

# IPDM80-1



## Datasheet Digital Pressure Gauge IPDM80-1

### PERFORMANCE FEATURES

- 4 digit LED display
- 2 relays 250V AC / 125V DC
- Dry capacitive ceramic sensor
- Smallest measuring range: 0...25 mbar
- Largest measuring range: 0...250 bar
- Negative measuring range: up to -1 bar
- Accuracy  $\leq 0,2\%$
- Analog output: 4...20 mA, 2-wires  
0...10 V, 3-wires  
0... 20 mA, 2-wires

The model IPDM80-1 features a large, bright display. The transmitter can still be easily read from a distance and therefore allows a quick assessment of the process pressure. An analog output and 2 relays widen the range of applications. The electrical connection is done via an integrated terminal strip, the PG11 cable gland provides IP 65 dust and water protection. The capacitive measuring principle in combination with a ceramic membrane is resistant to aggressive and abrasive media. The process connection is made of high-quality stainless steel 1.4404 and is therefore suitable for almost all media.

### AREAS OF APPLICATION

- Industrial water applications
- Gaseous media
- Abrasive media
- Aggressive media

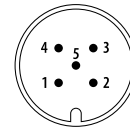
# IPDM80-1 Datasheet Digital Pressure Gauge

## TECHNICAL DATA

Measuring range	
Pressure range	See table „Measuring ranges“ others on request
Ausgang	
Analog output	4...20 mA 2-wires 0...10 V 3-wires 0...20 mA 2-wires
Relays	250 V AC, max 500 W 125 V DC, max 100 W Max. switching current 2 A
Power supply	
20 mA output	19...30 V DC
10 V output	19...30 V DC
Signal characteristics	
Accuracy	$\leq \pm 0,2 \% \text{ FS @ } 25^\circ\text{C}$
Response time	200 ms - others on request
Swich-on time	< 1 s
Temperature coefficient	
Zero	$\leq \pm 0,02 \% \text{ FS / Kelvin}$
Span	$\leq \pm 0,02 \% \text{ FS / Kelvin}$
Temperature ranges	
Medium temperature	-40...100 °C (125°C < 0,5 h)
Surrounding temperature	0...60 °C
Storage temperature	-40...60 °C
Electrical protections	
Short-circuit resistance	Permanent
Reverse polarity protection	Protection against reverse polarity, but no function
Electromagnetic compatibility	Interference emissions and immunity acc. to EN 61326
Wetted materials	
Process connection	Stainless steel 1.4404
Sensor	Ceramic $\text{Al}_2\text{O}_3$
Sensor seal	FPM (Viton), NBR, EPDM, FFKM (Chemraz / Kalrez)
Surroundings	
Protection type	IP 65
Exemplary weight	
PDM80-1 (figure p. 1)	Approx. 800 g

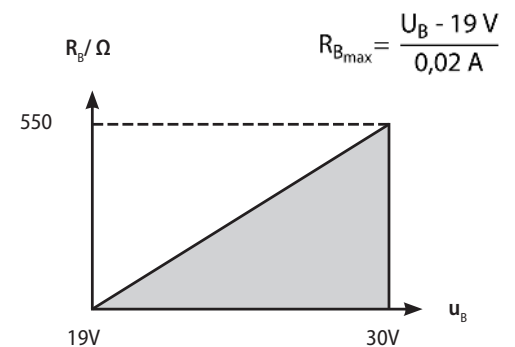
## ELECTRICAL CONNECTION

M12 Connector



1	+ 24 V	] Supply voltage 19...30V DC
2	-	
3	PE	
4	+Output 0(4)...20 mA / 0...10 V	
5		Relay output S 1
6		
7		Relay output S 2
8		
9		
10		

## LOAD



## MEASURING RANGES

Measuring ranges	Relative	Absolute	Overload (bar)
0...25 mbar / 0...2,5 kPa*	A7		-0,3/4
0...40 mbar / 0...4 kPa*	A8		-0,3/4
0...60 mbar / 0...6 kPa*	A9		-0,3/4
0...100 mbar / 0...10 kPa	00		-0,3/4
0...160 mbar / 0...16 kPa	01		-0,6/5
0...200 mbar / 0...20 kPa	B1	B2	-1/6
0...250 mbar / 0...25 kPa	02	27	-1/6
0...400 mbar / 0...50 kPa	03	28	-1/6
0...600 mbar / 0...60 kPa	04	29	-1/10
0...1 bar / 0...100 kPa	05	30	-1/10
0...1,6 bar / 0...160 kPa	06	31	-1/18
0...2 bar / 0...200 kPa	B3	B4	-1/18
0...2,5 bar / 0...250 kPa	07	32	-1/18
0...4 bar / 0...400 kPa	08	33	-1/25
0...6 bar / 0...600 kPa	09	34	-1/40
0...10 bar / 0...1 MPa	10	35	-1/40
0...16 bar / 0...1,6 MPa	11	36	-1/40
0...20 bar / 0...2 MPa	B5	B6	-1/40
0...25 bar / 0...2,5 MPa	12	37	-1/40
0...40 bar / 0...4 MPa	13	38	-1/60
0...60 bar / 0...6 MPa	14	39	-1/100
0...100 bar / 0...10 MPa	15	40	-1/250
0...160 bar / 0...16 MPa	16	41	-1/400
0...250 bar / 0...25 MPa	17	42	-1/600
-100...0 mbar / -10...0 kPa	C4		-0,3/4
-100...100 mbar / -10...10 kPa	C5		-1/6
-200...200 mbar / -20...20 kPa	D3		-1/6
-1...0 bar / -100...0 kPa	D4		-1/6
-1...0,6 bar / -100...60 kPa	D5		-1/10
-1...1 bar / -100...100 kPa	D6		-1/10
-1...1,5 bar / -100...150 kPa	D7		-1/18
-1...3 bar / -100...300 kPa	D8		-1/25
-1...5 bar / -100...500 kPa	D9		-1/40
-1...9 bar / -100...900 kPa	E1		-1/40
-1...15 bar / -100...1,5 MPa	E2		-1/40
-1...19 bar / -100...1,9 MPa	E3		-1/40

