

QBH FIBER OPTIC CABLE

430 nm to 470 nm

The QBH fiber optic cable is the industry-standard interface for high-power industrial fiber lasers. Its proven design ensures compatibility with a wide range of laser processing systems and tools used worldwide.

The water-cooled QBH connector is designed to maximize performance, including its superior power loss capability.

An integrated mode stripper removes residual cladding light, delivering a clean, well-defined output beam. The reinforced, highly durable fiber hose is engineered to withstand demanding industrial environments and is particularly well suited for dynamic robotic applications.



FEATURES

- High OH optical fiber
- Mode-stripper
- AR-coated end cap
- Superior power loss handling
- Round or square fiber core
- Plug-and-play within 10 μm

APPLICATIONS

- Welding
- Cutting
- 3D Additive Manufacturing

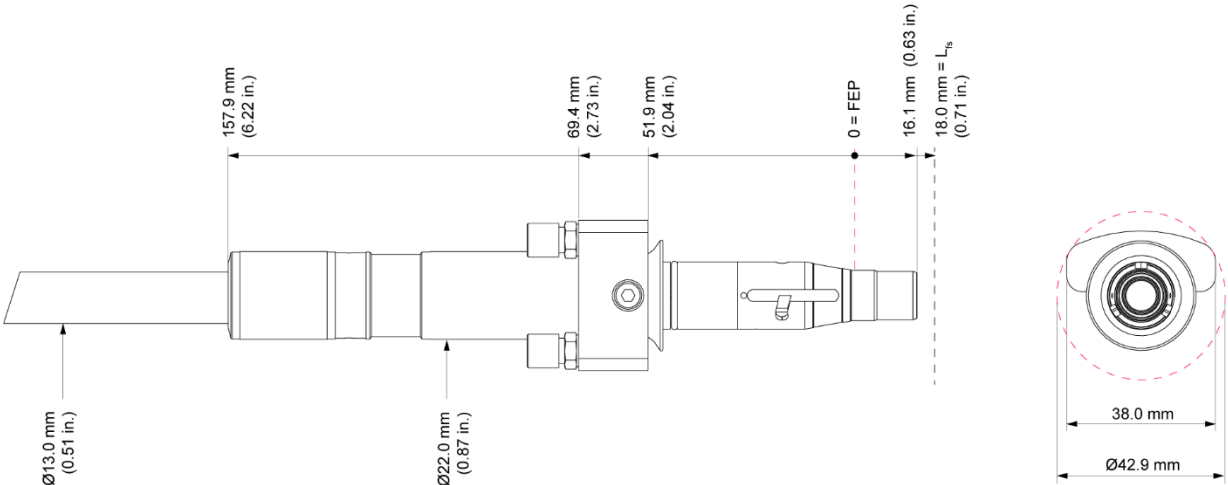
Specifications	QBH
Maximum Power CW (kW)	To be validated for each laser source
Wavelength (nm)	430 to 470
Numerical Aperture NA _{fiberacc}	0.20
Fiber Core Dimensions (μm)	50 to 1000
Fiber Concentricity (μm)	≤10
Z-position Tolerance (μm)	±50
Pointing/Angular Deviation (mrad)	
Core Diameter >200 μm	≤10
Core Diameter ≤200 μm	≤20
Power Loss Capability (kW)	To be validated for each laser source and cable length
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)	8.0
Pressure Drop (bar) ¹	0.9
Safety Interlock	
Interlock Circuit Resistance	3.3 kΩ ±5% +2 Ω/m cable length
Thermoswitch	No
Dimensions & Weight	
Dimensions	See page 3
Weight (kg)	
Fiber Connector	0.3
Fiber Cable (per meter)	0.2
Environmental Conditions	
Humidity (% RH)	<80
Operating Temperature (°C)	5 to 50 (non-condensing)
Storage Temperature (°C)	-20 to 70
Compliance Information	
RoHS	Directives 2011/65/EU and (EU) 2015/863
REACH	Regulation (EC) No. 1907/2006

1. At flow rate: 2.0 l/min.

Mechanical Specifications

Connector Dimensions

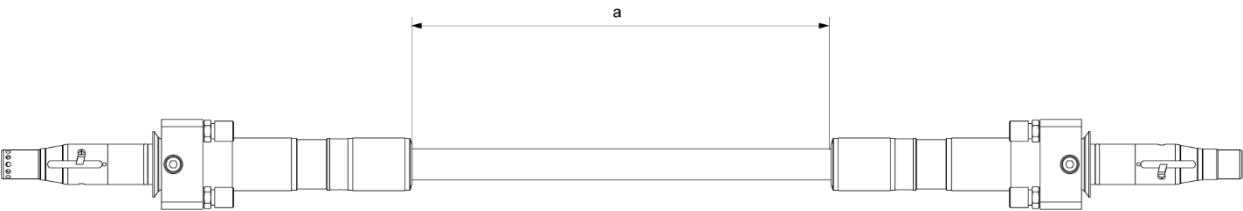
QBH



L_{fs} = Free Space
(in front of connector)
FEP = Fiber End Plane

Length Definitions

Two Connectors



a = Fiber Cable Length

Fiber Optic Cable Accessories

Product Description	Part Number
QB Protection Window, Output Side, 430 to 470 nm	1412504