1.1.2.11 Accessories for High Power Water Cooled Sensors

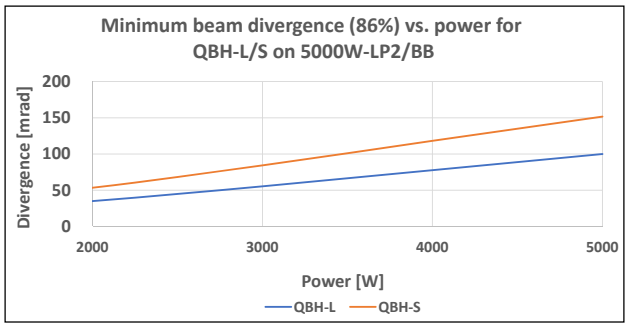
1.1.2.11.1 Fiber Adapter for Ophir High Power Sensors

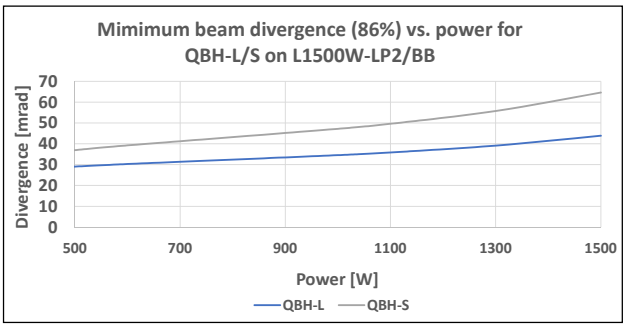
Adapters for high power fiber connectors are available for Ophir sensors L1500W and 5000W for use in industrial environments.
The fiber adapters allow mounting of QBH fiber terminators to Ophir sensors. When using an adapter, the fiber output is centered on the sensor surface and is isolated from surrounding dust and contaminants. Choice of the correct adapter model depends on the power and divergence angle of the laser being measured, see specs below.

QBH-L-Fiber Adapter Mounted on 5000W sensor

Description	QBH fiber adapter for high power sensors models	
Use	**Adapter for direct measurement of QBH fiber output**	
Sensors Supported	L1500W-LP2-50, L1500W-BB-50, 5000W-LP2-50 and 5000W-BB-50 [a]	
Added Error	1% for BB type coatings	
Housing Temperature at Max Power	55°C [b]	
Cooling	Water, maximum temperature 30°C	
Fiber Adapter Water Flow Requirements	2 liter/min, minimum [c]	
Water Connectors	(2x) Quick Connect Fitting For Ø3/8 Plastic Hose [d]	
Model	QBH-L-Fiber Adapter	QBH-S-Fiber Adapter
Maximum Beam Divergence Half Angle [e]	120 mrad (180 mrad)	180 mrad (270 mrad)
Minimum Beam Divergence Half Angle	See note [f]	See note [f]
Dimensions	See drawing below	See drawing below
Part number	**7Z08348**	**7Z08349**

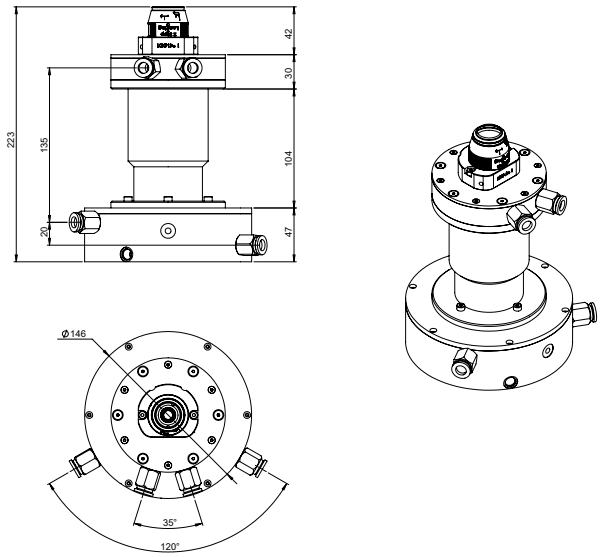
Note: (a) Please note that older versions of the above sensors do not have the requisite 4 threads on Ø70mm circle on their front flange and cannot be used with the QBH adapter.
Note: (b) When using BB type coatings temperature may reach 80°C at midpoint of adapter.
Note: (c) The water flow requirements of the fiber adapter are much lower than that of the water-cooled sensor (see the sensor data sheet for details). Therefore, the fiber adapter can be connected in series with the sensor water supply but then the water flow rate of both will have to meet the sensor minimum water flow rates.
Note: (d) For Metric water connectors see page 102.
Note: (e) Divergence angle given defines radius of beam containing 86% of power, the divergence of 98% of the power is given in brackets.
Note: (f) Graphs of beam divergence:





High Power QBH-Fiber Adapter Mounted on a 5000W-LP2-50 Sensor

QBH-L-Fiber Adapter



QBH-S-Fiber Adapter