# Panel controller FPE-8000-SPC/PPC

VdS

▶ High resolution display with bright colors to indicate alarms and events

▶ 8" touch pad with fixed and programmable buttons, thus adaptable to the situation

▶ Integrated Ethernet switch for networking and interfaces to remote services, building management and voice alarm systems

▶ Adaptable to local requirements and regulations

The panel controller is the central component of the fire panel. All messages are shown on the color display. The entire system is operated via a touch screen. The user-friendly user interface adapts to various situations. This allows correct operation that is both simple and clear as well as targeted and intuitive.

The FSP-5000-RPS programming software enables adaption to project- and country-specific requirements.

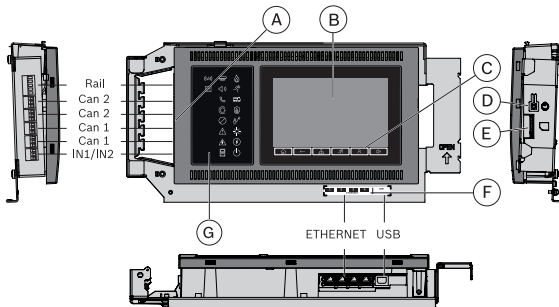| Pos. | Designation | Function |
|---|---|---|
| D | Power button | Shutdown and restart of the device |
| E | Memory card slot | Memory card reader for maintenance services |
| F | Ethernet ports | Panel networking and interface to various systems |
| G | 18 LEDs | Indicating the operating status |

## Functions

**Alarm indication**

All messages are shown on the display with a bright color. The displayed messages contain the following information:

- Message type
- Type of the triggering element
- Description of the exact location of the triggering element
- Logical zone and sub-address of the triggering element

18 Icon LEDs give continuous information about the operating status of the panel or the system. A red icon LED shows an alarm. A blinking yellow icon LED shows a fault. A steady yellow icon LED shows a disabled function. A green icon LED shows proper operation.

Two status LEDs, one red and one yellow, are programmable. The red one shows a self-defined alarm. The yellow one shows a self-defined fault or deactivation.

## System overview



*Fig. 1:* Overview of panel controller

| Pos. | Designation | Function |
|---|---|---|
| A | Interfaces | Panel networking and inputs for internal device monitoring |
| B | Touchscreen | Operating the networked system through virtual buttons and variable display windows |
| C | 6 fixed buttons | Standard entries |

Additional annunciator modules, each with 16 red and 16 yellow LEDs are available to indicate a larger number of self-defined alarms, faults or deactivations.

## Operation and processing of messages

For operating the panel, an 8 inch touch pad as input medium is put upon the display. There are 6 buttons with fixed functionality as well as 3 programmable function keys.
Examples for the assignment of the function keys:
- Set the panel controller to day mode, set the panel controller to night mode
- Enable detection points or outputs, disable detection points or outputs
- Set standard sensor sensitivity, set alternative sensor sensitivity

Each function key has a virtual status indicator.
At any time, an operator with sufficient user rights can control the function keys.

## Overview of evacuation zones and outputs

At any time, the operator can get a clear overview of each evacuation zone and of each output connected to the fire protection equipment. Each zone and each output is marked with a programmable text label and a clearly distinctive color reflecting the state: Green shows idle state, power is available. Red shows an activation during fire alarm condition, and fuchsia an activation without a fire alarm condition. Yellow shows a fault or disabled state. An operator with sufficient user rights is able to start the evacuation in selected zones and activate outputs connected to the fire protection equipment through the user interface.

## Smart Safety Link

Smart Safety Link is the most reliable and secure interface to combine a fire detection and a voice alarm system (VAS). Smart Safety Link offers exceptional flexibility and options for expandability.
The bi-directional data communication establishes a supervised connection between the fire detection panel and the VAS. Both the fire panel and the VAS indicate a fault message when the connection is interrupted. In case of an interrupted connection, the user can start the evacuation of the complete building manually by using a call station of the VAS. An interruption of the interface does not lead to an automatic evacuation of the building. When the interface is re-established, the fire panel automatically re-synchronizes the current alarm state with the VAS. In case of a fire condition, the fire panel can automatically start voice announcements using virtual VAS triggers that are activated by rules which are configured in FSP-5000-RPS. The fire panel generates a supervisory message when an evacuation event is started from the VAS. A malfunction on the VAS will generate a fault message on the user interface of the fire panel.

