



VideoJet XPro



- ▶ **Modular digital CCTV matrix**
- ▶ **Highest port-density in compact 7 HU**
- ▶ **2 MPEG-2 and 4 MPEG-4 cartridges**
- ▶ **2 Hard disk cartridges**
- ▶ **Single or redundant power supply**
- ▶ **Transmitter and DVR operation**
- ▶ **Gigabit Ethernet**
- ▶ **Triplex hard disk recording**
- ▶ **Integrated video scene analysis**
- ▶ **Multicasting & Internet Streaming**

Designed for the toughest demands of professional CCTV, large-scale security projects and enterprise TV distribution the VideoJet XPro features unlimited flexibility and scalability. Each 7-HU XPro cabinet is available with single or redundant power supply. It has room for up to 20 VideoJet XPro cartridges providing a maximum of 160 non-multiplexed video streams (depends on the chosen cartridge).

Fully customizable the VideoJet XPro can come with any combination out of 8 different cartridge types offered. The V8 cartridge transmits 8 PAL/NTSC or CCIR/EIA video channels, the VA8 in addition offers stereo input audio channels. The V8-X8 and V8-X4 cartridges transmit 8 PAL or NTSC video channels in MPEG-4.

The audio versions provide bi-directional audio channels. The HDD cartridge adds hard disks for efficient local recording and BOSCH's ANR high-reliability networked recording.

Highest port-density and uncompromising video quality make the VideoJet XPro a great drop-in replacement for existing multiplexers and matrices. It provides exceptional price/performance, modularity and reliability particularly required for projects in government, retail and transportation. With VIDOS and VIDOS-NVR software, the XPro is ideal for applications with demanding specifications and long life spans.

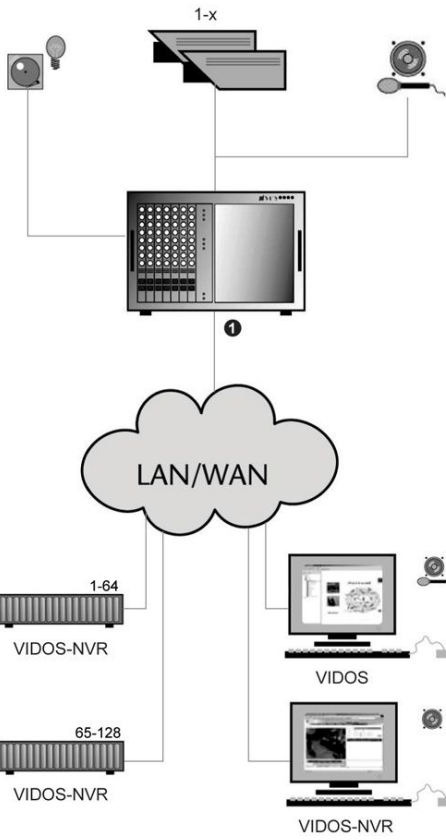
System Overview

Each VideoJet XPro video cartridge provides 8 non-multiplexed video streams simultaneously over Gigabit-Ethernet. Six different types of cartridges are available for Encoding, MPEG-2 and MPEG-4. For local recording you can add extra hard disk cartridges.

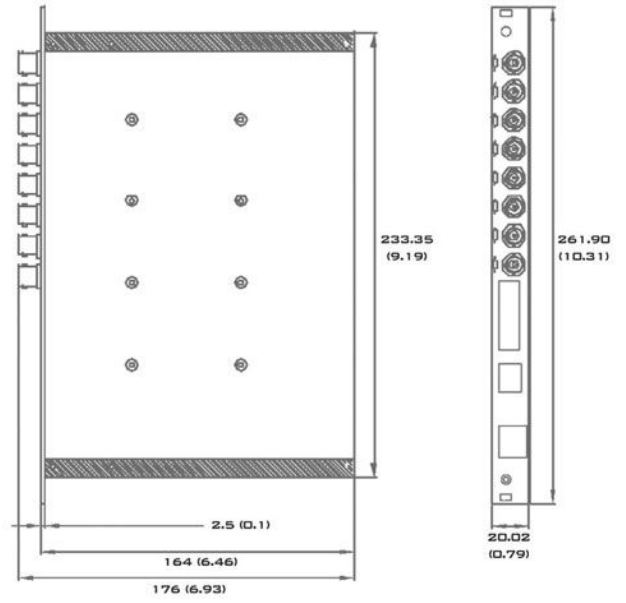
Compatible with both, PAL or NTSC sources, the signal can be viewed on any standard PC using Bosch video management system VIDOS or a web browser. With one of Bosch MPEG-2 or MPEG-4 hardware decoders you can put setup box-to-box solutions.

