

MNA-440 ENC -H

4K AV-to-IP adapter for the OR and hybrid OR with HDMI™ technology



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

Adapter for the operating room

The MNA-440 ENC -H with HDMI™ technology converts HDMI 2.0 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 -H with HDMI™ technology 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 specifications

MNA-440 ENC -H

General specifications

Video conversion	Converts digital video signals to uncompressed IP streams
Processing	4096x2160p60 on a single input channel or 1920x1200p60 per input channel
Color depth	RGB24 8-bit; YCbCr 4:2:0 (8-bit & 10-bit); YCbCr 4:2:2 (8-bit & 10-bit); YCbCr 4:4:4 (8-bit)
Latency	Subframe
Security	AES 128 encryption of all video, data & control signals
Encoder system	N/A
Video Output	N/A
Video Input	2x HDMI 2.0 lockable connector
Network output	1x 4K/UHD uncompressed IP stream & 1x downscaled FHD IP stream of native 4K/UHD source Or 2x HD uncompressed IP stream
IP Connectivity	2x 10GE Fiber Optic Interface with SFP+ module
IP Standards	Zeroconf, IPv4, IGMP, DHCP, sRTP, sRTCP, 802.1q, AES 128b, HTTP(s)
USB	1x micro-USB type B & 1x USB Type A
USB Power Output	Max. 5 V / 500 mA (2.5 W) per USB 2.0 Type-A port
Audio	Stereo line in and Headset/Stereo line out 15mm length compatible 3.5mm TRRS jack
Compliance	N/A
GPIO	2x GPI + 1x GPO via 15mm length compatible 3.5mm TRRS jack Camera trigger is possible via stereo line in (1x) and GPIO (2x) connector
Nexxis Integration	Fully integrated in the Nexxis solution, compatible with MNA-1x0, MNA-240 and MNA-4x0 devices
NexxisPlus Integration	N/A
PSU	External 12Vdc Medical Approved PSU, 100-240VAC 50-60Hz 60W with lockable connector at DC side
Power Consumption	Maximum: 25W Typical: 15W
Size	35 mm H x 103 mm W x 131 mm 1.4" H x 4.1" W x 5.2" D (+/-2 mm / 0.1")
Weight	0.4 kg (0.88 lbs)
Temperature	5°C to 40°C (41°F to 104°F)
Humidity	Maximum 85%
Altitude	700 hPa
Storage conditions	Storage temperature: -20°C to 60°C (-4°F to 140°F) Storage relative humidity: 10% to 93% Storage altitude: 500 hPa
Acoustic noise level	Typical 32dBA at 20°C at 1m
Mounting	Versatile mounting bracket included
Certifications	-CB (IEC 60601-1) -CB (IEC 62368-1) -cRU, RU (cRUus) -Demko -CE medical device class I -UKCA -BIS Registration, IS 13252 (part 1)
Standards	Medical Equipment: -IEC 60601-1:2005 + A1:2012 + A2:2020 -IEC 60601-1-6:2010 + A1:2013 + A2:2020 -IEC 60601-1-2:2014+A1:2020 (Ed.4.1) -AAMI ES 60601-1:2005 + A1:2012 + A2:2021 -CAN/CSA-C22.2 No.60601-1:08 + A1:14 (Reaffirmed 2022) -EN 60601-1:2006 + A1:2013 + A12:2014 + A2:2021 + A13:2024 -EN 60601-1-6:2010 + A1:2015 + A2:2021 -EN 60601-1-2:2015+A1:2021 (Ed.4.1) -FCC class B -ICES-001 Level B ITE Equipment: -IEC 62368-1:2018 -EN IEC 62368-1:2020 + A1:2020 -IS 13252 (Part1): 2010
3D Video Support	The following video formats are supported: -1920x1080@60Hz Line-interleaved -Dual-stream 1920x1080@60Hz (using both input channels) -UHD/4K60 3D Line interleaved half height: 3840/4096x1080 per view -UHD/4K30 3D Dual Stream: UHD/4K resolution for every view at half framerate (30Hz), one hdmi input per view
Streamback	N/A

Last updated: 31 Mar 2026

© 2026 Barco nv. All rights reserved. Reproduction in whole or in part without written permission is prohibited. All brand names and product names are trademarks, registered trademarks or tradenames of their respective holders. Due to continued innovation, information and technical specifications are subject to change without prior notice. Please check www.barco.com for the latest specifications.