

MicaFlex Microcontroller-based Differential pressure transmitter with digital indication

MF-PD

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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

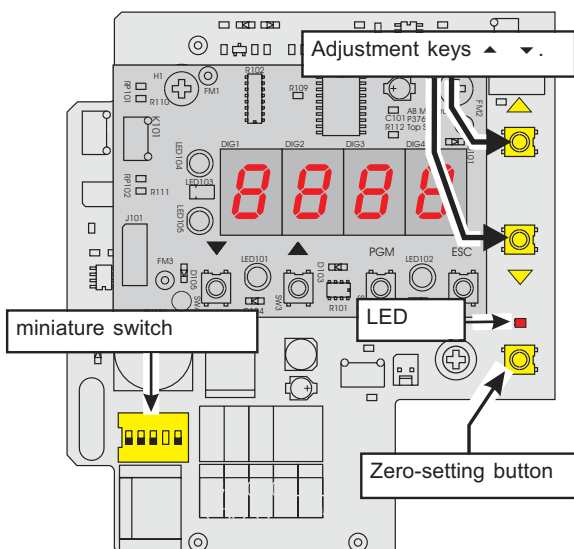
The measuring range can be adjusted to correct a measuring deviation. Instruction can be found on our web site, www.micatrone.se.

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 ² / terminal
-flexible cable:	1 x 1.5 mm ² / 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)

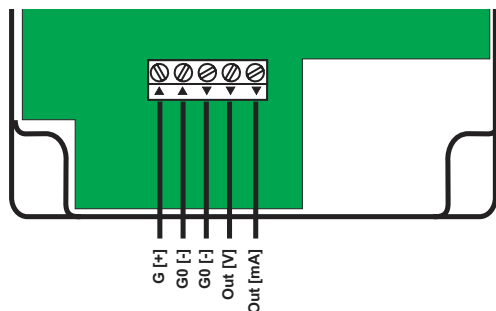
The output signal is normally NOT galvanically separated to the supply voltage. To obtain galvanic separation between the output signal and the supply voltage on a standard transmitter, the apparatus must be equipped with a plug-in transformer.

Accessories

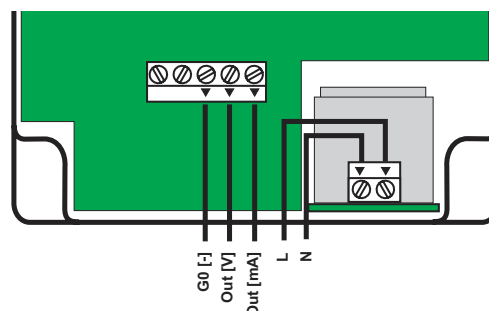
- **Mounting kit VR-DR**
- **HT-plastic tubing 8/6 yellow, per meter or roller 50 m**
- **Manifold valve 2-TK**
- **MFM-Panel (wall/cabin-door) mounting kit**
- **Mounting kit for DIN-rail**
- **Transformer 24, 115, 230 VAC, built in**

**ROHS**
COMPLIANT

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



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



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