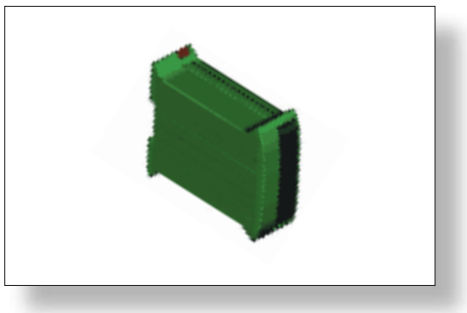
OMX 100PM



- **0...2/5/10 V**
- **0...5/20 mA/4...20 mA**
- **Output: 0...5/0/4...20 mA**
  0...2/5/10 V
- **To DIN rail 35 mm**
- **Power supply 230 VAC**

Options

Dual comparator • Data output • Frequency output • Power supply: 24 VAC, 110 VAC, 10...30 VDC

Description

The OMX 100PM model is a programmable transmitter of direct-current voltage or current to isolated analogue output.
The instrument is based on an 8-bit controller with precise A/D converter, that secures high accuracy, stability and easy operation of the instrument.
The transmitter is in a plastic DIN box with a terminal board for mounting to rail of 35 mm width.
Transmitter power supply (230 VAC), input and output signal have galvanic separation with isolation voltage of 300 V.

Standard functions

Input

Optional	0...5/20 mA/4...20 mA; 0...2/5/10 V

Digital filter

Radius insensitiv.	band of suppressed change of measured value

Output

Analogue	programmable 0...5/0/4...20 mA; ±20 mA 0...2/5/10 V; ±5/10 V

Operation

The transmitter is preset from manufacture as per customer request. For further setting and control the IR port may be used in combination with the transmission module (OMA 12-IR) or data output RS 232/485.
All programmable parameters are stored in the EEPROM memory (they hold even after the instrument is switched off).

Options

Dual comparator serves to monitor two limit values with relay output. The limits have adjustable hysteresis as well as selectable delay of the switch-on. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.
Data outputs are for their rate and accuracy suitable for transmission of the measured data for further projection or directly into the control systems. We offer an isolated RS232 and RS485 with the ASCII protocol.
Frequency output from the transmitter - it is advantageous to use frequency output upon transmission at larger distance (larger interference resistance) or into PLC.

Technical data

MEASURING RANGE — Impedance/Max. drop

0...5 mA	< 400 mV	Input I
0...20 mA	< 400 mV	Input I
4...20 mA	< 400 mV	Input I
0...2 V	1 MOhm	Input U
0...5 V	1 MOhm	Input U
0...10 V	1 MOhm	Input U

INSTRUMENT ACCURACY

Tempco:	100 ppm/°C
Accuracy:	±0,2 % of range
Rate:	1,3 - 2,5 - 5 - 10 - 20 - 40 measurements/s
Overload capacity:	10x (t < 30 ms) - does not apply for 300/450 V and 5 A, 2x (long-term)
Watch-dog:	reset after 20 ms
Calibration:	at 25°C and 40 % r.h.

ANALOGUE OUTPUTS

Analogový:	isolated, programmable with resolution max. 12 bit
Non-linearity:	0,2 % of range
Tempco:	100 ppm/°C
Rate:	response to change of value < 300 ms
Voltage:	0...2 V/5 V/10 V , upon request ±5 V/±10 V
Current:	0...5 mA/0/4...20 mA (compensation of conduct up to 600 Ohm) upon request ±20 mA
Frequency:	isolated, programmable, open colectors 1...101/5...505/10...1010 Hz

COMPARATOR

Type:	digital, adjustable in programming mode, contact switch-on < 30 ms
Limit 1 and 2	±1999
Hysteresis:	0...1999
Delay:	0...99,9 s
Outputs:	2 relays with switch-on (switch-off) contact (250 VAC/30 VDC, 3 A) - the relay function is adjustable in Configuration menu

DATA OUTPUTS

Data format:	rate 1 200...38 400 Baud, 8 bit + no parity + 1 stop bit (ASCII)
RS 232	isolated
RS 485	isolated, addressing (max. 99 instruments)

POWER SUPPLY

24/110/230 VAC, 50/60 Hz, ±10 %, 5 VA
10...30 VDC/max. 150 mA, (24 VDC/80 mA), isolated
- power supply is protected by a fuse inside the instruments

