

MAP 5000 family



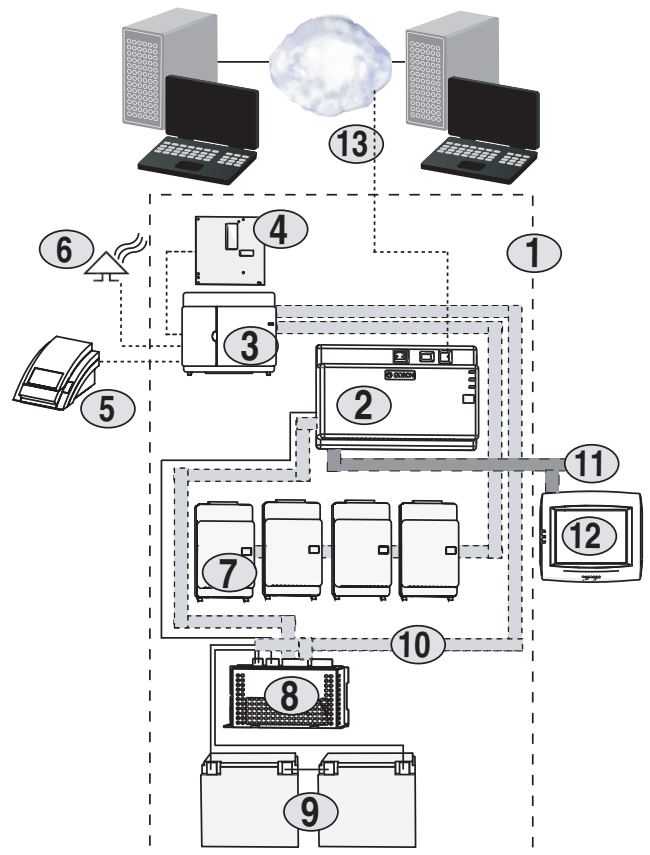
The Modular Alarm Platform 5000 system is a scalable solution for medium-to-large applications. The system uses two isolated Bosch Data Buses (BDBs) based on Controller Area Network (CAN) technology, for maximum security and flexibility. Users can arm and disarm the system using Bosch SmartKey systems. Each control center is ergonomically designed with a graphical color touch screen.

A MAP 5000 system can be fully integrated into a building management system through Internet Protocol (IP).

The architecture expands easily to include new required intrusion or hold-up devices. Users can rely on the same intuitive control center interface within an expanded architecture.

- ▶ Provides an intuitive control center touch screen user interface in multiple languages
- ▶ Supports up to 8 LSN Gateways, with up to 127 devices each
- ▶ Supports up to 500 areas, 1500 addresses, and 996 users
- ▶ Supports central station communication through an internal or external communicator
- ▶ Includes the Open Intrusion Interface OII in order to connect easily to management systems

System overview



1. MAP Panel Enclosure Kit

2. **MAP 5000 Main**
Supports wired inputs, tamper input, power drive outputs, dry contact outputs, power supply input, auxiliary power output, bus connectors, installer button, and Ethernet jack.
3. **MAP DE Module**
Supports Communicator and DR2020 Printer connectivity, provides three fully supervised and programmable outputs (intended for sirens, strobes, and other local notification devices), and provides two open-collector outputs.
4. **Communicator**
5. **DR2020 Printer**
6. **Acoustic and optical signaling device and Local Notification Devices**
7. **MAP LSN Gateways**
The Modular Alarm Platform 5000 solution supports a maximum of eight gateways. Each gateway supports one loop or two stub configurations.
8. **MAP Power Supply 150W**
This is the local power supply for the MAP 5000 Main Panel. It has two individually supervised battery circuits, each capable of supporting 24 V, 40 Ah. Additional remote power supplies can be placed on the external Bosch Data Bus (BDB).
9. **Batteries**
The MAP Panel Enclosure Kit houses either:
 - two 12 VDC, 42 Ah / 27 Ah batteries in series on one of the two battery circuits, or
 - four 12 VDC, 18 Ah batteries with two batteries in series on each of the battery circuits.
10. **Internal Bosch Data Bus (BDB)**
This is the internal backbone of the modular system, providing interoperability between the various MAP modules. It is limited to 3 m (10 ft) in total length.
11. **External Bosch Data Bus (BDB)**
This bus spans across the premises to connect control centers, LSN Gateways, and supervised remote power supplies. It can be up to 1000 m (3280 ft) in total length.
12. **MAP Control Center**
Up to 32 control centers.
13. **Ethernet Connection**
This allows the MAP system to connect to a management system and to programming software such as the Bosch Remote Programming Software (RPS).

