






VL- *Ethernet*-Series Digital Video Fiber Converters ^{VL-1-VE}

Models	Channel Count				
	 LAN	 video	 data	 audio	 alarm
VL-2-VE	1	2	--	--	1
VL-1-VED	1	1	1	--	1
VL-1-VEA	1	1	--	1	1
VL-1-VEDA	1	1	1	1	1
VL-1-VE2D	1	1	2	--	1
VL-1-VE3D	1	1	3	--	1


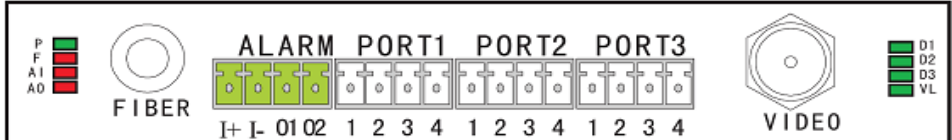
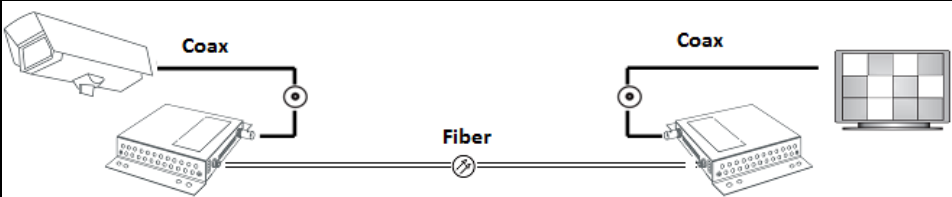
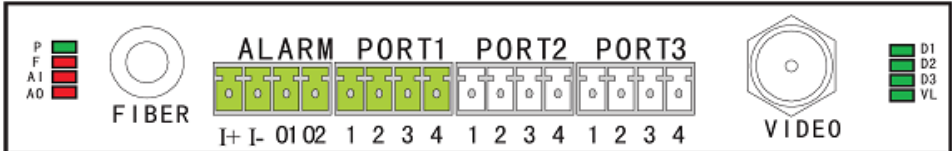
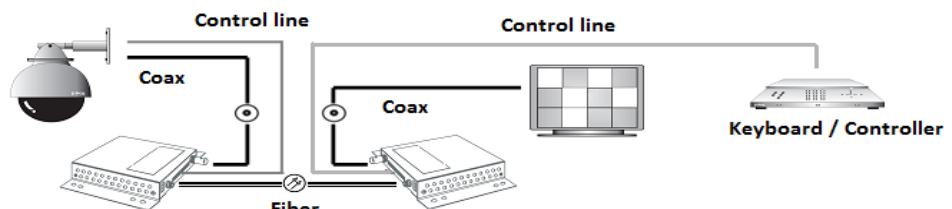
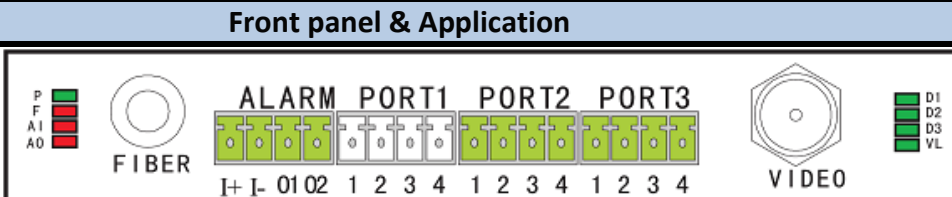
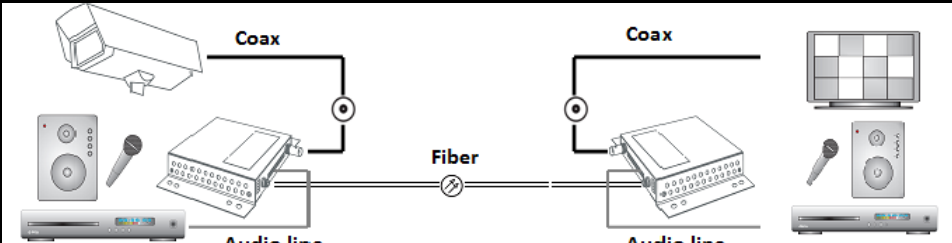
PRODUCT DESCRIPTION

- **VL-1-VE** series digitally encoded video fiber converter is specifically designed for surveillance systems requiring seamless transmission over long distances. And it has been widely used in premises, factories, airports, freeways and tunnels.
- **VL-1-V,D,A** all models are capable of transmitting video channel in one way, multiport data channels via **RS-232, RS-485 or RS-422** and bi-directional contact closure alarm over one single strand of single-mode or multimode fiber.
- **VL-1-V** series models can be *stand-alone* unit (powered by external adaptor), and *slide-in card* type to fit in **VR-1** (16 slots) series 19-in 3.5U-chassis for central wiring cabinet and management.

