

# QBeam Expanded Beam Connectors



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



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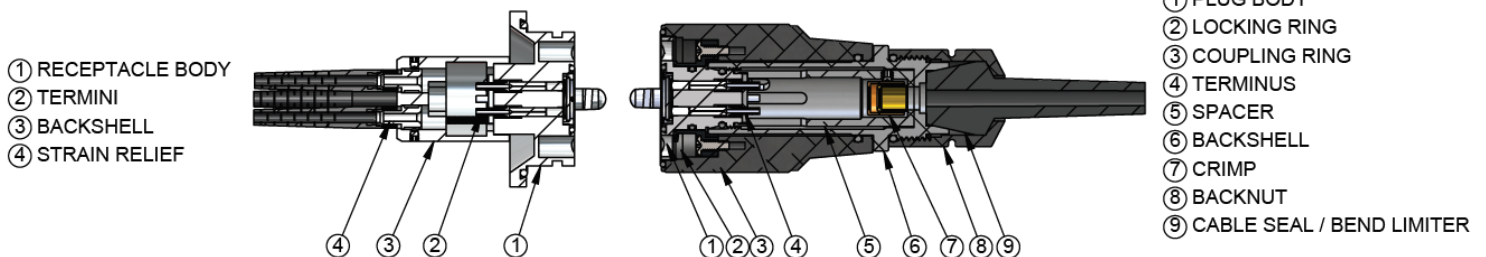


The QPC QBeam Expanded Beam Fiber Optic Connectors use non-physical contact fiber optic termini that are fully sealed behind anti-reflective coated drum lenses and a protective BK-7 Window. These lenses expand the beam to many times its original size aiding optical alignment and minimizing the effects of dust, debris, vibration, and other environmental conditions. Because there is no wear on the optical surfaces / end faces of the termini during use, the QBeam connector has excellent durability, in excess of 5,000 mating cycles, providing a long service life interconnect solution.

QBeam is a hermaphroditic connector allowing multiple plug-to-plug cable assemblies to be combined to extend the length of the system. These connectors are available with four channels of multimode fiber.

QBeam Connectors are used in Military and Defense Applications.

- 4Ch Hermaphroditic Twist-Lock Expanded Beam / Lensed Connector System
- Plug & Receptacle: Aluminum / Stainless Steel Construction
- Receptacles: Jam Nut and Flange Mount, with Low Profile Backshell for 2mm or 3mm Simplex Cables
- Multimode Fiber (62.5/125 $\mu$ m & 50/125 $\mu$ m)
- Cable OD up to 6.5mm
- Intermateability: Amphenol CTOS 976 Series Product Line
- Sealed to IP68