Functions

Arming and Disarming

Users can arm or disarm the system using Bosch SmartKey systems. The number of SmartKey users is limited by the specific SmartKey devices up to a MAP system maximum of 996 SmartKey users.

Users can also arm or disarm the system using the MAP Control Center (IUI-MAP0001-2). For each user, a preferred language is selected. When the user logs in, the preferred language is used at the control center. The MAP system supports up to 32 control centers and up to 996 users.

Addresses

The MAP system supports up to 1500 addresses. An address represents a single input, single output, or a single tamper input. Any combination of inputs, outputs, and tamper inputs can be used to realize the maximum number of 1500 addresses system wide.

i Notice

Bosch Data Bus devices do **not** count toward the 1500 available addresses.

Bosch Data Bus (BDB) based on CAN technology

The MAP panel provides two data buses:

- **Internal BDB** - Limited to 3 m in total length, the internal BDB connects the MAP panel to other MAP devices.
- **External BDB** -Up to 1000 m in total length, the external BDB allows keypads, LSN Gateways, CAN Splitter Modules and power supplies to be placed at the point of use, promoting greater efficiency.

Firmware upgrades

The firmware of all devices in the MAP system can be upgraded or updated with Remote Programming Software for MAP (RPS for MAP). This allows for on-site or off-site (IP through Ethernet) upgrades or updates.

Languages

For each user, a preferred language is selected when the user is created. When the user logs in, the preferred language is used at the control center. Up to 15 user-selectable languages: German, English, French, Dutch, Hungarian, Polish, Italian, Russian, Spanish, Czech, Portuguese, Latvian, Romanian, Lithuanian, and Ukrainian.

Communication with Software Packages

The MAP system allows separate communication with the following:

- **Management systems**

The system can be integrated into different management systems over the REST based API - Open Intrusion Interface (OII).

- **Remote Programming Software for MAP (RPS for MAP)**

Programming and diagnostic software for MAP products that provides remote programming, record storage, remote control, and diagnostics options. Use of RPS for MAP is necessary to configure MAP5000 Panels, MAP5000 Keypads, and MAP peripherals.

Regulatory information

Region	Regulatory compliance/quality marks	
Europe	CE	
	EN50131	G111040 Grade 3
	EN-ST	EN-ST-000296 MAP 5000
Germany	VdS	G111040 VdS 2252, Class C
	VdS-S	S 112016

Installation/configuration notes

Compatibility Information

Software and Systems

Bosch Remote Programming Software (RPS)