Pure video cartridges are 4-U wide, the cartridges with audio are 8-U width. Also 8-U in size the HDD cartridge features 240 GB or 600 GB hard disks free in allocation allowing simultaneous playback and back-up while recording.

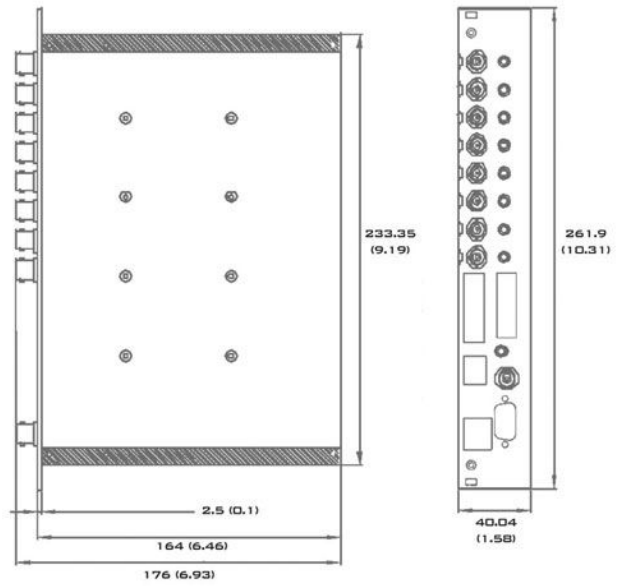
Installation/Configuration Notes



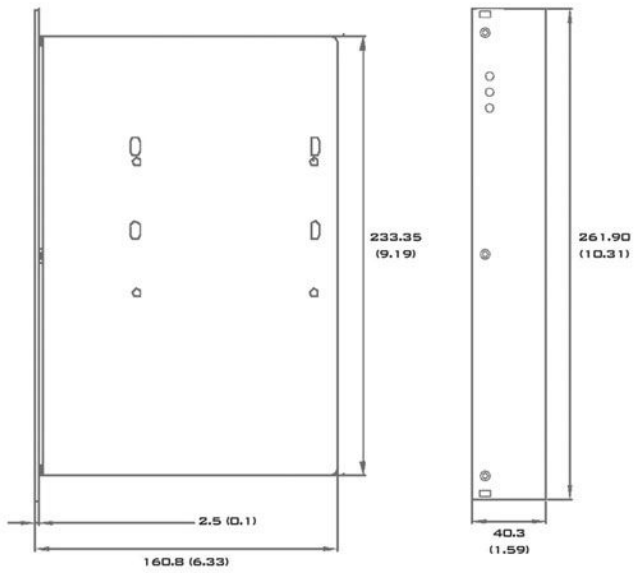
Rear view



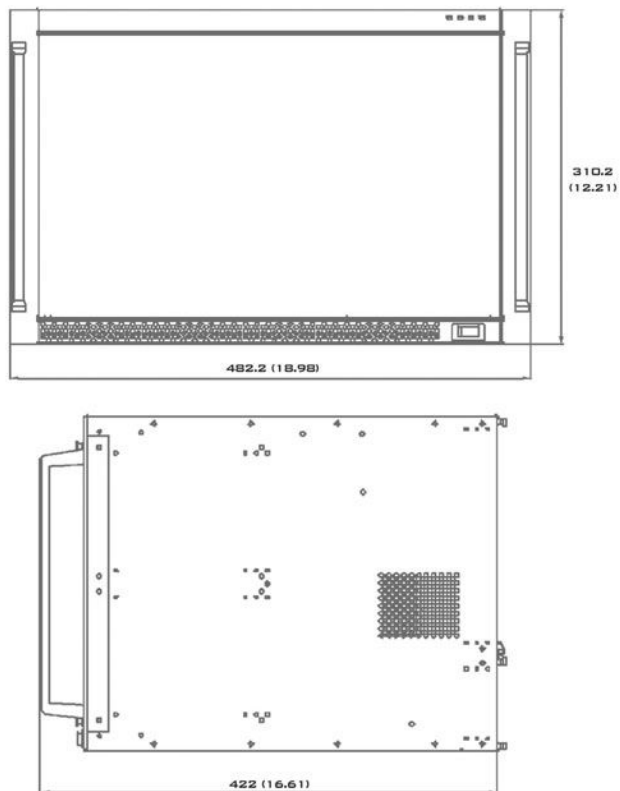
VideoJet XPro V8 Dimensions in mm (inches)



VideoJet Xpro VA8 Dimensions in mm (inches)



Cartridge HDD Dimensions in mm (inches)



Cabinets Dimensions in mm (inches)

Parts Included

Quantity	Component
1	different content for different cartridges
1	Quick Installation Guide
1	CD-ROM with VCS software and manual

Technical Specifications

Electrical – Videojet XPro V8

Video Standards	ISO/IEC 13818-2 (MPEG-2) MP@ML; M-JPEG
Video Data Rate	1 MBit/s - 5 MBit/s per channel Constant & variable
Video Resolution	720 x 576/480 (full D1: 50 resp. 60 fields/s*) 352 x 288 (CIF: 25 resp. 30 fps*)
GOP Structure	I, IP, IPB, IPBB
Overall Delay (IP)	198 resp. 180 ms (PAL resp. NTSC)
Select. Frame Rate	1-50 resp. 60 fields/s (PAL resp. NTSC); Field/frame based coding
Multiplex Standards	ISO/IEC 13818-1 (MPEG-2)
Stream Types	Elementary (video only), program stream
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable
Configuration	Via Web browser, built-in Web server

Interfaces

Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp
Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
COM Port	1x RS232/422/485, RJ45
Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental V8

Input Voltage	Supplied by cabinet
Power Consumption	Max. 35 VA
Weight	App. 0.7 kg (1.54lbs)
Operating Temperature	0°C - 50°C (32 - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*) depends on picture content

Electrical – Videojet XPro VA8

Video Standards	ISO/IEC 13818-2 (MPEG-2) MP@ML; M-JPEG
Video Data Rate	1 MBit/s - 5 MBit/s per channel Constant & variable
Video Resolution	720 x 576/480 (full D1: 50 resp. 60 fields/s*) 352 x 288 (CIF: 25 resp. 30 fps*)

GOP Structure	I, IP, IPB, IPBB
Overall Delay (IP)	198 resp. 180 ms (PAL resp. NTSC)
Select. Frame Rate	1-50 resp. 60 fields/s (PAL resp. NTSC); Field/frame based coding
Audio Standards	MPEG-1: ISO/IEC 11172-3; MPEG-2: Layer I/II; 300 Hz - 10 kHz
Audio Data Rate	256 kBit/s
Audio Sample Rate	48 kHz
Multiplex Standards	ISO/IEC 13818-1 (MPEG-2)
Stream Types	Elementary (video only), program stream
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable
Configuration	Via Web browser, built-in Web server

Interfaces

Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp
Audio	8x stereo line, stereo jack 3.5 mm, 50 kOhm, 1 Vpp
Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
Relay Out	5x clamp, 30 Vpp, 1 A
COM Ports	1x RS232/422/485, RJ45, 1x RS232, 9-pin Sub-D
Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental VA8

Input Voltage	Supplied by cabinet
Power Consumption	Max. 40 VA
Weight	App. 1.0 kg
Operating Temperature	0°C - 50°C (32°F - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*)depends on picture content

