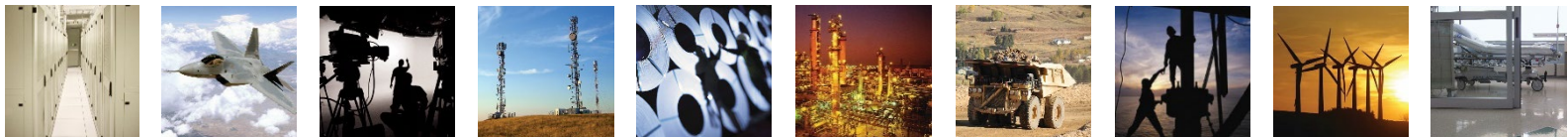


# QSeal Push-Pull Connectors



QPC is ISO 9001:2015 and  
AS9100D Certified

Military Aerospace Shipboard Industrial Mining Transportation Oil & Gas Broadcast Manufacturing Marine Energy Medical



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The QPC QSeal Connector line features 2 and 4 Channel Push-Pull Plugs that are IP67 Sealed (Dust Tight & Water Immersion to 1 Meter), and direct LC-Duplex interface panel mount receptacles. This allows simple integration into SFP Module based systems, because standard off-the-shelf patch cables can be used. QSeal plugs are available with standard straight backshells as well as 90-degree backshells for applications with limited clearance. QSeal Receptacles can be ordered with five different color-coded sealing gaskets for network visibility. QSeal connectors are designed using industry standard 1.25mm ceramic ferrules which can be installed in a customer's facility or in the field using common fiber optic termination equipment. Based on user feedback, QPC's design does not include shutters enabling easy cleaning, inspection, and maintenance.

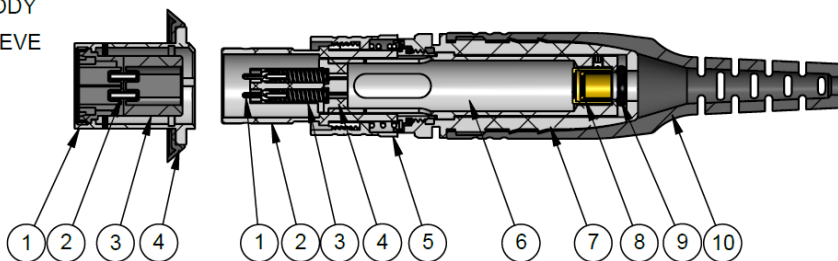
The QPC QLine Adapter is a stand-alone device that allows two QSeal plugs, or other plug types, to be connected. The QLine Adapter can also serve as a breakout from a plug to individual LC, ST, or SC connectors. Depending on system requirements, QLine Adapters can be configured in Straight or Crossed polarities.

The QPC QSeal Connector line is intermateable with Neutrik's opticalCON DUO and QUAD connectors, both ADVANCED and LITE versions.

The QPC QSeal Connectors are most commonly used in Broadcast, Pro-Audio, and Entertainment applications, but they are rugged enough for a variety of other systems and environments.

- 2Ch / 4Ch Pin & Socket Push-Pull Physical Contact Connector System
- Plugs: With and without Rubber Grip, Straight or 90 Degree Backshell
- Receptacles: XLR Compatible Flange Mount with direct LC Duplex Connection on the back
- Plugs accept Cable ODs up to 10.5mm to accommodate Armored Cable
- Intermateability: Neutrik opticalCON Duo (2Ch-Fiber connectivity only) and opticalCON Quad (4Ch)
- QLine Adapter allows Plug to Plug Connections in longer systems
- Sealed to IP67

- ① RECEPTACLE BODY
- ② ALIGNMENT SLEEVE
- ③ INSERT
- ④ PANEL SEAL



- ① PIN TERMINI
- ② PLUG BODY
- ③ INSERT CAP
- ④ INSERT BACK
- ⑤ LOCKING RING
- ⑥ SPACER
- ⑦ BACKSHELL
- ⑧ CRIMP / CRIMP SUPPORT
- ⑨ CABLE SEAL
- ⑩ BEND LIMITER