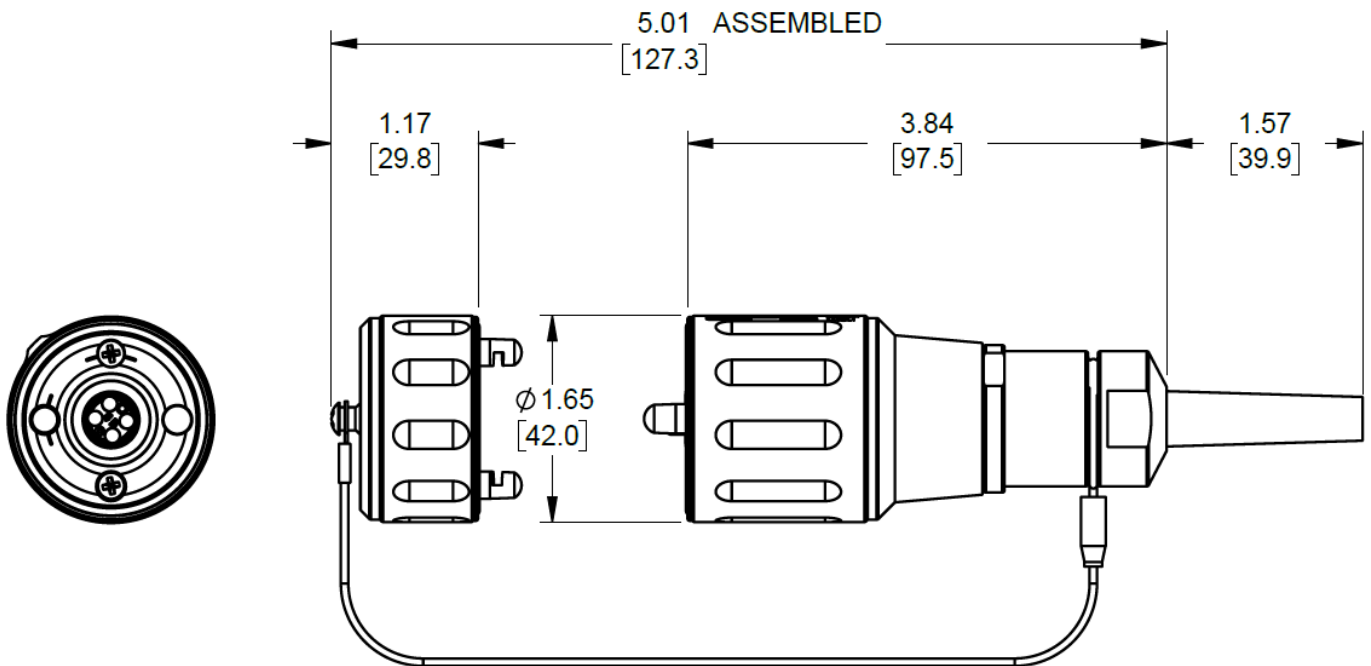
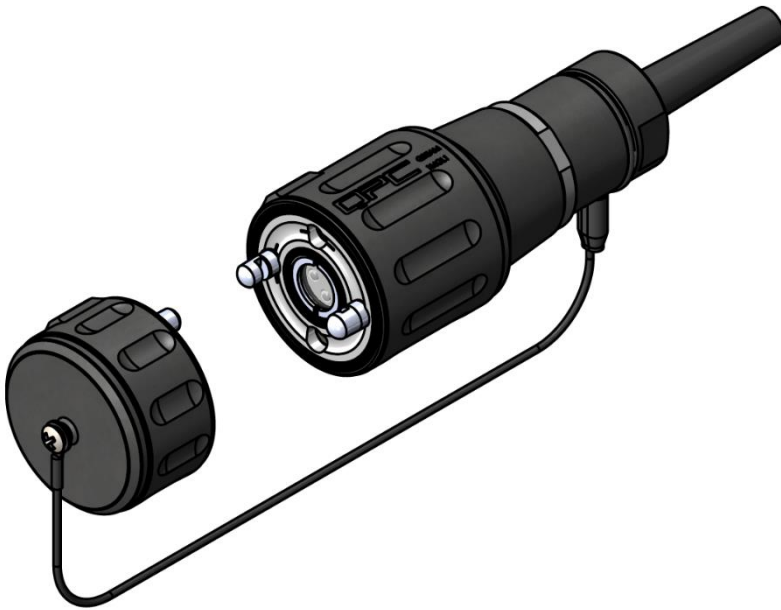
## Specifications:

<b>Insertion Loss:</b> MM (50/125µm)	0.75-2.0dB Max.
MM (62.5/125µm)	0.75-2.0dB Max.
<b>Operating Temperature:</b>	-40°C to +85°C
<b>Vibration:</b>	10 to 2000Hz / 10g
<b>Mating Durability:</b>	5000 Cycles
<b>Impact:</b>	8 Impacts @ 8FT (2.5MT), EIA/TIA-455-2
<b>Shock:</b>	50g for 11ms, EIA/TIA-455-14, Condition A
<b>Salt Spray</b>	500 Hours
<b>IP Rating:</b>	IP68 - Dust Tight, No ingress of dust; complete protection against contact, Water Immersion, >1m for 24 hours
<b>Material &amp; Plating Specification:</b>	Matte Black Hard Anodize: 6061-T6 Aluminum; Anodize per MIL-A-8625 TYPE III CLASS 2, .0022/.0018 Thick (50% Penetration), Metal Finishing; Bead Blast for Matte Finish; Matte Black  Stainless Steel: 303 Stainless Steel; Passivate Per QQ-P-35

