

## DATA SHEET

### Gigabit industrial media converter



#### FEATURES & BENEFITS

- 1 RJ45 Gigabit port
- 1 Gigabit port on SFP module
- Manual configuration of 100 Mbps or 1 Gbps via dipswitch (same rate on both ports)
- Miniature box easily integrated in case
- Power supply 9 to 60VDC
- Designed to operate in harsh environments (-40 to +75°C), in railway environments and in electronically disturbed environments

#### DESCRIPTION

The Mini Giga module, is a media converter that converts Ethernet signals from electrical ports to SFP ports and vice versa with:

- ✓ 1 RJ45 port, 100/1000 Mbps
- ✓ 1 SFP port, 100/1000 Mbps

A dipswitch allows the configuration of the speed in 100 Mbps or 1 Gbps. The data rate is the same on both ports.

This module has been designed specifically for:

- ✓ IP camera or Wi-Fi hotspots extension
- ✓ Industrial networks, connection of automata
- ✓ Railway environments (standard EN 50121-4)
- ✓ Ethernet networks extension...

The Mini Giga industrial media converter is easy to install and use:

- ✓ Its very compact and robust housing (painted aluminium) allows it to fit into small housings such as electronic assemblies (equipped coffrets) intended, for example, for IP camera-based video protection.
- ✓ This product can also be mounted on any support with its plate or by adding a Din rail mounting kit (optional).
- ✓ Operation indicators, grouped on the front panel, are associated with the main functions of the product for diagnostic assistance.

100/1000 Mbps media converter can be combined with another media converter or a Gigabit or Fast Ethernet switch from the IFOTEC range (Please consult the IFOTEC Ethernet data sheet range ).

## APPLICATION

**Application of an IP camera over one optical fibre**

The transmission wavelengths of the SFPs must be different



## TECHNICAL SPECIFICATIONS

**Ethernet interfaces (IEEE 802.3)****100/1000BASE-T port**

Number of interface(s)	1
<b>Connector</b>	<b>RJ45</b>
Support	100BASE-TX (IEEE 802.3u), 1000BASE-T (IEEE 802.3ab)
Rate auto-negotiation	No: 100Mbps or 1Gbps data rate selection by switch. The data rate is identical to the SFP port data rate.
Auto-MDI/MDI-X	Yes
Energy saving management	Energy Efficiency Ethernet (IEEE 802.3az)
Category 5e cable length	100 m

**100/1000 SFP slot**

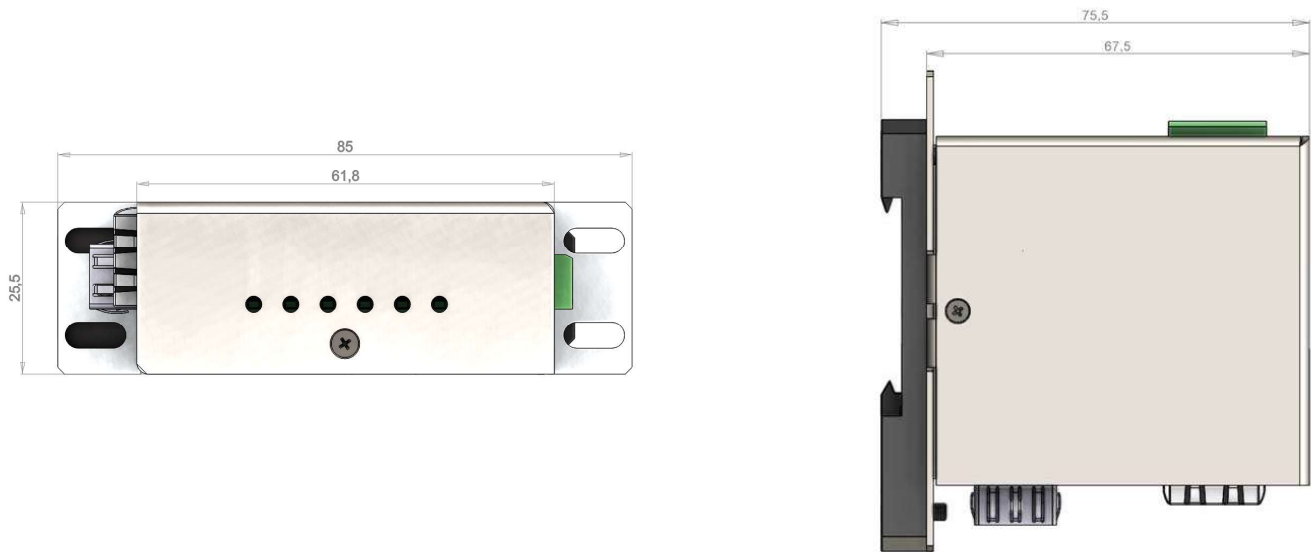
Number of interface(s)	1
<b>Connector</b>	<b>SFP</b>
Support	SERDES 100Mbps (IEEE 802.3u), SERDES 1Gbps (IEEE 802.3z)
Rate auto-negotiation	No: 100Mbps or 1Gbps data rate selection by switch. The data rate is identical to the data rate of the RJ45 port.

