

VIP X1 XF E Single-channel Video Encoder



BOSCH
Invented for life



- ▶ Single-channel H.264 encoder with Dual Streaming
- ▶ SD card and iSCSI recording
- ▶ Multicast and Internet streaming
- ▶ Alarm input and relay output
- ▶ ONVIF conformant

VIP X1 XF E features DVD-like quality H.264 video, at up to 25/30 images per second, over IP networks. The unit supports PAL and NTSC sources and provides a basic motion detector.

The encoder provides bidirectional audio communication in parallel to video.

VIP X1 XF E provides Dual Streaming. It is able to generate two independently configurable video streams. VIP X1 XF E is ultra-compact, so it is perfect for any application that depends on space-saving solutions.

Functions

Flexibility

VIP X1 XF E encoders offer unparalleled recording flexibility. Record on network-attached RAID iSCSI storage devices or locally on SD cards. The built-in iSCSI support enables VIP X1 XF E encoders to act as conventional DVRs while streaming high-performance live video across the network.

Dual Streaming

VIP X1 XF E encoders use Dual Streaming to generate two independent IP video streams per channel if sufficient computational power is available. This allows viewing and recording at two different quality levels to save disk space and bandwidth. On alarm, they can send an e-mail with JPEG images attached.

Dual H.264 Recording

You can record the streams independently on different media. Thus video can be recorded centrally on iSCSI drives managed by VRM Video Recording Manager and redundantly on the local media. If necessary, for example in case of a network failure VRM can fill up the gap in the central recording (ANR, Automatic Network Replenishment).

Recording Profiles

The encoders feature a highly flexible recording scheduler, providing up to ten programmable recording profiles and allowing individually assigned camera profiles. With these profiles, you can accelerate the frame rate as well as increase the resolution on alarm, saving recording space during non-alarm periods.

Access Security

VIP X1 XF E encoders offer various security levels for accessing the network, the unit, and the data channels. As well as password protection with three levels, they support 802.1x authentication using a RADIUS server for identification. You can secure Web browser access by HTTPS using a SSL certificate that is stored in the unit. For total data protection, each communication channel—video, audio, or serial I/O—

can be independently AES encrypted with 128-bit keys, once the Encryption Site License has been applied.

Intelligence

VIP X1 XF E comes with built-in MOTION+ video motion detection. This motion detection algorithm is based on pixel change and includes object size filtering capabilities and sophisticated tamper detection capabilities.

Viewing

View VIP X1 XF E encoder video on a PC using a Web browser, in the Bosch Video Management System, or integrate it into another video management system. By routing the IP video to a high-performance VIP XD HD decoder, you can present the video with ultimate clarity.

Easy Upgrade

Remotely upgrade VIP X1 XF E encoders whenever new firmware becomes available. This ensures up-to-date products, thus protecting investment with little effort.

ONVIF conformance

Firmware 4.5x introduces conformance to the ONVIF (Open Network Video Interface Forum) specification guaranteeing interoperability between network video products regardless of manufacturer. ONVIF conformant devices are able to exchange live video, audio, metadata and control information and ensure that they are automatically discovered and connected to network applications such as video management systems.

Certifications and approvals

Safety

Region	Number
	IEC 60950-1

System

Region	Number
	IEC 62676-2
	EN 50132-5-2

Electromagnetic Compatibility

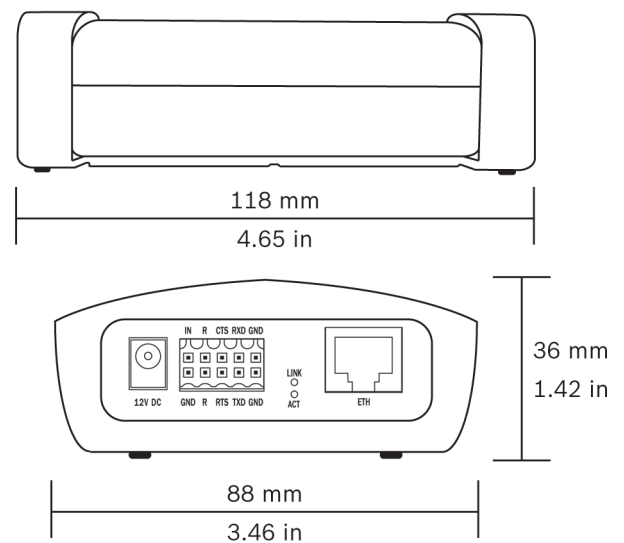
Region	Number
EU	EN 55103-1 Video and audio equipment
	EN 50130-4 Alarm systems
	EN 50121-4 Railway
	EN 55022
	EN 55024
	EN 61000-3-2

Region	Number
	EN 61000-3-3
US	FCC 47 CFR Part15 SubpartB ClassB
Australia/New Zealand	AS/NZS 3548 ClassB