\* Accuracy 0,5%

## ORDERING CODE

### Measurement input

1 1 measurement input

### Output signal

1 0...10 V 3-wires  
5 0(4)...20 mA 2-wires

### Ranges

Measuring ranges see table

99 Non-standard range (on request)

### Process connection and material

2 1/2 - 14 NPT, 1.4404  
3 G 1/2 B, EN 837-1, 1.4404  
G G 1/2 A a. 11,8 mm drill hole, ISO 228-1, 1.4404  
F G 1 A, ISO 228-1, 1.4404  
5 G 1 1/2 A, ISO 228-1, 1.4404  
M Dairy thread DN 25 DIN 11851, 1.4404  
6 Dairy thread DN 32 DIN 11851, 1.4404  
7 Dairy thread DN 40 DIN 11851, 1.4404  
8 Dairy thread DN 50 DIN 11851, 1.4404  
9 Others (on request)

### Sensor seal

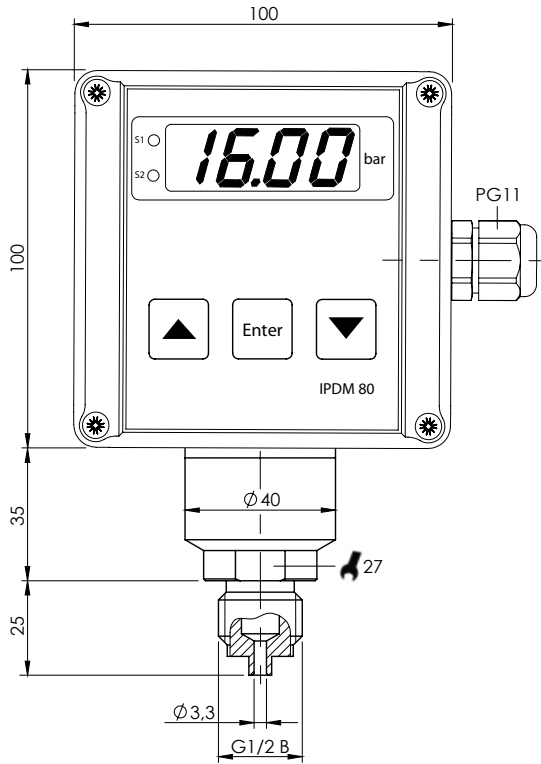
1 FPM (Viton), standard  
2 NBR (Perbuan)  
3 EPDM  
5 FFKM (Chemraz / Kalrez)  
9 Others (on request)

### Relay output

0 no relay  
1 1 relay  
2 2 relays

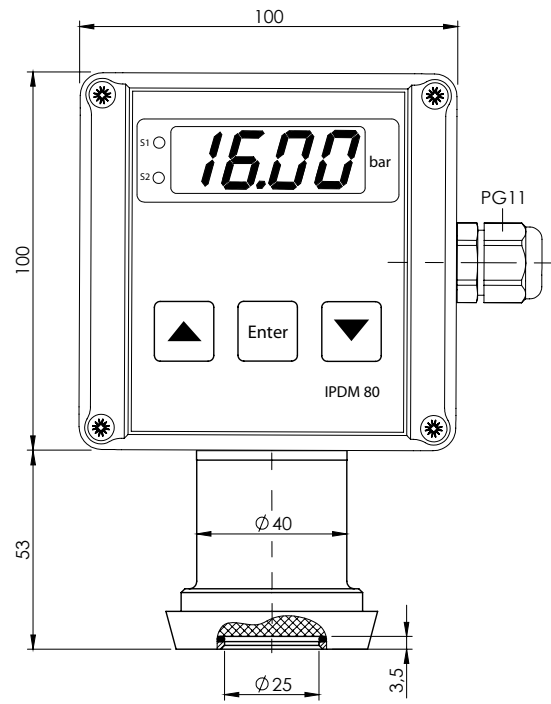


## DIMENSIONS



PROZESSANSCHLUSS

■ TYP 3



■ TYP 7