## Specifications:

<b>Insertion Loss:</b> SM (9/125µm)	0.15-0.45dB Max.
MM (50/125µm)	0.15-0.45dB Max.
MM (62.5/125µm)	0.15-0.45dB Max.
<b>Return Loss:</b> SM (9/125µm)	-55dB UPC
<b>Operating Temperature:</b>	-40°C to +75°C
<b>Mating Durability:</b>	> 500 Cycles
<b>IP Rating:</b>	IP67 - Dust Tight, No ingress of dust; complete protection against contact, Water Immersion, up to 1m
<b>Material &amp; Plating Specification:</b>	Black Hard Anodize: 6061-T6 Aluminum; Anodize per MIL-A-8625 TYPE III CLASS 2, .0022/.0018 Thick (50% Penetration), Black

## Specifications Notes:

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

## Part Number Builder - QSeal Plugs:

<b>Sample Part Number:</b> <b>QSEAL-PEFN-02CH-S65</b>	<b>QSEAL</b>	<b>-</b>	<b>PEF</b>	<b>N</b>	<b>-</b>	<b>02CH</b>	<b>-</b>	<b>S65</b>
<b>1 <u>Series</u></b> QSEAL QSEAL90								
<b>2 <u>Product Type</u></b> PEF - PLUG, FEMALE DUST COVER PGF - PLUG, RUBBER GRIP, FEMALE DUST COVER								
<b>3 <u>Material &amp; Finish Code</u></b> N - ALUMINUM, HARD ANODIZE, BLACK (CONSULT QPC FOR OTHER OPTIONS)								
<b>4 <u>Channel Count</u></b> 02CH - 2 CHANNEL, 2x 125.5µm TERMINI 04CH - 4 CHANNEL, 4x 125.5µm TERMINI								
<b>5 <u>Strain Relief</u></b> S45 - BACKSHELL, 3.6mm TO 4.5mm OD CABLE S55 - BACKSHELL, 4.6mm TO 5.5mm OD CABLE S65 - BACKSHELL, 5.6mm TO 6.5mm OD CABLE S75 - BACKSHELL, 6.6mm TO 7.5mm OD CABLE S85 - BACKSHELL, 7.6mm TO 8.5mm OD CABLE S95 - BACKSHELL, 8.6mm TO 9.5mm OD CABLE S105 - BACKSHELL, 9.6mm TO 10.5mm OD CABLE (CONSULT QPC FOR OTHER OPTIONS)								

### Part Number Builder Notes:

- \* Strain Relief Options S45 to S65 use a Brass Crimp for Cable Retention
- \* Strain Relief Options S75 to S105 use a three-piece Wedge System for Cable Retention
- \* PEF Type Plugs (No Rubber Grip) are only available with Strain Relief Options S45, S55, and S65
- \* PGF Type Plugs (Rubber Grip) are available with All Strain Relief Options S45 to S105
- \* For Spare Termini, Accessories, and Tools see Page 11

## Part Number Builder - QSeal Receptacles:

Sample Part Number: QSEAL-RMN-02CH-WH	QSEAL	-	RM	N	-	02CH	-	WH
<b>1 Series</b> QSEAL								
<b>2 Product Type</b> RM - RECP FLANGE MOUNT, RUBBER SEAL / DUST COVER								
<b>3 Material &amp; Finish Code</b> N - ALUMINUM, HARD ANODIZE, BLACK (CONSULT QPC FOR OTHER OPTIONS)								
<b>4 Channel Count</b> 02CH - 2 CHANNEL 04CH - 4 CHANNEL								
<b>5 Seal / Dust Cover</b> (OMIT FOR BLACK PANEL SEAL) BL - BLUE PANEL SEAL GR - GREEN PANEL SEAL RD - RED PANEL SEAL WH - WHITE PANEL SEAL								

