



430 nm to 480 nm

# QBH Fiber Optic Cable

## High-Power Beam Delivery

The QBH fiber optic cable is the no.1 fiber interface for industrial high-power lasers. It's a well proven standard compatible with most available tools world-wide. The QBH fiber connector is water-cooled to optimize the performance, including its superior power loss capability. The built-in mode stripper generates a well-defined beam without any cladding power. With the reinforced and extremely durable fiber hose it is well-suited for dynamic robot applications.

### FEATURES & BENEFITS

- High OH optical fiber
- Mode-stripper
- AR-coated end cap
- Superior power loss handling
- Round or square fiber core
- Plug-and-play within 10  $\mu\text{m}$

### APPLICATIONS

- Welding
- Cutting



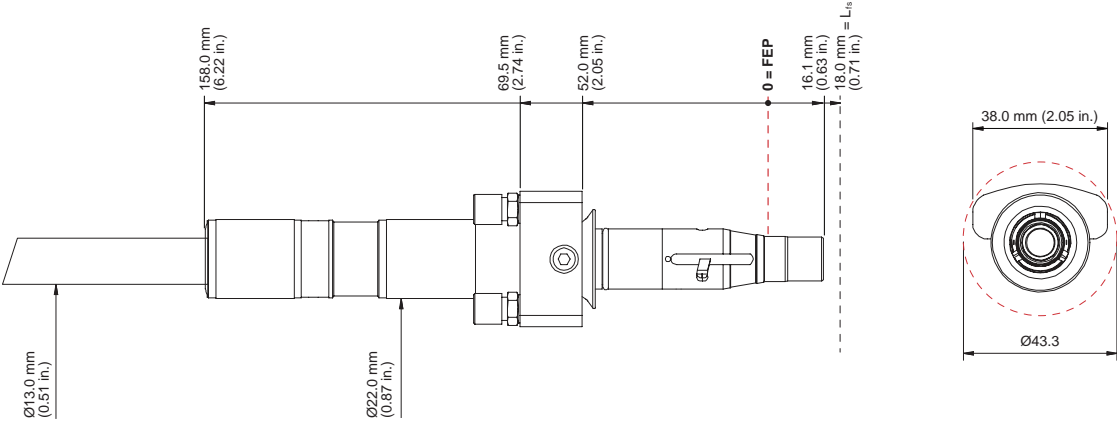
## QBH Fiber Optic Cable: 430 nm to 480 nm Datasheet

SPECIFICATIONS	QBH
Maximum Power CW (kW)	To be validated for each laser source
Wavelength (nm)	430 to 480
Numerical Aperture NA <sub>fiberacc</sub>	0.2
Fiber Core Dimensions (μm)	50 to 1000
Fiber Concentricity (μm)	≤10
Z-position Tolerance (μm)	±50
Pointing/Angular Deviation (mrad)	
Core Diameter >200 μm	≤10
Core Diameter ≤200 μm	≤20
Power Loss Capability (kW)	To be validated for each laser source
Transmission Losses (%)	To be validated for each laser source and cable length
FIBER CABLE PROPERTIES	
Cable Lengths (m)	≤10
Maximum Torsion (°/m)	90
COOLING	
Cooling Method	Water
Flow Rate (l/min)	2.0
Maximum Input Pressure (bar)	4
Pressure Drop (bar at 2.0 l/min)	0.9
SAFETY INTERLOCK	
Interlock Circuit Resistance	3.3 kOhm ±5% + 2 Ohm/m cable length
DIMENSIONS & WEIGHT	
Dimensions	See page 3
Weight (kg)	
Fiber Connector	0.3
Per Meter Fiber Cable	0.2
ENVIRONMENTAL CONDITIONS	
Humidity (% RH)	<80
Operating Temperature (°C)	5 to 50 (non-condensing)
Storage Temperature (°C)	-10 to 70
COMPLIANCE INFORMATION	
RoHS	Directives 2011/65/EU and 2015/863/EU
REACH	Directive EC no 1907/2006

**MECHANICAL SPECIFICATIONS**

**Connector Dimensions**

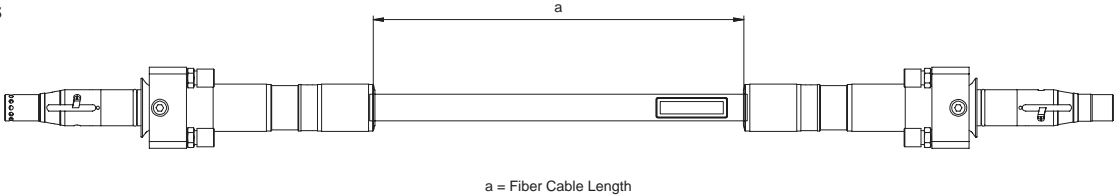
QBH



$L_s$  = Free Space in Front of Connector  
 FEP = Fiber End Plane

**Length Definitions**

Two Connectors



**Fiber Optic Cable Accessories**

Accessory	Part Number
QB Protection Cap, Output Side, 430 to 480 nm	1412504



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Coherent follows a policy of continuous product improvement. Specifications are subject to change without notice. Coherent's scientific and industrial lasers are certified to comply with the Federal Regulations (21 CFR Subchapter J) as administered by the Center for Devices and Radiological Health on all systems ordered for shipment after August 2, 1976.

Coherent offers a limited warranty for all QBH Fiber Optic Cables. For full details of this warranty coverage, please refer to the Service section at [www.coherent.com](http://www.coherent.com) or contact your local Sales or Service Representative.  
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