



Fiblit

PN: FLVFL-1MW

Optical Fiber Tools

## TECHNICAL DATA SHEET

**High Power Fiber Optic Visual Fault Locator (VFL) –  
1mW, 5 km**





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## High Power Fiber Optic Visual Fault Locator (VFL) – 1mW, 5 km

### Product Description

The 1mW Fiber Optic Visual Fault Locator (VFL) is a compact handheld fiber testing instrument designed for rapid identification of fiber breaks, macro-bends, poor splices, connector defects, and continuity verification. It emits a 650 nm visible red laser capable of tracing optical fibers over distances of up to 5 km, making it ideal for FTTH installations, LAN networks, and routine fiber maintenance.



Featuring a durable aluminum alloy housing and a universal 2.5 mm connector interface, the VFL is compatible with FC, SC, and ST connectors, with an optional adapter available for LC connectors. It supports both continuous (CW) and pulsed output modes for fast and accurate fault detection.

### Features

- 1 mW visible red laser output
- Maximum testing distance up to **5 km**
- 650  $\pm$ 10 nm laser wavelength
- Continuous (CW) and pulsed operating modes
- Universal **2.5 mm adapter** for FC, SC, and ST connectors
- Optional **1.25 mm adapter** for LC connectors
- Compact and lightweight handheld design
- Durable aluminum alloy housing
- One-button operation



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- Low power consumption
- Long battery life
- Dust-proof protective cap

### **Applications**

- Fiber continuity testing
- Fiber break detection
- Fiber identification
- Fusion splice inspection
- Connector fault location
- FTTH installation and maintenance
- Optical Distribution Frames (ODF)
- CATV networks
- Telecommunications networks
- Enterprise LANs



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## Technical Specifications

| Parameter             | Specification                 |
|-----------------------|-------------------------------|
| Laser Wavelength      | 650 $\pm$ 10 nm               |
| Laser Output Power    | 1 mW                          |
| Maximum Test Distance | Up to 5 km                    |
| Laser Class           | Class II                      |
| Output Modes          | Continuous (CW) / Pulsed      |
| Pulse Frequency       | 2–3 Hz                        |
| Connector Interface   | Universal 2.5 mm (FC, SC, ST) |
| Optional Adapter      | 1.25 mm (LC)                  |
| Power Supply          | 2 $\times$ AA Batteries       |
| Battery Life          | $\geq$ 30 Hours (Typical)     |
| Operating Temperature | -10°C to +50°C                |
| Storage Temperature   | -20°C to +70°C                |
| Relative Humidity     | $\leq$ 90% (Non-condensing)   |
| Housing Material      | Aluminum Alloy                |
| Dimensions            | Approx. 175 $\times$ 26 mm    |
| Weight                | Approx. 180 g                 |



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## **Mechanical Specifications**

| <b>Item</b>         | <b>Specification</b> |
|---------------------|----------------------|
| Housing Material    | Aluminum Alloy       |
| Surface Finish      | Anodized Anti-slip   |
| Connector Interface | Universal 2.5 mm     |
| Dust Protection     | Protective Dust Cap  |
| Portable Design     | Yes                  |

## **Environmental Performance**

| <b>Test Item</b>      | <b>Condition</b> | <b>Requirement</b>   |
|-----------------------|------------------|----------------------|
| Operating Temperature | -10°C to +50°C   | Normal Operation     |
| Storage Temperature   | -20°C to +70°C   | Normal Performance   |
| Humidity              | ≤90% RH          | Non-condensing       |
| Drop Test             | 1 m              | No Functional Damage |



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## **Package Contents**

- 1 mW Visual Fault Locator
- Protective Carrying Pouch
- User Manual
- Wrist Strap

## **Safety Notice**

- Never look directly into the laser beam.
- Do not point the laser at people or reflective surfaces.
- Keep the protective cap installed when the device is not in use.
- Store in a dry and clean environment.