Electrical – Videojet XPro V8-X4

Video Standards	MPEG-4; JPEG
Video Data Rate	9 KBit/s - 6MBit/s
Video Resolution	720 x 576/480 (4CIF: 12 resp. 15fps) 720 x 288/346 (2CIF: 25 resp. 30fps); 352 x 576/480 (Half D1: 25/30 IPS) 352 x 288/346 (CIF: 25 resp. 30fps) 352 x 144/172 (QCIF: 25 resp 30fps)

GOP Structure	I, IP
Overall Delay (IP)	100 ms
Select. Frame Rate	up to 25 resp. 30 fps (PAL resp. NTSC); scalable video skip ratio
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable
Configuration	Via Web browser, built-in Web server

Interfaces

Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp
Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
COM Port	1x RS232/422/485, RJ45
Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental V8-X4

Input Voltage	Supplied by cabinet
Power Consumption	Max. 35 VA
Weight	App. 0.7 kg (1.54lbs)
Operating Temperature	0°C - 50°C (32 - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*) depends on picture content

Electrical – Videojet XPro VA8-X4

Video Standards	MPEG-4; JPEG
Video Data Rate	9 KBit/s - 6MBit/s
Video Resolution	720 x 576/480 (4CIF: 12 resp. 15fps) 720 x 288/346 (2CIF: 25 resp. 30fps); 352 x 576/480 (Half D1: 25/30 IPS) 352 x 288/346 (CIF: 25 resp. 30fps) 352 x 144/172 (QCIF: 25 resp 30fps)
GOP Structure	I, IP
Overall Delay (IP)	100 ms
Select. Frame Rate	up to 25 resp. 30 fps (PAL resp. NTSC); scalable video skip ratio
Audio Standards	G.711
Audio Data Rate	80 kBit/s per channel
Audio Sample Rate	8 kHz
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable

Configuration	Via Web browser, built-in Web server
---------------	--------------------------------------

Interfaces

Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp
Audio	1x mono line in (50 kOhm), 1x mono line out (60 mW, min. 8 Ohm), stereo jack 3.5 mm, 1 Vpp
Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
Relay Out	5x clamp, 30 Vpp, 1 A
COM Ports	1x RS232/422/485, RJ45, 1x RS232, 9-pin Sub-D
Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental VA8-X4

Input Voltage	Supplied by cabinet
Power Consumption	Max. 40 VA
Weight	App. 1.0 kg
Operating Temperature	0°C - 50°C (32°F - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*) depends on picture content

Electrical – Videojet XPro V8-X8

Video Standards	MPEG-4; JPEG
Video Data Rate	9 KBit/s - 6MBit/s
Video Resolution	720 x 576/480 (4CIF: 25 resp. 305fps) 720 x 288/346 (2CIF: 25 resp. 30fps); 352 x 576/480 (Half D1: 25/30 IPS) 352 x 288/346 (CIF: 25 resp. 30fps) 352 x 144/172 (QCIF: 25 resp 30fps)
GOP Structure	I, IP
Overall Delay (IP)	100 ms
Select. Frame Rate	up to 25 resp. 30 fps (PAL resp. NTSC); scalable video skip ratio
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable
Configuration	Via Web browser, built-in Web server
Interfaces	
Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp

Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
COM Port	1x RS232/422/485, RJ45
Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental V8-X8

Input Voltage	Supplied by cabinet
Power Consumption	Max. 35 VA
Weight	App. 0.7 kg (1.54lbs)
Operating Temperature	0°C - 50°C (32 - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*) depends on picture content

Electrical – Videojet XPro VA8-X8

Video Standards	MPEG-4; JPEG
Video Data Rate	9 KBit/s - 6MBit/s
Video Resolution	720 x 576/480 (4CIF: 25 resp. 30fps) 720 x 288/346 (2CIF: 25 resp. 30fps); half D1 352 x 288/346 (CIF: 25 resp. 30fps) 352 x 144/172 (QCIF: 25 resp 30fps)
GOP Structure	I, IP
Overall Delay (IP)	100 ms
Select. Frame Rate	upto 25 resp. 30fps (PAL resp. NTSC); scalable video skip ratio
Audio Standards	G.711
Audio Data Rate	80 kBit/s per channel
Audio Sample Rate	8 kHz
Network Protocols	RTP, Telnet, UDP, TCP, IP, HTTP, IGMP, ICMP, ARP, SNMP
Software Update	Flash ROM, remote programmable
Configuration	Via Web browser, built-in Web server

