



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

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.

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 filing 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, ±10 V, 4...20 mA

EXCITATION

Fixed: 15 VDC or 24 VDC

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
DM Link: Company communication interface for operation, setting and update of instruments
Calibration: at 25°C and 40% rh.

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
Address: 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/±10 V/4...20 mA (comp. < 600 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_{trip} < 40 A/1 ms
 10...30 VDC, ±10%, max. 2,5 W, PF ≥ 0,4, I_{trip} < 40 A/1 ms, isolated

MECHANICAL PROPERTIES

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

OPERATING CONDITIONS

Connection: connector terminal board, section < 1,5 mm²
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 (Z), 255 V (D)
EMC: EN 61326-1

PI - Primary insulation, DI - Double insulation

MEASURING RANGES

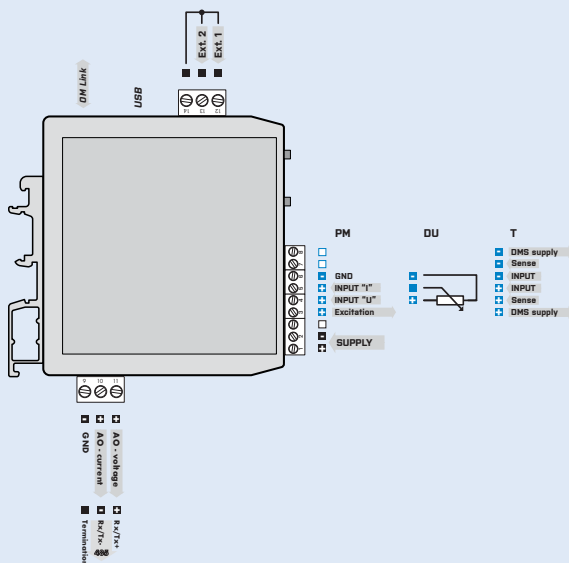
OMX 380 is available in these modifications and measuring ranges

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

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Type	P	M			
	D	U	•	•	•
			•	•	•
			•	•	•
Power supply	18...30 VDC	0			
	10...30 VDC, isolated	1			
Output	Analog		1		
	Data - RS 485		2		
Excitation	15 VDC			0	
	24 VDC			1	
Other	customer version, do not fill in				00

Default execution is shown in bold