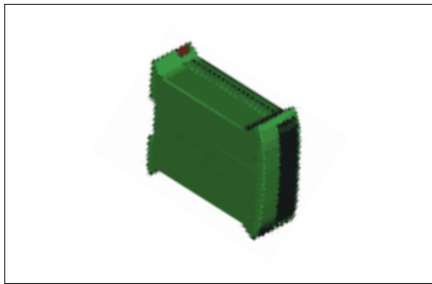


OMX 100DU



- **Linear potentiometer**
- **0...450 V/0...5 A**
- **Output: 0...5/0/4...20 mA**
0...2/5/10 V
- **To DIN rail 35 mm**
- **Power supply 230 VAC**

Options

Dual comparator • Data output • Frequency output • Power supply: 24 VAC, 110 VAC, 10...30 VDC

Description

The OMX 100DU model is a programmable transmitter of signal from linear potentiometers to isolated analogue output.

The instrument is based on an 8-bit controller with precise A/D converter, that secures high accuracy, stability and easy operation of the instrument.

The transmitter is in a plastic DIN box with a terminal board for mounting to rail of 35 mm width.

Transmitter power supply (230 VAC), input and output signal have galvanic separation with isolation voltage of 300 V.

Operation

The transmitter is preset from manufacture as per customer request. For further setting and control the IR port may be used in combination with the transmission module (OMA 12-IR) or data output RS 232/485.

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

Options

Dual comparator serves to monitor two limit values with relay output. The limits have adjustable hysteresis as well as selectable delay of the switch-on. Reaching the preset limits is signalled by LED and simultaneously by the switch-on of the relevant relay.

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 RS232 and RS485 with the ASCII protocol.

Frequency output from the transmitter - it is advantageous to use frequency output upon transmission at larger distance (larger interference resistance) or into PLC.

Standard functions

Digital filter

Radius of insensitiv. band of suppressed change of measured value

Output

Analogue programmable
0...5/0/4...20 mA; ± 20 mA
0...2/5/10 V; $\pm 5/10$ V

Technical data

MEASURING RANGE

Power sup.for lin.pot.: 2,5 VDC/6 mA
 minimum resistance of linear potentiometer is 500 Ohm

INSTRUMENT ACCURACY

Tempco: 100 ppm/°C
 Accuracy: ±0,2 % of range
 Rate: 1,3 - 2,5 - 5 - 10 - 20 - 40 measurements/s
 Overload capacity: 10x (t < 30 ms) - does not apply for 300/450 V and 5 A, 2x (long-term)
 Watch-dog: reset after 20 ms
 Calibration: at 25°C and 40 % r.h.

ANALOGUE OUTPUTS

Analogový: isolated, programmable with resolution max. 12 bit
 Non-linearity: 0,2 % of range
 Tempco: 100 ppm/°C
 Rate: response to change of value < 300 ms
 Voltage: 0...2 V/5 V/10 V, upon request ±5 V/±10 V
 Current: 0...5 mA/0/4...20 mA (compensation of conduct up to 600 Ohm)
 upon request ±20 mA
 Frequency: isolated, programmable, open collectors
 1...101/5...505/10...1010 Hz

COMPARATOR

Type: digital, adjustable in programming mode, contact switch-on < 30 ms
 Limit 1 and 2: ±1999
 Hysteresis: 0...1999
 Delay: 0...99,9 s
 Outputs: 2 relays with switch-on (switch-off) contact (250 VAC/30 VDC, 3 A)
 - the relay function is adjustable in Configuration menu

DATA OUTPUTS

Data format: rate 1 200...38 400 Baud, 8 bit + no parity + 1 stop bit
 RS 232: isolated
 RS 485: isolated, addressing (max. 99 instruments)

POWER SUPPLY

24/110/230 VAC, 50/60 Hz, ±10 %, 5 VA
 10...30 VDC/max. 150 mA, (24 VDC/80 mA), isolated
 - power supply is protected by a fuse inside the instruments

MECHANIC PROPERTIES

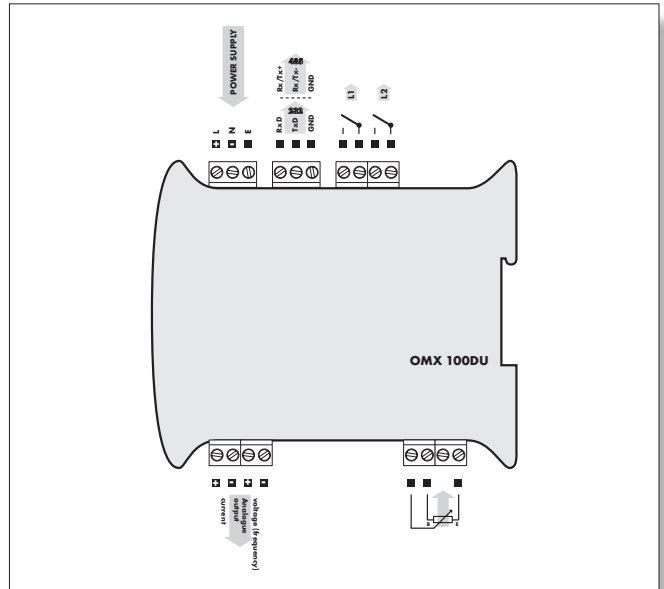
Material: ABS (UL 94-V0), green
 Dimensions: 96 x 48 x 120 mm
 Installation: to DIN rail, width of 35 mm

OPERATING CONDITIONS

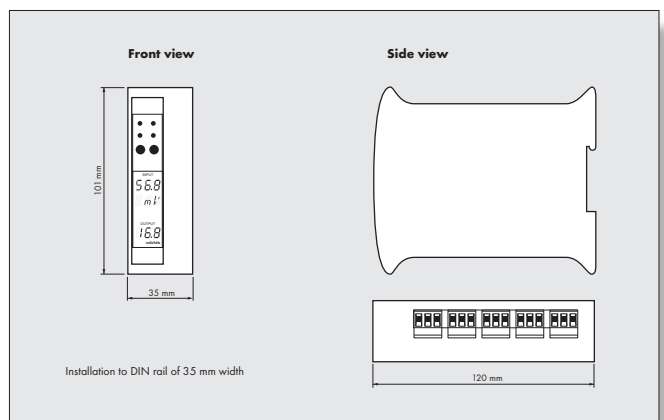
Connection: connector terminal board, conductor section up to 2,5 mm²
 Stabilization period: within 15 minutes after switch-on
 Working temperature: 0°...60°C
 Storage temperature: -10°...85°C
 Covering: IP40
 Construction: safety class I
 Elektrická bezpečnost: EN 61010-1, A2
 Overvoltage category: for pollution degree II

III. - instrument power supply, relay outputs (300 V)
 II. - input, output (300 V)
 EMC: EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 550222, A1, A2

Connection



Dimensions



Order code

