

VIP X1 XF E Single-channel Video Encoder

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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

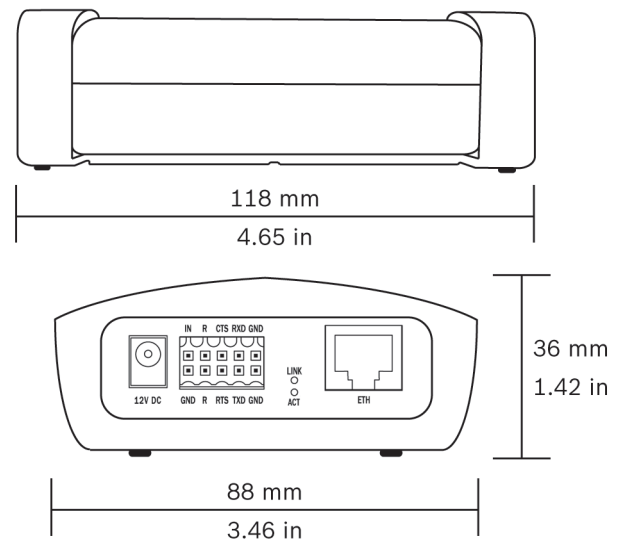
| Region | Number |
|--------|--------------------------------------|
| EU | EN 55103-1 Video and audio equipment |
| | EN 50130-4 Alarm systems |
| | EN 50121-4 Railway |
| | EN 55022 |
| | EN 55024 |
| | EN 61000-3-2 |

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

Approvals

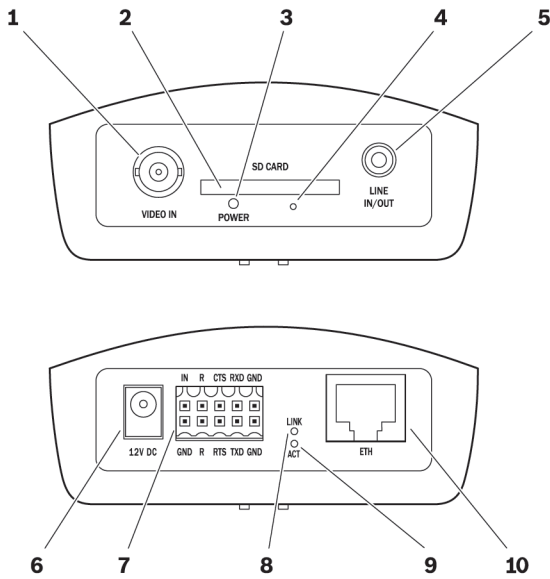
| Region | Certification | |
|--------|---------------|---|
| USA | UL | Bosch UL online certifications directory (link) |
| Europe | CE | VIP X1 XF E |

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**

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**

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