

Hydra series

Universal multi video insertion unit



As control centers continue to become larger and more complex, a growing number of signals from a variety of sources need to be controlled. Barco's HYDRA gives unique possibilities to control up to 60 analog or digital inputs on one single display simultaneously. HYDRA is operated via a standard web-browser and features advanced warnings and alarms. One single PC can control numerous networked units that jointly display hundreds of signals.

High-end graphical control unit

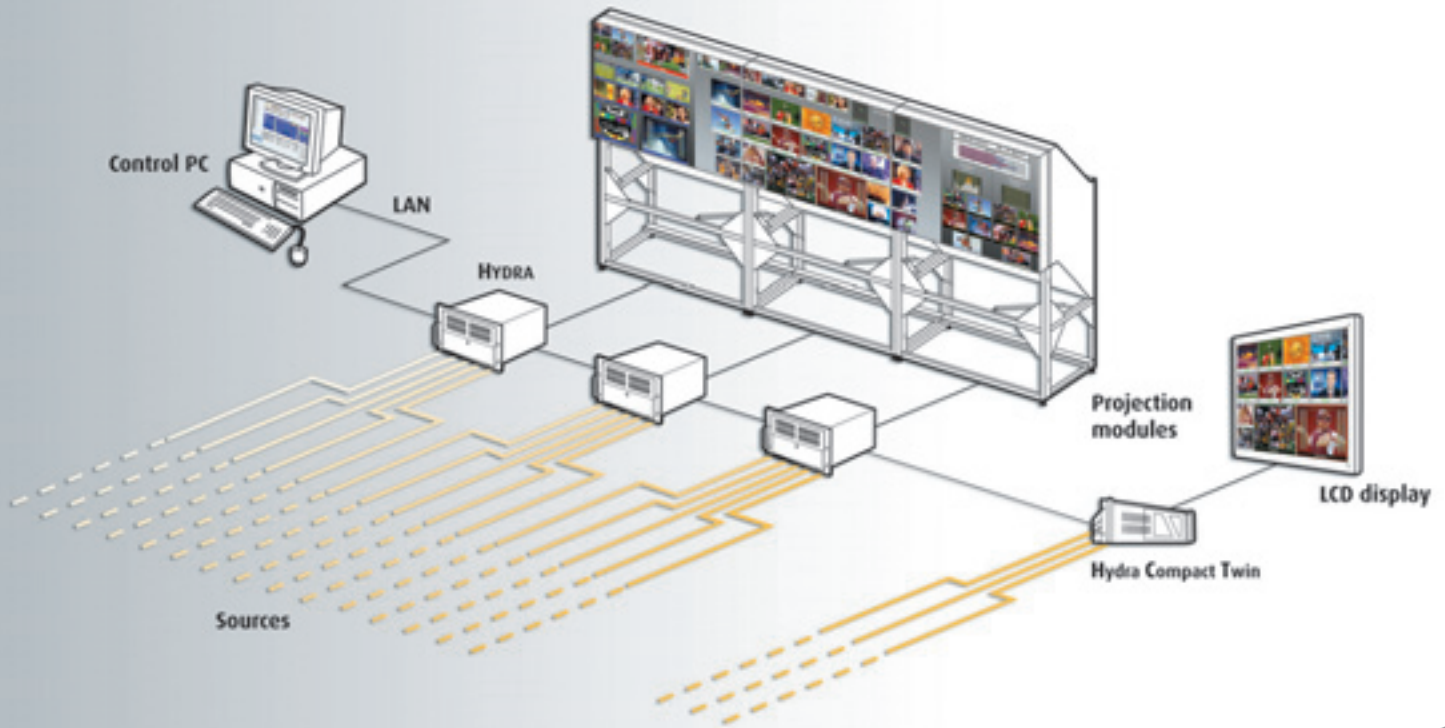
- displays up to 60 analog or digital inputs on one screen with HYDRA base unit, up to 40 analog or digital inputs with HYDRA COMPACT base unit and up to 2x12 analog or digital inputs with HYDRA COMPACT TWIN base unit
- video input combines composite, YC, SDI video (SECAM, NTSC, PAL) and HD-SDI video in 4:3 and 16:9 aspect ratio
- RGB input combines analog and digital RGB data (up to SXGA) and RGB component video (up to HDRGB progressive)
- can scale all images up to the full output resolution ranging from SVGA up to UXGA/HD (1920 x 1080)
- features unlimited picture-in-picture
- supports embedded audio for all SDI and HD-SDI video channels and 112 external audio channels; real-time in-picture audio metering incorporates Chromatec technology
- features integrated warning and alarm handling, GPIO connectors for external control, display of computer data, clocks, animated logos, counters, source identifications
- universal streaming video decoding card