Interfaces

Video In	8x analog composite: NTSC or PAL; BNC connector 75 Ohm switchable, 0.7-1.2 Vpp
Audio	1x mono line in (50 kOhm), 1x mono line out (60 mW, min. 8 Ohm), stereo jack 3.5 mm, 1 Vpp
Alarm In	10x clamp (non-isolated closure contact type), max. activation resistance 10 Ohm
Relay Out	5x clamp, 30 Vpp, 1 A
COM Ports	1x RS232/422/485, RJ45, 1x RS232, 9-pin Sub-D

Ethernet	10/100/1000 Base-T, auto sensing, half/full duplex, RJ45
Storage Media (opt.)	Cartridge HDD: 2x 120 or 2x 300 GB HD (8 WU)

Environmental VA8-X8

Input Voltage	Supplied by cabinet
Power Consumption	Max. 40 VA
Weight	App. 1.0 kg
Operating Temperature	0°C - 50°C (32°F - 122 °F) ambient temp.
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

*) depends on picture content

Specifications – Cartridge HDD

Storage	2x 120 or 2x 300 GB IDE HD
---------	----------------------------

Environmental

Input Voltage	Supplied by cabinet
Power Consumption	Max. 48 VA
Weight	App. 1.6 kg
Operating Temperature	0°C – 50°C (32°F – 122 °F) ambient temperature
Humidity	20 – 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

Specifications - Cabinets

Power Supply	1x integrated power supply; alternative: two redundant integrated power supplies
Input Voltage	90 - 250 VAC, 50/60 Hz
Power Consumption	Max. 600 VA
Weight	App. 3.5 kg
Operating Temperature	0°C - 50°C (32°F - 122 °F) ambient temperature
Humidity	20 - 80% atmospheric humidity (not condensing)
Approvals	CE: IEC 60950; UL 1950; J 60950; AS/NZS 3548; EN 55103-1, -2; EN 55130-4; EN 55022; EN 55024; EN 61000-3-2; EN 61000-3-3; FCC 47 CFR Ch.1 Part 15

Ordering Information

XPro V8 2410 VJXPro V8 - 8 channels MPEG-2 card	XProV82410
XPro VA8 2420 VJXPro VA8 - 8 channels MPEG-2 card, with audio	XProVA82420
XPro V8-X4	XPro V8-X4
XPro V8-X8	XPro V8-X8
Accessories	
XPro S1 2401 19-inch cabinet for up to 120 video channels, single power supply	XProS12401
XPro R2 2406 19-inch cabinet for up to 160 video channels, redundant second power supply up to 128ch	XProR22406
XPro HDD 2430 VJXPro HDD - dual hard disk board with 240 GB disks	XProHDD2430
XPro HDD 2432 VJXPro HDD - dual hard disk board with 600 GB disks	XProHDD2432

Europe, Middle East, Africa:
Bosch Security Systems B.V.
P.O. Box 80002
5600 JB Eindhoven, The Netherlands
Phone: + 31 40 2577 284
Fax: +31 40 2577 330
emea.securitysystems@bosch.com
www.boschsecurity.com

Americas:
Bosch Security Systems, Inc.
130 Perinton Parkway
Fairport, New York, 14450, USA
Phone: +1 800 289 0096
Fax: +1 585 223 9180
security.sales@us.bosch.com
www.boschsecurity.us

Asia-Pacific:
Bosch Security Systems Pte Ltd
38C Jalan Pemimpin
Singapore 577180
Phone: +65 6319 3450
Fax: +65 6319 3499
apr.securitysystems@bosch.com
www.boschsecurity.com

Represented by