



## OMX 211PM

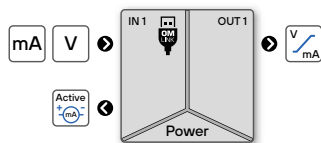
- Input 0...2/5/10 V  
0...5/20 mA, 4...20 mA, passive/active
- Analogue output, passive/active
- Quick configuration by DIP switch
- PC configurable via USB port
- Galvanic isolation 2.5 kVAC
- Simple installation to DIN rail
- Power supply 10...30VDC, 24 VAC

The OMX 200 model series are digital DIN rail mounted signal converters housed in an enclosure only 12.5 mm wide.

The OMX 211PM type is a simple single-channel isolator with a convenient setting of the input and output ranges either using a DIP switch on the side of the housing or the free OM Link SW from a PC.

This device is based on a microprocessor with a 24-bit  $\Delta\Sigma$  A/D converter, which guarantees high accuracy and excellent stability.

### PROGRAMMABLE ISOLATED CONVERTER



#### OPERATION

The device can be configured either by DIP switches located on the side of the housing or by PC using the OM Link SW. The same SW can be used to edit and archive all device settings, as well as to perform firmware updates and customer calibration. A standard microUSB cable is required for PC to device connection.

Tech-in process can be performed for the measuring range currently selected using the front panel buttons.

All settings are stored in the EEPROM memory (preserved even after power-off)

#### STANDARD FUNCTIONS\*

##### PROGRAMMABLE INPUT

**Selection:** of measuring range

**Standard setting:** any input values can be assigned to Min and Max values of the analog output

**Teach-in:** any input values can be assigned to Min and Max values of the actual (unknown) input signal

**Manual setting:** the known Min and Max values of the input signal can be set manually and any analog output values can be assigned to each of them at the same time

##### ANALOG OUTPUT

**Type:** isolated, configurable with resolution of 10 000 parts, rate < 3.5 ms

**Range:** 0...10 V, 0...20 mA, 4...20 mA

##### FUNCTIONS

**Linearization:** 100-point conversion of non-linear input signals by interpolation

**Tare:** designed to reset display upon non-zero input signal

**Simulation:** test mode in which range, value and duration of the step can be set

**Math functions:** polynomial, inverse polynomial, logarithm, exponential, power, root

##### DIGITAL FILTERS

**Floating average:** from 2...30 measurements

**Exponential average:** from 2...100 measurements

**Arithmetic average:** from 2...100 measurements

\* this setting is only possible via the OM Link SW

## TECHNICAL DATA

### INPUT

No. of inputs	1	
	The range is selectable either by DIP switch or by OM Link free SW from PC	
<b>PM</b>	<b>Range</b>	
	0...5 mA	< 200 mV
	0...20 mA	< 200 mV
	4...20 mA	< 200 mV
	±2 V	1 MΩ
	±5 V	1 MΩ
	±10 V	1 MΩ

### INSTRUMENT ACCURACY

TC: 50 ppm/°C  
 Accuracy: ±0.1% of range + 1 digit  
 Rate: 1...100 measurement/s  
 Overload capacity: 2x; 10x (t < 30 ms)  
 Functions: Teach-in, Tare, Math functions, Simulation  
 Digital filters: exponential / floating / arithmetic average, rounding  
 Math functions: polynomial / inverse polynomial / logarithm / exponential / power / root  
 Linearization: linear interpolation in 100 points (only via OM Link)  
 OM Link: company communication interface for operation, setting and update of instruments, microUSB  
 Watch-dog: reset after 500 ms  
 Calibration: at 25°C and 40 % r.h.

### ANALOG OUTPUT

No. of outputs: 1  
 Type: isolated, configurable with a resolution of 10 000 parts, type and range are selectable in the menu  
 Non-linearity: 0.1% of range  
 TC: 15 ppm/°C  
 Rate: response to change of value < 3.5 ms  
 Ranges: 0...10 V, 10...0 V, resistive load < 2.6 kΩ  
 0...20 mA/20...0, 4...20/20...4 mA (active/passive), compensation < 600 Ω/12 V

### EXCITATION

Fixed: 24 VDC/35 mA, isolated (only for input 4...20 mA)

### POWER SUPPLY

Range: 10...30 V AC/DC, ±10 %, PF ≥ 0.4, I<sub>STP</sub> < 40 A/1 ms, isolated  
 Consumption: < 2.5 W/2.4 VA  
 Power supply is protected by a fuse inside the instrument.

### MECHANICAL PROPERTIES

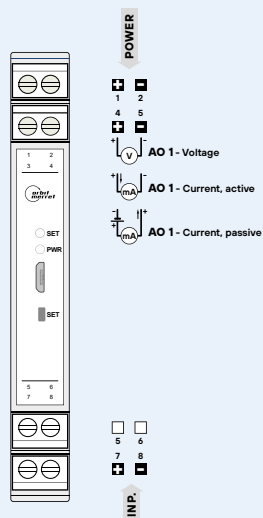
Material: PA 66, incombustible UL 94 V-1, blue  
 Dimensions: 12.5 x 99 x 114.5 mm (w x h x d)  
 Installation: on DIN rail, width 35 mm

### OPERATING CONDITIONS

Connection: connector terminal blocks, section < 2.5 mm<sup>2</sup>  
 Stabilization period: within 5 minutes after switch-on  
 Working temperature: -20°...60°C  
 Storage temperature: -20°...80°C  
 Protection: IP20  
 EL safety: EN 61010-1, A2  
 Dielectric strength: 2.5 kVAC for 1 min test between supply and input  
 2.5 kVAC for 1 min. between signal input and outputs  
 Insulation resistance: for pollution degree II, measuring cat. III  
 power supply > 300 V (PI), 255 V (DI)  
 input/output > 300 V (PI)  
 EMC: EN 61326-1  
 Seismic qualification: IEC/IEEE 60980-344 Edition 1.0, 2020, par. 6, 9  
 Mechanical resistance: EN 60068-2-6 ed. 2:2008

PI - Primary insulation, DI - Double insulation

## CONNECTION



## ORDER CODE

**OMX 211PM**



Specification      customized version, do not fill in      **00**