

BRUMIL 451 OMC – Optical Media Converter

The Optical Media Converter is a media converter for easy conversion from fiber based to copper based Ethernet and opposite. A hardened device designed for indoor and outdoor applications in rough environments. Two media converters can expand an Ethernet link over long distances

Applications:

- Temporary long distance Ethernet-data-links e.g. between military checkpoints, command posts and headquarters in harsh environmental conditions
- Expanding an Ethernet connection over long distance with tactical fiber optical cable
- For tactical fiber-optic cable e.g. with military lens connectors.
- For indoor and outdoor use
- Easy integration & operation

Description:

- The OMC is equipped to cover FO/electrical-media-converter function for TCP/IP protocols. The function is used to extend the data transmission of an Ethernet channel by fiber optical lines. The OMC is especially designed for the use in harsh environmental conditions. At the front panel there are MIL-grade connectors available to interface with tactical optical-fiber-cable, copper-data-cable and power connections (AC or DC or both).
- The standard configuration includes one HMA compatible optical interface and one electrical MIL-grade-RJ-45-interface (10/100/1000BaseT) for bit rates up to 1 Gb/s, with automatic sensing. Crossed or uncrossed wire cables are detected automatically by the OMC. The FO-interface is fixed to 1Gb/s bit rate
- The maximal cable length at the optical single mode interfaces is 10km (depending on the number of connectors in the line) and 100m at the Cu-data-interfaces

Technical data:

Power supply:
 AC power: 100 ... 240 VAC / 50...60 Hz +/- 10%
 DC power: 12 ... 45 VDC on (optional)
 DC and AC power (one interface for both, DC or AC is automatically selected by the connecting cable type). This is an optional feature.
 Power consumption: approx. 10W
 Power cord with special ruggedized connector

Connections:

Ethernet port RJ-45
 Port with auto-sensing 10/100/1000 BaseT
 Fiber port 1000 Base-LX, single mode, 1310 nm
 Fiber port 1000 Base-FX multi mode 1300 nm (option).
 Expanded beam bulkhead (HMA compatible) with two lenses for two optical fibers.
 A1=Rx; B1=Tx



Textile bag:

The textile bag is containing the media converter box to protect it during transportation and operation against shock and the effects of sun exposure. Side bags are made for grounding tools and adapting cables.

Environmental conditions:

Operation:	-37 ... +49° C
Storage:	-40 ... +85° C
Humidity:	5 ... 95% relative humidity, non-condensing
Immersion Protection:	IP 54 (standard)
Upgradeable up to:	IP 67 (optional)

Dimensions:

Width x High x Depth:	220 x 110 x 210 mm
(AC and DC option)	220 x 110 x 250 mm
Weight:	3.0 kg

Options:

The OMC can be customized according to specific requirements and customer's needs, e.g. for multimode cables or for other fiber-optic connectors. A special version would be possible as repeater with two fiber-optic interfaces and two copper-data interfaces.

and further accessories. A customized textile bag may contain customer specific accessories.

Extended Temperature range: -40...+60°C

Supported Standards:

IEEE 802.3 for 10BaseT
 IEEE 802.3u for 100BaseT(X) and 100BaseFX
 IEEE 802.3ab for 1000BaseT(X)
 IEEE 802.3z for 1000BaseSX/LX/LHX/ZX/EZX
 IEEE 802.3x for Flow Control



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