## Part Number Builder - QLine Adapter:

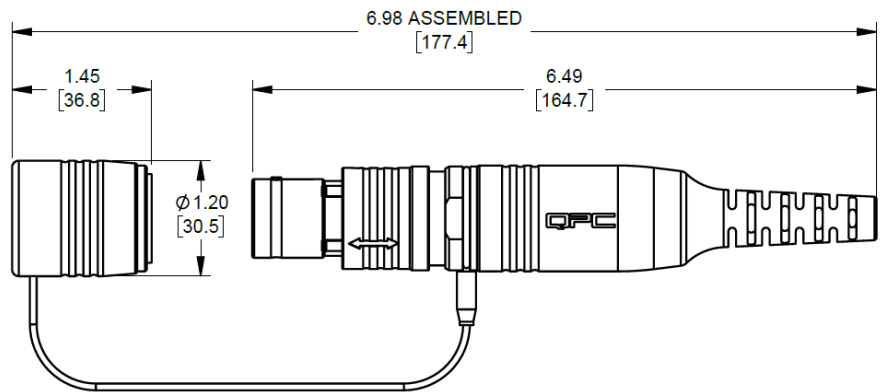
Sample Part Number: QLINE-QSEAL-QSEAL-N-02MM-50C	QLINE	-	QSEAL	-	QSEAL	-	N	-	02	MM	-	50	C
<b>1 Series</b> QLINE													
<b>2 Adapter Side A</b> QSEAL - RECEPTACLE, QSEAL QMINI - RECEPTACLE, QMINI Rx QMICRO - RECEPTACLE, QMICRO Rx LC - LC ADAPTER ST - ST ADAPTER SC - SC ADAPTER (CONSULT QPC FOR OTHER OPTIONS)													
<b>3 Adapter Side B</b> QSEAL - RECEPTACLE, QSEAL QMINI - RECEPTACLE, QMINI Rx QMICRO - RECEPTACLE, QMICRO Rx LC - LC ADAPTER ST - ST ADAPTER SC - SC ADAPTER (CONSULT QPC FOR OTHER OPTIONS)													
<b>4 Material and Plating</b> N - ALUMINUM, HARD ANODIZE, BLACK (CONSULT QPC FOR OTHER OPTIONS)													
<b>5 Channel Count</b> 02 - 2 CHANNEL 04 - 4 CHANNEL													
<b>6 Fiber Type</b> SM - SINGLEMODE, 1310/1550nm MM - MULTIMODE, 850/1300nm													
<b>7 Fiber Size</b> 09 - 9/125µm SINGLEMODE 50 - 50/125µm MULTIMODE (OM4) 62 - 62.5/125µm MULTIMODE (OM1)													
<b>8 Polarity</b> C - Crossed S - Straight (CONSULT QPC FOR WIRING DIAGRAM)													



Part Number Shown: QLINE-QSEAL-QSEAL-N-02MM-50C

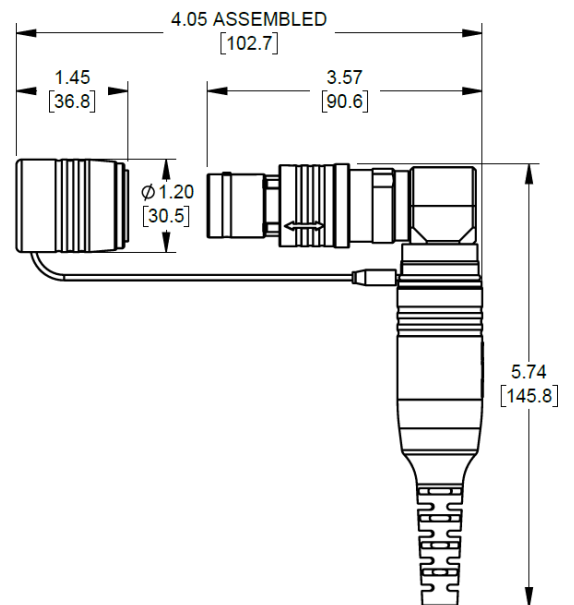
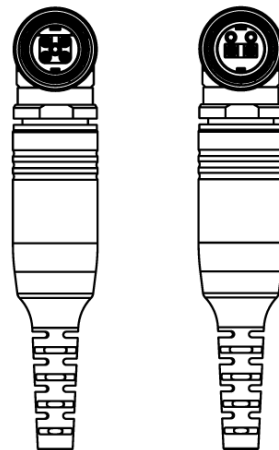
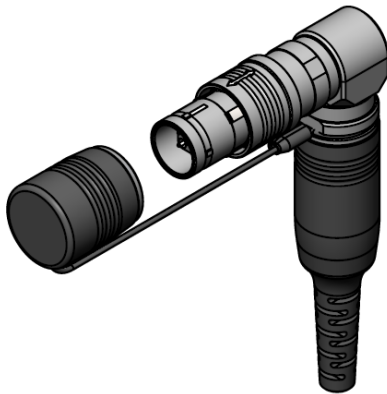
## QSeal Plug, Rubber Grip, Female Dust Cover (Cable OD Range: 3.6mm – 6.5mm):

