

## Micaflex PD ver 4 Differential pressure transmitter with microcontroller and digital indication

## MF-PD ver 4

### APPLICATION

MF-PD is a pressure transmitter designed for measuring of low positive, negative and differential pressure.

- ✓ Output signal in Volt and mA
- ✓ Easy One-Key zero-setting
- ✓ Two selectable measuring ranges, full range or half range
- ✓ Selectable damping
- ✓ Calibration certificate attached
- ✓ Negative or Positive indication of pressure



### MOUNTING

MF-PD is designed for wall mounting but can be fitted with an optional frame kit, MFM-PANEL, for recessed mounting in a wall or through a cabinet door.

### PRESSURE CONNECTIONS

Pressure connection can be made with mounting kit VR-DR or HT-plastic tube 8/6 mm.

### DISPLAY UNIT

MF-PD is fitted with a 4-digit LED display and minus [-] sign when indicating negative pressure.

### ZERO ADJUSTMENT

Press down the Zero-setting key until the LED turns off. Release the key and the zero-setting is finished.

### OUTPUT SIGNAL SELECTION

Volt and mA signal have different wiring terminals. Verify that the correct output is connected.

### SETTING OF DAMPING

MF-PD offers a possibility to set different damping (time constant). At delivery of MF-PD, the damping is set to 1,5 seconds damping.

### HALF MEASURING RANGE

Set the miniature switch no 1 in position "OFF" for full measuring range (100%) or in position "ON" for half measuring range (50%).

**NOTE!** The accuracy is always for the full range.

### ADJUSTING THE MEASURING RANGE

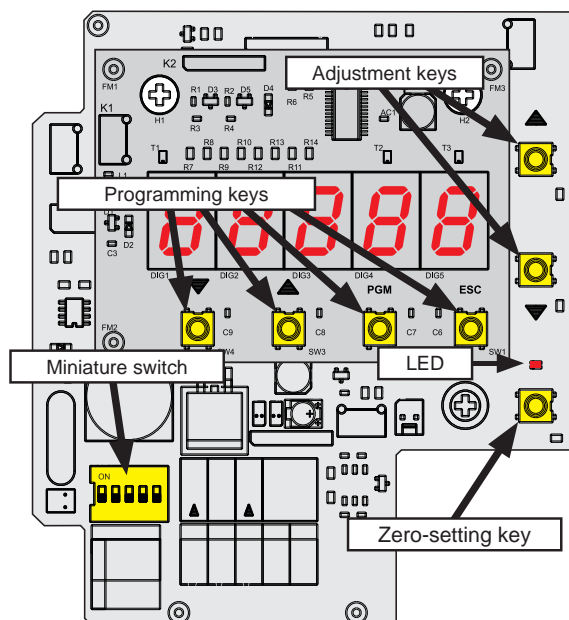
The measuring range can be adjusted to correct a measuring deviation. Instruction can be found on our website, [www.micatrone.com](http://www.micatrone.com).

### PROGRAMMING

MF-PD is programmable with 4 keys on the display unit and include programmable parameters for the alarm function and negative indication.

### ALARM FUNCTION

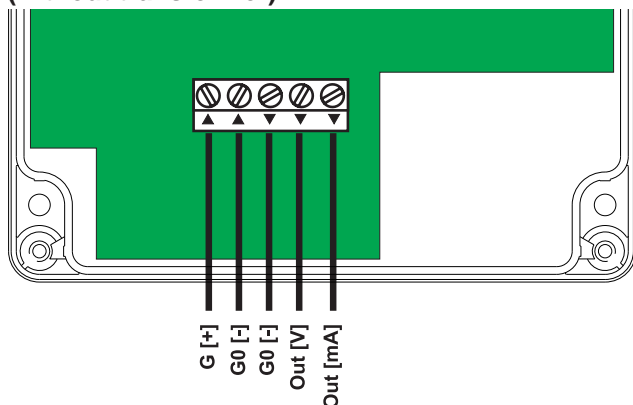
MF-PD include a visual alarm indicated by a flashing display on alarm state if this function is activated. By using an optional plug-in module, a potentialfree changing relay output can be obtained. Alarm can be set for high or low pressure. A time delay can be set for 0...600 seconds.



