

PRA-CSLW Wallmount LCD call station

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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 background 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 uses a heavy metal base with a recessed press-to-talk button and provides a hand-held omni-directional microphone to eliminate the proximity effect which creates a boomy sound when a user speaks close to the microphone. It has a built-in loudspeaker for call monitoring and a socket to connect a local background music source. It can be easily installed in a wall mount cabinet or flush mounted on a panel.

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

- ▶ Wall mount housing with fixed hand-held microphone and helix cable
- ▶ 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

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

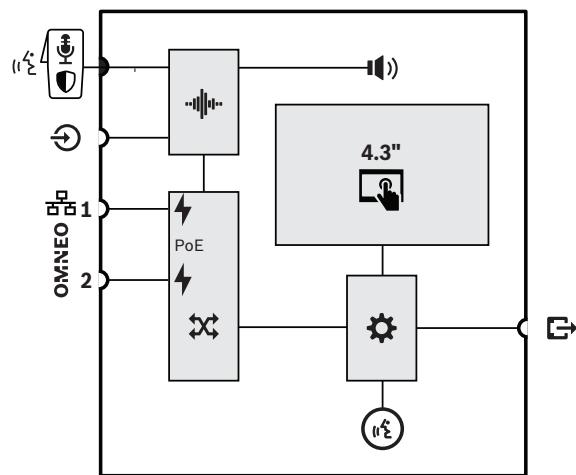
- Full color 4.3" capacitive touch screen with intuitive function menu navigation provides guidance and feedback during the process of live announcements, pre-recorded messages and music control. Successful broadcast of announcements/messages and changes to the background music settings are clearly indicated.
- Press-to-talk switch on hand-held microphone.

- 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 hand-held microphone with Press-To-Talk or Start/Stop switch		Audio processing (DSP)
	Internal monitor loudspeaker		Power over Ethernet
	OMNEO network switch		Controller
	Call/Microphone status LED-ring		

Top-side



Top-side indicators

	Power on Device in identification mode	Green Green blinking
	Device 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

	Fixed hand-held Press-To-Talk	Microphone Switch
	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 wallmount call station shall be designed exclusively for use with Bosch PRAESENSA systems. The wallmount 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 wallmount call station shall provide a backlit full-color capacitive touch panel LCD as user interface for business and evacuation purposes. The wallmount call station shall accept up to four optional call station 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 wallmount call station shall have a hand-held

omnidirectional 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 wallmount 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 wallmount call station shall be a Bosch PRA-CSLW.

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 Arabic Emirates	CoC

Parts included

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

Technical specifications		Display	
PRA-CSLW Wallmount LCD call station		Display	
Operating voltage (VDC)	37 - 57 VDC (PoE)	Color depth	24-bit
Power consumption (W)	6.4 W maximum	Resolution	480 x 272 px
Element type	Dynamic; Noise cancelling	Brightness	300 cd/m ²
Polar pattern	Unidirectional	Monitor loudspeaker	
Maximum sound pressure input level (dB SPL)	120 dB SPL	Maximum sound pressure level, at 1 m	75 dB SPL
Frequency response (Hz) (-10 dB)	500 - 8000 Hz	Volume control	Mute, -40 dB to 0 dB
Display type	LCD	Frequency range (-10 dB)	400 Hz to 10 kHz
Display resolution (pixels)	480x272 px	Line input	
Touchscreen	Capacitive	Signal to Noise Ratio (SNR)	> 96 dBA
Audio input	line-in	Total Harmonic Distortion + Noise (THD+N)	< 0.1 %
Audio output	built-in loudspeaker	Power transfer	
Number of Ethernet ports	2	Power over Ethernet (PoE 1-2)	48 V
Ethernet type	100BASE-TX; 1000BASE-T	Nominal DC input voltage	IEEE 802.3af (mode B)
Protocols and interfaces	OMNEO;AES 70	Standard	
Sample rate (kHz)	48 kHz	Power consumption	
Protection	Watchdog;RSTP	Call station (general use)	4.2 W
Degree of protection (IEC 60529)	IP30	Call station (alarm use)	5.4 W
Operating temperature (°C)	-5 - 50°C	Per call station extension (indicators off / on)	0.1 W / 1.0 W
Dimension (H x W x D mm)	62 x 130 x 189 mm	Input voltage tolerance	
Weight (kg)	1 kg	Input voltage tolerance	37 to 57 VDC
Electrical			
Microphone (PRA-CSLW)			
Nominal acoustic input level (configurable)	85 to 105 dB SPL	Supervision	
Maximum acoustic input level	120 dB SPL	Microphone	Impedance
Signal to Noise Ratio (SNR)	> 73 dBA	Audio path	Pilot tone
Directivity	Unidirectional	Press-to-talk switch	Impedance
Frequency response (+3/-6 dB)	500 Hz to 8 kHz (noise cancelling)	Controller continuity	Watchdog
		PoE (1-2)	Voltage
Network interface			
Ethernet		Ethernet	100BASE-TX, 1000BASE-T
Protocol		Protocol	TCP/IP
Redundancy		Redundancy	RSTP
Audio/control protocol		Audio/control protocol	OMNEO
Network audio latency		Network audio latency	10 ms
Audio data encryption		Audio data encryption	AES128
Control data security		Control data security	TLS
Ports		Ports	2
Reliability			
MTBF (extrapolated from calculated MTBF of PRA-AD608)		MTBF (extrapolated from calculated MTBF of PRA-AD608)	1.000.000 h

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	< 0.35 mm
Acceleration	< 5 G
Bump (transport)	< 10 G

Mechanical**Enclosure (PRA-CSLW)**

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

Enclosure (PRA-CSLW)

Base Material Color	Zamak RAL9017
Panel Material Color	Plastic RAL9017 RAL9022HR
Weight	1.0 kg (2.21 lb)

Ordering information**PRA-CSLW Wallmount LCD call station**

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

Order number **PRA-CSLW**

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