Approvals

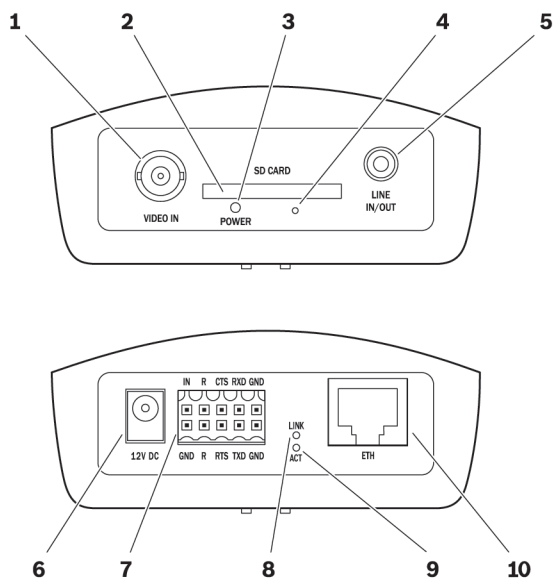
Region	Certification	
USA	UL	Bosch Engineering UL online certifications directory (link)
Europe	CE	VIP X1 XF E

Installation/configuration notes



Dimensions in mm (inches)

Connectors and Indicators



- | | |
|------------------------|---------------------------------------------|
| 1 VIDEO IN | 6 12V DC power input |
| 2 SD CARD slot | 7 Alarm in, relay out, COM (RS-232/422/485) |
| 3 POWER LED | 8 LINK LED |
| 4 Factory reset button | 9 ACT LED |
| 5 LINE IN/OUT audio | 10 10/100 Base-T Fast Ethernet |

Parts included

Quantity	Component
1	VIP-X1XF-E single-channel video/audio encoder
1	Quick Installation Guide
1	CD-ROM with software and documentation
1	Wall-mounting panel

Technical specifications

Electrical	
Power supply	Via external unit
Input voltage	12 VDC
Current consumption	0.30 A max
Power consumption	Approx. 3.6 W
Input/output	
Video	1 x input
• connector	BNC
• impedance	75 ohm, switchable

• signal	Analog composite, 0.7 to 1.2 Vpp, NTSC or PAL
Audio	1 x mono line in, 1 x mono line out
• connector	3.5 mm stereo jack
• signal line in	9 kohm typical, 5.5 Vpp max
• signal line out	3.0 Vpp at 10 kohm typical, 2.3 Vpp at 32 ohm typical, 1.7 Vpp at 16 ohm typical
Alarm	1 x input
• connector	Clamp (non-isolated closing contact)
• activation resistance	10 ohm max
Relay	1 x output
• connector	Clamp
• signal	30 Vpp (SELV), 0.2 A
COM port	Clamp, RS-232/422/485

Video

Standards	H.264 MP, H.264 BP+ (ISO/IEC 14496-10), M-JPEG, JPEG
Data rates	9.6 kbps to 6 Mbps
Resolution	Horizontal x vertical PAL/NTSC
• 4CIF	704 x 576/480 (25/30 ips)
• CIF	352 x 288/240 (25/30 ips)
GOP structure	I, IP, IPBB, IBBRBP
Overall IP delay	240 ms max
Frame rate	1 to 50/60 (PAL/NTSC)

Audio

Standard G.711	300 Hz to 3.4 kHz at 8 kHz sampling rate
L16 Audio	300 Hz to 6.4 kHz at 16 kHz sampling rate
Signal-to-noise ratio	> 50 dB

Network

Ethernet	10/100 Base-T, auto-sensing, half/full duplex, RJ45
Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, HTTPS, FTP, DHCP, IGMP V2/V3, ICMP, ARP, SMTP, SNMP, RTSP, 802.1x, iSCSI, DynDNS, UPnP
Encryption	TLS 1.0, SSL, AES (license option)

Control

Software update	Flash ROM, remote programmable
Configuration	Configuration Manager or Web browser

Connections	
SD card interface	1 x SD card
Mechanical	
Dimensions (H x W x D)	36 x 88 x 118 mm (1.42 x 3.46 x 4.65 in)
Weight	Approx. 0.25 kg (0.55 lb)
Environmental	
Operating temperature	0 °C to +60 °C (+32 °F to +140 °F) ambient temperature
Relative humidity	0 to 95% atmospheric humidity, non-condensing
Thermal value	13 BTU/h max

Ordering information

VIP-X1XF-E

H.264 dual-stream 1-channel encoder

Order number **VIP-X1XF-E**

Accessories

UPA-1216-50 Power Supply

12 VDC power supply for use with VIP X1 XF E

Order number **UPA-1216-50**

VIP-VJTXF-RMK Rack Mount Kit XF

Rack Mount Kit for VideoJet XF and VIP XF encoders

Order number **VIP-VJTXF-RMK**

Software Options

MVS-FENC-AES BVIP AES 128 Bit Encryption

BVIP AES 128-bit encryption site license. This license is required only once per installation. It enables encrypted communication between BVIP devices and management stations.

Order number **MVS-FENC-AES**