

## MicaFlex Microcontroller-based Differential pressure transmitter with digital indication

# MF-PD

md-1323gb / 2008-10-21

### Application

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

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



### Pressure connections

Pressure connections should be made with Micatrone mounting kits for safe and tight function. Connect the measurement outputs with 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"-button until the LED turns off. Release the button and the zero-setting is finished.

### Output signal setting

The Volt/mA-output signal has different terminals. Check that the correct output is connected.

### Setting of damping

The MF-PD offers a possibility to set different damping (time constant). At delivery the damping is set to 1,50 seconds damping.

### Half measuring range

Through a miniature switch the measuring range can be set to full range (100%) or to half measuring range (50%).

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

### Adjusting the measuring range

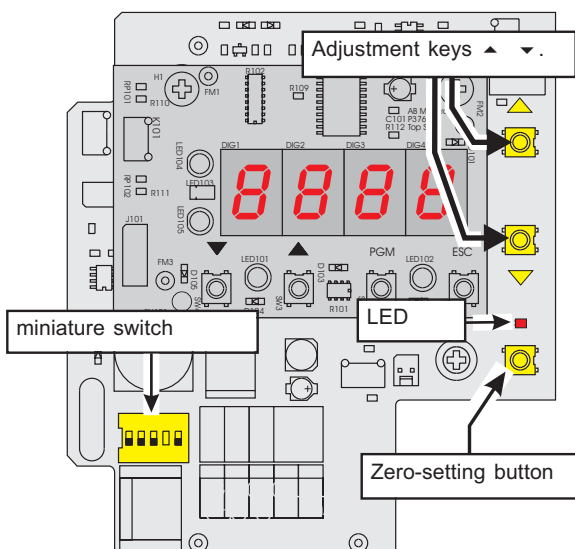
The measuring range can be adjusted to correct a measuring deviation. Instruction can be found on our web site, [www.micatrone.se](http://www.micatrone.se).

### Programming

Micaflex 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 potential-free 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

Supply voltage:	24 ± 15% VAC, 20...32 VDC 24, 115, 230 (with transformer), 50/60 Hz
Power cons.:	Max. 3 VA (24VAC) Max 6 VA (230VAC)
Range:	-50..50 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. ) Half range using a miniature switch. Measuring range with zero-crossing can not be divided.
Max. load:	≤ 50 kPa
Output signal:	4...20 mA max $R_L = 400 \Omega$ 0...10 Volt $R_i = 0 \Omega$
Ambient temp.:	0...55°C
Accuracy:	Max error ± 0,5% of the full range plus ± 0,5 Pa.
Temp.drift:	Max. 0,5 % per 10°C
Damping:	Selectable; 0.05, 0.7, 1.5 or 2.2 s
Degree of protec.:	IP 65
El. connections,	
-rigid cable:	1 x 2.5 mm <sup>2</sup> / terminal
-flexible cable:	1 x 1.5 mm <sup>2</sup> / terminal
Cable entries:	2 st threaded holes M16x1,5 (cable glands not attached)
Pressure. conn.:	8/6 mm HT-plastic tube
Dimensions:	WxHxD = 122x120x90 mm
Weight:	0,53 kg

EU Compliances:

EMC	SS-EN 50081-1 SS-EN 50082-2
LVD	SS-EN 610101-1

## Service

MF-PD needs normally 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 dissolvent.

## Transformer (Optional)

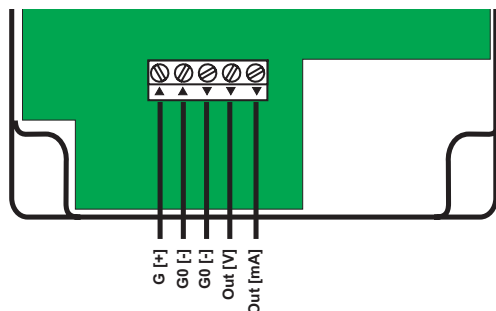
The output signal is normally NOT galvanically separated to the supply voltage. To obtain galvanic separation between the output signal and the supply voltage on a standard transmitter, the apparatus must be equipped with a plug-in transformer.

## Accessories

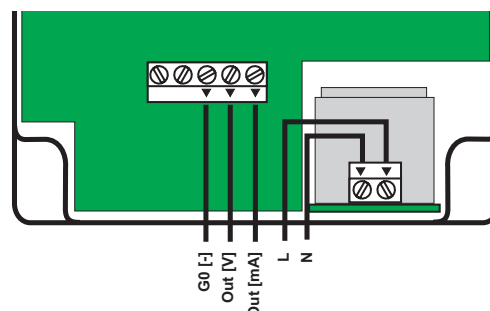
- **Mounting kit VR-DR**
- **HT-plastic tubing 8/6 yellow, per meter or roller 50 m**
- **Manifold valve 2-TK**
- **MFM-Panel (wall/cabin-door) mounting kit**
- **Mounting kit for DIN-rail**
- **Transformer 24, 115, 230 VAC, built in**

**ROHS**  
COMPLIANT

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



### Connection with transformer (Transformers available for 24/115/230 VAC)



**AB Micatrone**  
Åldermansvägen 3  
SE-171 48 SOLNA  
SWEDEN

Telephone: +46 8-470 25 00  
Fax: +46 8-470 25 99  
Internet: [www.micatrone.se](http://www.micatrone.se)  
E-mail: [info@micatrone.se](mailto:info@micatrone.se)