

MAP 5000 family

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BOSCH

Invented for life



- ▶ 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

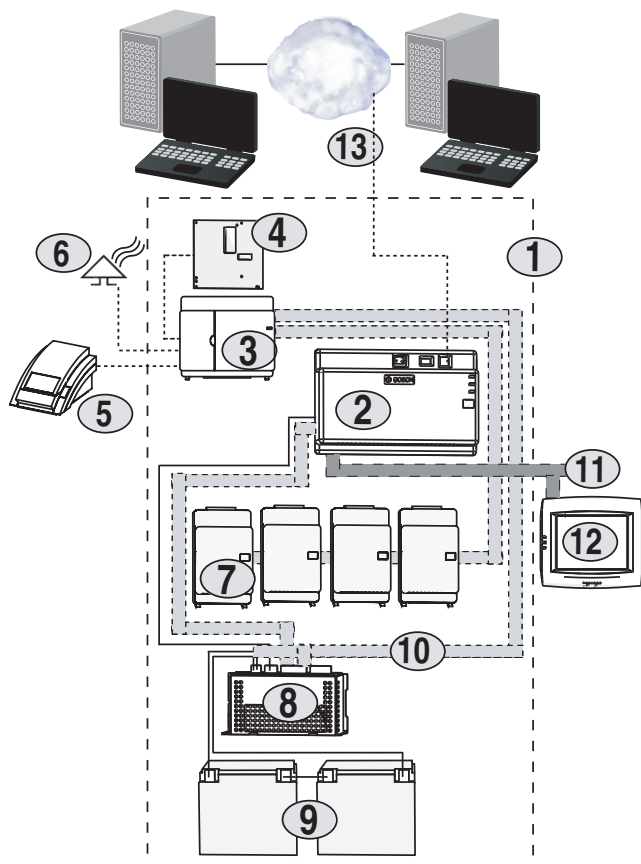
The Modular Alarm Platform 5000 system is a scalable solution for medium-to-large applications. The system uses two isolated Bosch Data Buses (BDBs) based on Controller Area Network (CAN) technology, for maximum security and flexibility.

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.

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.



Notice

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

Bosch Data Bus (BDB) based on CAN technology

The panel provides two data buses:

- **Internal BDB** – Limited to 3 m in total length, the internal BDB connects the panel to other MAP devices.
- **External BDB** – Up to 1000 m in total length, the external BDB allows command centers, 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 the Bosch Remote Programming Software (RPS). 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 command center.

Communication with Bosch Software Packages

The MAP system allows separate communication with the following:

- **Management systems**
- **Bosch Remote Programming Software (RPS)**
Programming and diagnostic software for control panels that provides remote programming, record storage, remote control, and diagnostics options.

Certifications and approvals

Region	Regulatory compliance/quality marks	
Germany	VdS-S	S 112016 [MAP 5000]
	VdS	G111040 [ICP-MAP-5000]
	VdS	G114801 [ICP-MAP5000-COM]
	VdS	S 196602
	VdS	S 196001
Europe	CE	[MAP 5000 Modules]
	EN50131	EN-ST-000121 [MAP 5000]
France	AFNOR	N1133400003A0 ICP-MAP5000-2 [MAP5000]

Installation/configuration notes

Compatibility Information

Software and Systems

Bosch Remote Programming Software (RPS)

