

VIP X1 XF E Single-channel Video Encoder

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

The VIP X1 XF E encoders feature DVD-like quality H.264 video, at up to 25/30 images per second, over IP networks. The devices support PAL and NTSC sources and offer a basic motion detector. The encoders provide bidirectional audio communication in parallel to video. They also provide Dual Streaming and therefore are able to generate two independently configurable video streams. The devices are ultra-compact, so they are perfect for any application that depends on space-saving solutions.

Functions

Flexibility

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

Triple streaming

The encoders use Dual Streaming to generate two independent H.264 video streams per channel. This allows viewing and recording at two different quality levels to save disk space and bandwidth. As a third stream for easier third-party integration they provide

an independently configured M-JPEG stream. 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.

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

The devices 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.

Also the communication channels—video, audio, or serial I/O—are then AES encrypted.

Intelligence

The VIP X1 XF E encoders come 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 the 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 VIDEOJET decoder device you can present the video with ultimate clarity.

Easy upgrade

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

ONVIF conformance

Conformance to ONVIF 1.02 and ONVIF Profile S provides interoperability between network video products regardless of manufacturer. In addition, the firmware of the device supports all applicable features of the ONVIF 2.2 specification.

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

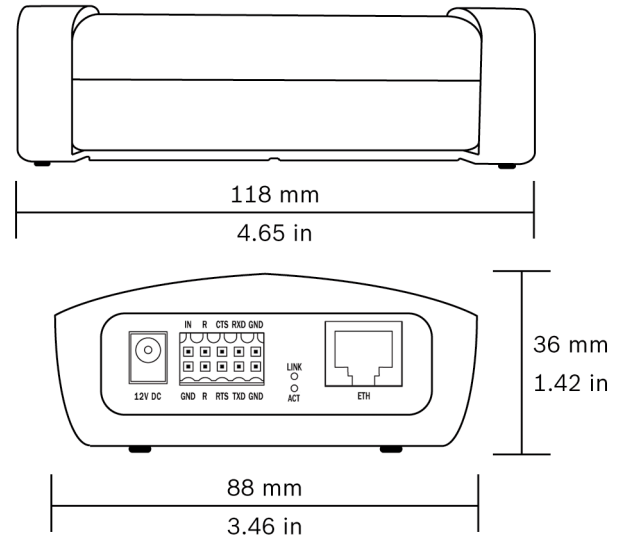
| Region | Number |
|-----------------------|-----------------------------------|
| EU | EN 55022 |
| | EN 55024 |
| | EN 50130-4 Alarm systems |
| | EN 50121-4 Railway |
| US | FCC 47 CFR Part15 SubpartB ClassB |
| Australia/New Zealand | AS/NZS 3548 ClassB |

Approvals

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

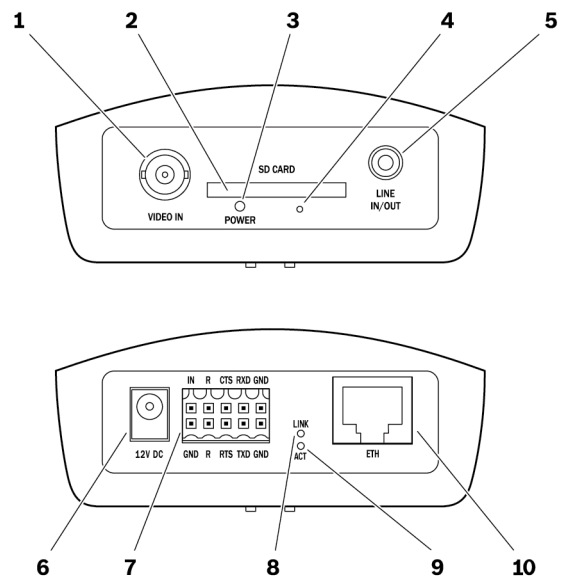
Installation/configuration notes

Dimensions



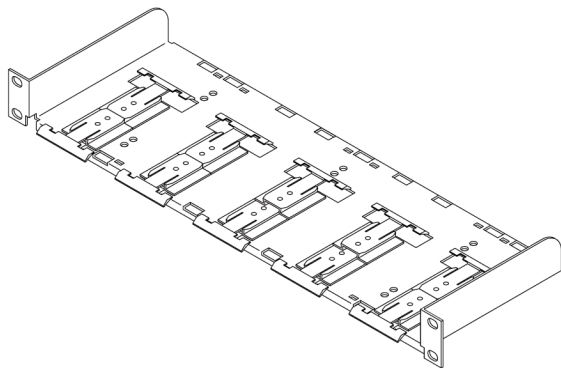
Dimensions in mm (inches)

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 |

Rack Mount Kit XF (optional)



Parts included

| Quantity | Component |
|----------|--|
| 1 | VIP X1 XF E single-channel video/audio encoder |
| 1 | Quick Installation Guide |
| 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 |

| Input/output | |
|-------------------------|--|
| • 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/D1 | 704 x 576/480 (25/30 ips) |
| • CIF | 352 x 288/240 (25/30 ips) |
| GOP structure | I, IP, IPBB, IBRRBP |
| Overall IP delay | 240 ms max |
| Frame rate | 1 to 50/60 (PAL/NTSC) |

| Audio | |
|-----------------------|------------------------------------|
| AAC | |
| • Profile | AAC-LC |
| • Frequency rate | 300 Hz to 6.4 kHz |
| • Data rate | 48/80 kbps at 16 kHz sampling rate |
| G.711 | |
| • Frequency rate | 300 Hz to 3.4 kHz |
| • Data rate | 80 kbps at 8 kHz sampling rate |
| L16 | |
| • Frequency rate | 300 Hz to 6.4 kHz |
| • Data rate | 640 kbps at 16 kHz sampling rate |
| Signal-to-noise ratio | > 50 dB |

| Network | |
|------------------------|---|
| Ethernet | 10/100 Base-T, auto-sensing, half/full duplex, RJ45 |
| Protocols | IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, Telnet, ARP, DHCP, NTP (SNTP), SNMP (V1, MIB-II), 802.1x, DNS, DNSv6, DDNS (DynDNS.org, selfHOST.de, no-ip.com), SMTP, iSCSI, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox, CHAP, digest authentication |
| Encryption | TLS 1.0, SSL, DES, 3DES, AES |
| Control | |
| Software update | Flash ROM, remote programmable |
| Configuration | Configuration Manager or web browser |
| Camera control | Via serial interface; supported* protocols and devices: |
| • Bosch | AUTODOME, HSPT, MIC1-300 IP, TC8x00 |
| • Canon | VCC1, VC-C4R |
| • CBC | SMD 12P/12P/20P |
| • JVC | TK-C676 |
| • Panasonic | WV-CS850 |
| • Pelco | Spectra D/P |
| • Sensomatic | SpeedDome Ultra |
| • Sony | EVI D30/31/D100 |
| • Ultrak | KD6 |
| • VT | VPT4x |
| | * Basic functions only, no claim for full functionality valid. Bosch may not be made responsible if functions are not implemented or not working under all circumstances. |
| 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 X1 XF E

High-performance video encoder. H.264 triple-streaming; iSCSI recording; SD card slot; audio; Motion+; ROI; 1 video input

Order number **VIP-X1XF-E**

Accessories

VIP X1 XF E PSU

Power supply for encoder. 12 VDC

Order number **UPA-1216-50**

Rack Mount Kit XF

Rack mount kit for stand-alone encoders and decoders

Order number **VIP-VJTXF-RMK**

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