

VYDAS

INTERNATIONAL MARKETING

Specialist Sensors & Instruments for Industry



LINEAR DISPLACEMENTS METER MPL101

APPROPRIATION

The single-channel linear displacements meter MPL101 is suitable for displacement, orientation, deflection and thickness measurements of different constructions, control valves, machine elements, foundations, ceilings and bridges. As a measurement element one of linear displacement transducers, such as PTx, PJx, PSx, PLx from PELTRON can be used

CHARACTERIZATION

- Industrial execution
- Simply in use
- Small dimensions and weight
- Digital readout of measured values
- Aesthetic housing

CONSTRUCTION

All parts of the meter are placed inside the Al alloy housing consisting of two parts: the base and the cover. On the base of the housing is assembling an electronic circuit and digital indicator. In the cover is an indicator window having a contrast filter. Power, input and output cables comes out through glands. The meter consist of:

- the measurement unit - having the high stability oscillator, symmetrical amplifier, synchronic demodulator, low pass filter, U/I converter and the range switch giving the possibility of 3 times changing of the measurement range using only one LVDT;
- the digital indicator - having the integrated A/D converter and LED display;
- the power supply unit - having the stabilized power supply, adjusting elements, input and output terminal strips and the overvoltage protection;
- the housing.

The meter is available in different versions according to the ordering code.

PRINCIPLE OF OPERATION

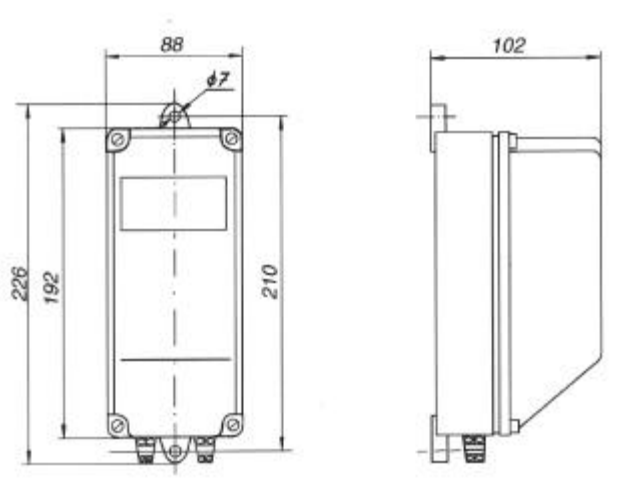
The high stability oscillator excites the LVDT. The LVDT output signal through the symmetrical amplifier, synchronic demodulator and low pass filter is coming to output amplifier and converter giving the standard current or voltage output signal.

The continual development of our products causes a necessity of changes introduction which can not be published in this document

TECHNICAL DATA

| | |
|---------------------------|---|
| Power supply: | 220V / 50Hz, 5VA or 24V DC |
| Input: | 1, symmetrical |
| Input resistance | >100 kW |
| Output: | 1 |
| Output signal | 0...20mA or 4...20mA , -5V or -10V, 0...5V or 0...10V |
| Load resistance (R) | ≤700 Ω for current output, >2000Ω for voltage output |
| Range switch | 20%, 50%,100% of max.. measurement range |
| Digital indicator: | |
| Kind of display | 13 mm height, 3 ½ digit LED, option 10 mm height, 4 ½ digit LED |
| Max. readout range | 1999 for 3 ½ version, 19999 for 4 ½ digit version |
| Units | mA, V, mm |
| Overload indic | is lighting only the first „1" digit for 3 ½ digit version display flashes for 4 ½ digit version |
| Polarity sign | minus |
| Indication error | ≤ 0,3% ±1 digit for the 3 ½ digit ≤ 0,1% ±1 digit for the 4 ½ digit |
| Basic error | ≤ 0,1% of measurement range |
| Temp. error | ≤ 0,01%/ °C |
| Measurement pass band | 200Hz (3dB) |
| Other parameters: | |
| Operating temperature | 0...50°C |
| Relative humidity | ≤ 90% |
| Housing protection | IP65 |
| Weight | approx.. 1,5kG |

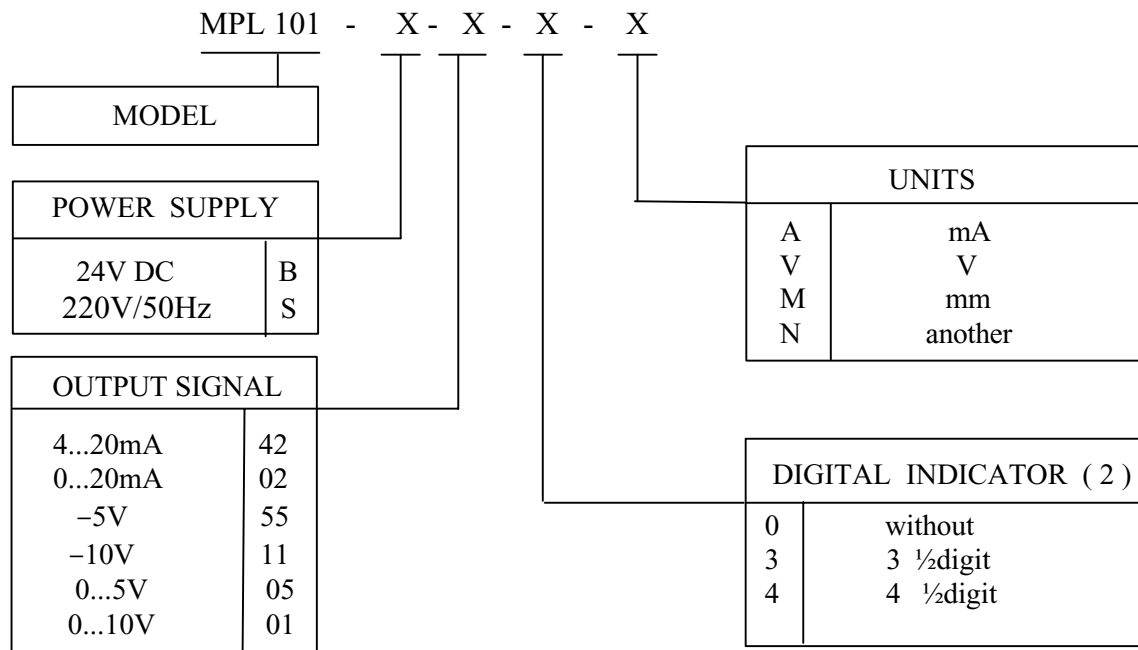
DIMENSIONS:



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ORDERING INFORMATION

Specify the model according to the ordering code:
Linear displacement meter



Ordering example:

MPL101-S-42-3-A

MPL101 – the single channel linear displacement meter
 S – 220V/50Hz mains power supply
 42 – 4...20mA output signal
 3 – 3 ½digit digital indicator
 A – units - mA

Notes

1. Standard version: MPL101-S-42-0.
2. For 20% and 50% of the max. measurement range, (using of the range switch) , the display readout is correct, if the digital indicator is calibrated in units of the output signal.
3. 24V power supply version – 3 wire or 4 wire connection system..



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