**QSEAL-PGFN-XXCH-SXX**



## QSeal 90° Plug, Rubber Grip, Female Dust Cover (Cable OD Range: 3.6mm – 6.5mm):

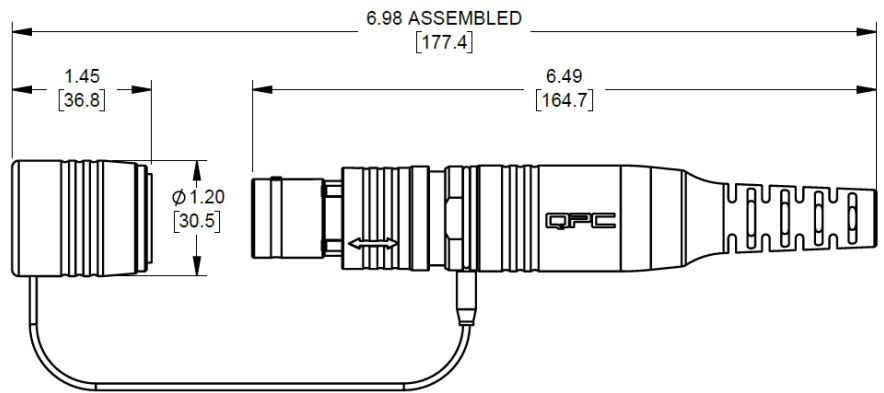
**QSEAL90-PGFN-XXCH-SXX**





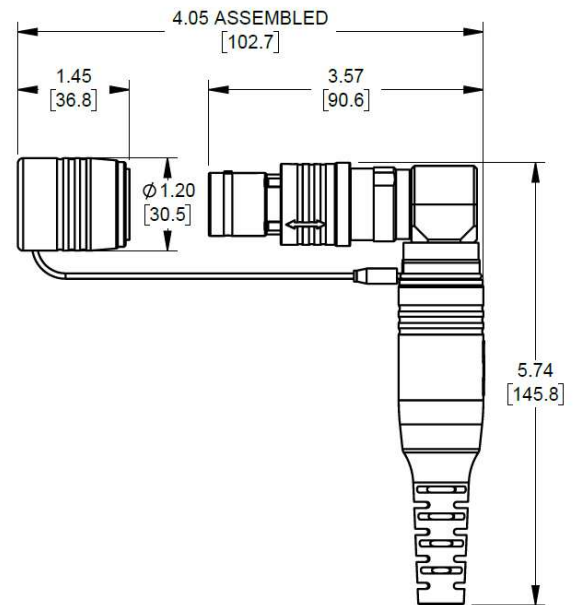
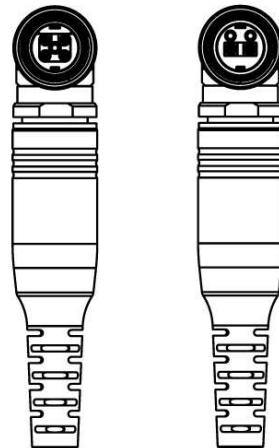
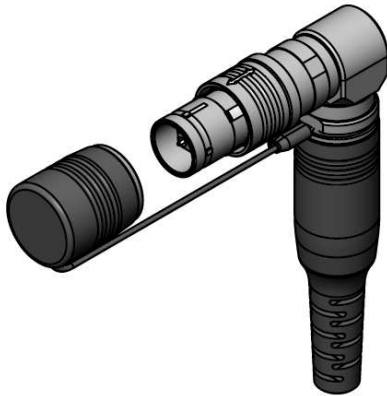
## QSeal Plug, Rubber Grip, Female Dust Cover (Cable OD Range: 6.6mm – 10.5mm):

