



## INDUSTRIAL POF MEDIA CONVERTER/SWITCH

DM-1002-I  
FAST ETHERNET

### The future of networking is here

The DiMoto DM-1002-I is a high-performance industrial-grade Plastic Optical Fibre (POF) Media Converter and Switch interfacing standard 10/100BaseT(X) to 100BaseFX Ethernet over Plastic Optical Fibre.

The unit permits simple networks to be created with both Plastic Optical Fibre and copper links. Alternatively, multiple DM-1002-I units can be connected in a 'daisy chain' topology to extend network reach, while providing 10/100BaseT(X) copper data access points at regular intervals.

The DM-1002-I device features the Optolock® POF connector for plugless termination of bare plastic optical fibre, redundant power inputs and an operational temperature range of 0 - 60°C.

### EoPOF Overview

Ethernet over Plastic Optical Fibre is a simple, secure and high performance alternative for industrial networking applications, delivering 100Mbps at over 70 meters.

All DiMoto's products incorporate a plugless termination system, enabling bare POF to be cut to length on-site and securely terminated in seconds.

EoPOF networks can be confidently deployed where electrical noise, ground potential variations or lightning is of concern. The robust properties of POF combined, immunity to interference, ease of installation and simple maintenance makes DiMoto's EoPOF networks ideal for keeping your industrial automation applications running continuously.



DiMoto's EoPOF Industrial Media Converter/Switch: **DM-1002-I**.

### PRODUCT FEATURES

- **Terminate in seconds:** POF can be cut to length on-site and terminated in seconds.
- **Inter operability:** enables the connection of any 10/100 copper Ethernet device to be connected to an EoPOF network.
- **Wide range redundant power inputs:** 12-48 volt dual power inputs support existing industrial DC power supplies.
- **Extended temperature range:** reliable operation in harsh industrial environments.
- **Simple, safe connection test:** a 660nm red LED, safe to the naked eye, signals a connected device.
- **Data Integrity:** EoPOF is immune to the effects of electrical noise, ground potential variations and lightning induced voltage spikes on data lines.
- **Robust Industrial Design:** the DIN rail mounting IP30 metal case protects your media converter from the industrial environment.

**Ethernet over Plastic Optical Fibre:  
See the world of networking in a whole new light.**



# PRODUCT SPECIFICATIONS

## Network Ports

2 x 100BaseFX OptoLock® POF Ports  
1 x 10/100Base T(X) RJ-45 Ports

## Standards Compliance

IEEE 802.3i 10BASE-T Ethernet  
IEEE 802.3u 100BASE-TX 100BASE-FX Fast Ethernet  
IEEE 802.3x Full Duplex and Flow Control

## Switch Specifications

Technology: Store and Forward  
Frame Memory: 128KB  
Address Table: 2048  
Speed: Full wire speed on all ports simultaneously

## Optical Specifications

Source Type: RCLED  
Wavelength: 660 nm nominal (Red)  
Max. Tx Output: -2.0dBm  
Min. Tx Output: -8.5dBm  
Min Rx Sensitivity: -24dBm  
Max Rx Sensitivity: -28.0dBm  
Min Optical Link Budget: 15.5dBm  
Max Distance: 70m (recommended & dependent on fibre)

## Environmental Specifications

Operating Temperature: 0°C to 60°C (32 to 140°F)  
Storage Temperature: -40°C to 100°C (-4 to 185°F)  
Operating Humidity: 5% - 90% RH non condensing

## Mechanical Specifications

Casing: IP30 Metal Enclosure  
Dimensions (WxDxH): 110x65x30mm  
Weight: 250g

## Power Specifications

Connection: Screw Terminal Block  
Input Voltage: 12-48VDC  
Device Power: 2.0W  
Redundant Power Inputs  
Reverse Polarity Protected Inputs

## Regulatory Approvals

Safety (LED Source): IEC/EN 60825-1  
EMI, EMC: CE, FCC, C Tick

## Warranty

5 Years (return to base)

## Package Contents

1 x Media Converter/Switch  
1 x POF Cutting Tool  
1 x DIN Rail Mount Kit  
1 x Installation Guide  
1 x Warranty Card

## DiMoto Related Products

DM-PCI: POF PCI Adapter  
DM-USB: POF USB Adapter  
DM-1001-I: Industrial POF Media Converter  
DM-1004-I: Industrial 4-Port POF Network Switch  
DM-1008-I: Industrial 8-Port POF Network Switch

## Order Information

DM-1002-I-OPT

## Notes

SMI POF connectors available on request. Please contact sales for details and minimum order quantities.

## Contact DiMoto

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DiMoto Pty Ltd designs, develops and markets Ethernet over Plastic Optical Fibre (EoPOF) networking devices and solutions worldwide.

DiMoto is a member of the leading Plastic Optical Fibre body, the Plastic Optical Fibre Trade Organization (POFTO).

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