

# Pressure Transmitter

for pressures up to 4 000 bar

Type 4069B...

Patent No. US 6,092,426

Robust, cost-effective pressure transmitter for measuring pressure up to 4 000 bar. Suitable for application in hydraulic systems and fuel injection systems of Diesel engines.

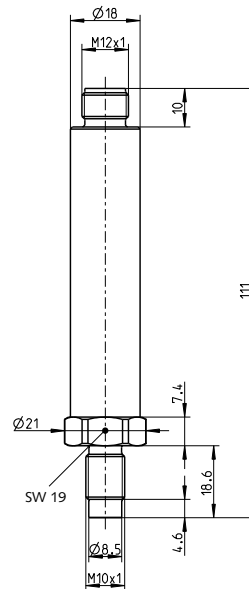
- Excellent stability
- Easy Offset-Adjustment
- Output signal 0 ... 10 V and 4 ... 20 mA

### Description

The pressure acts on a corrosion resistant steel diaphragm on the back of which thin film resistors are sputtered, forming a wheatstone-bridge. Thanks to a patented joining technology, the diaphragm is durably connected with the sensor body. Thus the transmitter has an excellent lifetime. Re-adjustment of the zero point by applying a voltage signal is anytime possible.

### Application

The pressure transmitter is designed for operation in an industrial environment and is suitable for monitoring and control of tasks in fuel injection systems (e.g. common rail) and hydraulic systems.



### Technical Data

Measuring range		
Type 4069B16	bar	0 ... 1 600
Type 4069B25	bar	0 ... 2 500
Type 4069B40	bar	0 ... 4 000
Sensitivity		
Type 4069B16	mV/bar 6,25    μA/bar 10,0	
Type 4069B25	mV/bar 4,00    μA/bar 6,4	
Type 4069B40	mV/bar 2,50    μA/bar 4,0	
Overload		
Type 4069B16	bar	3 000
Type 4069B25	bar	4 000
Type 4069B40	bar	5 000
Linearity	%FSO	<±0,5
Operating temperature range		
Front part	°C	-40 ... 150
Elektronic when using		
Output voltage	°C	-40 ... 125
Output current	°C	-40 ... 85

Thermal offset*	%FSO	<±1
Thermal sensitivity change*	%FSO	<±1
Material		
Front part	Material	RHF33
Diaphragm, housing and connector	Material	17-4PH
Weight	g	ca. 80
Tightening torque	N·m	20
Degree of protection		IP65
Connector IEC 61076-2-101	8-pol., male	M12x1
Supply voltage	VDC	18 ... 30
Signal span		
Output voltage	V	10 (±0,5 %)
Output current	mA	16 (±0,5 %)
Load resistor	Ω	<500
Zero (adjusted)		
Output 0 ... 10 V	V	0±0,03
Output 4 ... 20 mA	mA	4±0,05
Cut-off frequency (-3 dB)	Hz	20 000

\* at working range 25 ... 125 °C

4069B\_000-728e-03..10

**Included Accessories**

- Seal
- Grease

**Type**  
1100  
1063

**Optional Accessories**

- connecting cable, length 5 m

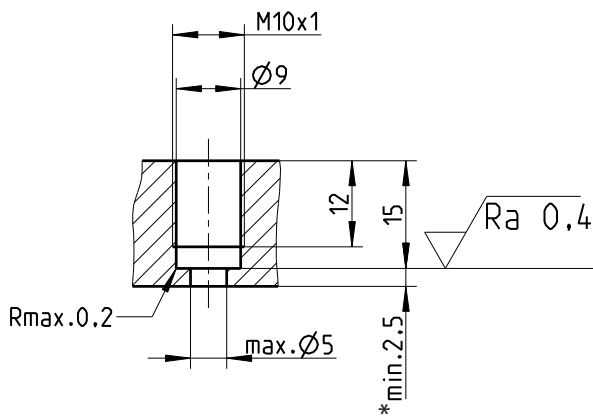
**Type**  
1787A5

**Ordering Key**

0 ... 1 600 bar	16
0 ... 2 500 bar	25
0 ... 4 000 bar	40

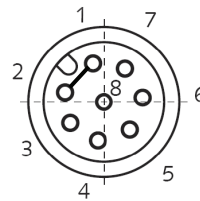
4069B

**Mounting Bore**



\* depending on strength of material

**Pin Allocation**



**Pin Signal**

- |   |                                   |
|---|-----------------------------------|
| 1 | Exct. GND                         |
| 2 | Signal GND (connected with Pin 1) |
| 3 | Tare (offset-adjustment)          |
| 4 | Pressure Output 0 ... 10 V        |
| 5 | Pressure Output 4 ... 20 mA       |
| 6 | Factory usage only                |
| 7 | Factory usage only                |
| 8 | + Exct. (18 ... 30 V)             |

**Offset-Adjustment:**

For adjusting the zero point to 0 V or 4 mA a voltage of >2,4 ... 30 V, with a duration of >0,02 s must be applied to pin 3.