PRA-CSLD Desktop LCD call station

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Invented for life

- ▶ Desktop housing with gooseneck microphone
- ▶ 4.3" full-color capacitive touch screen
- ▶ Graphical user interface for optimum user guidance and feedback
- ▶ Status and fault indicators for voice alarm purposes
- ▶ Dual OMNEO IP-network connection and redundant Power over Ethernet

The PRA-CSLD is a call station for use in PRAESENSA Public Address and Voice Alarm systems.
It is easy to install and configure, but especially easy 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 straightforward positioning 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 flexible stem microphone, a recessed press-to-talk button, 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.
It can be extended with up to four PRA-CSE keypads, each with twelve configurable buttons.

Functions

IP-network connection
- Direct connection to the IP-network. One standard CAT5e cable is sufficient for Power over Ethernet, audio and control.
- For dual redundancy of network and power connection, a second CAT5e cable can be connected.
- Integrated network switch with two OMNEO ports allows for loop-through connections to adjacent devices (that provide PoE). Rapid Spanning Tree Protocol (RSTP) is supported to enable recovery from failing network links.
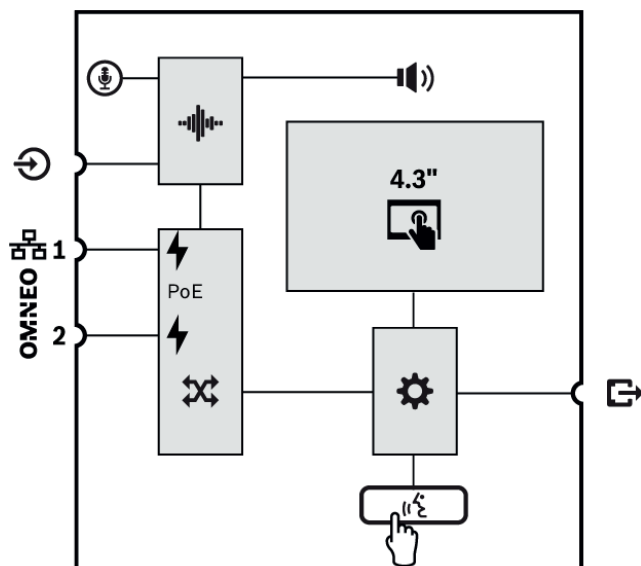
Business operation
- Full color 4.3" capacitive touch screen with intuitive function menu navigation provides guidance and feedback during the process of live announcements, pre-recorded messages and music control. Successful broadcast of announcements/messages and changes to the background music settings 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
	Device fault present	Yellow

	Status business call
	    Microphone active
	    Chime/message active
	
	Status emergency call
	    Microphone active
	    Alarm tone/message active
		
		Green
		Green blinking
		
		Red
		Red blinking

	4.3" full-color capacitive touch screen	LCD

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

Bottom-side controls

↻	Device reset (to factory default)	Button

Bottom-side and side interconnections

🖧 OMNEO	Network port 1-2 (PoE PD)	
⊕	Local source audio line input	
⮞	PRA-CSE interconnection	

Architects & Engineers specification - PRA-CSLD
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

Environmental directive compliancy	
Safety	EN/IEC/CSA/UL 62368-1
Immunity	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
Maritime	IEC 60945 (excluding salt mist test) DNV Type approval
Railway	EN 50121-4

Conformity declarations	
Europe	CE/CPR
USA/Canada	FCC/c-UL/CSA
China	CCC
Korea	KE
Australia	RCM
Taiwan	BSMI
Russian Federation	EAC
Environment	RoHS

Parts included

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

Technical specifications

Electrical

Microphone

Nominal acoustic input level	81 to 96 dBSPL
Maximum acoustic input level	120 dBSPL
Signal to Noise Ratio (SNR)	> 96 dBA
Frequency response	200 Hz to 14 kHz

Display

Size	4.3"
Touch screen	Capacitive
Color depth	24-bit
Resolution	480 x 272 px
Brightness	300 cd/m^2

Monitor loudspeaker

Nominal acoustic input level Between 500 Hz and 3 kHz at 1 m	75 dBspl +/-6 dB
Gain control 1 dB steps	Mute, -40 dB to 0 dB
Frequency response	500 Hz to 3 kHz

Line input

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

Power transfer

Power over Ethernet (PoE 1-2)
    Nominal DC output voltage
    Standard
	
	48 V
	IEEE 802.3af (mode B)

Power consumption
    Call station
    Call station extension
	
	8 W
	1 W each

Input voltage tolerance	37 to 57 Vdc

Supervision

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

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
	1 ms
	AES128
	TLS

Ports	2

Environmental

Climatic conditions

Temperature
    Operating
 	
    Storage and transport
	
	-5 to +50℃
	(23 to 122℉)
	-30 to +70℃
	(-22 to 158℉)

Humidity (non-condensing)	5% to 95%
Air pressure (operating)	560 to 1070 hPa
Altitude (operating)	-500 to +5000 m (-1640 to 16404 ft)
Ingress protection	IP30

Mechanical

Enclosure

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

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**