

PRA-CSLD Desktop LCD call station

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Invented for life



- ▶ Desktop housing with gooseneck microphone
- ▶ Housing fits surface-mounting or flush-mounting
- ▶ 4.3" full-color capacitive touch screen
- ▶ Graphical user interface for optimum user guidance and feedback
- ▶ Status and fault indicators for voice alarm purposes

This call station for use in PRAESENSA Public Address and Voice Alarm systems is easy to install and intuitive to operate because of its touch screen LCD, providing clear user feedback about setting up a call and monitoring its progress, or controlling back ground music.

The call station allows for positioning without much effort, because it only requires a connection to an OMNEO IP-network with Power over Ethernet (PoE) for communication and power supply combined. It can be configured for use as business call station, but also as emergency call station.

The stylish design incorporates a supervised microphone, an internal monitor loudspeaker and a socket to insert a local audio source for background music.

The 4.3" high-resolution full-color capacitive touch screen gives the operator optimum control and feedback at all times.

Every call station must have at least one PRA-CSE call station extension for zone selection, with a maximum of four extensions.

Functions

IP-network connection

- Direct connection to the IP-network. One shielded CAT5e cable is sufficient for Power over Ethernet, audio and control.
- For dual redundancy of network and power connection, a second shielded CAT5e cable can be connected.
- Integrated network switch with two OMNEO ports allows for loop-through connections to adjacent devices (at least one must provide PoE). Rapid Spanning Tree Protocol (RSTP) is supported to enable recovery from failing network links.

Business operation

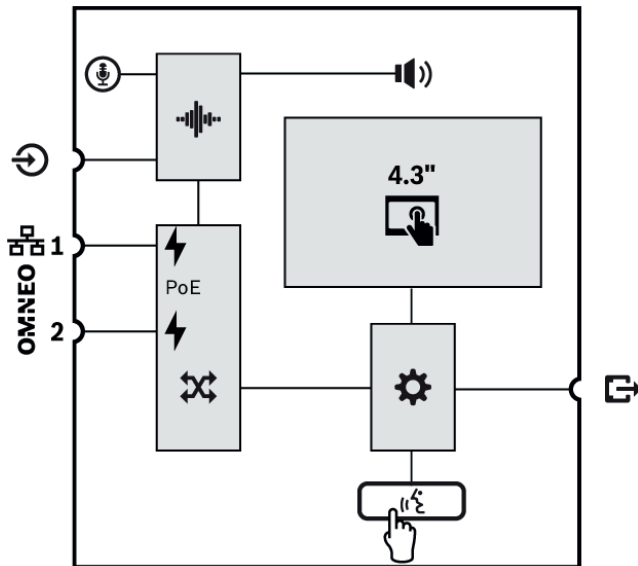
- Full color 4.3" capacitive touch screen with intuitive function menu navigation provides guidance and feedback during the process of live announcements, pre-recorded messages and music control. Successful broadcast of announcements/messages and changes to the background music settings are clearly indicated.
- Press-to-talk button gives tactile feedback and is recessed to prevent accidental use.
- Built-in monitor loudspeaker with volume control.

- Local audio line input (with stereo to mono conversion) for connecting an external audio source. The audio channel will be available on the network and can be played in any loudspeaker zone.
- Connection of up to four PRA-CSE extensions, each with twelve buttons. The buttons can be configured for various functions, but they are especially useful for zone selection, giving a clear overview of accessible zones and the LED indicators for each button show the status of the respective zone (like being selected, occupied or at fault).
- If the call station is not used for a while, it will switch to sleep mode to save energy. It will immediately wake up when the screen, or a button, is touched.

Emergency operation

- The call station fully complies to the standards for voice alarm applications when the firemen's user interface is configured and at least one PRA-CSE is connected to it.
- All critical alarm functions are accessible via buttons for operators wearing gloves. The 4.3" screen gives feedback on the system status.
- Each of the two RJ45 network connectors accept PoE to power the call station. This provides fail-safe network connection redundancy, as one connection is sufficient for full operation.
- Supervision of all critical elements; the audio path is supervised, as well as the communication to the network.

Connection and functional diagram



	Fixed microphone on a flexible stem		Internal monitor loudspeaker
	Audio processing (DSP)		Power over Ethernet

	OMNEO network switch		Controller
	Press-To-Talk button		

Top-side



Top-side indicators

	Power on Device in identification mode	Green Green blinking
	System fault present	Yellow
	Status business call Microphone active Chime/message active	Green Green blinking
	Status emergency call Microphone active Alarm tone/message active	Red Red blinking
	4.3" full-color capacitive touch screen	LCD
	Identification mode / Indicator test	All LED's blink

Top-side controls

	Press-To-Talk	Button
	4.3" full-color capacitive touch screen	LCD

Bottom-side



Bottom-side indicators

	100 Mbps network 1-2 1 Gbps network 1-2	Yellow Green
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Bottom-side controls

	Device reset (to factory default)	Button
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Bottom-side and side interconnections

	Network port 1-2 (PoE PD)	
	Local source audio line input	
	PRA-CSE interconnection (RJ12)	

Architects' and engineers' specifications

The IP-networked desktop call station shall be designed exclusively for use with Bosch PRAESENSA systems. The desktop call station shall provide an interface for control data and multi-channel digital audio over OMNEO using dual Ethernet ports for redundant network connection, supporting RSTP and loop-through cabling. It shall receive Power over Ethernet (PoE) via either one or both network connections. The desktop call station shall provide a backlit full-color capacitive touch panel LCD as user interface for business and evacuation purposes. The desktop call station shall accept up to four optional extensions, each offering 12 configurable buttons for zone selection and other purposes. It shall provide control and routing of live speech calls, stored messages and music with volume control per zone. The desktop call station shall have a gooseneck

cardioid microphone for live calls and a 3.5 mm jack line level input for background music, and provide software-configurable signal processing including sensitivity control, parametric equalization and limiting. The desktop call station shall be certified for EN 54-16 and ISO 7240-16, marked for CE and be compliant with the RoHS directive. Warranty shall be three years minimum. The desktop call station shall be a Bosch PRA-CSLD.