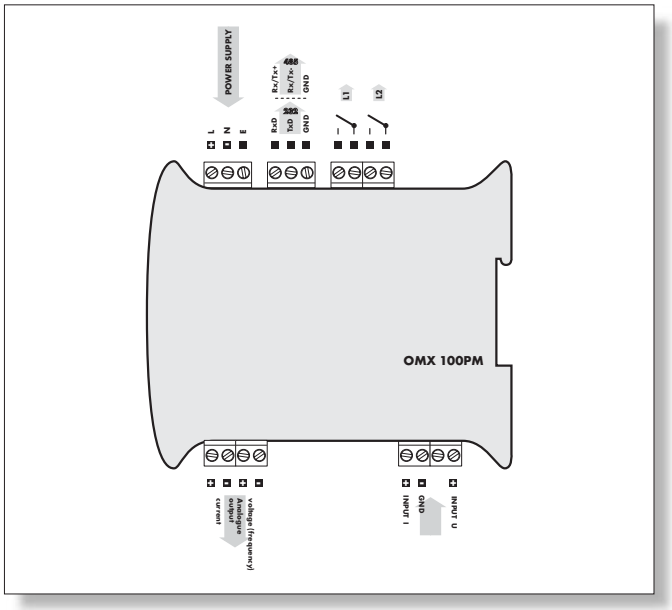
MECHANIC PROPERTIES

Material:	ABS (UL 94-V0), green
Dimensions:	96 x 48 x 120 mm
Installation:	to DIN rail, width of 35 mm

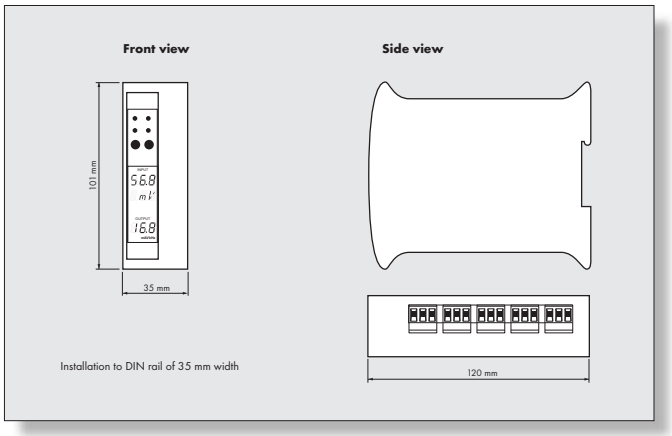
OPERATING CONDITIONS

Connection:	connector terminal board, conductor section up to 2,5 mm²
Stabilization period:	within 15 minutes after switch-on
Working temperature:	0°...60°C
Storage temperature:	-10°...85°C
Covering:	IP40
Construction:	safety class I
Elektrical safety:	EN 61010-1, A2
Overvoltage category:	for pollution degree II III. - instrument power supply, relay output (300 V) II. - input, output (300 V)
EMC:	EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2

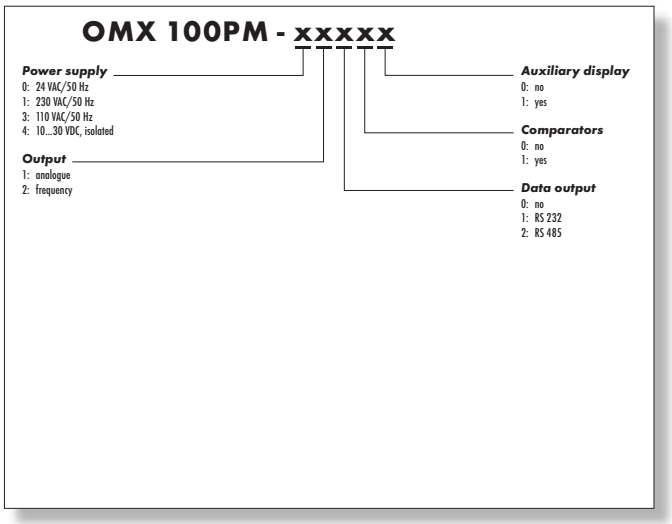
Connection



Dimensions



Order code



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