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dataTec AG

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FireFly® Power-Over-Fiber Adapter

Enabling Continuous FireFly® Operation

Preliminary



About FireFly® Power-over-Fiber Adapter

The FireFly® Power-over-Fiber (PoF) Adapter provides an alternative to the standard 18650 battery to enable continuously powering of the FireFly Probe Head. Having the ability to continuously power a FireFly allows it to be used in a Production Line Testing and Automation environment. The FireFly Probe Head power source can be quickly and easily changed between battery and the Power-over-Fiber adapter. The FireFly Probe Head must be de-energized (powered OFF) when swapping these two power options.

The PoF Adapter consist of a Laser Module (transmitter unit) and a Probe Head Adapter (receiver unit). The Laser Module requires a PMK power supply e.g. PS02, PS03 etc. connection.

The Laser Module converts the electrical power to optical power, transmits it over a fiber link and the Probe Head Adapter converts it back to from optical power to electrical power.

The Laser Module and Probe Head Adapter has a separate optical communication link that manages the overall system control and status monitoring. The Laser Module and Probe Head Adapter optical path is continuously monitored by the Laser Module and will provide safety shutdown if there is failure condition such as a broken fiber.

Specifications

Read the Instruction Manual before first use and keep it for future reference. A digital copy of the latest Instruction Manual revision can be downloaded at www.pmk.de.

This adapter comes with 1 year warranty. Do not exceed specifications. This adapter is not rated for CAT II, III or IV.

Electrical Specifications

Electrical specifications¹ that are marked with * are guaranteed, others are typical. Use original PMK power supplies only. See Ordering Information.

Compatibility	For use with PMK's FireFly series ONLY	
Power Consumption (Laser Module)	5W Maximum	
Internal Battery Type	Protected Lithium Polymer Battery	
Laser Certification	Laser Class 1	
	IEC/EN 60825-1:2014, US 21CFR Part 1010,	
	US 21CFR Part 1040	

Notes

¹ Determined when using a PS-02 power supply at +23°C ambient temperature.

Environmental Specifications

Parameter		Specifications
Temperature	Operating	+10 °C to +40 °C ^{1, 2}
Range		
	Non-Operating	-20 °C to +60 °C
Maximum Relative	Operating	5 % to 85 % RH (relative humidity) at up to +40 °C,
Humidity		5 % to 45 % RH above +40 °C up to +50 °C, non-
		condensing
	Non-Operating	5 % to 85 % RH (relative humidity) at up to +40° C,
		5 % to 45 % RH above +40° C up to +60° C, non-
		condensing
Maximum Altitude	Operating	3000 m (9843 ft)
	Non-Operating	15000 m (49213 ft)

Notes:

Physical Specifications

Parameter	Specifications
Weight	740 g (Laser Module & Probe Head Adapter)
Dimensions	Laser Module: 115 x 127.5 x 50.5 mm
	Probe Head Adapter: 180 x Ø26 mm
Connectors	Secondary/ output: FireFly® Battery Input
	Primary/ input: 1ch of referring PMK power supply
Cable length	2 m
-	

Dimensions

The dimensional drawing of the Laser Module and Probe Head Adapter are coming soon. If the needed, please contact us via sales@pmk.de

¹ Older FireFly series probes might require a free-of-charge compatibility upgrade in PMK's service center for use in environments above room temperature

² When stacking multiple units only +10°C to +35°C

Scope of Delivery

The FF-POF-A01 FireFly Power-over-Fiber Adapter requires one output of the PMK Power Supplies, e.g. PS02/03. See Ordering Information if you need another power supply with more outputs. The following accessories are included in the scope of delivery.

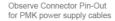
- **FF-POF-A01** FireFly® Power-over-Fiber adapter for 2m FireFly version
- **890-520-900** Power supply cable (0.6 m)
- Instruction Manual
- Quick Start Guide

Ordering Information

A PMK power supply is required for using the system.

The power supply pin assignment is different from other power supplies. Use only original PMK power supplies with PMK products.

FF-POF-A01	FireFly® Power-over-Fiber adapter for 2m FireFly version
889-09V-PS2	PS-02 (2 channels, with USB interface for remote control)
889-09V-PS2-L	PS-02-L (2 channels, with LAN and USB interface for remote control)
889-09V-PS3	PS-03 (4 channels, with USB interface for remote control)
889-09V-PS3-L	PS-03-L (4 channels, with LAN and USB interface for remote control)
889-09V-PS6	PS-06 (8 channels, with USB interface for remote control)
889-09V-PS6-L	PS-06-L (8 channels, with LAN and USB interface for remote control)
890-520-900	Power supply cable (0.6 m), included in scope of delivery
890-520-915	Power supply cable (1.5 m)





Notes	



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