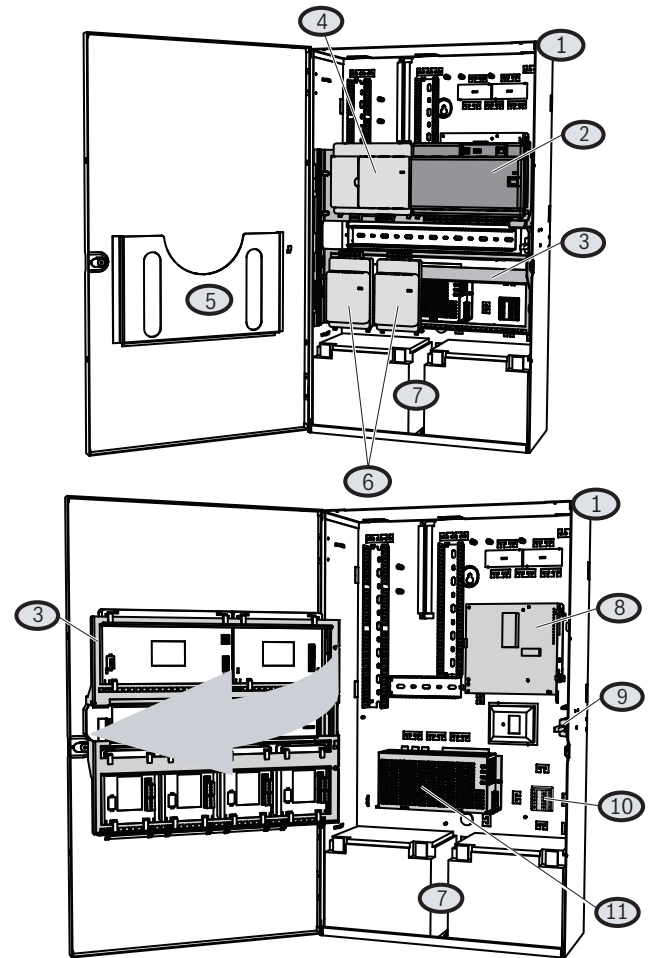
LSN Peripherals

Bosch LSN peripherals.

Wiring Considerations for Devices on the External Bosch Data Bus

- 0.6 mm - 1.0 mm d, recommended 0.8 mm
- Solid or stranded
- Twisted or untwisted
- Shielded or unshielded
- Up to 1000 m (3280 ft)
- Each peripheral device has two sets of Bosch Data Bus terminals for daisy chain in/out wiring
- Peripheral devices are grounded through the Bosch Data Bus cable

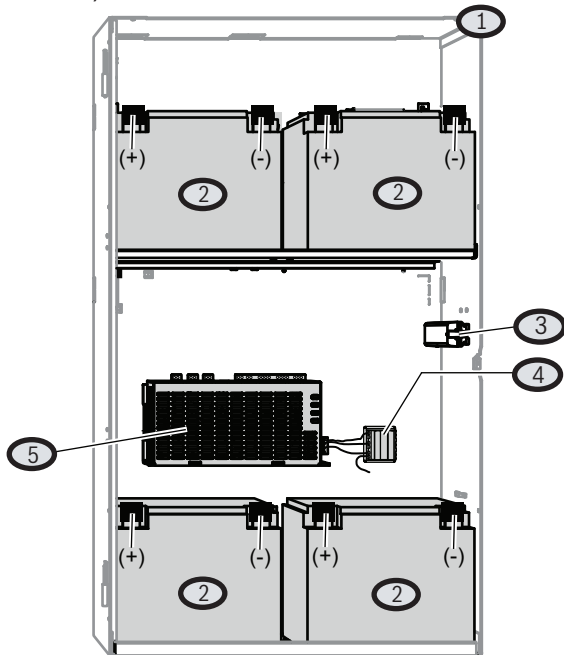
Components Located in Panel Enclosure



1. MAP Panel Enclosure Kit (ICP MAP0110)
2. MAP 5000 Main Panel (ICP MAP5000-2)
3. MAP Hinged Mounting Plate (ICP MAP0025)
 - Mounting plate swings open to provide access to internal wiring.
4. MAP DE Module (ICP MAP0007-2)
5. Document Tray
 - Storage area for literature.
6. MAP LSN Gateway Modules (ICP MAP0010)
 - Up to four LSN Gateway Modules fit on the hinged bracket.
7. Batteries
8. AT 2000 Communicator mounted on the MAP Accessory Mounting Plate (ICP-MAP0020)
9. MAP Panel Enclosure Tamper Switch (ICP MAP0050)
10. MAP AC Terminal Block (ICP-MAP0065)
11. MAP Power Supply 150W (IPP MAP0005-2)

Components Located in a Power Enclosure

A power enclosure kit comes with the enclosure with a tamper switch and lockset, a MAP AC Terminal Block, and assorted cables. It can hold a MAP Power Supply 150W and up to four batteries (12 VDC, 40 Ah each).



