VIDEOJET decoder 8000 displays video from Standard Definition (SD), High Definition (HD), 4K Ultra High Definition (UHD), and Megapixel (MP) cameras and encoders using H.264 or MPEG-4 encoding at up to 60 frames per second over IP networks. It can flawlessly decode two 4Kp30 streams at 20 Mbps, or six 1080p30 streams, or eight H.264 720p60 streams, or twelve H.264 720p30 streams, all at 10 Mbps. Alternatively, it can simultaneously decode 30 H.264 SD streams at up to 6 Mb per second from fast-moving AUTODOME cameras with the highest clarity. When H.264 SD streams at up to 2.5 Mb per second from medium activity scenes are connected, up to 60 streams can be displayed.

VIDEOJET decoder 8000 can drive two 4K UHD displays directly, each with an independently configurable screen layout, and so is ideally suited for applications with flat-screen monitor walls at a moderate cost-per-monitor. Compact in size in relation to its decoding power, VIDEOJET decoder 8000 is perfect for any display application that requires space-saving solutions. Control the viewing mode remotely and establish the video connections using comprehensive Bosch video management systems.

**System overview**

VIDEOJET decoder 8000 is based on the latest Intel fifth generation Core i3 CPU. The system has a 64 GB SSD module as boot medium for operating system and application. It uses a Gigabyte Ethernet port. The system runs a tailored and Bosch-branded Microsoft Windows 8.1 embedded operating system and Monitor Wall software based on UHD-capable VideoSDK 6. Making use of Intel's hardware decoding accelerators, the software is fine-tuned for 4K UHD and MP video decoding support. VIDEOJET decoder 8000 provides two Mini DisplayPorts, both capable of driving up to 4K UHD monitors simultaneously. The system is enclosed in a specially designed housing. It can be directly mounted to the back of a monitor, using the 100 mm (3.937 in) VESA mount option.
**Functions**

**High performance**
Transmit 4K UHD and MP IP video to a high-performance VIDEOJET decoder 8000 and present it with ultimate clarity on large, flat-screen HD monitors, for example, high-performance 19" to 55" Bosch HD LCD monitors.

VIDEOJET decoder 8000 is capable of flawlessly decoding two 4Kp30 streams at 20 Mbps, or six 1080p30 streams, or eight 720p60 streams, or twelve 720p30 streams, all at 10 Mbps - displayed in one of the pre-defined and on-the-fly switchable layouts. It can handle up to 30 SD streams at up to 6 Mbps with full resolution and frame rate, and display it in flexible layouts on both monitors.

At a lower resolution, bit rate, or frame rate, the decoder is capable of displaying up to 60 video streams, arranged in various selectable screen layouts. Layouts can be switched at any time during operation, initiated by the controlling video management system. Layout switching can be based on alarm scenarios.

VIDEOJET decoder supports landscape and portrait video and monitors. Layouts will adapt automatically to optimally utilize the available screen space.

**Decoding performance**

<table>
<thead>
<tr>
<th>Encoding</th>
<th>Streams</th>
<th>Resolution</th>
<th>Max. bit rate / stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.264 MP</td>
<td>2</td>
<td>12Mpp20</td>
<td>20 Mbps</td>
</tr>
<tr>
<td>H.264 4K UHD</td>
<td>2</td>
<td>2160p30</td>
<td>20 Mbps</td>
</tr>
<tr>
<td>H.264 HD</td>
<td>6</td>
<td>1080p30</td>
<td>10 Mbps</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>720p60</td>
<td>10 Mbps</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>720p30</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>H.264 SD</td>
<td>30</td>
<td>4CIF/432p</td>
<td>6 Mbps</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td>4CIF/432p</td>
<td>2.5 Mbps</td>
</tr>
</tbody>
</table>

**Access security**
The decoders offer various security levels for accessing the network, the unit, and the data channels. System access is password-protected with two levels. Also the communication channels - video, audio, or serial I/O - are then AES encrypted.

**Malware resistance**
VIDEOJET decoder has been designed to be resistant to viruses and other malware. To prevent security holes, the installed Bosch software limits transactions to operation and maintenance and the embedded operating system is tailored to the needs. No other than Microsoft and Bosch software is running on the decoder. Its firewall performs at the highest security level and allows communication only for a minimum of needed services. All access is password-protected, USB and other storage devices are disabled, and update files are authenticated and encrypted, thus putting robustness against malicious software to the highest degree.

**Easy upgrade**
Remotely upgrade the decoder whenever new firmware or software becomes available. This ensures up-to-date products, thus protecting investment with little effort.