## TECHNICAL DATA

<b>Supply voltage:</b>	24 ± 15% VAC, 20...32 VDC 24, 115, 230 VAC (with transformer) 50/60 Hz
<b>Power consumption:</b>	Max 4 VA (24 VAC) Max 2 W (24 VDC) Max 8 VA (230 VAC)
<b>Range:</b>	-50...+50 (-25...+25) Pa 0...50 (0...25) Pa 0...100 (0...50) Pa 0...200 (0...100) Pa 0...500 (0...250) Pa 0...1 (0...0,5) kPa 0...2 (0...1,0) kPa 0...5 (0...2,5) kPa Other ranges on request. Measuring range in brackets at half the measuring range.
<b>Overload:</b>	Max 50 kPa
<b>Accuracy:</b>	< ± 0,5 % of the full range plus ± 0,5 Pa
<b>Temperature drift:</b>	< ± 0,5 % /10 °C
<b>Damping:</b>	Selectable time constants of 0.05, 0.7, 1.5 and 2.2 s.
<b>Output signal:</b>	4...20 mA max $R_L = 400 \text{ Ohm}$ 0...10 Volt $R_L = 0 \text{ Ohm}$ Both mA and Volt signal can be used simultaneously. 0 ... 20 mA can be ordered. Inverted signal can be ordered.
<b>Ambient temp.:</b>	0...55°C
<b>Degree of protec.:</b>	IP 65, ABS plastic
<b>El. connections,</b>	
- solid conductor:	1 x 2,5 mm <sup>2</sup> / terminal
- stranded conductor:	1 x 1,5 mm <sup>2</sup> / terminal
<b>Cable entries:</b>	2 pcs threaded holes M16x1,5 (cable glands not included)
<b>Pressure. conn.:</b>	8/6 mm HT-plastic tube
<b>Dimensions:</b>	WxHxD = 122x120x90 mm
<b>Weight:</b>	0.60 kg

### CONNECTION 24 VAC / 20...32 VDC (without transformer)



## EMC/LVD/ROHS II

AB Micatrone declare under sole responsibility that MF-PD is in conformity with the essential requirements in the EMC-, the LVD- and the RoHS II directive. The full text of Manufacturers declaration of conformity is available on Micatrone's website.

## SERVICE

MF-PD normally needs no service, but we recommend to check the zero point once a year.

## CLEANING

MF-PD should be cleaned with a soft cloth and a light detergent. Do not use scouring powder or solvent.

## TRANSFORMER (OPTIONAL)

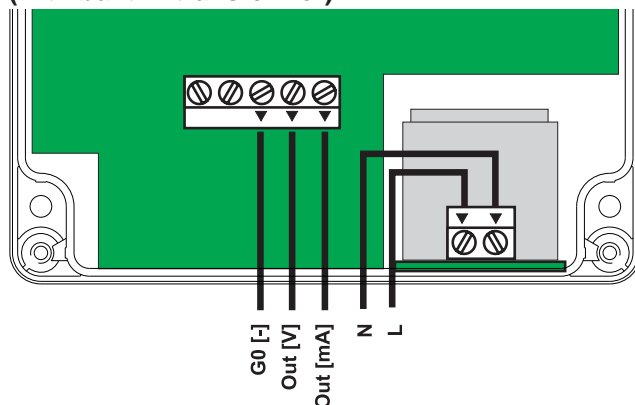
The output signal is normally not galvanically separated from the supply voltage. To obtain galvanic separation between the output signal and the supply voltage on a standard transmitter, the apparatus must be equipped with a plug-in transformer. Plug-in transformer can be obtained for 24, 115 or 230 VAC.

## ACCESSORIES

- ✓ Mounting kit VR-DR
- ✓ VM-3 Measuring connection duct
- ✓ VM-2 Measuring connection indoor
- ✓ VM-6 Measuring connection outdoor
- ✓ HT-plastic tubing 8/6 yellow, per meter or roller 50 m
- ✓ Manifold valve 2-TK
- ✓ MFM-Panel (wall/cabindoor) mounting kit
- ✓ Mounting kit for DIN-rail
- ✓ MFM-L1 Alarm module \*
- ✓ Transformer 24, 115, 230 VAC, built-in \*
- ✓ Modbus RTU data communication module with RS-485 interface \*

\*) Alarm module, Transformer and Modbus can't be used at the same time. Only one of these accessories can be mounted.

### CONNECTION 24 / 115 / 230 VAC (with built-in transformer)



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