LSN Peripherals

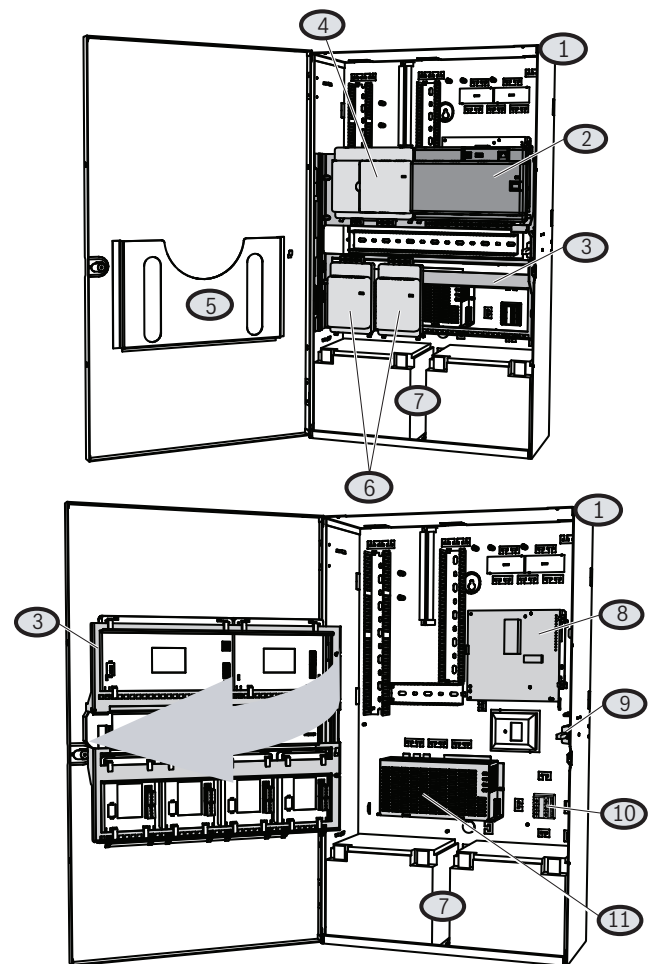
Bosch LSN peripherals.

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

Parts included

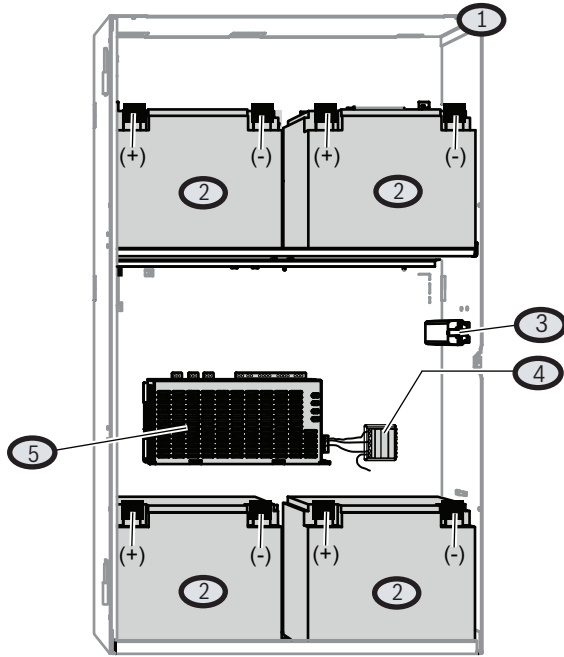
Components Located in Panel Enclosure



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).



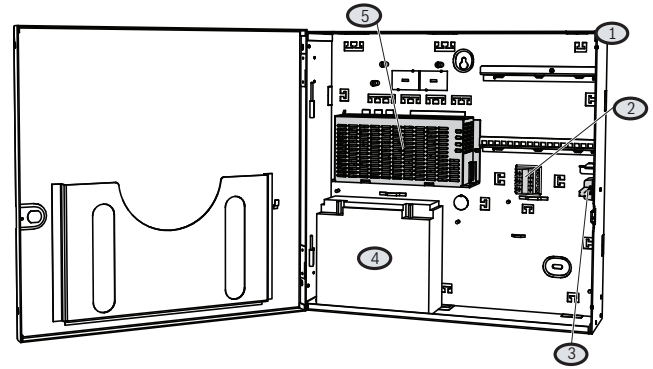
- 1 MAP Power Enclosure Kit (ICP-MAP0115)
- 2 Batteries (12 VDC, 40 Ah)
- 3 MAP Panel Enclosure Tamper Switch (ICP-MAP0050)
- 4 MAP AC Terminal Block (ICP-MAP0065)
- 5 MAP Power Supply 150W (ICP-MAP0005-2)

