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.
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

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

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).

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.

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.

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

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

#### Mechanical

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Panel enclosure</td>
<td>Dimension in cm (H x W x D)</td>
</tr>
<tr>
<td></td>
<td>Weight in g</td>
</tr>
<tr>
<td>Power enclosure</td>
<td>Dimension in cm (H x W x D)</td>
</tr>
<tr>
<td></td>
<td>Weight in g</td>
</tr>
<tr>
<td>Expansion enclosure</td>
<td>Dimension in cm (H x W x D)</td>
</tr>
<tr>
<td></td>
<td>Weight in g</td>
</tr>
</tbody>
</table>

#### System parameters

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of addresses</td>
<td>1500</td>
</tr>
<tr>
<td>Number of areas</td>
<td>500¹</td>
</tr>
<tr>
<td>Event log capacity</td>
<td>4000</td>
</tr>
</tbody>
</table>

#### Users

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of users</td>
<td>1000</td>
</tr>
<tr>
<td>Number of PINs</td>
<td>996 (with 9 digits, supporting a 3-digit user ID (004 - 999) and a 6-digit passcode)</td>
</tr>
<tr>
<td>Number of possible combination per PINs</td>
<td>1 million</td>
</tr>
<tr>
<td>Validity of PINs</td>
<td>Permanent validity, time-limited validity or one-time use configurable</td>
</tr>
</tbody>
</table>

#### Number of devices

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAP LSN gateways</td>
<td>8</td>
</tr>
<tr>
<td>MAP control centers</td>
<td>32</td>
</tr>
<tr>
<td>DR2020T printer</td>
<td>1 (in VdS systems for service purposes only)</td>
</tr>
<tr>
<td>MAP power supplies 150W</td>
<td>32</td>
</tr>
<tr>
<td>MAP CAN splitter modules</td>
<td>8</td>
</tr>
<tr>
<td>Ethernet interface</td>
<td>1, RJ 45 connection</td>
</tr>
<tr>
<td>Management system connection</td>
<td>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</td>
</tr>
</tbody>
</table>

#### Number of inputs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Programmable inputs on LSN Bus</td>
<td>Limited to maximum number of available addresses system wide</td>
</tr>
<tr>
<td>Number of inputs (on MAP main panel)</td>
<td>8</td>
</tr>
</tbody>
</table>

#### Number of outputs

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programmable outputs on LSN Bus</td>
<td>Limited to maximum number of available addresses system wide</td>
</tr>
<tr>
<td>Power drive (on MAP main panel)</td>
<td>2</td>
</tr>
<tr>
<td>Dry contact (on MAP main panel)</td>
<td>2</td>
</tr>
<tr>
<td>Auxiliary power (on MAP main panel)</td>
<td>1</td>
</tr>
<tr>
<td>Supervised output (on MAP DE module)</td>
<td>3</td>
</tr>
<tr>
<td>Open-collector output (on MAP DE module)</td>
<td>2</td>
</tr>
</tbody>
</table>

¹VdS system is limited to two areas, when connecting to the MAP control centers via the internal and external BDB.
Environmental

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum operating temperature in °C</td>
<td>-10</td>
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<tr>
<td>Maximum operating temperature in °C</td>
<td>55</td>
</tr>
<tr>
<td>Minimum storage temperature in °C</td>
<td>-20</td>
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<tr>
<td>Maximum storage temperature in °C</td>
<td>60</td>
</tr>
<tr>
<td>Minimum relative humidity in %</td>
<td>5</td>
</tr>
<tr>
<td>Maximum relative humidity in %</td>
<td>95</td>
</tr>
<tr>
<td>Protection class</td>
<td>IP30, IP31 (with an edge protection profile)</td>
</tr>
<tr>
<td>Security level</td>
<td>IK06</td>
</tr>
<tr>
<td>Environmental class</td>
<td>II: EN60950-1, EN50130-4, EN50131-1, VdS 2110</td>
</tr>
<tr>
<td>Usage</td>
<td>Indoor</td>
</tr>
</tbody>
</table>

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 keypads).
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 keypads).
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

ICP-MAP0065 AC terminal block
Terminal block to connect supply voltage to the MAP power supply 150W. Order number ICP-MAP0065

ICP-MAP0060 AC terminal block
Terminal block to connect supply voltage to the MAP power supply 150W. Order number ICP-MAP0060

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-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