## Saving and printing messages

The history log keeps incoming alarms and events internally. The history log has a capacity to store 10000 messages. The messages can be shown on the display, and you can export the messages. Additionally, you can connect a log printer via a serial interface module for real-time printing incoming messages.

## Networking

Up to 32 panel controllers, remote keypads and OPC servers can be combined to form a network.
Panels and keypads display all messages, or you can form a group of panels and keypads. Within one group, only messages of this group are displayed.
A variety of fire alarm network topologies are possible:
- CAN loop
- Ethernet loop
- Ethernet/CAN double loop
- CAN loop with Ethernet segments
- Ethernet backbone with sub-loops (Ethernet/CAN)

## Languages

The operator can change the language of the user interface. A quick user guide for each language is available. Following languages are included in the package: English, German, Bulgarian, Croatian, Czech, Danish, Dutch, Estonian, French, Greek, Hungarian, Italian, Latvian, Lithuanian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Slovenian, Spanish, Swedish and Turkish.
The quick user guides of following languages are available only online at www.boschsecurity.com: Hebrew and Ukrainian.

## Operator management

The system can have up to 200 different registered operators. Login is permitted with a user ID and an 8-digit pin code.
There are four different authorization levels. Depending on the authorization level it is possible for the operator to do certain functions according to EN54-2.

## Interfaces

The panel controller features
- 2 CAN interfaces (CAN1/CAN2) for networking
- 1 Rail connector
- 4 Ethernet interfaces (1 / 2 / 3 / 4) for networking, prescribed usage:
  - 1 and 2 (blue): Panel network
  - 3 (green): Building management system, hierarchy panel, voice alarm system
  - 4 (red): Remote Services
- 2 signal inputs (IN1/IN2)
- 1 USB function interface for configuration via FSP-5000-RPS
- 1 Memory card interface

**Licenses**

The panel controller is delivered with a hard coded software license. This software license is implemented during production and cannot be modified, revoked or transported. The license defines the maximum panel network size and availability of certain features and interfaces.

| | Standard license FPE-8000-SPC | Premium license FPE-8000-PPC |
|---|---|---|
| **Ethernet interface to** | | |
| Building management system (OPC server, BIS, FSM-5000-FSI) | | • |
| UGM-2040 Hierarchy panel | | • |
| Voice alarm system (Smart Safety Link) | | • |
| **Monitoring and control** | | |
| Status overview | • | • |
| Simultaneous control | • | • |
| Individual control | | • |
| **Modularity (maximum number)** | | |
| Slots for functional modules (max number including slots for LSN modules) | 46 | 46 |
| LSN modules (max number) | | |
| LSN 0300 A modules (1 slot per module) | 32 | 32 |
| LSN 1500 A modules (2 slots per module) | 11 | 11 |
| **Panel redundancy** | | |
| Redundant panel controller | • | • |
| Keypad as redundant panel controller | • | • |
| **Network** | | |
| Panel network | panels, remote keypads | panels, remote keypads, servers |
| Max. number of nodes | 32 | 32 |

## Regulatory information

| Region | | Regulatory compliance/quality marks |
|---|---|---|
| Germany | VdS-S | S 221001 VdS-S_S221001_AVENAR series |
| Europe | CPR | 0786-CPR-21699 AVENAR panel 8000 |
| Morocco | CMIM | AVENAR panel 8000 | AVENAR keypad 8000 |
| Malaysia | BOMBA | 23-340 AVENAR panel 8000 | AVENAR keypad 8000 |
| Israel | SII | 7152327281/2 AVENAR panel 8000 |
| Serbia | KVALITET | AVENAR panel 8000 |

| Region | | Regulatory compliance/quality marks |
|---|---|---|
| Slovakia | PHZ | 2021002517-2 AVENAR panel 8000 | AVENAR panel 2000 | AVENAR keypad 8000 |
| Ukraine | DCS | 0000957-20 AVENAR panel 8000 | AVENAR keypad 8000 |
| United Arab Emirates | MOI | 2013-3-56006 AVENAR panel 8000 | AVENAR panal 2000 |
| Germany | VdS | G 220047 AVENAR panel 8000 |
| Switzerland | VKF | AEAI 31626 AVENAR panel 8000 | AVENAR panel 2000 | AVENAR keypad 8000 |

| Region | Regulatory compliance/quality marks | |
|--------|------|------|
| Europe | CE | AVENAR panel 8000 | AVENAR keypad 8000 |
| Belgium | BOSEC | B - 9174 - FD - 894 |
| Poland | CNBOP | 4290/2021 AVENAR panel 8000 |
| Sweden | SBSC | 20-487 FPE-8000-SPC/PPC |
| Czech Republic | TZÚS | 080-023743 AVENAR panel 8000 | AVENAR panel 2000 | AVENAR keypad 8000 |

