

## OMX 380

**OMLINK**

The OMX 380 model range are very fast digital transmitters to DIN rail with and Teach-in function.

Modifications available are PM, DU and T.

The instrument is based on a single chip microcontroller, 24-bit A/D and 16-bit D/A converter, which ensures good accuracy, stability and easy operation of the instrument.

- PROGRAMMABLE ISOLATED TRANSMITTERS
- MEASURING RATE - UP TO 7 500 MEAS./S
- TEACH-IN
- OUTPUT: 4...20 mA/0...10 V
- POWER SUPPLY 18...30 VDC
- Option  
Excitation • Data output • Power supply 10...30 V AC/DC

**OMX 380PM**  
PROCESS MONITOR

**OMX 380DU**  
TRANSMITTER FOR LINEAR POTENTIOMETERS

**OMX 380T**  
TRANSMITTER FOR STRAIN GAUGE

### OPERATION

The instrument is controlled by two push buttons on the front panel. The mode of the output signal and the access to the teach-in mode is realised by a switch at the rear. Standard equipment is the OM Link interface, which together with operating program allows modification and filling of all instrument's settings as well as performing firmware updates (with OML cable).

All settings are stored in the EEPROM memory (they hold even after the instrument is switched off).

### OPTION

**EXCITATION** is suitable for powering sensors and transmitters. It is not galvanically isolated. The set values are either 24 V.

**DATA OUTPUT** 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 RS485 with the ASCII/MODBUS protocol.

### STANDARD FUNCTIONS

#### PROGRAMMABLE INPUT

**Selection of:** measuring range

**Setting:** Teach-in, allows easy setting of both min. and max. of the measuring range

#### ANALOG OUTPUT

**Type:** programmable with resolution 16 bit, rate < 0,2 ms

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

#### EXCITATION

**Fixed:** 15 VDC or 24 VDC

NEW

## TECHNICAL DATA

### INSTRUMENT ACCURACY

TK: 10 ppm/°C  
**Accuracy:** ±0,01% of range  
 ±0,03% of range  
 ±0,025% of range  
**Rate:** 1 000...7 500 meas./s  
**Overload capacity:** 2x; 10x (t < 30 ms)  
**Watch-dog:** reset after 400 ms  
**Digital filters:** Exp./Floating/Arithmetic average  
**Ext. control:** HOLD, LOCK, Tare  
**Functions:** Teach-in  
**OM Link:** Company communication interface for operation, setting and update of instruments  
**Calibration:** at 25°C and 40 % r.h.

PM (U), DU  
 PM (I)  
 T

### DATA OUTPUT

Type: RS 485  
**Protocol:** ASCII, MESSBUS, MODBUS - RTU  
**Data format:** 8 bit + no parity + 1 stop bit  
**Rate:** 600...230 400 Baud  
**Addressace:** ASCII - max. 31 instruments  
 MODBUS - max. 246 instruments

### ANALOG OUTPUT

Type: programmable with resolution of 16 bit, type and range are selectable  
**Non-linearity:** 0,024% of range  
 TK: 10 ppm/°C  
**Rate:** response to change of value < 0,2 ms  
**Ranges:** 0...10 V, 4...20 mA (comp. < 500 Ω)  
**Ripple:** 5 mV residual ripple at output voltage of 10 V

### EXCITATION

**Fixed (PM):** 15 VDC/max. 40 mA; 24 VDC/max. 40 mA  
**Fixed (DU):** 2,5 V (±0,2 %)  
**Fixed (T):** 10 V, max. load 80 Ω

### POWER SUPPLY

18...30 VDC, ±10 %, max. 2,5 W,  $I_{STP} < 40$  A/1 ms  
 10...30 VDC, ±10 %, max. 2,5 W, PF ≥ 0,4,  $I_{STP} < 40$  A/1 ms, isolated

### MECHANIC PROPERTIES

**Material:** PA 66, incombustible UL 94 V0, blue  
**Dimensions:** 90,5 x 79 x 25 mm  
**Installation:** to DIN rail 35 mm wide

### OPERATING CONDITIONS

**Connection:** connector terminal board, section < 1,5 mm<sup>2</sup>  
**Stabilization period:** within 15 minutes after switch-on  
**Working temperature:** -20°...60°C  
**Storage temperature:** -20°...80°C  
**Cover:** IP20  
**El. safety:** EN 61010-1, A2  
**Dielectric strength:** 2,5 kVAC after 1 min between supply and input  
 2,5 kVAC after 1 min between supply and data/analog output  
 2,5 kVAC after 1 min between input and data/analog output  
**Insulation resistance:** for pollution degree II, measuring cat. III.  
 Power supply > 550 V (ZI), 255 V (DI)  
**EMC:** EN 61326-1

PI - Primary insulation, DI - Double insulation

## MEASURING RANGES

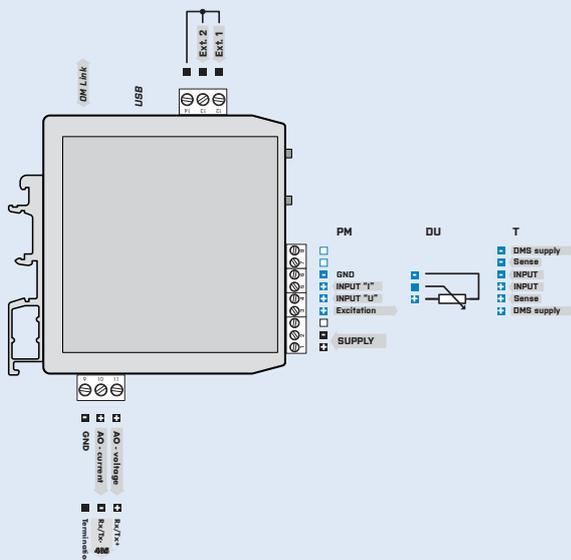
OMX 380 is available in these modifications and measuring ranges

PM: 0...20 mA/4...20 mA/0...10 V  
 DU: Linear potentiometer (min. 500 Ω)  
 T: 1...4/2...8/4...16 mV/V

### CONNECTING INDIVIDUAL INPUTS

	INPUT „I“	INPUT „U“
PM	0...20 mA, 4...20 mA	0...10 V

## CONNECTION



## ORDER CODE

### OMX 380

□ □ - □ □ □ □ - □ □

Type	P	M			
	D	U	•	•	•
	T		•	•	

Order code shall not include blank spaces!

<b>Power supply</b>	18...30 VDC	0		
	10...30 VDC, isolated	1		
<b>Output</b>	Analog		1	
	Date - RS 485		2	
<b>Excitation</b>	15 VDC			0
	24 VDC			1
<b>Other</b>	customer version, do not fill in			00



Presented by: Absolute Gauge Technologies  
 sales@absolute-gauge.com; www.absolute-gauge.com,  
 Toronto: 416 754 3168, Montreal: 514 695 5147, Toll Free: 1 888 754 7008

Default execution is shown in bold