**QSEAL-PGFN-XXCH-SXX**



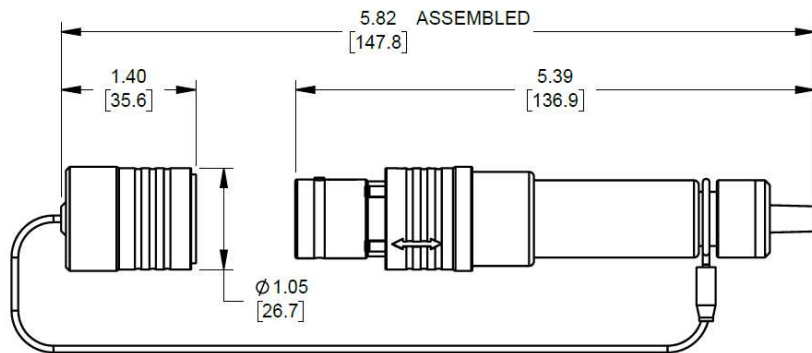
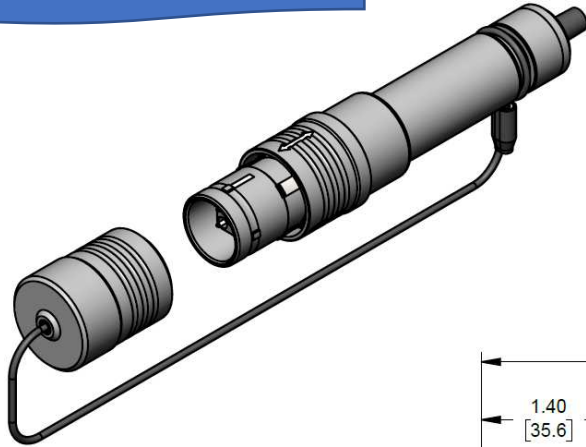
## QSeal 90° Plug, Rubber Grip, Female Dust Cover (Cable OD Range: 6.6mm – 10.5mm):

**QSEAL90-PGFN-XXCH-SXX**



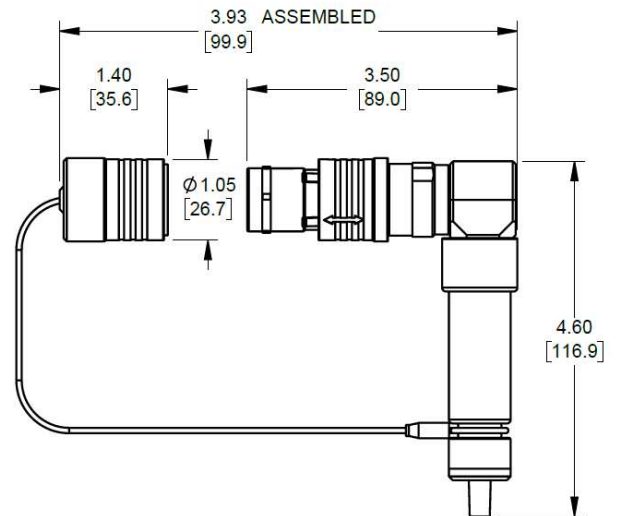
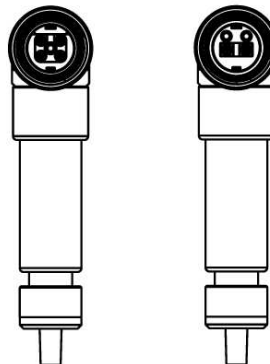
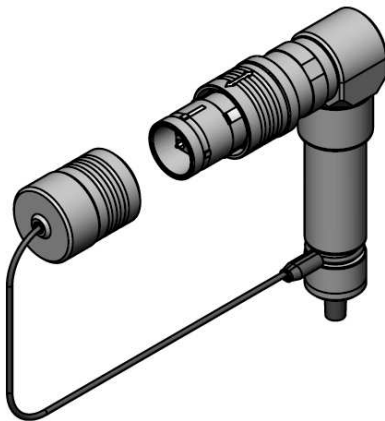
## QSeal Plug, Female Dust Cover (Cable OD Range: 3.6mm – 6.5mm):

