# FPE-8000-FMR Remote keypad

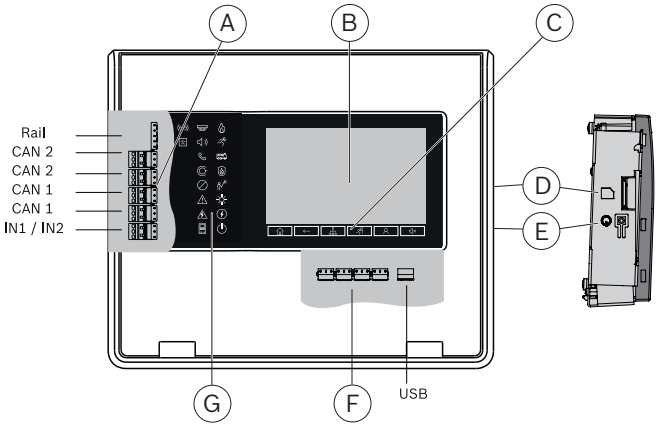
## AVENAR keypad 8000



- User interface identical to fire panel
- High resolution display with bright colors to indicate alarms and events
- 8" touch pad with fixed and programmable buttons, thus adaptable to the situation
- Clean design for surface and flush mounting
- Alternative use as redundant panel controller

The remote keypad allows decentralized operation of a fire safety system. The design of the graphical user interface is identical to the fire panels. A color display shows all messages. The touch screen is for operation of a specific panel or the entire system. The user-friendly interface adapts to various situations. This causes correct operation that is simple and clear as well as targeted and intuitive.
Panels and keypads of the AVENAR series and the FPA-5000 series(MPC-xxxx-B and MPC-xxxx-C) can be combined in one panel network using the Ethernet and the CAN bus interfaces.
In combination with an AVENAR panel 8000, the keypad can be used as a redundant panel controller. In this case, it cannot be used as a remote keypad.
Power can be supplied by the panel and/or an external power supply unit.
The housing of the remote keypad is designed for proper and clean installation at highly visible locations. It allows tilted installation and surface or flush wall mounting without requiring additional installation frames.
The remote keypad is configured on a laptop using the FSP-5000-RPS programming software. The programming software enables further adaptation, e.g. to country-specific requirements and regulations.

### System overview




| Pos. | Designation | Function |
|---|---|---|
| A | Interfaces | Power supply input, 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 |
| D | Memory card slot | Memory card reader for maintenance services |
| E | Power button | Shutdown and restart of the device |
| 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.
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.

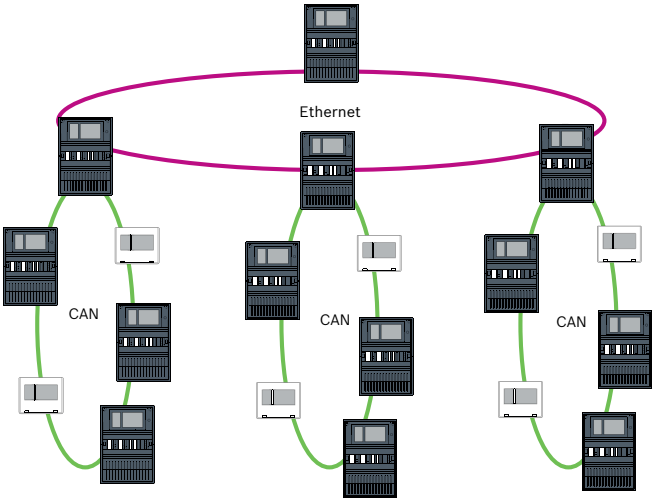
### Overview of evacuation zones and outputs

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.

### 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

### Languages

The operator can change the language of the user interface. A printed quick user guide for each language is supplied with the package. Following languages are included: 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.

### 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.

### Power supply

Power can be supplied by a fire panel and/or an external power supply unit FPP-5000 (F.01U.511.307). For applications requiring functional integrity, a redundant power supply input is available. When the primary power supply fails, the redundant power supply can take over.

### Use as redundant panel controller

In combination with an AVENAR panel 8000, standard or premium license, an AVENAR keypad 8000 can be used as a redundant panel controller. Only in this case the rail connector is needed.

In case it is used as redundant panel controller, the keypad has to be installed adjacent to the panel. Use cable FPE-8000-CRK (F.01U.349.392) for connection to panel rail. In normal operation, the user interface is switched off until the main controller fails.

**Interfaces**
The Remote keypad features
- 2 CAN interfaces (CAN1/CAN2) for networking
- 1 Rail connector (for redundancy only)
- 4 Ethernet interfaces (1 / 2 / 3 / 4) for networking, prescribed usage:
  - 1 and 2 (blue): Panel network
  - 3 (green): Building management system, hierarchy panel
  - 4 (red): Remote Services
- 2 signal inputs (IN1/IN2)
- 1 USB host interface for configuration via FSP-5000-RPS
- 1 Memory card interface
- 2 Power supply connectors (DC1/DC2)

## Certifications and approvals

| Region | Regulatory compliance/quality marks | |
|---|---|---|
| Germany | VdS | G 220049 AVENAR keypad 8000 |
| Europe | CE | AVENAR panel 8000 \| 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.

## Parts included

| Quantity | Component |
|---|---|
| 1 | FPE-8000-FMR Remote keypad |
| 1 | Product label |
| 4 | Screw, dowel |

## Technical specifications

### Electrical

| | |
|---|---|
| Minimum operating voltage (VDC) | 13.2 |
| Maximum operating voltage (VDC) | 30 |
| Current consumption (mA at 20 VDC) | • standby: 200<br>• alarm: 480 |
| Maximum power loss (W) | 12 |
| Max. CAN cable length in networks | Lmax = 1000 m, depending on configuration, cable type and topology |
| Max. line resistance, DC1 (Ω) | 6 |
| Max. line resistance, DC2 (Ω) | 6 |

### Mechanical

| | |
|---|---|
| Housing material | Polycarbonate (PC) |
| Color | RAL9003, signal white (painted) |
| Weight (kg) | 2.8 |
| Dimensions H x W x D (mm) | 280.1 x 339 x 80.2 |
| Flammability rating | UL94-V0 |
| LCD display (pixels) | 7" color WVGA 800 x 480 |
| Operating and display elements | • 6 keys<br>• 18 LEDs |
| Interfaces | CAN1, CAN2, ETH1, ETH2, ETH3, ETH4, USB, Rail |
| Signal inputs | IN1, IN2 |
| Power supply | DC1, DC2 |

### 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-FMR Remote keypad**
Remote operating panel for performing the same operating procedures as the control panel, enabling variable operation of a networked system.
In combination with an AVENAR panel 8000, standard or premium license, an AVENAR keypad 8000 can be used as a redundant panel controller. Only in this case the rail connector is needed.
Order number **FPE-8000-FMR | F.01U.327.092**

## Accessories

**FPE-8000-CRK Cable redundant keypad**
Used to redundantly connect one remote keypad to a panel controller.
Order number **FPE-8000-CRK | F.01U.349.392**

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