

HCS System & IKB/HRI-12 Intercom Station

Industrial Intercom System



IKB-12P with HS-6

Key Features and Benefits

HCS Intercom System

- Single Channel Partyline
- Advanced Call Signals
 - Point-to-Point
 - Point-to-Multipoint
 - Audible Buzzer
 - Visual Caller Identification

HMS-4X Main Station

- Networked System Host
- 1 HMS-4X* with HLI-ET2 per system
- HCS Firmware Features
- Cold Standby Redundancy

IKB/HRI Intercom Stations

- Up to 64 IKB/HRI Intercom Stations
 - Handset
 - 12 Buttons for Call Signals
 - 28 GPI for Call Signals
 - IP65 Environmental Rating**

HCS Configuration & Management

- Easy to use browser configuration
- Fast front panel control & configuration
- Plug-and-go with auto discovery
- Central upgrades from main station

HCS Industrial Intercom System provides an easy-to-use single channel intercom with advanced call signaling.

Description

The HCS Industrial Intercom System provides a high-capacity single channel partyline intercom to handset stations with point-to-point and point-to-multipoint audible and visual call signaling with caller identification.

This system consists of HMS-4X* main station running the HCS industrial intercom firmware connected with the HLI-ET2 Ethernet module via a 3rd party network to up to 64 IKB-12 and/or HRI-12 intercom stations and a configuration computer.

Technical Specifications

HCS System Host

HMS-4X with HCS Firmware*: Supports up to 64 endpoints (IKB-12P, HRI-12B, HRI-12M). User stations can connect via the HLI-ET2 module using 3rd party network switch connection. HMS-4X allows use of 1 channel when hosting the HCS firmware.

IKB/HRI-12 Intercom Station

Connectors

Ethernet/PoE: RJ45

Handset: 4-pin XLR-M

GPI: (2) Terminal Block 16 Pole, 3.8mm

Microphone Pre-amplifier

Handset Mic Impedance: 200Ω (Dynamic)

Limiter: +23dB

Mic Gain: 60dB (Dynamic)

Frequency Response: 400Hz - 8kHz ± 3dB, contoured for intelligibility

Distortion: <0.1% THD @ 1kHz

Noise: <-65dBu

Headphone Limiter: 0dB (selectable)

Headphone Amplifier

Load Impedance: >32Ω

Output Level: +12dBu before clipping

Sidetone: -6dB (selectable)

Max Gain: 12dB

Noise: <-65dBu

Headphone Limiter: 0dB (selectable)

Logic Input - GPI (Internal)

Assignable to Profile(s) Call signals

Input: 28

Style: Powered input, close contact to ground

Detection Voltage (Min): 3V

Input Voltage (Max): 5V

Output Voltage: 5V

Output Current (Max): 1mA

Device Power

Power (Max): 5W

BTU (Max): 17BTU/hour

This unit can be powered via:

PoE – Power over Ethernet
IEEE 802.3af-2003 - Class 0

PSE: 15.4W DC max @ Power Source Req.

PD: 12.95W DC max @ Powered Device Draw

Note: Handset Station must be earthed to a clean ground when PoE is used. Preferably with the screen of a shielded CAT5/6 cable.

Environmental

Humidity: 0-95%, relative

Temperature: -14° to 131°F (-10° to +55°C)

Dimensions

IKB-12P/HRI-12B: 8 x 10 x 3.6in (HxWxD)
(203 x 254 x 93mm)

HRI-12M: 6.3 x 11.2 x 3.6in (HxWxD)
(160 x 285 x 93mm)

Weight

27.9oz (0.79kg)

*Specifications and features listed here supercede the capabilities listed in the HMS-4X datasheet.
**Flush-mounted to a wall or back box, with appropriate perimeter seals.

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Network Specifications | Firmware Release 2.1+

Network Protocols

Ethernet IPv4–Unicast/Multicast Audio & Control
mDNS–Multicast Device Discovery
Layer 3–Routable w. mDNS function limitations
HTTP–Management
I.V. Core – Decentralized Network Routing & Mixing
IVP-Proprietary intercom Audio and Control
WavPack-Audio Codec

Network Ports

Unicast:

Port 80 TCP – Web Interface
Port 655 TCP – Database Communication
Port 6000 TCP – System Management
Port 6000 UDP - Audio Streams
Port 6001 TCP – System Management
Port 6001 UDP - Audio Streams
Port 8009 TCP – System Managementg

Multicast:

Port 5353 UDP – mDNS, Names, Discovery
Optional for pairing by device name

Network Parameters

Bandwidth:

300 (max) kbps from each active audio input to HMS-4X
1200 (max) kbps from HMS-4X to each endpoint

QoS Tags:

DSCP=34, Assured Forwarding (AF=41)

Link-Local Default IP Address Range:

169.254.0.0/16

System Reserved IP Range:

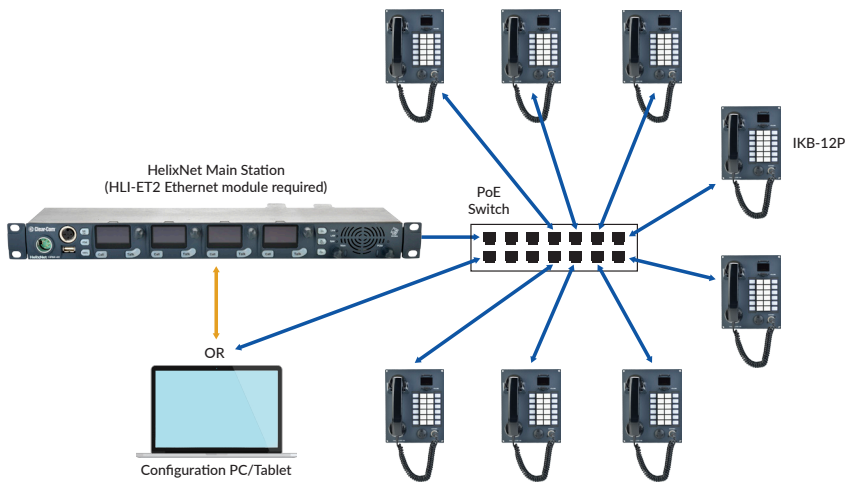
10.0.0.0/8 for endpoints

Recommended Ethernet Switches:

Managed Ethernet Switch – Layer 3
100/1000 Base-T ports for endpoints
1000 Base IP Trunks between switches
QoS configuration
Energy Efficient Ethernet bypass
IGMP Snooping bypass

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Order Codes

- HMS-4X: Main Station
 - HLI-ET2: Ethernet Module
 - HCS.2.1.0: Firmware
 - IKB-12P: Intercom Station
 - HRI-12B: Intercom Station–Without logo
 - HRI-12M: Intercom Station–Narrow, without logo
 - HS-6: Handset
- HCS system capabilities and IKB/HRI-12 handset stations are only compatible with the above system components.
- Please call Clear-Com to reserve HMS-4X for your HCS system project.

