

Pressure Sensor Series 18S Allfluid

Analogue pressure sensors for Allfluid/hydraulic applications Pressure ranges 0 ... 800 bar (relative pressure)

- Robust sensor for hydraulic applications
- Small, space saving construction
- Robust stainless steel housing
- High overpressure
- Temperature compencoting
- 3-wire technology (0 ... 10 V)2-wire technology (4 ... 20 mA)
- Excellent long-term stability
- Stainless steel measuring element-not oil-filled

Definition

Electronic pressure switches are devices which are normally positioned next to the point of measurement. The fluidic signal is converted into a proportional standard output signal of 4 \dots 20 mA or 0 \dots 10 V.

The pressure is measured by a strain gauge and an electronic circuit then amplifies, linearies and temperature compenzates the signal.



Symbols





Technical Data

Fluid:

For neutral and aggressive gases or fluids

Fluid connection: G 1/4 female with nipple manometer

connection

Mounting position: Optional

Weight: 0,070 kg

Fluid temperature: -20 °C ... +85 °C / -40 °C ... +120 °C *

Ambient temperature:

-20 °C ... +85 °C / -40 °C ... +120 °C *

Interference emission: EN 50081-1 Interference immunity: EN 50082-2

Degree of protection (acc. to DIN 40050)

IP 65 (with mounted plug)

Shock protection:

30g, xyz, to DIN EN 60068-2-27

Vibration protection:

3g, 5 ... 500 Hz, xyz, DIN EN 60068-2-6

Supply voltage:

12 ... 30 VDC (current output) 15 ... 30 VDC (voltage output) Residual ripple (max.):

10% (within supply voltage) at 50 Hz

Output signal:

4 ... 20 mA (Two-wire technology) 0 ... 10 Volt (Three-wire technology)

Frequency output*

Load resistance:

See diagram

Electrical connection:

M 12 x 1 / cable*

Polarity:

Short-circuit proof

Measuring range: See table overleaf

Linearity:

± 0.5% (final value)

Hysteresys:

 $< \pm 0.1\%$

Temperature sensitivity:

Zero point $< \pm 0.4\%$ FS / 10K Range $< \pm 0.2\%$ FS / 10K

Materials:

Housing Stainless steel 1.4571 / 1.4542 Sensor Stainless steel membrane 1.4542

* On request

Standard versions (electrical connection M 12 x 11))

Туре	Measuring range (bar) ²⁾ (Relative pressure)	Value max. (bar) (Over pressure)	Fluid connection	Output signal
0862170	0 10	40	G 1/4	4 20 mA
0862180	0 10	40	G 1/4	0 10 Volt
0862370	0 25	50	G 1/4	4 20 mA
0862380	0 25	50	G 1/4	0 10 Volt
0862470	0 100	200	G 1/4	4 20 mA
0862480	0 100	200	G 1/4	0 10 Volt
0862670	0 250	500	G 1/4	4 20 mA
0862680	0 250	500	G 1/4	0 10 Volt
0862770	0 400	750	G 1/4	4 20 mA
0862780	0 400	750	G 1/4	0 10 Volt
0862970	0 800	1000	G 1/4	4 20 mA
0862980	0 800	1000	G 1/4	0 10 Volt

¹⁾ Plug not included. Please see below.

Plugs for electrical connection M 12 x 1

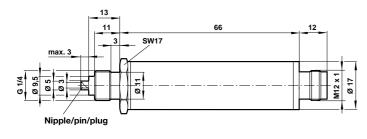
Туре	Version		
0523055	straight,	without cable	
0523057	straight,	2 m cable,	4-core
0523052	straight,	5 m cable,	4-core
0523056	90°	without cable	
0523058	90°	2 m cable,	4-core
0523053	90°	5 m cable,	4-core

Electrical connection 18S Allfluid

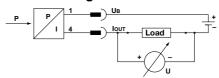
3 2	Plug M 12 x 1		
	4 20 mA	0 10 Volt	
4 1		Frequency *	
+ UB	1	1	
GND	-	3	
Signal	4	4	

^{*} Frequency output available on request.

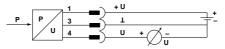
Dimensional drawing



Electrical diagram for 2-wire versions 4 ... 20 mA

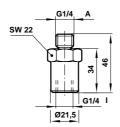


Electrical diagram for 3-wire versions 0 ... 10 V

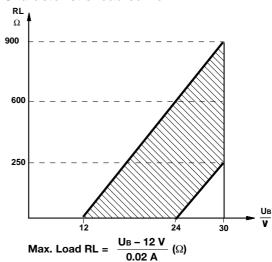


Accessories

Surge damper Type **0574773** (Brass/steel)



Characteristic load curve



²⁾ In between measurement ranges on request.