## Installation/configuration notes

- As stipulated by EN 54-2, panels with more than 512 detectors and manual call points must be equipped with a redundant panel controller. Combined with an AVENAR panel 8000, an AVENAR keypad 8000 can be used as a redundant panel controller.
- The FSP-5000-RPS programming software enables adaption to project- and country-specific requirements.
  The programming software and the associated documentation can be found at www.boschsecurity.com for those with access rights.
  Information about the programming software is also included in FSP-5000-RPS online help.

**Panel Controller Firmware**

Two firmware versions are available for the panel controller of the fire panel: version 3.x and version 4.x.

Firmware V3.x enables networking compatibility with the legacy FPA-5000 series panels (MPC-xxxx-B and MPC-xxxx-C) and the FMR-5000 keypad.

This implies that when AVENAR panel and AVENAR keypad are running firmware V3.x, they only contain bound product features and peripherals that are also available for the FPA-5000 series.

From January 1, 2022 to December 31, 2025, panel firmware version 3.x is in maintenance mode. During this period, new versions will be released only containing fixes for critical bugs and critical security gaps.

From January 1, 2022 onwards, new product features, new LSN peripherals, new GUI languages, and normative changes will be only available in firmware version 4.x.

Firmware version 4.x is exclusively for AVENAR panel and AVENAR keypad.

## Technical specifications

### Electrical

| Current consumption (mA at 24 VDC) | • standby: 190 |
|--------|------|
| | • alarm: 420 |
| Maximum power loss (W) | 11 |
| Max. CAN cable length in networks | Lmax = 1000 m, depending on configuration, cable type and topology |

### Ethernet interface

| Maximum copper cable length | 100 m |
|--------|------|
| Maximum fiber optic cable length | 2km (MM) up to 40 km (SM) |

### Mechanical

| Housing material | Polycarbonate (PC) |
|--------|------|
| Color | RAL7016, Anthracite |
| Weight (kg) | 2.4 |
| Dimensions H x W x D (mm) | 190 x 404 x 60 |
| Flammability rating | UL94-V0 |
| LCD display (pixels) | 7" color WVGA 800 x 480 |
| Operating and display elements | • 6 keys |
| | • 18 LEDs |
| Interfaces | CAN1, CAN2, ETH1, ETH2, ETH3, ETH4, USB , Rail |
| Signal inputs | IN1/IN2 |

### Environmental

| Protection class as per EN 60529 | IP 30 |
|--------|------|
| Permissible operating temperature (°C) | -5 to +50 |
| Relative humidity at 25°C (%) | ≤95 (non-condensing) |

## Ordering information

**FPE-8000-SPC Panel controller, standard license**
central component of AVENAR panel 8000, which is delivered with standard license defining network size, as well as fire detection features according the standards. The entire system is operated via a touchscreen, all messages are shown on the color display. The user-friendly user interface adapts to various requirements.
Order number **FPE-8000-SPC | F.01U.327.090**

**FPE-8000-PPC Panel controller, premium license**
central component of AVENAR panel 8000, which is
delivered with premium license. In addition to network
capability and network size, as well as fire detection
features according the standards, the premium license
provides interfaces for OPC, FSM-5000-FSI, UGM-2040,
Smart Safety Link. Individual control of evacuation zones
and fire controls is provided. The entire system is
operated via a touchscreen, all messages are shown on
the color display. The user-friendly user interface adapts
to various requirements.
Order number **FPE-8000-PPC | F.01U.352.441**

## Accessories
**FPE-8000-CRP Cable set redundant panel controller**
Used to redundantly connect one panel controller to
another panel controller.
Order number **FPE-8000-CRP | F.01U.349.391**

## Services
**EWE-FPA5MPC-IW 12 mths wrty ext FPA-5000 Main
Panel Con**
12 months warranty extension
Order number **EWE-FPA5MPC-IW | F.01U.360.726**