



DATA SHEET

Industrial Ethernet media converter 10/100 Mbps all optical fibre



POINTS CLÉS

- 1 RJ45 port to 1 port optique
- Transmission over 1 or 2 optical fibres depending on the version
- Transmission over multimode or single mode optical fibre by the same equipment
- Supports half and full-duplex modes
- Miniature stainless steel housing
- 12VDC or 24VAC power supply on the same module
- Power consumption @12VDC: <2W
- Designed to operate in harsh environments (-20°C to +60°C) and in electronically disturbed environments

DESCRIPTION

The Mini Plus industrial media converter is 802.3 compliant and provides conversion of 10Base-T and 100Base-Tx Ethernet signals to:

- ✓ 100Base-Bx for transmission over 1 optical fibre
- ✓ 100Base-Fx for transmission over 2 optical fibres

The IFOTEC HDDF/HXDF Mini Plus series is compatible with any optical fibre and provides transmissions over:

- ✓ 1 multimode optical fibre up to 10 km or single mode up to 20 km via the same module
- ✓ 2 multimode optical fibres up to 10 km or single mode up to 30 km through the same module

This module has been designed specifically for:

- ✓ IP camera or Wifi hotspots extension
- ✓ Industrial networks, connection of automata
- ✓ Ethernet networks extension...

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

- ✓ Its small housing size allows it to fit into a small coffret such as a camera housing or inside a dome for a video surveillance application.
- ✓ It can be laid flat or fixed to a DIN rail using an optional kit.
- ✓ The RJ45 port and the optical port are located on the same side for easy connection of the module
- ✓ The grouping of the operating leds on the front panel allows a quick diagnosis of the module status

The HDDF/HXDF Mini Plus series can be combined with another media converter or a Ethernet switch from the IFOTEC range (Please consult the IFOTEC Ethernet data sheet range).

The Mini Plus industrial media converter is available in power supplies:

- ✓ 9 to 36VDC (typical 12VDC) and
- ✓ 18 to 30VAC (typical 24VAC) on the same module

It features a very low power consumption @12VDC: <2W.

TECHNICAL SPECIFICATIONS

Optical port features

	Product reference		
	HDDF 318 190-VB	HXDF 318 190-VB	HXDF 518 190-VB
Connector	SC/PC two fibres	SC/PC one fibre	SC/PC one fibre
Laser wavelength	1310nm	1310nm	1550nm
Photodiode wavelength	1310nm	1550nm	1310nm
Optical budget in single mode	0-19dB	0-17dB	0-17dB
Single-mode distance*	0-30km	0-20km	0-20km
Multimode optical budget	0-11dB	0-11dB	0-11dB
Multimode distance*	0-10km	0-10km	0-10km

* Distances are indicative and vary depending on the type of fibre and the network: they may be limited by the bandwidth of the fibre. Recommended bandwidth for multimode fibre: >500MHz.km @1310nm.

Ethernet interfaces (IEEE 802.3)

10/100BASE-T port not configurable

Number of interface(s)	1
Connector	RJ45
Support	10BASE-T (IEEE 802.3i), 100BASE-TX (IEEE 802.3u)
Rate auto-negotiation	Yes
Auto-MDI/MDI-X	Yes
Category 5e cable length	100 m

Fast Ethernet optical port not configurable

Number of interface(s)	1
Support	100BASE-FX (IEEE 802.3u)

Operating indicators

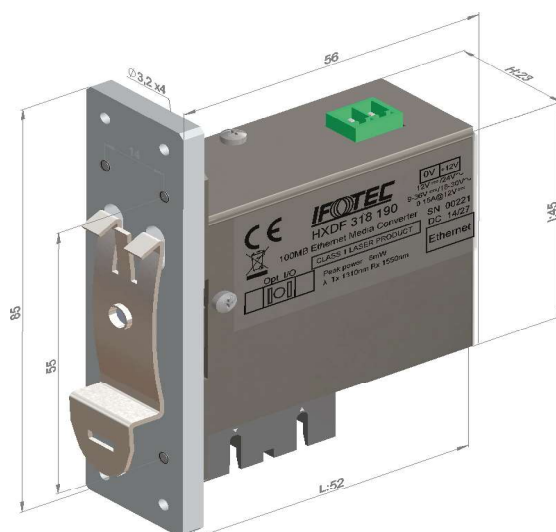
Laser On	Active laser
Link/Act Ethernet	Ethernet connection/activity

Power supply

Supply voltage	9-36VDC or 18-30VAC@50Hz
Max. power consumption	1.8W (DC) or 2.0VA (AC)
Connector	2-point screw terminal block (3.81 mm pitch)

Physical characteristics	
Housing type	Stainless steel stand-alone housing
Housing dimensions	45 x 52 x 23 mm (L x l x h)
DIN rail mounting	Optional Kit ref. -RD-005
Environmental conditions	
Operating temperature	-20 to +60°C
Storage temperature	-40 to +85 °C
Relative humidity	Relative humidity: 0 to 85 % (not condensed)
Conformal coating option	0 to 95% (consult us)
Standards/Certifications	
EMC > EMI	
EN 55032: conducted and radiated emission	Classe A (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: ±1kV (phase/neutre), ±2kV (phase/terre et neutre/terre)
IEC 61000-4-6 CS	Power supply: 10V, Signal : 10V
Guarantee	
Production location and after sales service	Voiron (France)
Guarantee	3 years
Guarantee information	https://www.ifotec.com/support/

DIMENSIONS



ORDERING INFORMATION

Camera side (video transmission)

Reference	Wavelength	Application	Connection	Power supply
Transmission up to 10 km on 2 multimode fibres or 30 km on 2 single-mode fibres				
HDDF 318 190-VB	1310 nm	10Base-T and 100Base-TX to fibre media converter 100Base-FX over 2 multimode or single mode optical fibres	SC/PC	9 to 36VDC and 18 to 30VAC
Transmission up to 10 km over 1 multimode fibre and up to 20 km over 1 single-mode fibre				
HXDF 318 190-VB	Tx 1310 nm/ Rx 1550 nm	10Base-T and 100Base-TX to fibre media converter 100Base-BX-U to 1 multimode or singlemode optical fibre	SC/PC	9 to 36VDC and 18 to 30VAC

Network side / technical room (video reception)

Reference	Wavelength	Application	Connection	Power supply
Transmission up to 10 km on 2 multimode fibres or 30 km on 2 single-mode fibres				
HDDF 318 190-VB	1310 nm	10Base-T and 100Base-TX to fibre media converter 100Base-FX over 2 multimode or single mode optical fibres	SC/PC	9 to 36VDC and 18 to 30VAC
Transmission up to 10 km over 1 multimode fibre and up to 20 km over 1 single-mode fibre				
HXDF 518 190-VB	Tx 1550 nm/ Rx 1310 nm	10Base-T and 100Base-TX to fibre media converter 100Base-BX-D over 1 multimode or single mode optical	SC/PC	9 to 36VDC and 18 to 30VAC

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