

Pressure Sensors



For neutral and gaseous liquids

Operating pressure ranges 0 ... 25 bar (relative pressure)

Catalog Register
A 19, P 19, D 17

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Description (standard unit)

Electronic pressure sensors are directly mounted at the measuring point. The pressure sensor converts the fluidic signal (pressure) into a proportional current output signal from 4 to 20 mA. This is achieved by means of a piezo-resistive analyser and an electronic module which is incorporated in the pressure sensor and which amplifies, linearizes and temperature-compensates the signal.



Features

- | Accuracy class 1.0
- | Small hysteresis
- | Preferably used for applications in pneumatics
- | High safety from overpressure
- | Temperature compensated
- | Two-wire system

Symbol



Equipment survey (standard units)

Measuring range (relative pressure) [bar]	Max. value [bar]	Rated output signal [mA]	Cat. No.
0 ... 0,6	6	4 ... 20	5993611
0 ... 1,6	10	4 ... 20	5993612
0 ... 4,0	15	4 ... 20	5993613
0 ... 10,0	30	4 ... 20	5993614
0 ... 25,0	40	4 ... 20	5993615

Further versions (available on request)

- | Further pressure ranges
- | Absolute-pressure sensors

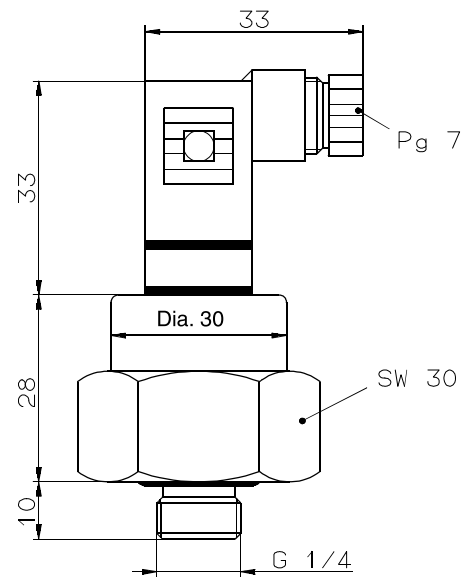
Characteristic data

Function mode:	Piezo-resistive	
Connection:	G 1/4 male thread	
Mounting position:	Optional	
Weight:	[kg]	0.05
Fluid temperature:	[°C]	-10 ... +85
Ambient temperature :[°C]	-10 ... +85	
Degree of protection (to DIN 40050):	IP 54	
Material (in contact with fluid)	Housing:	Anodized aluminium
	Sensor:	Silicium (passive side towards fluid)
	O-ring:	NBR, silicon free, 16 x 2 mm)
Supply voltage:	U_B VDC	24 (10 to 30)
Residual ripple:	10 %	
Output signal:	[mA]	4 to 20 Two-wire system
Load resistance:	See diagram	
Electrical connection:	4-pin plug, Pg 7 (included in delivery)	
Confusion of poles:	Protected	
Measuring range:	See equipment survey	
Accuracy class:	1.0 ¹⁾	
Deviation from linearity:	[%]	< ± 0.5 ¹⁾
Hysteresis:	[%]	< ± 0.3 ¹⁾
Temperature influence on output signal		
Zero point:	[% per °K]	< ± 0.03 ¹⁾
Range:	[% per °C]	< ± 0.02 ¹⁾

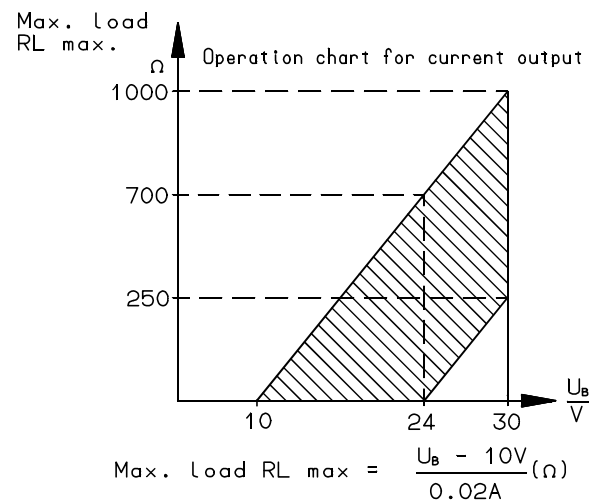
¹⁾ referred to final value

²⁾ with plugged-in mating connector

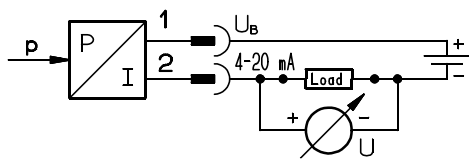
Dimensional drawing (in mm)



Characteristic curve of load resistance



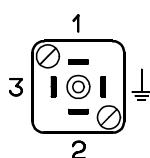
Connection diagram



Pin allocation of plug

	Plug connection
+ U_B	1
Output	2

Top view



4-pin plug