



Dragon™ 10 kW Laser Cable (Dragon Series)

Rev 11

Description

AFR's Dragon™ 10 kW product provides QBH compatible connector for high power fiber lasers up to 10 kW. Technologies incorporated in the products include cladding mode stripping, indirect water cooling, protective window and safety interlock.

Key Features

- Low Transmission Loss
- High Power Handling
- High Reflection Power Endurance
- Indirect Water Cooling
- Safety Interlock

Applications

- Fiber Laser Output Connector
- High Power Laser Coupling Cable

Specifications

Optical Parameter	Unit	Value
Operation Wavelength	nm	900 - 1100
Fiber Core Diameter	µm	20 - 400
Numerical Aperture (NA)	-	≤ 0.22
Max. Transmission Loss	%	2
Max. Power Handling	W	10k
Max. Stripping Cladding Power	W	500
Backward Power Handling	W	500
Max. Z-Position Tolerance	µm	50
Fiber Concentricity	µm	≤ 50
Max. Angular Deviation	mrad	20
Cooling Water Requirements		
Flow Rate	L/min	1.5 - 3.0
Max. Water Pressure	Mpa	0.8
Water Temperature	°C	10 - 25
Water PH Value	-	5.6 - 7.9
Water Hose Diameter	mm	ID/OD = 4/6
Others		
Mechanical Interface	-	Compatible with the Standard QBH Interface
Armoured Cable Diameter	mm	13.3
Storage Temperature	°C	- 20 to + 70

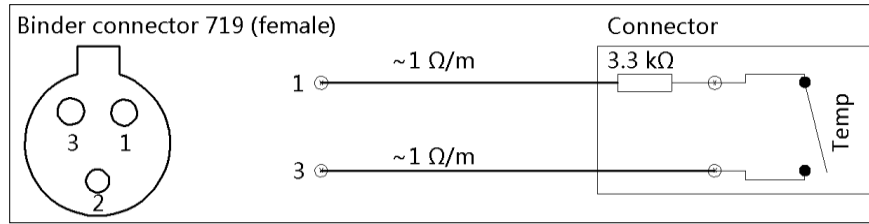
Safety Interlock

Interlock Circuit Resistance

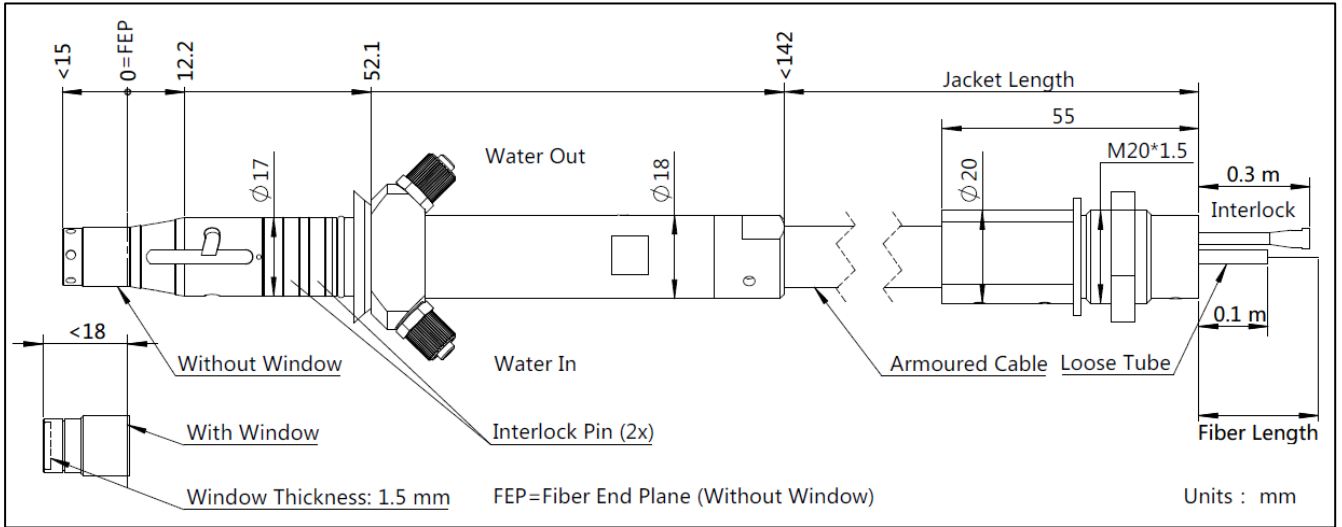
3.3 kΩ ± 5% + 2 Ω/m fiber

Thermoswitch Limit

70 °C ± 5 °C, Reset temp. > 30 °C



Package Dimensions



Ordering Information

Dragon-①①-②②②②-③③③-④④-⑤-⑥-⑦

①①: Handling Power

②②②②: Wavelength

③③③: Fiber Core

01 - 1 kW

0915 - 915 nm

020 - 20 μm

150 - 150 μm

02 - 2 kW

1064 - 1064 nm

025 - 25 μm

200 - 200 μm

03 - 3 kW

1080 - 1080 nm

030 - 30 μm

300 - 300 μm

06 - 6 kW

050 - 50 μm

400 - 400 μm

10 - 10 kW

100 - 100 μm

SSS - Specify

④④: Jacket Length

⑤⑤: Fiber Length

⑥⑥: Cable End Package

10 - 10 m

1 - 1 m

S - Standard

15 - 15 m

2 - 2 m

N - None

20 - 20 m

3 - 3 m

XX - XX m

⑦⑦: Window Option

W - With Window

N - Without Window