Certifications and approvals

Emergency standard certifications

Europe	EN 54-16
International	ISO 7240-16

Regulatory areas

Safety	EN/IEC/CSA/UL 62368-1
Immunity	EN 55024 EN 55103-2 (E1, E2, E3) EN 50130-4
Emissions	EN 55032 EN 61000-6-3 ICES-003 ANSI C63.4 FCC-47 part 15B class A
Environment	EN 50581
Railway applications	EN 50121-4
Maritime applications	DNV-GL Type Approval

Conformity declarations

Europe	CE/CPR
Australia	RCM
Morocco	CMIM
Russian Federation	EAC
United Arab Emirates	CoC

Parts included

Quantity	Component
1	Desktop LCD call station
1	Bracket (attached to bottom)
1	Connector cover (attached to bottom)
1	Quick Installation Guide
1	Safety information

Technical specifications

	PRA-CSLD Desktop LCD call station
Operating voltage (VDC)	37 - 57 VDC (PoE)
Power consumption (W)	6,4 W maximum
Element type	Back-electret condenser
Polar pattern	Unidirectional
Maximum sound pressure input level (dB SPL)	120 dB SPL
Frequency response (Hz) (-10 dB)	50 - 15000 Hz
Display type	LCD
Display resolution (pixels)	480x272 px
Touchscreen	Capacitive
Audio input	line-in
Audio output	built-in loudspeaker
Number of Ethernet ports	2
Ethernet type	100BASE-TX; 1000BASE-T
Protocols and interfaces	OMNEO;AES 70
Sample rate (kHz)	48 kHz
Protection	Watchdog;RSTP
Degree of protection (IEC 60529)	IP30
Operating temperature (°C)	-5 - 50°C
Dimension (H x W x D mm)	62 x 130 x 189 mm
Weight (g)	900 g

Electrical**Microphone (PRA-CSLD)**

Nominal acoustic input level (configurable)	80 to 100 dB SPL
Maximum acoustic input level	120 dB SPL
Signal to Noise Ratio (SNR)	> 70 dBA
Directivity	Unidirectional
Frequency response (+3 / -6 dB)	100 Hz to 14 kHz

Display

Size	4.3"
Touch screen	Capacitive
Color depth	24-bit

Display

Resolution	480 x 272 px
Brightness	300 cd/m ²

Monitor loudspeaker

Maximum sound pressure level, at 1 m	75 dB SPL
Volume control	Mute, -40 dB to 0 dB
Frequency range (-10 dB)	400 Hz to 10 kHz

Line input

Signal to Noise Ratio (SNR)	> 96 dBA
Total Harmonic Distortion + Noise (THD+N)	< 0.1 %

Power transfer

Power over Ethernet (PoE 1-2) Nominal DC input voltage Standard	48 V IEEE 802.3af (mode B)
Power consumption Call station (general use) Call station (alarm use) Per call station extension (indicators off / on)	4.2 W 5.4 W 0.1 W / 1.0 W
Input voltage tolerance	37 to 57 VDC

Supervision (PRA-CSLD)

Supervision Microphone Audio path Controller continuity PoE (1-2)	Current Pilot tone Watchdog Voltage
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Network interface

Ethernet Protocol Redundancy	100BASE-TX, 1000BASE-T TCP/IP RSTP
Audio/control protocol Network audio latency Audio data encryption Control data security	OMNEO 10 ms AES128 TLS
Ports	2

Reliability

MTBF (extrapolated from calculated MTBF of PRA-AD608)	1.000.000 h
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Environmental**Climatic conditions**

Temperature Operating	-5 to +50 °C (23 to 122 °F)
Storage and transport	-30 to +70 °C (-22 to 158 °F)
Humidity (non-condensing)	5 to 95 %
Air pressure (operating)	560 to 1070 hPa
Altitude (operating)	-500 to +5000 m (-1640 to 16404 ft)
Vibration (operating) Amplitude Acceleration	< 0.35 mm < 5 G
Bump (transport)	< 10 G

Mechanical**Enclosure (PRA-CSLD)**

Dimensions (WxHxD) Excluding microphone	130 x 62 x 189 mm (5.12 x 2.44 x 7.44 in)
Ingress protection	IP30

Enclosure (PRA-CSLD)

Base Material Color	Zamak RAL9017
Panel Material Color	Plastic RAL9017 RAL9022HR
Weight	0.9 kg (1.98 lb)

Ordering information**PRA-CSLD Desktop LCD call station**

Network-connected, PoE powered, touch screen call station with gooseneck microphone.

Order number **PRA-CSLD**

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