



## Multi-channel process display

### benefits

- Up to 90 channels for inputs/outputs
- 35 mathematical/logical functions
- 8 integrated PID controllers with autotuning
- 8 time-controlled/event-controlled profiles
- Touchscreen operation and remote operation
- Multi-level password system
- Web server with HTML5 widgets
- E-mail function

## Application

Universal application for displaying and logging up to 16 independent analogue input signals, 8 binary inputs, 4 resistance thermometer inputs (RTD), 4 thermocouple inputs (TC) with freely selectable scaling and units. MPA 20 is very well suited for applications in which several physical measured variables reflect the state of an object and the state is controlled by several parameters at the same time.

## Description

Digital display unit with integrated data logger in plastic housing for control panel mounting which allows for simultaneous measurement, visualisation and controlling of multiple channels. MPA 20 can operate autonomously or in conjunction with external measuring equipment and actuators. The multi-channel process display is designed as a modular device that consists of a base unit and optional input modules and output modules. The base unit comprises the main processor, a touch display, a switched-mode power supply (two available versions: 19–35 VDC and 85–260 VAC) as well as the communication interfaces (USB and RS 485).

## Technical Specifications

### Display

TFT touchscreen display 5.7"

User interface languages: German, English, French

Indication of value, bar chart, diagram, pointer, groups

### Measuring range

Current inputs 0–20 mA

Voltage inputs 0–5 V, 1–5 V, 0–10 V, 2–10 V

Resistance thermometers

Thermocouple

### Operating temperature range

Ambient: 0/50 °C

### Supply voltage

AC/DC 85 – 260 V

### Input resistance

Current: < 65 Ohm

voltage: > 100 kOhm

### Housing

Panel housing

W x H x D: 144 x 144 x 110 mm

### Weight

0.35 kg

**Degree of protection**

Front (sealing frame)

Housing, connection terminals: IP 20 (EN 60529)

**Electrical connection**

Plug-in screw terminals (1.5 mm<sup>2</sup>)

**Interfaces**

RS 485 (Modbus RTU)

RS 232

USB host

Ethernet (Modbus TCP)

**Data memory**

Internal memory 1.5 GB, max. 125,000,000 values

Acquisition of measured values of up to 60 channels

2 selectable measurement frequencies (max. 10 Hz)

comprehensive trigger functions

Data transmission via USB flash drive or Ethernet

**Options**

- Software
- DIN rail adapter

**Slot P**

02

Supply AC/DC 85–260 V

Output DC 24 V 200 mA

Digital input DC 24 V, RS-485 Modbus RTU

**Special version**

01

Sealing frame IP 65

**Options**

- Software
- DIN rail adapter

## Versions

|  |                           |                                           | Slot D             | Slot C/B/A                             |   | Part no.           |
|--|---------------------------|-------------------------------------------|--------------------|----------------------------------------|---|--------------------|
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 24 x current input (I)                 | ● | MPA 20<br>02010101 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 16 x binary input (D)                  | ● | MPA 20<br>02010201 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 4 x resistance thermometer input (RTD) | ● | MPA 20<br>02010301 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 4 x thermocouple input (TC)            | ● | MPA 20<br>02010401 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 3 x universal input (I, U, RTD, TC)    | ● | MPA 20<br>02010501 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 4 x current output                     | ● | MPA 20<br>02010601 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | empty              | 12 x SPST relay 1A                     | ● | MPA 20<br>02010701 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 24 x current input (I)                 | ● | MPA 20<br>02020101 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 16 x binary input (D)                  | ● | MPA 20<br>02020201 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 4 x resistance thermometer input (RTD) | ● | MPA 20<br>02020301 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 4 x thermocouple input (TC)            | ● | MPA 20<br>02020401 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 3 x universal input (I, U, RTD, TC)    | ● | MPA 20<br>02020501 |
|  | Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port rear | 4 x current output                     | ● | MPA 20<br>02020601 |

|                           |                                           |                                                   |                                                |   |                    |
|---------------------------|-------------------------------------------|---------------------------------------------------|------------------------------------------------|---|--------------------|
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar                           | 12 x SPST relay<br>1A                          | ● | MPA 20<br>02020701 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 24 x current inpu-<br>t (I)                    | ● | MPA 20<br>02030101 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 16 x binary inpu-<br>t (D)                     | ● | MPA 20<br>02030201 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 4 x resistance<br>thermometer in-<br>put (RTD) | ● | MPA 20<br>02030301 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 4 x thermocouple<br>input (TC)                 | ● | MPA 20<br>02030401 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 3 x universal in-<br>put (I, U, RTD,<br>TC)    | ● | MPA 20<br>02030501 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 4 x current output                             | ● | MPA 20<br>02030601 |
| Supply AC/<br>DC 85–260 V | Special version<br>sealing frame IP<br>65 | USB host port re-<br>ar<br>Ethernet 10 Mbit/<br>s | 12 x SPST relay<br>1A                          | ● | MPA 20<br>02030701 |

● in-stock items

● Non-stock items