

# NGM-164

## Networked audio metering unit

The NGM-164 is a new solution that enables streaming of analog or digital audio converted into metering data over an IP-network.

The NGM-164 is a new solution that enables the conversion of analog or digital audio into data that represents audio level indication which conforms to most common international standards. The data is then available on a LAN for remote multi-channel level monitoring rendered to screen in Barco Hydra multi-video display units or any application where audio level indication and alarm functionality is required.

The bar graphs can be shown on any of the Barco multi-video display units in the control room. The bar graphs can be configured to suit the operator and can be customized in size, color and position. All popular scales and ballistics are available. The NGM-164 also provides alarm detection for audio loss, over level, out of phase on adjacent pairs and carrier loss.

Additionally, the NGM-164 can be equipped with a monitoring output board providing four pairs of analog and AES/EBU monitoring outputs.

Hot-swappable cards and field programmable flash memory makes the NGM-164 a maintenance friendly design.

**BARCO**

Visibly yours

# Technical specifications

<b>General specifications</b>	<ul style="list-style-type: none"> <li>• Capacity: 64 audio channels input capability</li> <li>• Hot-swap features:             <ul style="list-style-type: none"> <li>◦ 4 slots of 16 channels (8 stereo pairs) each</li> <li>◦ All cards hot-swappable</li> <li>◦ Input card types automatically recognized</li> </ul> </li> <li>• Accuracy: Level processing performed at 16 bit resolution</li> <li>• Monitoring: 1 slot for analog and AES/EBU monitor outputs</li> <li>• Serviceability: All firmware is stored in field programmable FLASH memory</li> <li>• Supported audio scales:             <ul style="list-style-type: none"> <li>◦ NORDIC (IEC 60268-10 Type I)</li> <li>◦ DIN PPM (IEC 60268-10 Type I)</li> <li>◦ BBC PPM (IEC 60268-10 Type II)</li> <li>◦ VU (IEC 60268-17)</li> <li>◦ VU EXT (IEC 60268-17)</li> <li>◦ DIGITAL (IEC 60268-18)</li> </ul> </li> </ul>
<b>Analog input cards</b>	<ul style="list-style-type: none"> <li>• Type: Analog with +24dB capability</li> <li>• Capacity: 16 mono input channels (8 stereo pairs) per card</li> <li>• Alarms: Alarm detection for audio loss, over level and out-of-phase on adjacent pairs</li> <li>• Input type: Differential</li> <li>• Input impedance: 40k Ohms</li> <li>• Input sensitivity: 0dBu</li> <li>• Input connector: DB25 female</li> <li>• Maximum input level: +24dBu</li> <li>• Frequency response at -3dB points: from 1Hz. to 20.2kHz</li> <li>• Frequency response at -0.5dB points: from 5Hz to 20kHz</li> <li>• A/D convert: Stereo 24 bit converter</li> <li>• Sampling frequency: 48kHz per channel</li> <li>• Accuracy: +/- 0.1dB @ 1kHz 0dB reading</li> </ul>
<b>Digital input cards</b>	<ul style="list-style-type: none"> <li>• Type: AES/EBU (balanced/unbalanced selected by jumpers on the PCB)</li> <li>• Capacity: 8 AES/EBU pairs per card</li> <li>• Alarms: Alarm detection for audio loss, over level, out-of-phase on adjacent pairs and carrier loss detection</li> <li>• Input type: Differential 110 Ohm or Single-ended 75 Ohm</li> <li>• Input compatibility: RS422</li> <li>• Input connector: DB25 female</li> <li>• Input interface: Transformerless</li> <li>• Sampling frequency: 32, 44.1, 48kHz detected via input</li> <li>• Accuracy: +/- 0.1dB @ 1kHz 0dB reading</li> </ul>
<b>Physical</b>	<ul style="list-style-type: none"> <li>• Dimensions overall:             <ul style="list-style-type: none"> <li>height: 44.5 mm   1.75 in (1U)</li> <li>width: 483 mm   19 in</li> <li>depth: 367 mm   14.45 in</li> </ul> </li> <li>• Weight: 7 kg   14 lbs.</li> <li>• Power mains: 100-240V, 60Hz/50Hz</li> <li>• Power consumption: 60 W</li> <li>• Operating conditions: 0 - 40 °C   32 - 104 °F at max. 90% relative humidity, non condensing</li> </ul>