**QSEAL-PEFN-XXCH-SXX**



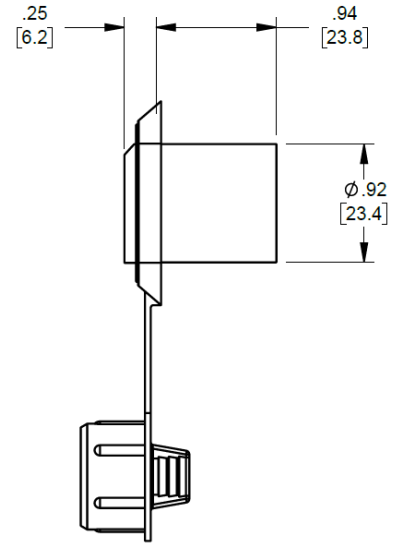
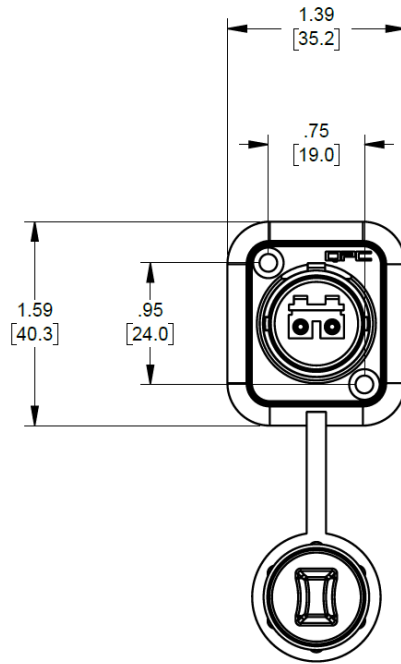
## QSeal 90° Plug, Female Dust Cover (Cable OD Range: 3.6mm – 6.5mm):

**QSEAL90-PEFN-XXCH-SXX**



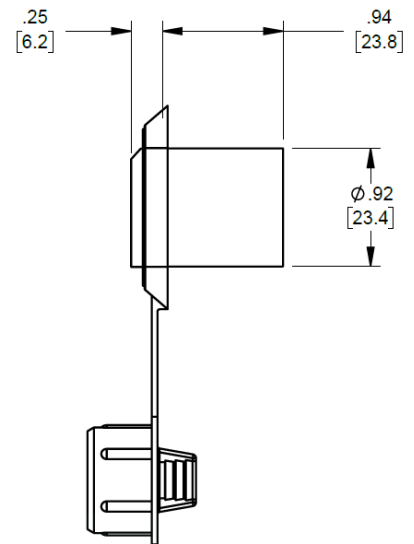
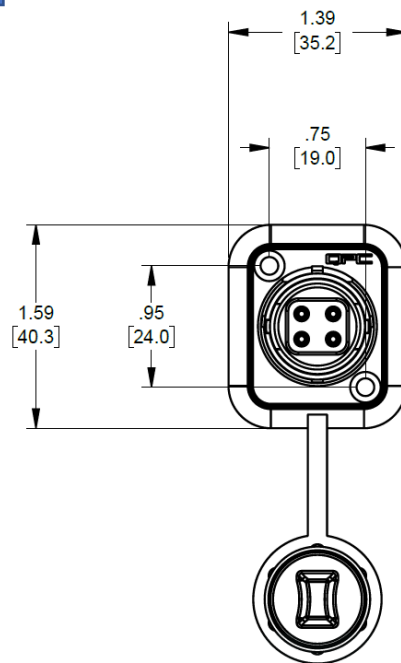
## QSeal Receptacle, 2 Channel, Seal / Dust Cover:

**QSEAL-RMN-02CH-XX**



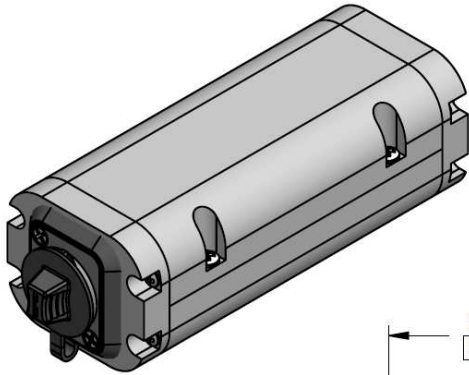
## QSeal Receptacle, 4 Channel, Seal / Dust Cover:

