

## Product Description

### Digital Panelmeter PM2

#### Special Features

- 3½-digit LCD Display
- Automatic zeroing circuit
- Built-in scaling provided
- DIP switch selectable decimal point
- Front panel bezel meets - IP 65

#### Scope of Supply

- Electronic unit
- Fastening material
- Gasket

#### Versions

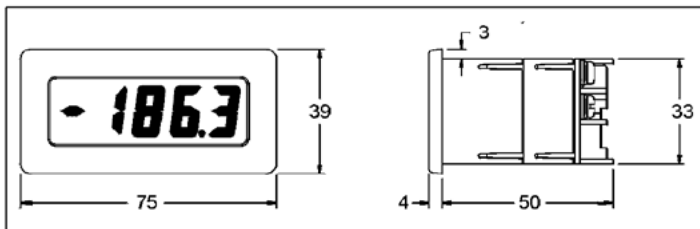
- Option D:  
with red backlighting

Ordering Data: **PM2-D**

Typ ———  
Option ———



Dimensions in mm



Panelmeter cut-out: DIN 68 mm x 33 mm.  
Fastening with mounting brackets.

This panelmeter is primarily used for displaying signal voltages. In conjunction with load cells and amplifiers this unit is equally well suited for the display of force measurement values. The unrestricted selection of the decimal point and the scaling of the signal allow the real-time display of other values for instance web tension forces. The enclosure is suitable for the front panel mounting or for switch cabinets.

Technical Data		
Analog input	Nominal input voltage	±10 V DC
	Max. input voltage	199.9 mV-range: 75 V DC
		All other voltage ranges: 300 V DC
	Input resistance	1 MΩ
Accuracy	Resolution	3 1/2 digits, ±1999 digit
	Measuring Error	±(0,1 %, ± 1 digit)
Reading rate	2,5 readings/sec.	Response time: 1,5 s
Display	LCD	15 mm
	Decimal points , 3 pos.	Adjustable on the backside with DIP switches
Power Supply	9...28 V DC, max. 4 mA	
Operating temperature	0 ...+60 °C	with 9 ...26 VDC
	0 ...+50 °C	with 26 ...28 VDC
Protection class	Front Panel Bezel meets: IP 65	
EMC	Emissions: EN 500081-2	Immunity: EN 500082-2
	Certifications	
Weight	UL for USA and Canada	
	approx. 100 g	

Voltage display (S5=0)					
DIP-switch (0=Off / 1=On)					Measuring range Input voltage
S1	S2	S3	S4	S5	
1	0	0	0	0	-199,9...0...199,9 mVDC
0	1	0	0	0	-1,999...0...1,999 VDC
0	0	1	0	0	-19,99...0...19,99 VDC
0	0	0	1	0	-199,9...0...199,9 VDC

**Factory adjustment:**  
Display 10.00 at 10 V input voltage

Real Time Display (S5=1)					
DIP switch (0=Off / 1=On)					Division factor
S1	S2	S3	S4	S5	
1	0	0	0	1	0,1...1,2
0	1	0	0	1	1,2...10,5
0	0	1	0	1	10,5...100,5
0	0	0	1	1	100,5...1300

**Determination of division factor D**

$$D = \frac{U \cdot P}{A}$$

with  
 U: Nominal input voltage  
 A: Display with nominal input voltage  
 P: Decimal point position  
 0.000 ≙ 1  
 00.00 ≙ 10  
 000.0 ≙ 100  
 0000 ≙ 1000

**Adjustment**

- Select appropriate DIP switch,
- Apply nominal input voltage,
- Adjust with Scale Pot the desired value.

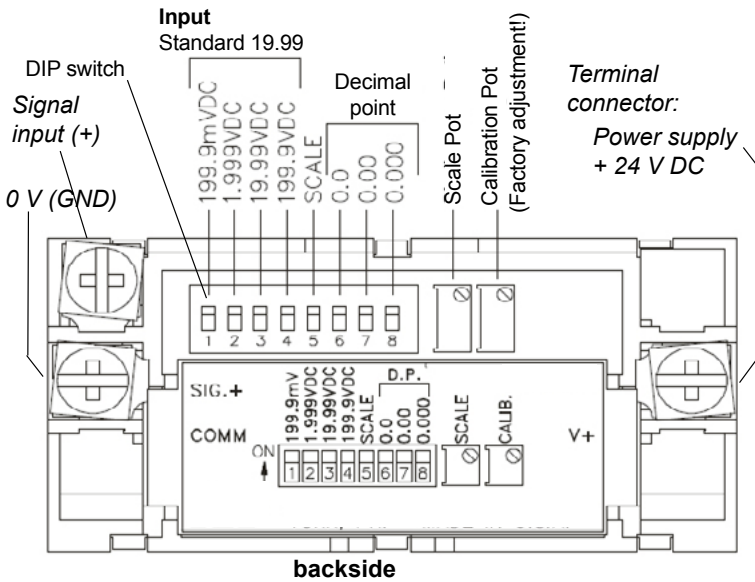
**Adjustment Example:**

$$D = \frac{U \cdot P}{A} = \frac{10 \cdot 1000}{1800} = 5,5$$

U = 10 (V)  
 A = 1800  
 P = 1000

=> S2 = 1, S1; S3; S4 = 0, S5 = 1

- Apply input voltage 10 V DC
- Adjust display with Scale Pot to 1800
- Review: Display 0 with 0 VDC input voltage



**I** The 0 V ground or a reference potential of the power supply and the amplifier circuit are connected internally. The input signal refers therefore to the 24 V-GND connection. In order to avoid measuring errors the signal GND and the GND of the power supply have to be connected internally in the equipment.