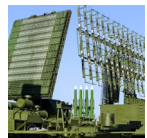
A large grid area for notes and sketches, consisting of 20 columns and 30 rows of small squares.

**Notes & Sketches:**

A large grid area for notes and sketches, consisting of 20 columns and 30 rows of small squares.



**Military**



**Aerospace**



**Defense**



**Industrial**



**Oil & Gas**



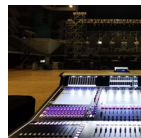
**Mining**



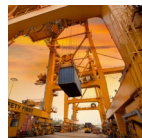
**Energy**



**Marine**



**Entertainment**



**Audio**



**Broadcast**