**Certifications and approvals**

**Safety**

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>IEC 60950</td>
</tr>
</tbody>
</table>

**Electromagnetic compatibility**

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>EN55022 ITE</td>
</tr>
<tr>
<td>US</td>
<td>FCC 47 CFR Chapter 1 Part 15</td>
</tr>
</tbody>
</table>

**Approvals**

<table>
<thead>
<tr>
<th>Region</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>CE VIDEOJET decoder 8000</td>
</tr>
<tr>
<td>USA</td>
<td>UL VIDEOJET decoder 8000</td>
</tr>
</tbody>
</table>
### Installation/configuration notes

#### Dimensions

<table>
<thead>
<tr>
<th>Width</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.9291 in</td>
<td>1.8622 in</td>
</tr>
</tbody>
</table>

#### Connectors and indicators

1. SSD activity (orange)
2. Power indicator (blue)
3. Power switch
4. DC power connector
5. Mini DisplayPort 1
6. Ethernet
7. Dual USB 3.0
8. Mini DisplayPort 2
9. Kensington lock

#### Parts included

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>VIDEOJET decoder 8000, video decoder</td>
</tr>
<tr>
<td>1</td>
<td>International power supply unit with EU and US power cord (VJD-8000) or EU and CN power cord (VJD-8000-N)</td>
</tr>
<tr>
<td>1</td>
<td>Monitor mounting kit</td>
</tr>
<tr>
<td>1</td>
<td>Quick Installation Guide</td>
</tr>
<tr>
<td>1</td>
<td>Safety Hints document</td>
</tr>
</tbody>
</table>

#### Technical specifications

##### Electrical

- **Power supply**: Wide-range, external, included in the box
- **Input voltage**: 100 to 240 VAC, 50/60 Hz
- **Power consumption**: Approx. 15 W, 65 W max

##### Video

- **Video outputs**: 2 simultaneously
  - **connector**: 2 x Mini DisplayPort 1.2, no VGA support
- **Standards**: H.264 (ISO/IEC 14496-10) MPEG-4
- **Data rates**:
  - **MP**: up to 20 Mbps
  - **4K UHD**: up to 20 Mbps
  - **HD**: up to 20 Mbps
  - **SD**: up to 6 Mbps per stream
- **GOP structure**: I, IP, IBBP
- **Monitor resolutions**:
  - **DP**: 3840 x 2160 (UHD) at 60 Hz

##### Audio

- **G.711**
  - **Frequency range**: 300 Hz to 3.4 kHz
  - **Data rate**: 80 kbps at 8 kHz sampling rate
- **L16 (reception only)**
Audio

- Frequency range: 300 Hz to 6.4 kHz
- Data rate: 640 kbps at 16 kHz sampling rate
- Signal-to-noise ratio: > 50 dB

Network

- Ethernet: 10/100/1000 Base-T, auto-sensing, half/full duplex, RJ45
- Protocols: IPv4, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), digest authentication

Encryption: TLS 1.0, SSL, 3DES, AES

Control

- Software update: remote programmable
- Configuration: Configuration Manager
- Operation: Bosch Video Management System, Video Client

Mechanical

- Dimensions w/o stands (H x W x D): 47.3 x 150.6 x 186 mm (1.862 x 5.929 x 7.323 in)
- Weight: Approx. 1.7 kg (3.7 lb)
- VESA mount: 100 x 100 mm (3.937 x 3.937 in)

Environmental

- Operating temperature: 0 °C to +50 °C (+32 °F to +122 °F) ambient temperature
- Relative humidity: 0 to 90% atmospheric humidity, non-condensing
- Thermal value: Approx. 51 BTU/h, 221 BTU/h max

Ordering information

**VIDEOJET decoder 8000**
High-performance video decoder. H.264 up to 4K UHD and MP; MPEG-4; audio; up to 60 fps per stream; 2 Mini DisplayPort monitor outputs.
Order number **VJD-8000**

**VIDEOJET decoder 8000**
High-performance video decoder. H.264 up to 4K UHD and MP; MPEG-4; audio; up to 60 fps per stream; 2 Mini DisplayPort monitor outputs.
No TPM
Order number **VJD-8000-N**

**Accessories**

**UML-193-90 19-inch High Performance HD LED Monitor**
High-performance HD LED 19-inch monitor. 1366x768p; 250 cd/m²; audio; BNC/HDMI/DVI-D/VGA inputs; backlight 30,000 hours; viewing angle (HxW) 170x160; contrast 1000:1
Order number **UML-193-90**

**UML-223-90 22-inch High Performance Full HD LED Monitor**
High-performance HD LED 22-inch monitor. 1920x1080p; 250 cd/m²; audio; HDMI/DVI-D/VGA inputs; backlight 30,000 hours; viewing angle (HxW) 170x160; contrast 1000:1
Order number **UML-223-90**

**UML-273-90 27-inch High Performance HD LED Monitor**
High-performance HD LED 27-inch monitor. 1920x1080p; 300 cd/m²; audio; BNC/HDMI/Component/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 3000:1
Order number **UML-273-90**

**UML-323-90 32-inch High Performance HD LED Monitor**
High-performance HD LED 32-inch monitor. 1920x1080p; 350 cd/m²; audio; BNC/HDMI/Component/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 3000:1
Order number **UML-323-90**

**UML-423-90 42-inch High Performance HD LED Monitor**
High-performance HD LED 42-inch monitor. 1920x1080p; 500 cd/m²; audio; BNC/HDMI/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 4000:1
Order number **UML-423-90**

**UML-463-90 46-inch High Performance HD LED Monitor**
High-performance HD LED 46-inch monitor with super-slim bezel (5 mm width L+R). 1920x1080p; 450 cd/m²; audio; BNC/HDMI/Component/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 3500:1
Order number **UML-463-90**

**UML-553-90 55-inch High Performance HD LED Monitor**
High-performance HD LED 55-inch monitor. 1920x1080p; 450 cd/m²; audio; BNC/HDMI/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 4000:1
Order number **UML-553-90**