

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

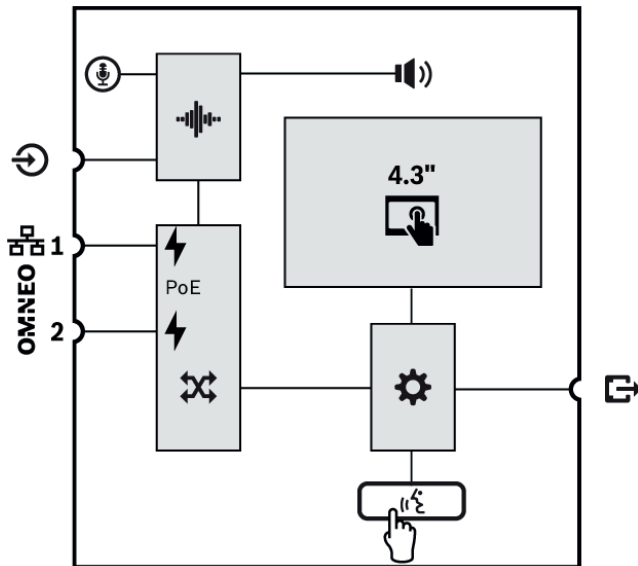
- Full color 4.3" capacitive touch screen with intuitive function menu navigation provides guidance and feedback during the process of live announcements, pre-recorded messages and music control. Successful broadcast of announcements/messages and changes to the background music settings are clearly indicated.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

Bottom-side controls

| | | |
|--|-----------------------------------|--------|
| | Device reset (to factory default) | Button |
|--|-----------------------------------|--------|

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 Arabic 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**Electrical****Microphone (PRA-CSLD)**

| | |
|---|------------------|
| Nominal acoustic input level (configurable) | 80 to 100 dBSPL |
| Maximum acoustic input level | 120 dBSPL |
| 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 |
| Resolution | 480 x 272 px |
| Brightness | 300 cd/m ² |

Monitor loudspeaker

| | |
|--------------------------------------|----------------------|
| Maximum sound pressure level, at 1 m | 75 dBSPL |
| 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 |
|---|--|

Network interface

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

| | |
|-------|---|
| Ports | 2 |
|-------|---|

Reliability

| | |
|--|-------------|
| 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 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 |
| 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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