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

Panel enclosure	
Dimension in cm (H x W x D)	65.8 x 44.3 x 19.35
Weight in g	1566
Power enclosure	
Dimension in cm (H x W x D)	65.8 x 44.3 x 19.35
Weight in g	1566
Expansion enclosure	
Dimension in cm (H x W x D)	43.6 x 44.3 x 11.2
Weight in g	780

System parameters

Number of addresses	1500
Number of areas	500 ¹
Event log capacity	4000

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
MAP control centers	32
DR2020T printer	1 (in VdS systems for service purposes only)
MAP power supplies 150W	32
MAP CAN splitter modules	8
Ethernet interface	1, RJ 45 connection
Management system connection	Via Ethernet interface and the Open Intrusion Interface OII or the 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 MAP main panel)	8

Number of outputs	
Programmable outputs on LSN Bus	Limited to maximum number of available addresses system wide
Power drive (on MAP main panel)	2
Dry contact (on MAP main panel)	2
Auxiliary power (on MAP main panel)	1
Supervised output (on MAP DE module)	3
Open-collector output (on MAP DE module)	2

¹VdS system is limited to two areas, when connecting to the MAP control centers 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 IP31 (with an edge protection profile)
Security level	IK06
Environmental class	II: EN60950-1, EN50130-4, 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; user-selectable languages: German, English, French, Dutch, Hungarian, Polish, Italian, Russian, Spanish, Czech, Portuguese, Latvian
Order number **IUI-MAP0001-2**

ICP-MAP5000-2 Main panel, 8 loop

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**

ICP-MAP5000-COM Intrusion panel, 8 loop, communicator

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**

ICP-MAP5000-S Intrusion panel, 1 loop

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**

ICP-MAP5000-SC Intrusion panel, 1 loop, communicator

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**

ICP-MAP0007-2 Module for Germany

Interface between the MAP 5000 Main Panel (ICP-MAP5000) and communicator interfaces including various AT 2000 Transmission System models.

MAP DE Module providing two RS-232 COM ports, three polarityreversing supervised programmable outputs for sirens, strobes and other audiovisual devices, two not supervised programmable open-collector outputs, and seven dedicated outputs for communicator.

Order number **ICP-MAP0007-2**

ICP-MAP0140 Printer cable

3 m cable with 8-conductor for connecting the MAP DE Module to a DR2020 printer.

Order number **ICP-MAP0140**

ICP-COM-IF Relay module

Relay module for MAP.

Order number **ICP-COM-IF**

ICP-MAP0154 Ribbon cable

Connects the MAP DE Module with an external communicator, for example the ICP-COM-IF Relay Module.

Order number **ICP-MAP0154**

ICP-MAP0152 Serial cable for AT2000

Connection between the MAP DE Module and a transmission unit or the GPRS modem (ITS-MAP0008).

Order number **ICP-MAP0152**

ICP-MAP0012 CAN-splitter module

Provides two independent and isolated stubs for the connection of further keypads, gateways and external power supplies.

Order number **ICP-MAP0012**

ITS-MAP0008 Modem for wireless communication path

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

Order number **ITS-MAP0008**

ICP-MAP0010 LSN gateway module

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

Order number **ICP-MAP0010**

IPP-MAP0005-2 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**

ICP-MAP0120 Expansion enclosure kit

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**

ICP-MAP0111 Panel enclosure kit

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**

ICP-MAP0020 Accessory mounting plate

Accessory mounting plate which can carry up to two MAP 12V Converters and one SIV Fuse Plate or an AT 2000 module.

Order number **ICP-MAP0020**

ICP-MAP0021 Accessory mounting plate

Accessory mounting plate which can carry one ISP-PCBA-EMIL and either one relay module IMS-RM or one voltage transformer ICP-MAP0017. It is also suitable for all standard 3-hole accessory modules.

Order number **ICP-MAP0021**

ICP-MAP0050 Panel enclosure tamper switch

Fits in the MAP Panel and MAP Power Enclosures.

