

# MNA-440 ENC SDI

4K AV-to-IP adapter for the OR and hybrid OR



- AV-to-IP conversion
- Up to 4K resolution
- Medical-grade
- Established 3rd generation technology

## Adapter for the operating room

The MNA-440 ENC SDI converts 2x 3GSDI or 1x 12GSDI or 1x QUAD SDI video signals to Nexxis RAW IP packets. Other non-video signals such as audio and USB for keyboard/mouse are also supported. End-to-end video latency is amazingly low and is guaranteed not to exceed a single frame. The video streams that are distributed over the Nexxis network can go up to a resolution of 4K.

## Capabilities

The MNA-440 adapters are part of Barco's Nexxis solution, which provides users with uncompromised networked visualization for the digital operating room. The compact Nexxis AV-to-IP adapters offer simplicity and flexibility while maintaining the highest possible performance standards and fitness for use in demanding medical environments.

As a third generation device, the MNA-440 ENC SDI provides the full richness of the established Nexxis platform while:

- increasing future scalability
- improving ease of installation
- adding increased security performance
- reducing ecological footprint

**Product specificaties****MNA-440 ENC SDI**

General specifications	
Videoconversie	Converts Digital video signals to uncompressed IP streams
Verwerking	4096x2160@60Hz on a single 12G-SDI input, or 4096x2160@60Hz on a quad3G-SDI input, or 1920x1080@60Hz on each of the two 3G-SDI input channels
Kleurdiepte	YCbCr 422: 8-bit / 10-bit
3D-technologie	The following video formats are supported: <ul style="list-style-type: none"><li>■ 1920x1080p60Hz Line-interleaved</li><li>■ 1920x1080i60Hz Line-interleaved Level B (vpid 0x8C)</li><li>■ Dual-stream 1920x1080p60Hz (using first two-SDI input channels)</li><li>■ UHD/4K60 3D Line interleaved half height: 3840/4096x1080 per view</li></ul>
Latentie	Subframe
Beveiliging	AES 128 encryption of all video, data & control signals
Video-ingang	3G/12G-SDI standard BNC connector on input channel 1 3G-SDI standard BNC connector on input channel 2, 3 and 4
Netwerkuitvoer	1x 4K/UHD uncompressed IP stream & 1x downscaled FHD IP stream of native 4K/UHD source Or 2x HD uncompressed IP stream
IP-connectiviteit	2x 10GbE Fiber Optic Interface with SFP+ module
IP-normen	Zeroconf, IPv4, IGMP, DHCP, RTP, RTCP, 802.1q, AES 128b, HTTP(s)
USB	1x USB Type A
Audio	Headset/Stereo line out 15mm length compatible 3.5mm TRRS jack
GPIO	1x GPI (1x camera trigger) via 15mm length compatible 3.5mm TRRS jack
Nexxis-integratie	Fully integrated in the Nexxis solution, compatible with MNA-1x0, MNA-240 and MNA-4x0 devices
Voeding	External 12VDC Medical Approved PSU, 100-240VAC 50-60Hz 60W with lockable connector at DC side
Energieverbruik	Maximum: 20W Typical: 13.6W
Grootte	35 mm H x 103 mm W x 131 mm D   1.4" H x 4.1" W x 5.2" D (+/-2 mm / 0.1")

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Gewicht	0.4 kg (0.88 lbs)
Temperatuur	5°C to 40°C (41°F to 104°F)
Vochtigheid	Maximum 85%
Opslag	Storage temperature: -20°C to 60°C (-4°F to 140°F) Storage Relative Humidity: 10% to 93%
Akoestische ruis	Typical 32dBA at 20°C at 1m
Montage	Versatile mounting bracket included
Certificeringen	<ul style="list-style-type: none"><li>■ CB (IEC 60601-1) Informative report</li><li>■ CB (IEC 60950-1)</li><li>■ cRU, RU (cRUus)</li><li>■ Demko</li><li>■ CE medical device class I</li><li>■ UKCA</li><li>■ BIS Registration, IS 13252 (part 1)</li><li>■ KC</li><li>■ BSMI</li><li>■ RCM</li><li>■ EAC</li></ul>
Standaarden	<p>Medical Equipment:</p> <ul style="list-style-type: none"><li>■ IEC 60601-1:2005 + Am1:2012</li><li>■ IEC 60601-1-6:2010 + Am1:2013</li><li>■ IEC 60601-1-2:2014 (ed4)</li><li>■ ANSI/AAMI ES 60601-1: A1:2012 + C1:2009/(R)2012 + A2:2010/(R)2012</li><li>■ CAN/CSA-C22.2 No.60601-1:14</li><li>■ EN 60601-1:2006 + A1:2013 + A12:2014</li><li>■ EN 60601-1-6:2010 + A1:2015</li><li>■ EN 60601-1-2:2015 (ed4)</li><li>■ FCC class B</li><li>■ ICES-001 Level B</li></ul> <p>ITE Equipment:</p> <ul style="list-style-type: none"><li>■ IEC 60950-1:2005 + Am1:2009 + Am2:2013</li><li>■ EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011</li><li>■ IS 13252</li></ul>

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