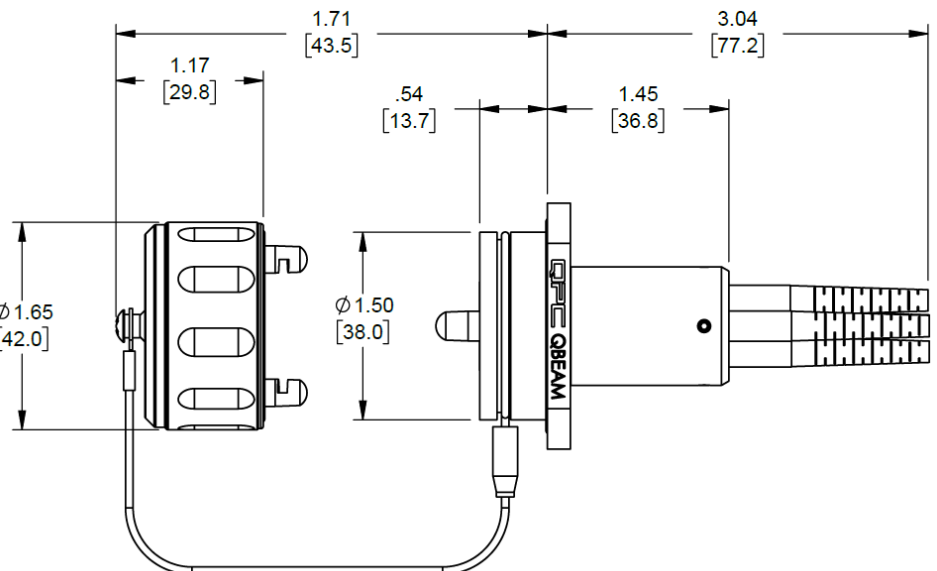
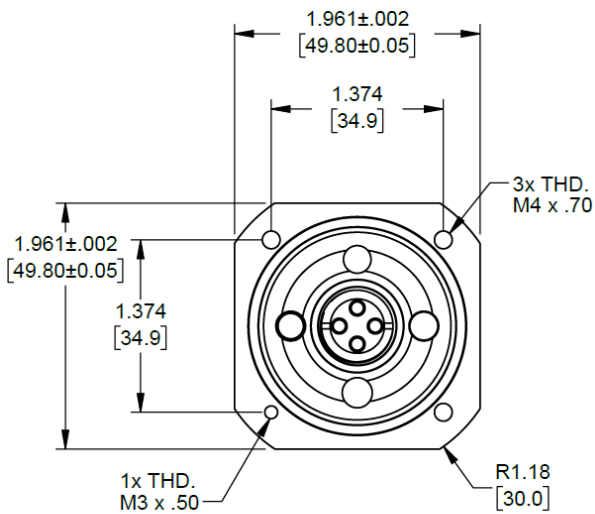
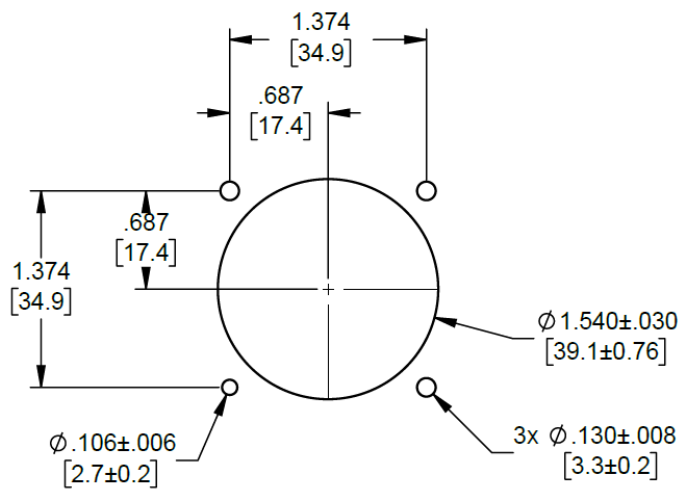
Part Number Builder:

<b>Sample Part Number:</b> QBEAM-PHED-04MM-S45	QBEAM	-	PHE	D	-	04 MM	-	S 45
<b>1 <u>Series</u></b> QBEAM								
<b>2 <u>Product Type</u></b> PHE - PLUG, METAL HERMAPHRODITIC DUSTCOVER RFE - RECP FLANGE MOUNT, METAL HERMAPHRODITIC DUSTCOVER RJE - RECP JAM NUT, METAL HERMAPHRODITIC DUSTCOVER								
<b>3 <u>Material &amp; Finish Code</u></b> D - ALUMINUM, MATTE BLACK HARD ANODIZE / STAINLESS STEEL, PASSVATED								
<b>4 <u>Channel Count / Fiber Type</u></b> 04MM - 4 CHANNEL, 4x 126µm TERMINI, MULTIMODE, 850/1300nm								
<b>5 <u>Strain Relief</u></b> S02 - 2mm O.D. CABLE (RECEPTACLE ONLY) S03 - 3mm O.D. CABLE (RECEPTACLE ONLY) S45 - STRAIN RELIEF FOR 3.6mm TO 4.5mm O.D. CABLE S55 - STRAIN RELIEF FOR 4.6mm TO 5.5mm O.D. CABLE S65 - STRAIN RELIEF FOR 5.6mm TO 6.5mm O.D. CABLE								