KEY FEATURES

- Compatible with NTSC, PAL and SECAM formats
- Digitally encoded transmission without compression
- No crosstalk, signal attenuation and distortion existing in baseband and FM products
- Plug-and-play, no adjustment needed
- Simultaneous transmission of video and alarm signals over one single strand of fiber
- Ultra-long transmission ability using state-of-the-art fiber optic encoding and modulation technology
- Designed for reliable operation in harsh environments
- Comprehensive diagnostic LEDs for easy maintenance
- Stand-alone units and slide-in cards (compatible with VR-1 rack chassis)
- RoHS Compliance

TYPICAL APPLICATIONS

Models	Panels & Applications	
ALL	Rear Panel	
VL-1-V	Front Panel	
	Application	
VL-1-VD	Front Panel	
	Application	
VL-1-VA	Front Panel	
	Application	



VL-Ethernet- Series Digital Video Fiber Converters With IP Ethernet Port

Access Technologies ... FTTX, IP Digital Surveillance Networking

VL-1-VDA	Front Panel	
	Application	
VL-1-V2D	Front Panel	
	Application	
VL-1-V3D	Front Panel	
	Application	



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With IP Ethernet Port

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General Specifications

Power Supply	12 VDC, from adaptor for stand-alone units; from rack chassis for slide-in cards
Power Consumption	< 6 W
Dim. (Excl. Connector)	Stand-alone unit (mm): 121.8 x 23.2 x 121.5; Slide-in card(mm): 155.2 x 21.4 x 121.2
Weight	Stand-alone unit: 440 g; Slide-in card: 250 g
Operating Temperature	Main unit: -20 ~ +60°C; Power adaptor: 0 ~ +40°C
Storage Temperature	-40 ~ +80°C
Operating Humidity	0 ~ 95%, non-condensing
EMI compliance	FCC Class A, CE Class A

Optics

Optical Wavelength	Multimode: 1310 nm Single-mode: 1550 nm at CO-monitor end; 1310 nm at Remote-camera end; Wavelengths can be interchanged for ultra long distance transmission.
Fiber Type	Multimode (50/125 μm or 62.5/125 μm) or single-mode (9/125 μm) fiber
Link Distance	Multimode: < 3 km; Single-mode: < 30 km~120km
Connector	Simplex ST (FC on request)

Video

Numbers of Channels	1, one-direction	Video Bandwidth per Channel	5 Hz ~ 8 MHz
Connector	BNC female		
Input Impedance, Transmitter1	75 Ω typical	SNR	> 62 dB (weighted)
		Video Gain	1 ± 5%
Output Impedance, Receiver2	75 Ω typical	Differential Gain (DG)	< 1.5%
		Differential Phase (DP)	< 2°
Video Input Level, Transmitter1	1 V _{p-p} typical, 1.5V _{p-p} max.	Tilt	< 0.5%

Data

	1D	2D	3D
No. Channels	1 (two-direction)	2 (two-direction)	3 (two-direction)
Connector per Channel	4-wire terminal block, 3.5 mm		
Data Format	2-wire RS-485, RS-232 or 4-wire RS-422/485 on request		
Baud Rate per Channel	0 ~ 115 kbps		
Bit-Error Rate	< 10 ⁻⁹		

Audio

No. of Channels	1, two-direction stereo
Connector per Channel	8-wire terminal block, 3.5 mm
Audio Max. Input/Output Level	3.5V _{p-p}
Audio Input Impedance	High impedance
Audio Output Impedance	10 Ω typical
Audio Gain	0 dB ± 1 dB
Audio Bandwidth per Ch	0.07 ~ 14 kHz
SNR	> 80 dB

Alarm

No. of Channels	1, two-direction
Connector per Channel	4-wire terminal block, 3.5 mm
Input Type	Open/closed sensing
Input Short Current	< 20 mA
Output Type	Contact closure
Output Max. Load Current	0.5 A @ 125 VAC, 2 A @ 30 VDC
Output Max. Load Voltage	250 VAC, 220 VDC



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VL-1-V Series Ordering Information

The Digital Video Fiber Converter supports the following models.

Please check into the box **V** firstly to select the model required while ordering.

<input type="checkbox"/> V ↓ ↓ ↓	Models	Channel Count			
		<input type="checkbox"/> 1V video	<input type="checkbox"/> D data	<input type="checkbox"/> 1A audio	<input type="checkbox"/> 1CC alarm
<input type="checkbox"/>	VL-1-V	1	--	--	1
<input type="checkbox"/>	VL-1-VD	1	1	--	1
<input type="checkbox"/>	VL-1-VA	1	--	1	1
<input type="checkbox"/>	VL-1-VDA	1	1	1	1
<input type="checkbox"/>	VL-1-V2D	1	2	--	1
<input type="checkbox"/>	VL-1-V3D	1	3	--	1

Please check into the box **V** to specify the working parameters, below, are common to all models.

Specify the transmission or receiving of video signal.	
<input type="checkbox"/>	Transmit the video signal from camera end.
<input type="checkbox"/>	Receive the video signal at monitor end.

Specify the type of optical connector.	
<input type="checkbox"/>	ST Connector
<input type="checkbox"/>	FC Connector

Specify the mode of optical fibre.	
<input type="checkbox"/>	Multimode (<3km)
<input type="checkbox"/>	Standard Single Mode (<30km)
<input type="checkbox"/>	Long Distance Single Mode (<50km)
<input type="checkbox"/>	Ultra Long Distance Single Mode (<80km)

Specify the unit type.	
<input type="checkbox"/>	Stand alone
<input type="checkbox"/>	Slide in card

Data channels, shown below, are specific to model ordered.

VL-1-VD VL-1-VDA	<input type="checkbox"/> RS 232 ; <input type="checkbox"/> RS 422; <input type="checkbox"/> RS 485
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Specify the number N of data channel in the parenthesis (N), where N=1, 2 or 3.

VL-1-V2D VL-1-V3D	<input type="checkbox"/> RS 232 (); <input type="checkbox"/> RS 422 (); <input type="checkbox"/> RS 485 ()
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For example, check into box and parenthesis as shown below for one RS232 and two RS422 data channels.

RS 232 (1); RS 422 (2); RS 485 ()

Upon receipt of this Ordering Form, Wamin Sales Representative will respond customer with Ordering Code for confirming the configuration that customers intend to order.

