

PRA-FRP3-US First responder panel USA, 3-extension

PRAESENSA



This first responder panel is a full function Local Operating Console (LOC) or Autonomous Control Unit (ACU) and is intended for the use in PRAESENSA mass notification systems. It has a red wall-mount enclosure with a key-locked transparent front door, and comes standard with one LCD call station (PRA-CSLW), and three call station extensions (PRA-CSE).

The PRA-CSLW has a fixed hand-held microphone with helix cable, a 4.3" high-resolution full-color capacitive touch screen and a built-in loudspeaker that emits distinct condition tones to alert on alarm or trouble events as they occur and for call monitoring. Each PRA-CSE adds twelve configurable buttons with light ring. Each button has two additional indicators for user feedback, related to the configured functionality of that button, like zone selection, transfer of control or acknowledge/reset trouble or emergency conditions.

The first responder panel 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. In conjunction with the display and buzzer/loudspeaker, status indicators provide system status information.

Functions

Operation

- The first responder panel fully complies to the UL 2572 Standard for Mass Notification Systems and to the UL 864 for Control Units and Accessories for Fire Alarm Systems.

- ▶ First responder panel for the use with UL 2572 compliant mass notification systems
- ▶ Red wall-mounted enclosure with a key-locked transparent front door
- ▶ Hand-held microphone and built-in loudspeaker for call monitoring
- ▶ 4.3" full-color capacitive touch screen and configurable buttons with light ring and LED indicators
- ▶ Dual redundancy of IP-network and Power over Ethernet (PoE) connection

- 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

- 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.

Labeling

- Removable front cover for easy labeling with space for three lines of text per button.

Top-side



Configuration and labeling example. All buttons are freely configurable with space for custom labels.

1	Fixed hand-held microphone with Press-To-Talk
2	Trouble indicator, Mains availability, Battery status
3	Speak indicator
4	Buzzer/loudspeaker
5	Zone/zone group selection buttons
6	Zone/zone group status indicators: low/high priority call, zone trouble
7	Transfer of control: in control, request control, deny control, grant control
8	Unlock annunciator
9	Trouble acknowledge/reset
10	Emergency acknowledge
11	Start and stop of alarm messages
12	Shows all control locations, and the location having control
13	Trouble log button: access to detailed trouble log

Bottom-side of PRA-CSLW



Bottom-side indicators

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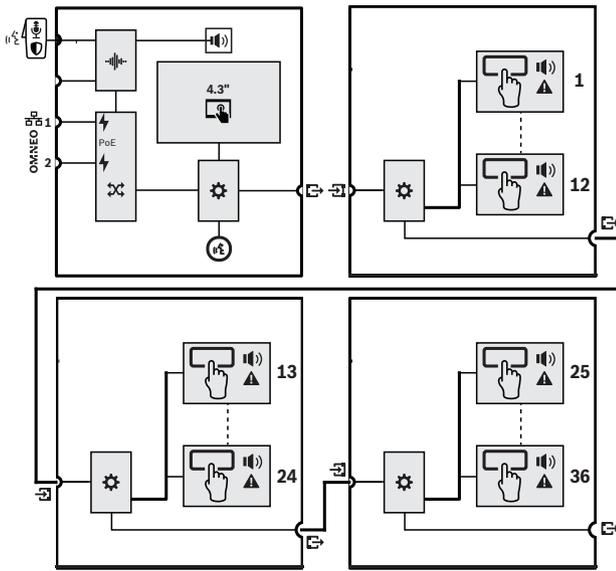
Bottom-side controls

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

	Network port 1-2 (PoE PD)	
	PRA-CSE interconnection (RJ12)	

Connection and functional diagram



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

Architects’ and engineers’ specifications

The IP-networked first responder panel shall be designed exclusively for use with Bosch PRAESENSA systems. The panel shall have a red wall-mount enclosure with a key-lockable transparent front door. It 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. The panel shall provide a backlit full color capacitive touch panel LCD as user interface for mass notification purposes. It shall provide configurable buttons for functions like zone selection, transfer of control and acknowledge/reset troubles and emergencies. It shall provide control and routing of live speech calls and stored messages. The panel shall have a hand-held omnidirectional microphone for live calls and shall provide software-configurable signal processing including sensitivity control, parametric equalization and limiting. The first responder panel can be configured as an Autonomous Control Unit (ACU) or a Local Operating Console (LOC) and shall be certified for UL 2572 and be compliant with the RoHS directive. Warranty shall be three years minimum.

The first responder panel shall be a Bosch PRA-FRP3-US.

Regulatory information

Emergency standard certifications

Mass Notifications Systems	UL 2572
Control Units and Accessories for Fire Alarm Systems	UL 864

Conformity declarations

USA	UL
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Parts included

Quantity	Component
1	First responder panel
2	Key
4	Screws with screw covers
1	Semi-flush mounting trim ring
1	Operating instructions
1	Safety information

Technical specifications

Quick overview

Operating voltage (VDC)	37 VDC – 57 VDC (PoE)
Power consumption (W)	5.70 W
Microphone element type	Dynamic; Noise cancelling
Polar pattern	Omnidirectional
Maximum sound pressure input level (dB SPL)	120 dB SPL
Frequency response (Hz)	500 Hz – 4000 Hz
Minimum signal-to-noise ratio (dBA)	73 dBA
Sample rate (kHz)	48 kHz
Display type	LCD
Display resolution (pixels)	480 x 272 px
Touchscreen	Capacitive
Ethernet type	100BASE-TX; 1000BASE-T

Protocols / standards	OMNEO; AES 70
Number of Ethernet ports	2
Protection	Watchdog; RSTP
IP rating (IEC 60529)	IP30
Operating temperature (°F)	23 °F – 122 °F
Dimension (H x W x D) (in)	18 in. x 17.6 in. x 4.33 in.
Color in RAL	RAL 3002 Carmine red
Weight (lb)	25 lb

Electrical

Microphone	
Nominal acoustic input level (configurable)	89 – 109 dBSPL
Maximum acoustic input level	120 dBSPL
Signal to Noise Ratio (SNR)	> 73 dBA
Directivity	Omnidirectional
Frequency range (+3 / -6 dB)	500 Hz – 4 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

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

Power transfer	
Power consumption	5.7 / 8.4 W (indicators off / on)

Supervision (PRA-CSLW)	
Supervision Microphone Audio path Press-to-talk switch Controller continuity PoE (1-2)	Impedance Pilot tone Impedance Watchdog Voltage

Network interface	
Ethernet Protocol Redundancy	100BASE-TX, 1000BASE-T TCP/IP RSTP

Environmental	
Climatic conditions	
Temperature Operating	-5 – 50 °C (23 – 122 °F)
Storage and transport	-30 – 70 °C (-22 – 158 °F)
Humidity (non-condensing)	5 – 95%

Mechanical	
Enclosure	
Dimensions (WxHxD)	458 x 448 x 110 mm (18 x 17.6 x 4.33 in)
Ingress protection	IP30
Base Material Color	Steel RAL3002
Door panel Material Color	Steel RAL3002
Door panel plexiglass (WxHxD)	375 x 375 x 3 mm
Weight	11.4 kg (25.1 lb)
Mounting position	Surface wall mount Semi-flush mount

Ordering information

PRA-FRP3-US First responder panel USA, 3-extension

Network connected, PoE powered, touch screen first responder panel build in wall mounted enclosure.

Order number **PRA-FRP3-US | F.01U.394.306**

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