



Reporting & Alarm System PMA 14

- Autonomous reporting unit
- Immediate alarm recognition in abnormal process situations
- Two to four I/O cards per unit with 16 input channels and 2 relay contacts each
- Two relay contact on the base supply board
- Ethernet communication via certified IEC61850 protocol
- Parallel Redundancy Protocol PRP-1 (IEC62439-3:2012)
- Touch screen display for current alarm states of I/O signals for manual acknowledgement.
- Web server for device configuration.

Key functionalities

- Microprocessor-controlled, **autonomous reporting unit**.
- The device serves for **immediate alarm recognition, identification and visual/audible alarms** in abnormal process situations.
- The basic version is equipped with **two I/O cards**. One I/O card has **16 input channels and 2 relay switching contacts**.
- The **maximum unit configuration** consists of **four I/O cards including 64 input channels** (0...48 [VDC], 0...110 [VDC] and 0...250 [VDC] range) and eight relay switching contacts.
- **Two relays** - each with a switching contact implemented **on the base supply board**: 1 x self-monitoring (watchdog), 1 x programmable.
- The device communicates via **Ethernet** using the **IEC 61850 protocol** incl. **PRP-1** (Parallel Redundancy Protocol IEC62439-3:2012).
- Protection class **IP 00**.
- **Web server configuration** (I/O functionality definition, IEC61850 server parametrization).
- **5.0" touch screen display** for **displaying alarm states** of the input/output signals and their acknowledgement.
- Used either as one **stand-alone unit**, or multiple units can be **interconnected** for a particular application
- Occupies **1/3 of a 3HE 19" rack** - one 19" rack can house up to three PMA14s
- Channels **activated** either by **normally open** or **normally closed** contact
- **High noise immunity** to electrical and electromagnetic interference
- **CE certificate** according to the EC directive for EMC (EN 61000-6-2 and EN 61000-6-4)
- Device is **certified according to 61850 – Ed.1 and Ed.2** (Parts 6, 7-1, 7-2, 7-3, 7-4 and 8-1)

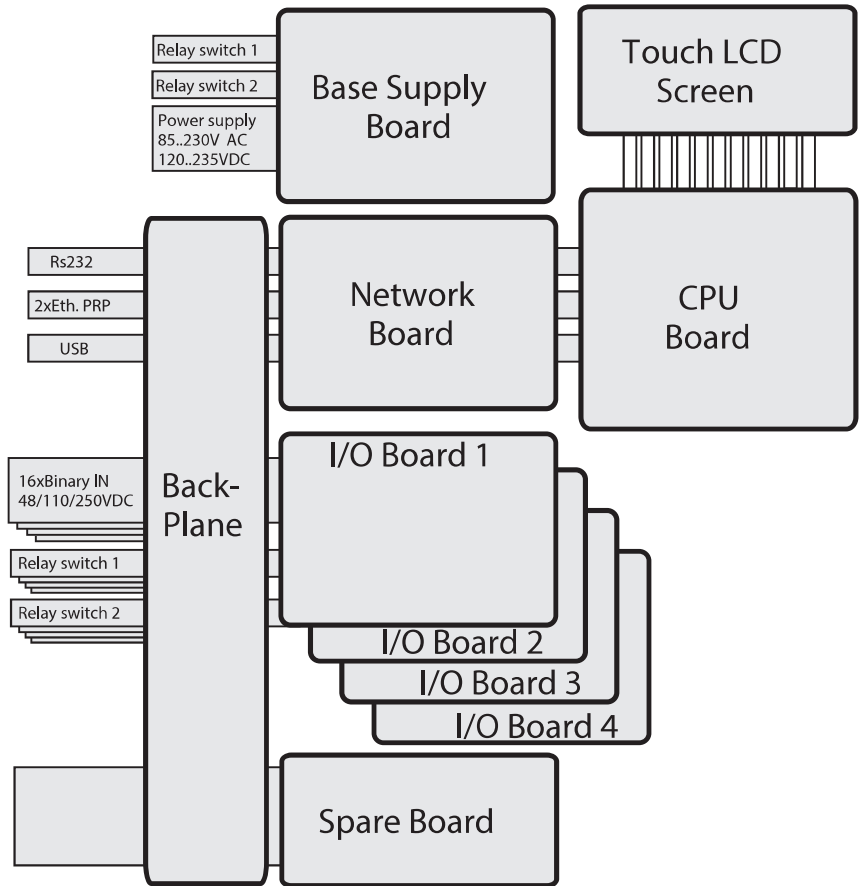


The immediate alarm recognizer



System building blocks

- A base supply board with two separate relay switching contacts
- A network card with two Ethernet interfaces, a USB interface and an RS232 port
- Two to four I/O boards with 16 inputs with two separate relay switching contacts each
- A backplane that provides connections of all cards by means of plugs and sockets
- A 5.0" resistive TFT touch screen display, 800 x 480



Typical usage



Technical Data

Signalling channels:

Number of power-operated signalling channels per I/O board	16
Type of contacts	Digital input
Permissible voltage	250 VDC
Minimum on time until signal is assessed as valid, freely selectable values (in multiples of 100 [ms])	300 ... 200000 ms

Output relays:

Number of output relays per I/O board	2
Number of power supply board output relays	2
Type of contacts	Potential-free relay contacts with 1 switching contact
Permissible voltage, current	<ul style="list-style-type: none">• AC: 125 VAC, 0.5 A, 62.5 W 250 VAC, 0.25 A, 62.5 W• DC: 30 [VDC], 2 A, 60 W, only NO, ohmic 110 VDC, 0.3 A, 33 W, ohmic 220 VDC, 0.27 A, 60 W, ohmic• Switching capacity max. 60 W, 62.5 VA

Control inputs external acknowledgement/reset

For channel acknowledgement/reset	Touchscreen IEC61850 Client (all alarms combined)
For acknowledgement power supply board alarm relay 2	Touchscreen (quick overview button pressed for more than five seconds)

Network Connection

Protocol	IEC61850 Ed.1 and Ed.2
2x Ethernet (PRP-1, IEC62439-3:2012, Edition 2.0, 2012-07)	RJ45
Optical Ethernet	optional: using optical Ethernet Interface

Auxiliary power

Power supply	<ul style="list-style-type: none">• 85-230 VAC• 120-325 VDC or• 48-72 VDC
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Area of usage:

- High and medium-voltage switchgear,
- Industrial plants and processes, substations,
- Building services engineering etc.

Used for:

immediate alarm recognition, identification and visual/audible alarms in abnormal process situations.