Order number **ICP-MAP0050**

SIV 28 Distributor, fuse-protected

For monitored fusing of the devices connected to a panel like e.g. MAP5000, up to 5 fuses

Order number **SIV 28**

ICP-MAP0065 AC terminal block

Terminal block to connect supply voltage to the MAP power supply 150W.

Order number **ICP-MAP0065**

ICP-MAP0090 Spare cable kit

Cable kit containing cables and parts for electrical connections of MAP devices.

Order number **ICP-MAP0090**

ICP-MAP0060 Enclosure lockset

Lock, two keys, and two warranty seals for use on MAP Panel Enclosure, MAP Power Enclosure, or MAP Expansion Enclosure.

Order number **ICP-MAP0060**

ICP-MAP0115 Power enclosure kit

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**

ICP-MAP0065 AC terminal block

Terminal block to connect supply voltage to the MAP power supply 150W.

Order number **ICP-MAP0065**

ICP-MAP0060 Enclosure lockset

Lock, two keys, and two warranty seals for use on MAP Panel Enclosure, MAP Power Enclosure, or MAP Expansion Enclosure.

Order number **ICP-MAP0060**

ICP-MAP0050 Panel enclosure tamper switch

Fits in the MAP Panel and MAP Power Enclosures.

Order number **ICP-MAP0050**

ICP-MAP0120 Expansion enclosure kit

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**

ICP-MAP0025 Hinged mounting plate

Fits inside the MAP Panel Enclosure or the MAP Expansion Enclosure and holds up to six system modules

Order number **ICP-MAP0025**

ICP-MAP0020 Accessory mounting plate

Accessory mounting plate which can carry up to two MAP 12V Converters and one SIV Fuse Plate or an AT 2000 module.

Order number **ICP-MAP0020**

ICP-MAP0021 Accessory mounting plate

Accessory mounting plate which can carry one ISP-PCBA-EMIL and either one relay module IMS-RM or one voltage transformer ICP-MAP0017. It is also suitable for all standard 3-hole accessory modules.

Order number **ICP-MAP0021**

ICP-MAP0055 Expansion enclosure tamper switch

Fits in the MAP Expansion Enclosure

Order number **ICP-MAP0055**

SIV 28 Distributor, fuse-protected

For monitored fusing of the devices connected to a panel like e.g. MAP5000, up to 5 fuses

Order number **SIV 28**

ICP-MAP0065 AC terminal block

Terminal block to connect supply voltage to the MAP power supply 150W.

Order number **ICP-MAP0065**

ICP-MAP0035 Rack mounting kit

Brackets and fasteners for preparing the MAP Expansion Enclosure for rack mounting. Fasteners for mounting to rack **not** included.

Order number **ICP-MAP0035**

ICP-MAP0060 Enclosure lockset

Lock, two keys, and two warranty seals for use on MAP Panel Enclosure, MAP Power Enclosure, or MAP Expansion Enclosure.

Order number **ICP-MAP0060**

IPP-MAP0005-2 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**

IPS-BAT12V-18AH Battery, 12V 17-18Ah

Lead battery with shock-resistant plastic enclosure

Order number **IPS-BAT12V-18AH**

IPS-BAT12V-27AH Battery, 12V 24-27Ah

Lead battery with shock-resistant plastic enclosure

Order number **IPS-BAT12V-27AH**

IPS-BAT12V-45AH Battery, 12V 38-45Ah

Lead battery with shock-resistant plastic enclosure

Order number **IPS-BAT12V-45AH**

ICP-MAP0017 Converter, 12V

Converts 24 VDC systems into 12 VDC systems. Supports power requirements for communicator interfaces and 12 VDC peripherals.

Order number **ICP-MAP0017**

ICP-MAP0020 Accessory mounting plate

Accessory mounting plate which can carry up to two MAP 12V Converters and one SIV Fuse Plate or an AT 2000 module.

Order number **ICP-MAP0020**

Accessories**3902102156 PCB distribution box**

PCB distribution box

Order number **3902102156**

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