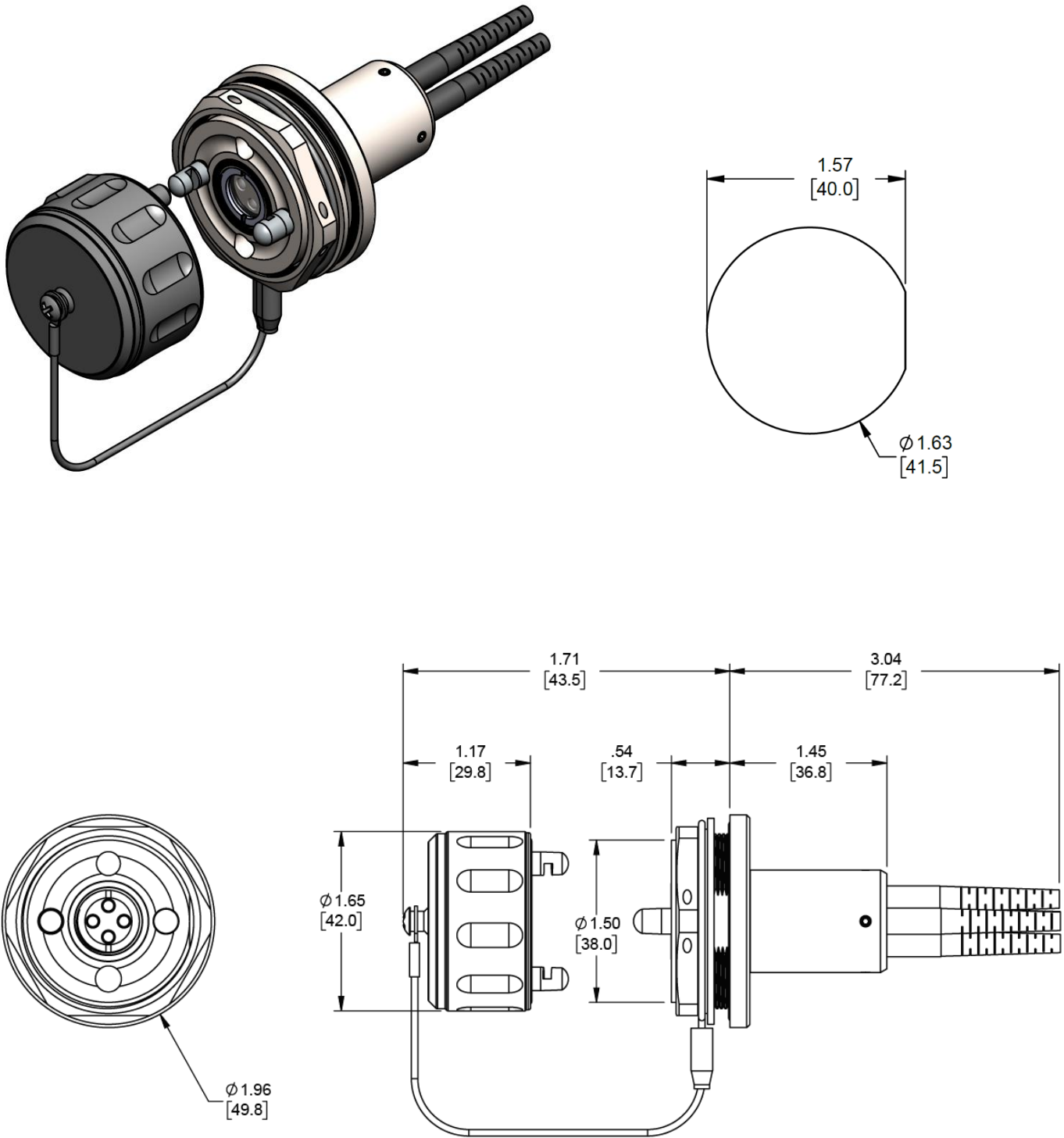
QBeam Plug, Hermaphroditic, Metal Hermaphroditic Dust Cover:



## QBeam Receptacle, Flange Mount, Metal Hermaphroditic Dust Cover:



QBeam Receptacle, Jam Nut, Metal Hermaphroditic Dust Cover:





## QBeam Termini:

Tool PN	DESCRIPTION
QM-TRM	Terminus Assembly; QBeam; 2.5mm Ferrule OD; 126µm Multimode
QBEAM-CMP-2MM	CRIMP SLEEVE, 2.0mm, STAINLESS STEEL
QBEAM-CMP-3MM	CRIMP SLEEVE, 3.0mm, STAINLESS STEEL

## QBeam Dustcovers:

Tool PN	DESCRIPTION
QBEAM-DCHPD	Dust Cap; QBeam; Plug; Alloy; Hard Anodize; Matte Black
QBEAM-DCHRN	Dust Cap; QBeam; Receptacle; Alloy; Hard Anodize; Black

## QBeam Tools:

Tool PN	DESCRIPTION
TK-055	QBeam Tool Kit (Includes all items below)
PT-540	Hydraulic Hand Crimper
PT-541	Die Set, 0.324 Hex, Hydraulic Hand Crimper
PT-226	QBeam Lens Cover Torque Driver
PT-005	Fiber Optic Termini Crimp Tool, 2mm & 3mm (Hex Sizes .100 / .147)



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