

# HXOF series Audio+data+TOR extension over all optical fibres

- 1 bi-directional stereo audio (or 2 mono audio) + 1 bi-directional data
- 1 bi-directional contact closure
- Transmission over one optical fibre



#### **DESCRIPTION:**

The HXOF transmitter-receiver set provides bi-directional transmission of one stereo audio signal or two mono audio signal, one data signal and one contact closure over a single optical fibre.

This equipment has been designed specifically for

- Broadcast audio
- Interphony

Transparent, these modules utilize digital transmission technology for a better signal restitution.

Data configuration is modifiable directly on modules by the user, thanks to a set of switches on the back panel. In default, data is configured in our premises in RS232.

A bi-directional contact closure allows alarms transmission of remote equipment

Plug and play design ensures ease of installation, no specific setting is required.

Indicators ensure a safe utilization and provide a quick diagnostic.

This equipment is available in stand-alone or 7TE rack-mount version fully compatible with 3U rack.



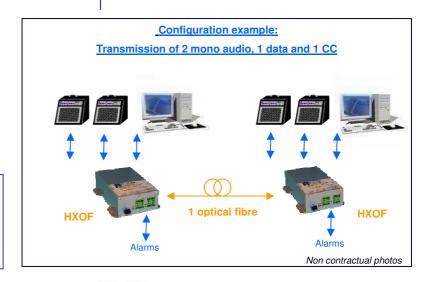


#### **FUNCTION**

Bi-directional transparent transmission for audio and data signals

#### **KEY FEATURES**

- Point to point connection over 1 multimode fibre up to 10 km and over 1 singlemode fibre up to 50 km
- Configuration: RS232, RS422 or RS485 2 and 4 wires data
- Data port protection :
- 30 KV ESD
- 3 KV surge protection
- One bi-directional contact terminal
- DIN rail mounting (option)
- Place of production and after sales service: Voiron (France)
- Product warranty : 3 years



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## Technical specifications

5 mA

### **HXOF** series

#### Signal specifications

AUDIO		DATA					
Number of channels Type of signal Digital digitization Audio Input & output level Input & output impedance Signal/noise ratio Harmonic distortion Bandwidth	1 bi-directional stereo audio Audio balanced ( $600 \Omega$ ) 24 bits 0.7 V (saturation : $4.0 \text{ V}_{pk}$ ) rms $600 \text{ ohms}$ > $80 \text{ dB}$ (at 1 KHz & 0.7 V rms.) < $0.01 \%$ (1 KHz & 0.7 V rms) 20 Hz to 22 KHz (at - 1 dB)	Signal type Configuration Data Format Rate Operating mode Configuration Transmitter protection Receiver protection	RS232, RS485 2 wires or 4 wires By switches on the back panel NRZ, NRZI, Manchester, Bi-phase DC - 115.2 kbps half-duplex or full-duplex on the receiver 30 KV ESD 30 KV ESD, 3 KV surge protection, EN 61000-4-5				
Contact closure							
INPUT		RELAY					
Number of channel Signal type Open voltage Activation	1 bi-idirectional channel Contact closure 5 VDC Ground	Contact Contact resistance Max voltage (open contact) Max current (closed contact))	NO/NC/Commun * <200 mΩ 48 VDC < 200 mA				

**Optical specifications** 

Fibre	Optical budget	Distance*
μm	dB	km
Multimode (62.5/125)	19	10**
Singlemode (9/125)	19	50

<sup>\*</sup> Can change with the fibre type and the network, distance may also be limited because of the bandwidth. For a 50/125 fibre, optical budget is reduced of 4 dB

\*\* Tested on OM3 fibre.

#### **Indicators**

Max current

- laser on : optical emission
- error: transmission error
- Mod: modulation entrée audio (X2)
- Data: Rx or Tx data traffic

TOR: Position of the TOR output relay

### **Connectors & power supply**

Optical connector: SC/PC <u>Audio connector</u>: Scew terminal block Data connector: Scew terminal block

Power connector: Power supply 9-36 VDC: Power consumption : 200mA@12 VDC

Power supply 230 VAC: external power converter 230VAC-12VDC,

ref. FCAS 210100

#### Housing **Environment**

Stand alone housing (L x w x h): 167 x 125 x 45 mm DIN rail mounting (: kit of mounting ref. KIT-RD-003

Rack-mount housing: 7 TE

Operating temperature:

\* Normally Open / Normally Closed / Common

Stand alone housing: -10; + 60°C

Rack-mount housing: -10; + 50°C

(+60°C under conditions)

Storage temperature : - 40 ; + 85°C

Relative humidity: 0 to 85 %

(non condensing)

Conformal coating option:

0 to 95%. Please add the suffix -C in

the end of codification

#### **PART NUMBERS:**

	Reference	Power	Application	Connector			
Stand	Stand alone housing						
Tx/Rx	HXOF 338 360		Transmitter 1 bi-direct. audio + 1 bi-direct. data + 1 bi-direct CC.over 1 singlemode				
Rx/Tx	HXOF 538 360	9-36 VDC	fibre. Up to 10 km over 1 multimode fibre and up to 50 km over 1 singlemode fibre.	SC/PC			
Rack-mount housing 7 TE							
Tx/Rx	HXOF 348 300		Transmitter 1 bi-direct. audio + 1 bi-direct. data + 1 bi-direct CC.over 1				
Rx/Tx	HXOF 548 300	19" 3U rack	singlemode fibre. Up to 10 km over 1 multimode fibre and up to 50 km over 1 singlemode fibre.	SC/PC			

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