

OM 374PM



2003-3-en

- **3 3/4 digit programmable projection**
- **0...2/5/10 V**
- **0...20 mA/4...20 mA**
- **Quadruple comparator**
- **Digital filter, Tare**
- **Size of DIN 96 x 48 mm**
- **Power supply 230 VAC**

Options

Excitation • Data output • Universal analog output • Power supply 24 VAC, 110 VAC, 10...30 VDC

Description

The OM 374PM model is a 3 3/4 digit panel programmable process monitor designed for direct projection of analog signals in required units. 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.

Standard functions

Programmable display projection

Setting manual, optional projection on the display may be set for both limit values of the input signal in „CM“, e.g.: range 4...20 mA ⇒ projection 35.5...380.0

Projection -999...3999

Digital filter

Radius of insensitiv. band of suppressed change of measured value

Function

Tare resetting display upon non-zero input signal

External control

Hold display/instrument blocking
Lock control keys blocking

Output

Limits 4 relays with switching contact, The limits have both adjustable hysteresis and optional delay of the switch-on. Reaching the limits is signalled by LED and at the same time by the switch-on of the relevant relay.

Operation

The instrument is set and controlled by five control keys located on the front panel. All programmable settings of the instrument are realised in two adjusting modes.

Configuration menu (hereinafter referred to as CM) is protected by an optional number code and contains complete instrument setting

User menu may contain arbitrary programming settings defined in „CM“ with another selective restriction (see, change)

All programmable parameters are stored in the EEPROM memory (they hold even after the instrument is switched off). The measured units may be projected on the display.

Options

Excitation is suitable for feeding of sensors and transmitters. It has galvanic isolation, with continuously adjustable value in the range of 2...24 VDC.

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.

Analog outputs will find their place in applications where further evaluating or processing of measured data is required in external devices. We offer universal analog output with the option of selection of the type of output - voltage/current. The value of analog output corresponds with the displayed data and its type and range are selectable in CM.

Technical data

MEASURING RANGE	Impedance/Max. drop	
0...20 mA	< 400 mV	Input I
4...20 mA	< 400 mV	Input I
0...2 V	1 MOhm	Input U
0...5 V	1 MOhm	Input U
0...10 V	1 MOhm	Input U

PROJECTION

Display: -999...3999, red or green 14-segment LED, digit height 14 mm
 Decimal point: adjustable - in Configuration menu
 Brightness: adjustable - in Configuration/User menu

INSTRUMENT ACCURACY

Tempco: 60 ppm/°C
 Accuracy: $\pm 0,15\%$ of range (applies for full range of the projection) + 1 digit
 Rate: 1,3 - 2,5 - 5 - 10 - 20 - 40 measurements/s
 Overload capacity: 10x ($t < 30$ ms), 2x (long-term)
 Watch-dog: reset after 1,2 s
 Function: Hold/Lock (upon contact)
 Digital filter - adjustable in Configuration menu
 Tare - resetting display upon non-zero input signal
 Calibration: at 25°C and 40 % r.h.

COMPARATOR

Type: digital, adjustable in programming mode, contact switch-on < 30 ms
 Limit 1...4 -999...3999
 Hysteresis: 0...999
 Delay: 0...99,9 s
 Outputs: 4 relays with switching contact (250 VAC/50 VDC, 3 A)
 upon request SSR (250 VAC, 1 A) or open collector may be fitted

DATA OUTPUTS

Data format: rate 150...115 200 Baud
 8 bit + no parity + 1 stop bit (ASCII)
 RS 232 isolated
 RS 485 isolated, addressing (max. 31 instruments)

ANALOG OUTPUTS

Type: isolated, programmable with resolution max. 10 000 points, analog output corresponds with the displayed data, output type and range are selectable in CM
 Non-linearity: 0,2 % of range
 Tempco: 100 ppm/°C
 Rate: response to change of value < 40 ms
 Voltage: 0...2 V/5 V/10 V
 Current: 0...5 mA/0/4...20 mA (compensation of conduct up to 600 Ohm)

EXCITATION

Adjustable: 2...24 VDC/50 mA, galvanic separation

POWER SUPPLY

24; 110; 230 VAC, 50/60 Hz, $\pm 10\%$, 5 VA
 10...30 VDC/max. 300 mA, (24 VDC/150 mA), isolated
 - power supply is protected by a fuse inside the instrument

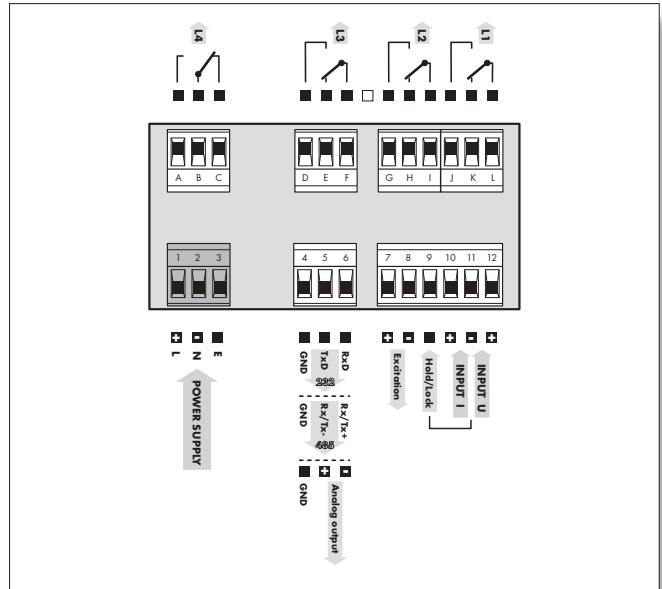
MECHANIC PROPERTIES

Material: Noryl GFN2 SE1, incombustible UL 94 V-I
 Dimensions: 96 x 48 x 120 mm
 Panel cut: 90,5 x 45 mm

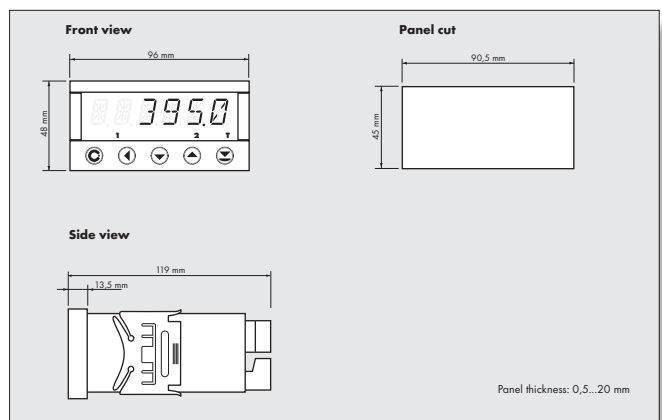
OPERATING CONDITIONS

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: IP65, (front panel only)
 Construction: safety class I
 Electrical safety: EN 61010-1, A2
 Overvoltage category: for pollution degree II
 III. - instrument power supply, relay outputs (300 V)
 II. - input, output (300 V)
 II. - excitation (50 V)
 EMC: EN 61000-3-2+A12; EN 61000-4-2, 3, 4, 5, 8, 11; EN 55022, A1, A2

Connection



Dimensions



Order code