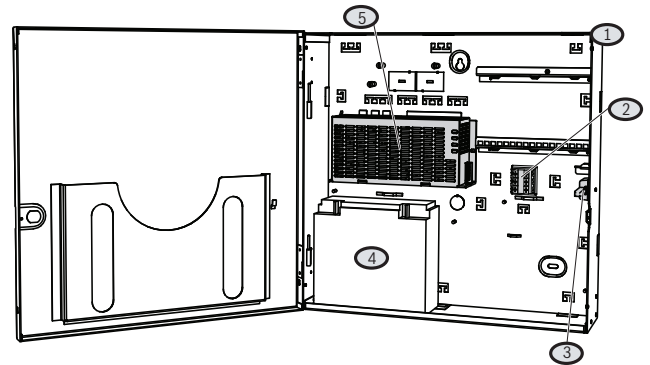
1. MAP Power Enclosure Kit (ICP MAP0115)
2. Batteries (12 VDC, 40 Ah)
3. MAP Panel Enclosure Tamper Switch (ICP MAP0050)
4. MAP AC Terminal Block (ICP MAP0065)
5. MAP Power Supply 150W (ICP MAP0005-2)

Components Located in an Expansion Enclosure

The MAP Expansion Enclosure Kit (ICP MAP0120) can contain a MAP Power Supply 150W (IPP MAP0005-2) and two 18 Ah batteries. Use the expansion enclosure for module expansion by using the MAP Hinged Mounting Plate (ICP MAP0025) mounted inside the enclosure. Fit the MAP LSN Gateways (ICP MAP0010-2) and the MAP Accessory Mounting Plates (ICP MAP0020) on the hinged mounting plate. When the hinged mounting plate is used, the MAP Power Supply 150W (IPP MAP0005-2) and batteries cannot fit inside the expansion enclosure.

Power Supply Application

Power supplies can be distributed across the premises to where the power is needed to avoid long power cable runs. The power supply remains fully supervised on the external BDB.



1. MAP Expansion Enclosure Kit (ICP MAP0120)
2. MAP AC Terminal Block (ICP MAP0065)
3. MAP Expansion Enclosure Tamper Switch (IPP MAP0050)
4. Batteries
 - Up to two 12 V, 18 Ah batteries connected in series.
5. MAP Power Supply 150W (IPP MAP0005-2)

LSN Gateway Application

The MAP system supports up to eight LSN gateways. The Panel Enclosure Kit (ICP MAP0110) supports up to four gateways mounted on the MAP Hinged Mounting Plate (ICP MAP0025); additional gateways can be mounted in MAP Expansion Enclosure Kits (ICP MAP0120) and connected to the internal or external BDB. Each gateway supports one loop configuration or two stub configurations.

1. MAP Expansion Enclosure Kit (ICP MAP0120)
2. MAP Accessory Mounting Plate (ICP MAP0020)
 - Up to two can be placed on the upper level of the MAP Hinged Mounting Plate
3. MAP 12V Converter (ICP MAP0017)
 - Up to two can be placed on a MAP Accessory Mounting Plate
4. SIV Fuse Plate (one on each MAP Accessory Mounting Plate)
5. MAP Hinged Mounting Plate (ICP MAP0025)
 - Field wiring is accessible from the front; internal wiring is easily accessed by swinging the panel open
6. MAP LSN Gateway (ICP MAP0010)
 - Up to four optional MAP LSN Gateways fit on the Hinged Mounting Plate)

7. One loop configuration
8. Two stub configurations

Rack Mount Application

For specific application requirements, the MAP Expansion Enclosure Kit (ICP MAP0120) fits into a 19 inch mounting rack. For these requirements, the expansion enclosure contains: the MAP Hinged Mounting Plate (ICP MAP0025), the MAP 5000 Main Panel (ICP MAP5000-2), the MAP DE Module (ICP MAP0007-2), and up to four MAP LSN Gateways (ICP MAP0010). The MAP Power Supply 150W (IPP MAP0005-2) is located in a separate enclosure.

