



## OMX 380T

**OMLINK**

The OMX 380 model series are very fast DIN rail mountable digital transmitters with a Teach-in function.

Type OMX 380T is a transmitter for strain gauges.

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

### PROGRAMMABLE ISOLATED TRANSMITTER

- INPUT FOR STRAIN GAUGES
- OUTPUT: 4...20 mA/0...10 V/±10 V
- RATE UP TO 7 500 m./s
- DIGITAL FILTERS, TARE, TEACH-IN
- STRAIN GAUGE EXCITATION
- GALVANIC SEPARATION: 2,5 kVAC
- POWER SUPPLY 18...30 VDC/24 VAC
- Option  
Data output

### OMX 380T

TRANSMITTER FOR STRAIN GAUGES

#### OPERATION

The instrument is set and controlled by two push buttons located on the front panel. Type of the output signal and access to the instrument setting is managed by a switch on the front panel.

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

**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 RS485 with ASCII protocol.

#### STANDARD FUNCTIONS

##### PROGRAMMABLE INPUT

**Selection:** measuring range

**Tech-in:** semiautomatic mode of input calibration of both limit values of the output range

##### ANALOG OUTPUT

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

**Range:** 0...10 V, ±10 V, 4...20 mA

##### EXCITATION

**Fixed:** 10 VDC, load ≥ 80 Ω

##### FUNCTIONS

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

**Fixed tare:** firmly preset tare

##### DIGITAL FILTERS

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

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

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

##### EXTERNAL CONTROL

**Hold:** display/instrument blocking

**Lock:** control keys blocking

**Tare:** activation and tare resetting

## TECHNICAL DATA

### INPUT

<b>T</b>	<b>Range</b>	optional in configuration menu 1..4 mV/V 2...8 mV/V 4...16 mV/V
	<b>Excitation</b>	10 VDC, load $\geq 80 \Omega$
	<b>Connect.</b>	6-wire
<b>Ext. inputs</b>		
	2 inputs, on contact	
	The following functions can be assigned:	
	OFF	input off
	HLD.	display stop
	TAR.	tare activation
	CL.TAR.	tare resetting

### INSTRUMENT ACCURACY

**TK:** 10 ppm/°C  
**Accuracy:**  $\pm 0,025\%$  of value  
**Rate:** 1 000...7 500 measur./s  
**Overload capacity:** 2x; 10x [t < 30 ms]  
**Digital filters:** exp./floating/arithm. average  
**Functions:** Teach-in, Tare  
**DM Link:** Company communication interface for operation, setting and update of instruments.  
**Watch-dog:** reset after 400 ms  
**Calibration:** at 25°C and 40 % r.h.

### DATA OUTPUTS

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

### ANALOG OUTPUTS

**Type:** programmable with a 16-bit D/A converter, output type and range are optional  
**Non-linearity:** 0,024% of range  
**TK:** 10 ppm/°C  
**Rate:** response to change of value < 0,2 ms  
**Ranges:** 0...10 V,  $\pm 10$  V, 4...20 mA [comp. < 600  $\Omega$ ]  
**Ripple:** 5 mV residual ripple at output voltage of 10 V

### POWER SUPPLY

**Range:** 10...30 VDC/24 VAC,  $\pm 10\%$ , PF  $\geq 0,4$ ,  $I_{sp} < 40$  A/1 ms  
 10...30 VDC/24 VAC,  $\pm 10\%$ , PF  $\geq 0,4$ ,  $I_{sp} < 40$  A/1 ms, isolated  
**Consumption:** < 2,5 W/2,3 VA

### MECHANIC PROPERTIES

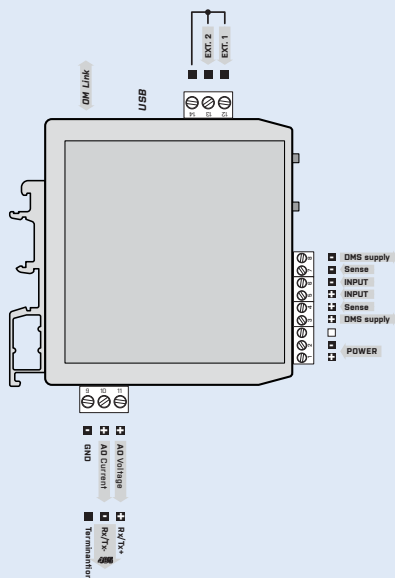
**Material:** PA 66, incombustible UL 94 V0, blue  
**Dimensions:** 25 x 79 x 90,5 [w x h x d]  
**Installation:** on DIN rail, width 35 mm

### OPERATING CONDITIONS

**Connection:** connector terminal blocks, 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  
**Protection:** IP20  
**EL safety:** EN 61010-1, A2  
**Dielectric strength:** 2,5 kVAC per 1 min test between supply and input  
 2,5 kVAC per 1 min test between supply and data/analog output  
 2,5 kVAC per 1 min test between input and data/analog output  
**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

## CONNECTION



## ORDER CODE

### OMX 380T

- [ ] - [ ]

<b>Power supply</b>	18...30 VDC	<b>0</b>	
	10...30 VDC, isolated	<b>1</b>	
<b>Output</b>	Analog	<b>1</b>	
	Data - RS 485	<b>2</b>	
	Data - RS 485/Modbus	<b>3</b>	
<b>Specification</b>	customized version, do not fill in		<b>00</b>

Basic configuration of the instrument is indicated in bold.