**Operating indicators**

Power	Product powered
Status	Product operating status
Mode	Product configuration
SFP status	SFP operating status
Link Ethernet	Ethernet connection
Act Ethernet	Ethernet activity

Power supply	
Supply voltage	9 to 60VDC
Max. power consumption	3W
Connector	3-point screw terminal block (5.08 mm pitch)
Physical characteristics	
Housing type	Stand-alone housing in painted aluminum
Housing dimensions	85 x 26 x 66 mm (L x l x h)
DIN rail mounting	Optional Kit ref. KIT-RD-008
Environmental conditions	
Operating temperature	-40 to +75 °C
Storage temperature	-40 to +85 °C
Relative humidity	Relative humidity: 0 to 85 % (not condensed)
Conformal coating option	0 to 95% (consult us)
MTBF	500 000 h (MIL-HDBK-217F2)
Standards/Certifications	
EMC > EMI	
EN 55032: Conducted and radiated emission	Class B and A (Residential and Industrial)
EMC > EMS	
IEC 61000-4-2 ESD	Contact: ±4kV, Air : N/A
IEC 61000-4-3 RS	80MHz-3GHz: 10V/m
IEC 61000-4-4 EFT	Power supply: ±2kV, Signal : ±1kV
IEC 61000-4-5 Surge	Power supply: ±0.5kV
IEC 61000-4-6 CS	Power supply: 10V, Signal : 10V
EMC > EMI EN 50121-4 (rail) standard	
EN 50121-4 : Conducted and radiated emission	Railway applications
EMC > EMS EN 50121-4 (rail) standard	
IEC 61000-4-2 ESD	Contact : ±8kV, Air : N/A
IEC 61000-4-3 RS	80MHz-800MHz : 10V/m 800MHz-1.0GHz : 20V/m 1.4GHz-2.0GHz : 10V/m 2.0GHz-2.7GHz : 10V/m 5.1GHz-6.0GHz : 5V/m
IEC 61000-4-4 EFT	Power supply: ±2kV, Signal : ±2kV
IEC 61000-4-5 Surge	Power supply: ±1kV differential, ±2kV common Signal : ±2kV
IEC 61000-4-6 CS	Power supply: 10V, Signal : 10V
IEC 61000-4-8 PFMF	100A/m@16.7Hz and 50Hz, 300A/m@0Hz
Guarantee	
Production location and after sales service	Voiron (France)
Guarantee	3 years
Guarantee information	<a href="https://www.ifotec.com/support/">https://www.ifotec.com/support/</a>

## DIMENSIONS



## ORDERING INFORMATION

Reference	Application	Connection	Power supply
MINI-G-001	Full Gigabit Ethernet media converter for optical networks	According to SFP inserted	9 to 60VDC

## SFP SELECTION TABLE

For more information, see our SFP data sheet

Reference	Number and type of fibres	Transmission	Wavelength (Tx/Rx)	Max. Distance*	Connection
SFPL-1GD31-20	2 single mode optical fibres	1000Base-LX	1310 nm	20 km	LC/PC
SFPL-1GX31-20	1 single mode optical fibre	1000Base-BX-U	1310 nm /1550 nm	20 km	LC/PC
SFPL-1GX49-20	1 single mode optical fibre	1000Base-BX-D	1490 nm /1310 nm	20 km	LC/PC
SFPL-FED31-20-VB	2 single mode optical fibres	100Base-FX	1310 nm	20 km	LC/PC
SFPL-FEX31-20-VB	1 single mode optical fibre	100Base-BX-U	1310 nm /1550 nm	20 km	LC/PC
SFPL-FEX55-20-VB	1 single mode optical fibre	100Base-BX-D	1550 nm /1310 nm	20 km	LC/PC

\* for longer distances please consult us

In line with the company policy of continuous improvement, product specifications are subject to change without prior notice.