Notice

When the MAP Expansion Enclosure Kit (ICP-MAP0120) is used in a rack, the batteries cannot be stored in the enclosure. Place batteries on a support shelf which is not part of the MAP 5000 portfolio, but is an optional part of the rack itself.

Technical specifications

Electrical

Maximum operating voltage in VAC	230 (-15 %, + 10%)
Minimum AC line frequency in Hz	47
Maximum AC line frequency in Hz	63
Maximum power consumption in W per power supply	150
Minimum battery capacity in Ah per power supply	18
Maximum battery capacity in Ah per power supply	80
Back-up time	Determined by battery capacity and system load. Consider time or capacity limits for recharging the batteries regarding local regulations or EN standards if needed.

Mechanical

MAP panel enclosure	
Dimension in cm (H x W x D)	65.8 x 44.3 x 19.35
Weight in g	15340
MAP power enclosure	
Dimension in cm (H x W x D)	65.8 x 44.3 x 19.35
Weight in g	14417

MAP expansion enclosure	
Dimension in cm (H x W x D)	43.6 x 44.3 x 11.2
Weight in g	8314
System parameters	
Number of addresses	1500
Number of areas	500 ¹
Event log capacity	5000
Users	
Number of users	1000
Number of PINs	996 (with 9 digits, supporting a 3-digit user ID (004 - 999) and a 6-digit passcode)
Number of possible combination per PINs	1 million
Validity of PINs	Permanent validity, time-limited validity or one-time use configurable
Number of devices	
MAP LSN gateways	8 or 1 to respective MAP5000 panel
MAP touch keypads	32 or 2 to respective MAP5000 panel
Supported printer	1 (in VdS systems for service purposes only)
MAP power supplies 150W	32
MAP BDB/CAN splitters	8
Ethernet interface	1, RJ 45 connection, 100Mbps maximum
Management system connection	Via MAP OPC server from Bosch - in VdS systems, only feedback-free connection as information system via exclusive transmission path
Number of inputs	
Programmable inputs on LSN Bus	Limited to maximum number of available addresses system wide
Number of inputs (on MAP5000 panel)	8
Number of outputs	
Programmable outputs on LSN Bus	Limited to maximum number of available addresses system wide

Power drive (on MAP5000 panel)	2
Dry contact (on MAP5000 panel)	2
Auxiliary power (on MAP5000 panel)	1
Supervised output (on MAP DE interface module)	3
Open-collector output (on MAP DE interface module)	2

¹VdS system is limited to two areas, when connecting to the MAP touch keypads via the internal and external BDB.

Environmental

Minimum operating temperature in °C	-10
Maximum operating temperature in °C	55
Minimum storage temperature in °C	-20
Maximum storage temperature in °C	60
Minimum relative humidity in %	5
Maximum relative humidity in %	95
Protection class	IP30
Security level	IK06
Environmental class	II: EN50130-5, EN50131-1, VdS 2110
Usage	Indoor

Ordering information

IUI-MAP0001-2 Touchscreen control panel

Graphical color touch screen with adjustable backlight; built-in speaker with adjustable volume
Order number **IUI-MAP0001-2 | F.01U.245.557**

ICP-MAP5000-2 MAP5000 panel

MAP panel 5000 with wiring terminals for tamper and power supply inputs, eight supervised inputs form C relay and auxiliary power outputs, switched voltage outputs, two Bosch Data Bus ports and an Ethernet port.

Suitable for 8 LSN Gateways and 32 Control Centers (touch screen keypads).