Fully integrated – yet flexible – solution

- ensures full control over each windowing position, size and content of the sources displayed
- is controlled via a GUI that runs in a standard web-browser
- allows to configure, store, retrieve and switch layouts
- connects to any display device currently available e.g. CRT monitors, flat screens, rear projection modules, plasma displays etc. in 4:3 and 16:9 aspect ratio
- communicates and exchanges information towards network management systems via SNMP traps
- integrates with Barco's control room solutions TransForm series of controllers and most common routing switchers, control devices, and other external devices over the LAN or through serial communication

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Input boards

All input units have full decoding, scaling, filtering and scan conversion capabilities on board and perform these tasks independently from the other boards in the system.

Dual RGB/DVI input board

- 2x RGB input on DVI-I connectors
- color depth 24 bpp
- supports:
 - analog RGB data: all progressive VESA standards from 640x480 pixels @60 Hz up to 1280x1024 pixels 75 Hz
 - analog RGB High Definition video: all progressive SMPTE 293-M/296-M/274-M standards up to 1920x1080 pixels @30 Hz
 - digital DVI: all progressive VESA standards from 640x480 pixels @60 Hz up to 1280x1024 pixels 60 Hz

Quad SDI digital video input board

- 4x video input on BNC connectors
- supports standard definition SMPTE 259-M-C 270 Mbps/4:2:2 formats on PAL and NTSC
- RJ-45 GPIO connector with 8 inputs/outputs
- embedded audio: 16 audio channels can be displayed per feed

Dual HD-SDI high definition digital video input board

- 2x video input on BNC connectors
- 2x active loop-through on BNC connector
- supports all digital High Definition SMPTE 292-M standards
- RJ-45 GPIO connector with 6 inputs/outputs
- embedded audio: 16 audio channels can be displayed per feed

Streaming video decoding board

- max 4 channels simultaneously per card
- compression algorithm MPEG-2, MPEG-4, Wavelet
- Network Carrier: ethernet 10/100 Mbit
- video transmission protocols: UDP/RTP
- connection protocols: TCP/IP & IGMP
- redundancy: 2 ethernet ports

Quad analog video input board

- 4x composite inputs on BNC connectors
- supports all common PAL, NTSC and SECAM standards
- RJ-45 GPIO connector with 8 inputs/outputs



