



Dragon 3 kW High Power Laser Cable (Dragon Series)

Rev 11B

Description

AFR's Dragon 3 kW Laser Cable provides QBH compatible connector for high power fiber lasers up to 3 kW. Technologies incorporated 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
- Fiber Coupling

Specifications

Parameter	Unit	Value
Operation Wavelength	nm	900 - 1100
Fiber Core Diameter	μm	20 - 400
Numerical Aperture (NA)	-	≤ 0.22
Max. Transmission Loss of Fiber Core	%	2
Max. Power Handling	W	3000
Max. Stripping Cladding Power	W	500
Max. Z-Position Tolerance	μm	50
Max. Angular Deviation	mrad	20

Cooling Water Requirements

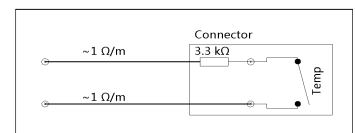
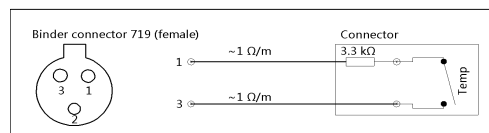
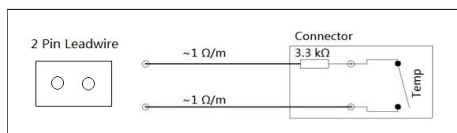
Flow Rate	L/min	1.5 - 3.0
Max. Water Pressure	MPa	0.8
Water Temperature	°C	10 - 45
Water pH Value	-	5.6 - 7.9
Water Hose Diameter	mm	ID/OD = 4/6

Others

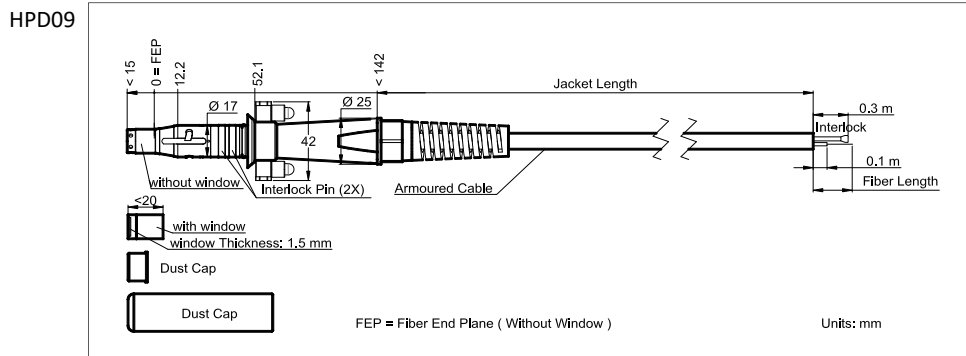
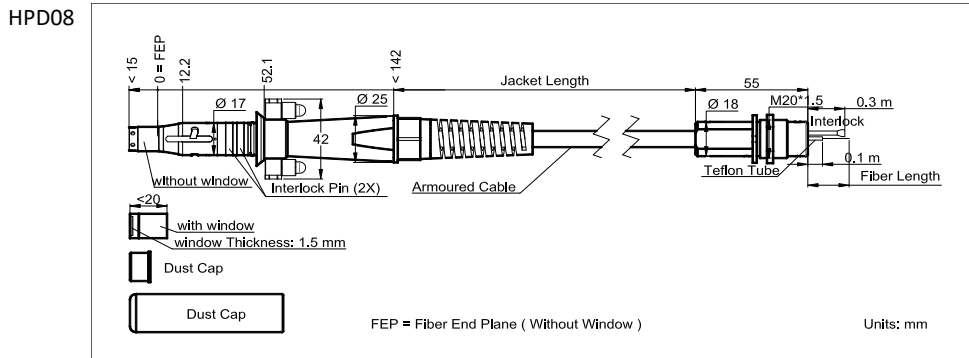
Mechanical Interface	-	Compatible with the Standard QBH Interface
Type of Cable Gland	-	Nylon
Operating Temperature	°C	+ 5 to + 50
Storage Temperature	°C	- 20 to + 70

Safety Interlock

Interlock Circuit Resistance	3.3 kΩ ± 5% + 2 Ω/m fiber
Thermo-Switch Limit	70 °C ± 5 °C, Reset temp < 30 °C



Package Dimensions



¹When output power is above 3 kW, there is only the protective sleeve without any window.

Ordering Information

Dragon-①①-②②②②-③③③③-④④-⑤-⑥⑥⑥-⑦-⑧-⑨⑨⑨⑨⑨⑨-⑩

①①: Handling Power

01 - 1 kW

03 - 3 kW

SS - Specify

②②②②: Wavelength

1080 - 1080 nm

SSSS - Specify

③③③: Fiber Type

001 - BrightCore YZ037 20/250, 0.075NA

002 - BrightCore YZ041 25/250, 0.11NA

003 - BrightCore DZ027 20/400, 0.065NA

004 - BrightCore YZ035 50/400, 0.12NA

005 - BrightCore YZ049 50/70/125, 0.12NA

006 - BrightCore DZ066 50/70/250, 0.12NA

007 - BrightCore YZ042 50/70/360, 0.22NA

008 - BrightCore YZ050 100/140/250, 0.12NA

009 - BrightCore 100/120/200, 0.15NA

SSS - Specify

④④: Jacket Length

10 - 10 m

15 - 15 m

20 - 20 m

SS - Specify

⑤: Fiber Length

1 - 1 m

2 - 2 m

S - Specify

⑥⑥⑥: Armoured Cable

08P - 8.3 mm, PVC

08T - 8.3 mm, TPU

07P - 7.3 mm, PVC

07T - 7.3 mm, TPU

⑦: Cable End Package

B - Binder Connector Type

P - 2-Pin Leadwire

N - None

⑧: Window Option

W - With Window

N - Without Window

⑨⑨⑨⑨⑨: Package Type

HPD08 - Type HPD08

HPD09 - Type HPD09

⑩: Cladding Power Stripping

Y: With Cladding Power Stripping

N: Without Cladding Power Stripping