Order number **ICP-MAP5000-2 | F.01U.245.556**

ICP-MAP5000-COM MAP5000 panel com

MAP panel 5000 with wiring terminals for tamper and power supply inputs, eight supervised inputs form C relay and auxiliary power outputs, switched voltage outputs, two Bosch Data Bus ports and an Ethernet port.

Suitable for 8 LSN Gateways and 32 Control Centers (touch screen keypads).

Additional integrated IP Communicator.

Order number **ICP-MAP5000-COM | F.01U.289.149**

ICP-MAP5000-S MAP5000 panel, small

MAP panel 5000 with wiring terminals for tamper and power supply inputs, eight supervised inputs form C relay and auxiliary power outputs, switched voltage outputs, two Bosch Data Bus ports and an Ethernet port.

Suitable for 1 LSN Gateway and 2 Control Centers (touch screen keypad).

Order number **ICP-MAP5000-S | F.01U.296.016**

ICP-MAP5000-SC MAP5000 panel, small, com

MAP panel 5000 with wiring terminals for tamper and power supply inputs, eight supervised inputs form C relay and auxiliary power outputs, switched voltage outputs, two Bosch Data Bus ports and an Ethernet port.

Suitable for 1 LSN Gateway and 2 Control Centers (touch screen keypad).

Additional integrated IP Communicator.

Order number **ICP-MAP5000-SC | F.01U.299.120**

ICP-MAP0007-2 MAP Interface module, DE

Interface module for communicator, printer and siren connections.

Order number **ICP-MAP0007-2 | F.01U.245.559**

F.01U.423.994

ICP-MAP0012 MAP Splitter BDB/CAN

Order number **ICP-MAP0012 | F.01U.308.002**

F.01U.424.122

ITS-MAP0008 Modem for wireless communication path

GSM module provides wireless transmission of events to a monitoring station via GPRS.

Order number **ITS-MAP0008 | F.01U.297.339**

ICP-MAP0010 MAP LSN Gateway

Supports up to 127 LSN devices. Up to eight gateways can be supported by a Modular Alarm Platform 5000 system.

Order number **ICP-MAP0010 | F.01U.064.521**

F.01U.422.425

ICP-MAP0111 MAP Panel enclosure

Kit contains one MAP Panel Enclosure, one MAP Hinged Mounting Plate, one MAP Panel Enclosure Tamper Switch, one MAP Enclosure Lockset, and one MAP AC Terminal Block.

Order number **ICP-MAP0111 | F.01U.300.119**

ICP-MAP0115 MAP Power enclosure

Kit contains one MAP Power Enclosure, one MAP Panel Enclosure Tamper Switch, one MAP Enclosure Lockset, one MAP AC Terminal Block, and an accessory pack containing connection cables.

Order number **ICP-MAP0115 | F.01U.126.315**

ICP-MAP0120 MAP Expansion enclosure

Contains one MAP Expansion Enclosure, one MAP Expansion Enclosure Tamper Switch, one MAP Enclosure Lockset, and one MAP AC Terminal Block.
Order number **ICP-MAP0120 | F.01U.126.316**

IPP-MAP0005-2 MAP Power supply, 150W

Power supply and battery charger unit; converts 230 VAC input into 24 VDC nominal and 28 VDC fixed output.
Order number **IPP-MAP0005-2 | F.01U.245.558**
F.01U.423.904

ICP-MAP0017 MAP Power converter, 12V-28V

Converts 24 VDC systems into 12 VDC systems. Supports power requirements for communicator interfaces and 12 VDC peripherals.
Order number **ICP-MAP0017 | F.01U.067.078**
F.01U.422.511

SIV 28 MAP 28V fuse protected power distributor

For monitored fusing of the devices connected to a panel like e.g. MAP5000, up to 5 fuses
Order number **SIV 28 | F.01U.500.442**

Accessories**MAP 12V fuse protected power distributor**

Order number **3902102156 | 3.902.102.156**

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