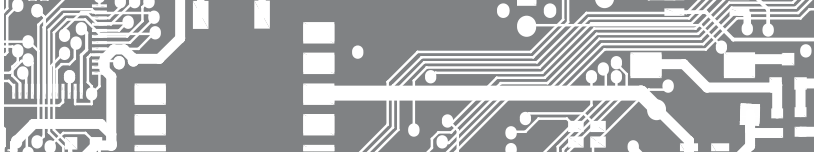


OMX 380

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 MEASUR./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 allowes modification and filing of all instrument's settings as well as performing firmware updates (with OML cable).

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

OPTIONS

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

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 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 resolution16 bit, rate < 0,2 ms
Range: 0...10 V, 4...20 mA

EXCITATION

Fixed: 13,8 V (by supply 18...30 V) or15 V (by supply 10...30 V)

TECHNICAL DATA

INSTRUMENT ACCURACY
TC: 10 ppm/°C
Accuracy: ±0,01% of range
Rate: 1 000...7 500 meas./s
Overload capacity: 10x (t < 30 ms); 2x
Watch-dog: reset after 20 ms
Functions: Teach-in
OM Link: Company communication interface for operation, setting and update of instruments
Calibration: at 25°C and 40% r.h.

DATA OUTPUT
Type: RS 485
Protocol: ASCII, MODBUS - RTU
Data format: 8 bit + no parity + 1 stop bit
Rate: 600...115 200 Baud
Addresing: ASCII - max. 31 instruments
MODBUS - max. 246 instruments

ANALOG OUTPUT
Type: programmable with resolution of 16 bit, type and range are selectable
Non-linearity: 0,01% of range
TC: 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): 13,8 VDC/max. 20 mA (by supply 18...30 V)
15 VDC/max. 40 mA (by supply 10...30 V)
24 VDC/max. 40 mA (by supply 10...30 V)
Fixed (DU): 10 V (±0,2 %)
Fixed (T): 10 V, max. load 150 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 V-0, blue
Dimensions: 90,5 x 79 x 25 mm
Installation: to DIN rail 35 mm wide

OPERATING CONDITIONS
Connection: connector terminal board, section < 1,5/2,5 mm²
Stabilization period: within 15 minutes after switch-on
Working temperature: -20°...60°C
Storage temperature: -20°...85°C
Cover: IP20
El. safety: EN 61010-1, A2
Dielectric strength: 2,5 kVAC after 1 min between supply/input/outputs
Insulation resistance: for pollution degree II, measuring cat. III. power supply > 550 V (PI), 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 mV, 2...8 mV, 4...16 mV/V

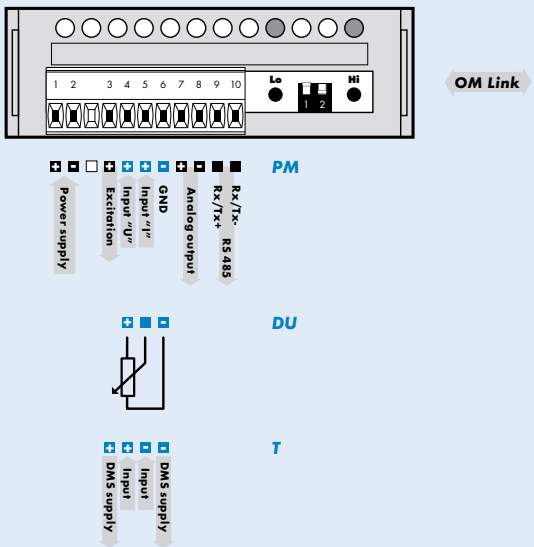
CONNECTING INDIVIDUAL INPUTS

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

ORDER CODE SPECIFICATION

	T
A	1..4 mV/V
B	1...8 mV/V
C	4...16 mV/V
Z	on request

CONNECTION



ORDER CODE

OMX 380 ☐☐ - ☐☐☐☐ - ☐

Type		**P**	**M**	•		•	•	
		D	**U**	•		•		
Order code shall not include blank spaces!			**T***	•	•	•		
Power supply	**18...30 VDC**			**0**				
	10...30 VDC, isolated			**1**				
Measuring range, see table „Order code specification"					**?**			
Output	**Analog**					**1**		
	Data - RS 485, ASCII*					**2**		
	Data - RS 485, MODBUS*					**3**		
Excitation	13,8/15 VDC						**0**	
	24 VDC						**1**	
Other	**customer version, do not fill in**							**00**

Default execution is shown in bold

* Launch for sale has not been set