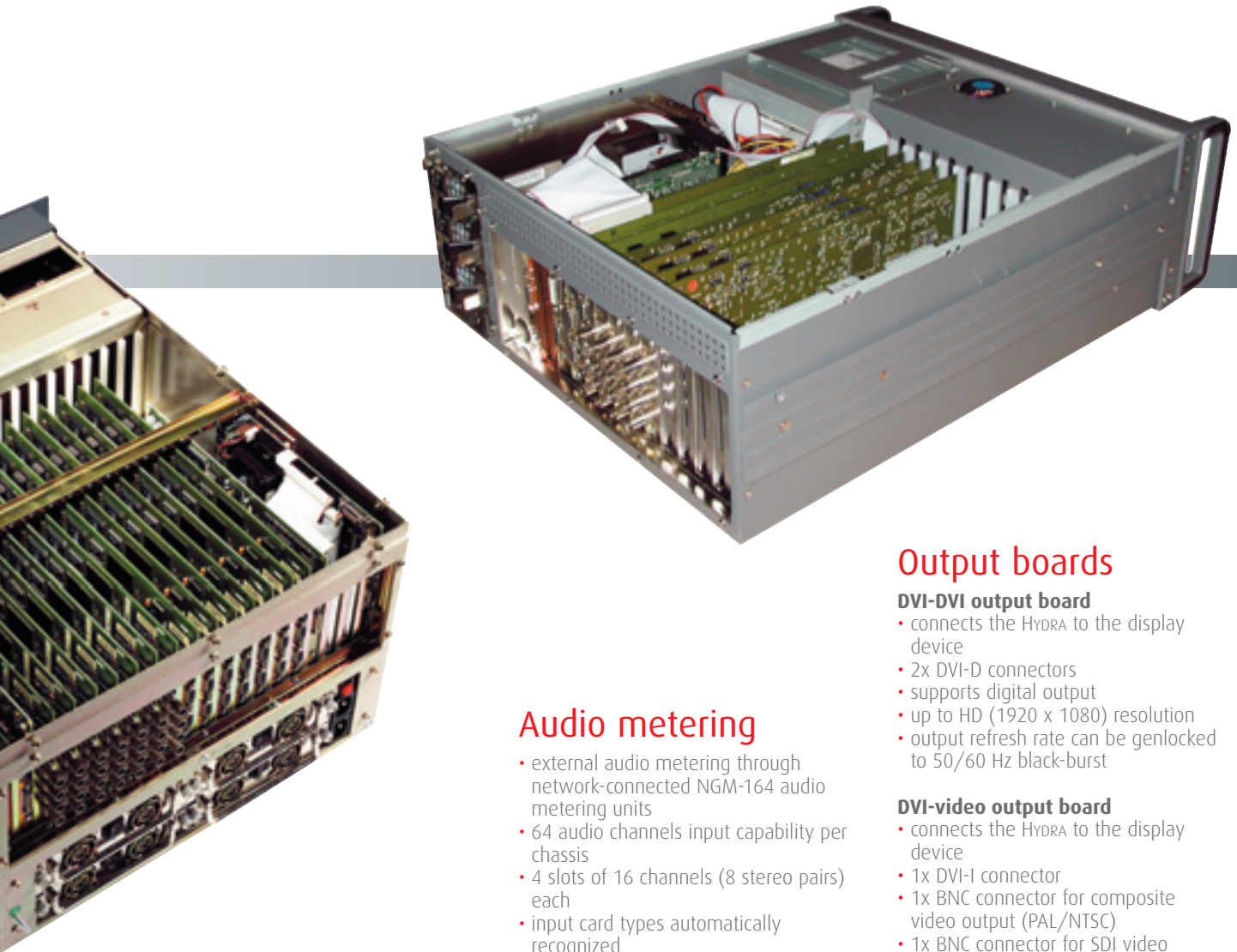
Base unit

HYDRA and HYDRA COMPACT have:

- Pentium based SBC (single board computer) and graphical overlay board
- high performance 48 bit 65 MHz dedicated graphical bus
- LAN interface 10/100 base-T
- RS-232/RS-422
- D15 VGA output
- CD-ROM drive
- PS-2 mouse/keyboard port
- digital DVI input for external graphical overlay
- analog black-burst input for genlock
- LTC/VITC input for master clock synchronization

HYDRA COMPACT TWIN has:

- dual Pentium based SBC and dual graphical overlay board
- dual high performance 48 bit 65 MHz dedicated graphical bus
- dual LAN interface 10/100 base-T
- dual RS-232/RS-422
- dual D15 VGA output
- dual CD-ROM drive
- dual PS-2 mouse/keyboard port
- dual digital DVI input for external graphical overlay
- dual analog black-burst input for genlock
- dual LTC/VITC input for master clock synchronization



Output boards

DVI-DVI output board

- connects the HYDRA to the display device
- 2x DVI-D connectors
- supports digital output
- up to HD (1920 x 1080) resolution
- output refresh rate can be genlocked to 50/60 Hz black-burst

DVI-video output board

- connects the HYDRA to the display device
- 1x DVI-I connector
- 1x BNC connector for composite video output (PAL/NTSC)
- 1x BNC connector for SDI video output (PAL/NTSC)
- simultaneous high-resolution and video output
- digital output on DVI-D
- up to HD (1920 x 1080) resolution
- output refresh rate can be genlocked to 50/60 Hz black-burst

Audio metering

- external audio metering through network-connected NGM-164 audio metering units
- 64 audio channels input capability per chassis
- 4 slots of 16 channels (8 stereo pairs) each
- input card types automatically recognized
- level processing performed at 16 bit resolution
- 1 slot for analog and AES/EBU monitor outputs

Technical specifications Hydra series

Dimensions	Hydra	Hydra Compact	Hydra Compact Twin
• Number of slots for in and output boards	16	11	2 x 4
• 19" industrial case, height in rack units	6U	4U	4U
• Width case	435 mm 17.13"	440 mm 17.32"	440 mm 17.32"
• Width with fixation	482 mm 18.98"	483 mm 18.98"	483 mm 18.98"
• Depth case	562 mm 22.13"	540 mm 21.30"	540 mm 21.30"
• Depth handles	35 mm 1.38"	50 mm 1.90"	50 mm 1.90"
• Height	267 mm 10.51"	177 mm 6.97"	177 mm 6.97"

Weight			
• Base unit	26 kg 57.3 lbs	20 kg 44 lbs	21 kg

Mains			
• Number of power supplies (hot-swap, redundant)	4	3	3
• Number of power leads	2	3	3
• Power supply	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz	100-240 VAC, 50-60 Hz
• Power consumption (typical)	550W	450W	450W
• Heat dissipation (typical)	1800 BTU/h	1550 BTU/h	1550 BTU/h

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Barco Control Rooms is an ISO 9001 registered company.
The information and data given are typical for the equipment described. However any individual item is subject to change without any notice.
The latest version of this product sheet can be found on www.barco.com

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