**QSEAL-RMN-04CH-XX**

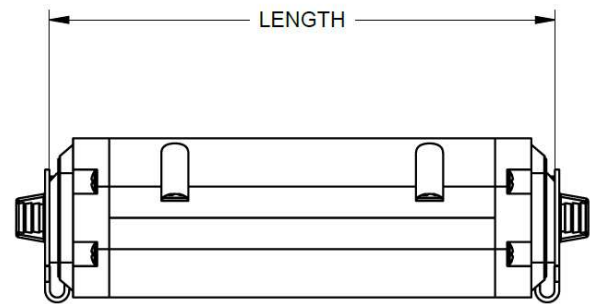
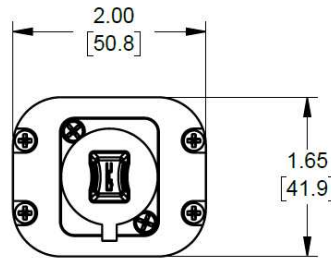


## QLine Adapter:

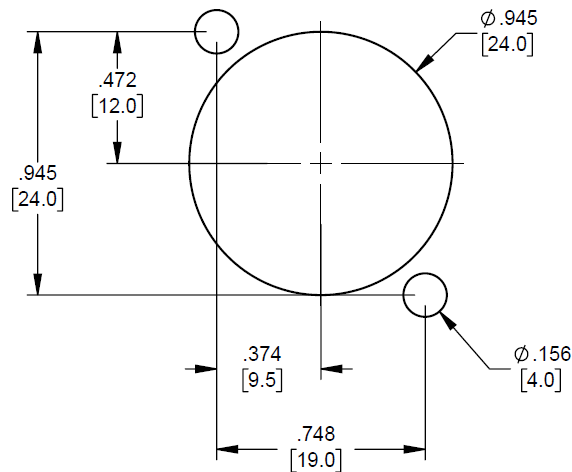
QLINE-XXXXX-XXXXX-N-XXXX-XXX



CONFIGURATION	LENGTH
QSEAL - QSEAL	5.24
QMINI-QMINI	6.56
QMICRO-QMICRO	6.32
LC-LC	5.77
ST-ST	5.78
SC-SC	5.69



## QSeal Receptacle Panel Cutout:



**Flange Mount (RM)**

## QSeal Termini:

PART NUMBER	DESCRIPTION
QSEAL-TRM	Terminus Assembly; QSeal; 1.25mm Ferrule OD; 125.5µm Singlemode / Multimode

## QSeal Replacement Dust Covers:

PART NUMBER	DESCRIPTION
QSEAL-DCPEN	Dust Cover; QSeal Plug; Female; Aluminum; Hard Anodize; Black
QSEAL-DCPGN	Dust Cover; QSeal Plug; Female; Aluminum; Hard Anodize; Black; with Rubber Grip
QSEAL-DCRG	Dust Cover and Seal Kit; QSeal Receptacle; Rubber; Black
QSEAL-DCRGBL	Dust Cover and Seal Kit; QSeal Receptacle; Rubber; Blue
QSEAL-DCRGGR	Dust Cover and Seal Kit; QSeal Receptacle; Rubber; Green
QSEAL-DCRGRD	Dust Cover and Seal Kit; QSeal Receptacle; Rubber; Red
QSEAL-DCRGWH	Dust Cover and Seal Kit; QSeal Receptacle; Rubber; White
QSEAL-DCREN	Dust Cover; QSeal Receptacle; Male; Aluminum; Hard Anodize; Black

## QSeal Tools:

PART NUMBER	DESCRIPTION
TK-050	QSeal Tool Kit (Includes all items below)
PT-317	QSeal 2Ch and 4Ch Torque Fixture Stand
PT-316	QSeal 2Ch Torque Fixture
PT-315	QSeal 4Ch Torque Fixture
PT-540	Hydraulic Crimping Tool
PT-541	Die Set, 0.314 Hex for Hydraulic Hand Crimper





# QFC

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