

- 4 unidirectional video channels
- 2 bi-directional data channel
- Alarm signal via contact terminal



Stand alone housing version



7TE Rack-mount version

DESCRIPTION

HXQ-4V2D-VB series are especially designed to transmit all video and data signals that are necessary for a correct use of 2 PTZ or fixed cameras and domes.

The HXQE-4V2D-VB transmitter muxes four video, two identical bi-bidirectional data and one contact terminal alarm over one optical fibre.

The HXQR-4V2D-VB receiver demuxes these signals.

HXQ modules enable digital transmission of 10-bit encoded video. The module has been specifically designed for:

- Transport Infrastructures
- Industrial or hazardous sites

This equipment is completely transparent and sends all video signal types (NTSC, PAL or SECAM) and their associated control system (RS232 and RS485, 2 or 4 wires). **Data configuration is executable or modifiable directly on modules by the user, thanks to a switch on the back panel. In default, data is configured in our premises in RS485 4 wires.**

This equipment is available in stand alone housing or in rack-mount housing (7TE) fully compatible with 19"3U rack and upon request in 19"1U rack version.

Upon request :

Supervision of modules by the back panel of 19"3U rack

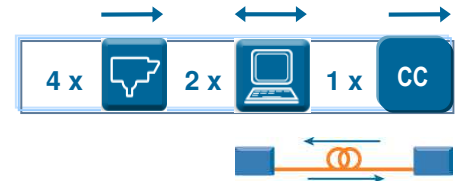
and by the IFOTEC rack-mount housing of supervision

Use of CWDM lasers according to the ITU grid allowing

- Insertion on the network until 8 video data equipment

- Signals multiplexing with other applications

(data, audio, Ethernet...).

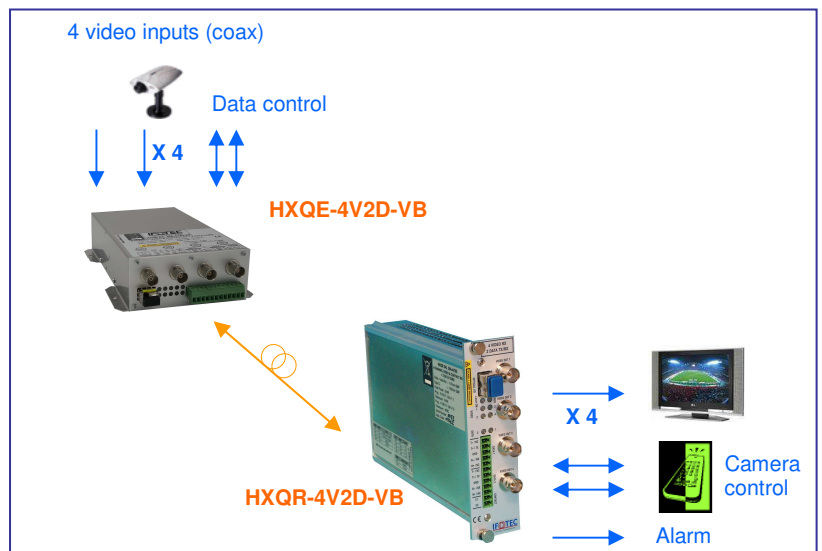


FUNCTION

- Video and data transmission over one optical fibre up to 50 km, even in an electronically disturbed environment.

KEY FEATURES

- 10-bit Digital Video.
- Point to point connection over 1 optical fibre for unidirectional video signals and two-way data.
- Transmission distance up to **50 km** over singlemode fibre (for longer distance, please consult us)
- Transmission distance up to **1 km** over multimode fibre (**5 km over high performance fibre**)
- One unidirectional contact terminal for the alarm signal transmission (video direction).
- Simplified wiring: Data paralleling by the 3U rack back panel.
- Data port protection : 30 KV ESD and 3 KV surge protection.
- A circuit allows to compensate automatically for the cables losses in entry of optical transmitters.
- DIN rail mounting (option)
- Place of production and after sales service: Voiron (France)
- Product warranty : 3 years



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Signal specifications

VIDEO		DATA	
Number of channels	4 unidirectional channels	Number of channels	2 identical bi-directional data
Signal type	pal, secam, NTSC ...	Signal type	RS232, RS485 2 fils or 4 fils
Digitisation	10 bits	Data Format	NRZ, NRZI, Manchester, Bi-phase
Input/output video level	1 V C to C	Rate	DC - 115.2 kbps
Input/output impedance	75 Ω	Operating mode	half-duplex or full-duplex
Signal/noise ratio	> 70 dB	Configuration	By DIP switch on back side
Bandwidth	6.5 MHz	Protection	30 KV ESD, 3 KV surge protection, EN 61000-4-5
Differential phase	< 2 °		
Differential gain	< 2 % typ.		

Contact closure

TRANSMITTER : INPUT		RECEIVER : RELAY	
Number of channel	1 unidirectional channel (video direct.)	Contact	NO/NC/Common*
Signal type	Contact closure	Contact resistance	200 mΩ
Open voltage	3.3 VDC	Max voltage (open contact)	48 VDC
Activation	Ground	Max current (closed contact)	< 200 mA
Max current	5 mA	* <i>Normally Open / Normally Closed / Common</i>	

Optical specifications

Fibre	Série	Optical budget max	Distance*
µm		dB	km
Multimode (62.5/125)	Standard	13	1**
Monomode (9/125)	Standard	13	35
	Extended	19	50

*Can change with the fibre type and the network, distance may also be limited because of the bandwidth
 ** Distance for a multimode fibre of bandwidth >500Mhzxkm @1310nm. Up to 5Km over high performance fibre (BP>2.5GHzxkm)

Indicators

Multiplexer

- video : video presence (4)
- data : Tx/RX data traffic (2)
- laser on : optical emission
- error : transmission error

Demultiplexer

- video : video presence (4)
- data : Tx/Rx data traffic (2)
- laser on : optical emission
- error : transmission error

Connectors

Optical connector : LC/PC
 Video connector : BNC
 Data connector : screw terminal blocks
 Contact closure connector : screw terminal blocks

Power supply

Power connector :
 Power supply 9-36 VDC : screw terminal block
 Power consumption : 250mA@12VDC
 Power supply 230 VAC : external power converter 230 VAC-12 VDC, ref. FCAS 210 100

Housing

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
 19"1U rack : Please contact us

Environment

Operating temperature :
 - 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 :

Housing type		Power supply	Applications	Connection
Video multiplexer	video demultiplexer			
Stand alone housing				
HXQE 334 36A-4V2D-VB	HXQR 534 36A-4V2D-VB	9-36 VDC	Multimode up to 1 km	LC/PC
HXQE 33L 36A-4V2D-VB	HXQR 53L 36A-4V2D-VB	9-36 VDC	Singlemode up to 35 km	LC/PC
HXQE 23L 36A-4V2D-VB	HXQR 43L 36A-4V2D-VB	9-36 VDC	Singlemode up to 50 km	LC/PC
Rack-mount housing 7 TE				
HXQE 344 30A-4V2D-VB	HXQR 544 30A-4V2D-VB	Rack 19" 1U or 3U	Multimode up to 1 km	LC/PC
HXQE 34L 30A-4V2D-VB	HXQR 54L 30A-4V2D-VB	Rack 19" 1U or 3U	Singlemode up to 35 km	LC/PC
HXQE 24L 30A-4V2D-VB	HXQR 44L 30A-4V2D-VB	Rack 19" 1U or 3U	Singlemode up to 50 km	LC/PC

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