

**Analogue Pressure Sensors  
for pneumatic applications  
Pressure ranges -1 to 25 bar (relative pressure)**

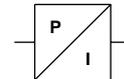
- **Robust sensor for industrial applications**
- **Linearity  $\pm 0.5\%$  final value**
- **Vacuum and overpressure**
- **High overpressure**
- **Temperature compensated**
- **Two-wire technology (4 – 20 mA)**
- **Fluid connection female thread or flange**

#### Definition

Electronic pressure sensors are devices which are usually positioned next to the point of measurement. The fluidic signal is being converted into a standard pressure proportional output signal of 4 – 20 mA by means of a piezo-resistant sensor and an electronic circuit, latter of which is amplifying, linearising and temperature compensating this signal.



Symbol



#### Technical data

Fluids:

For filtered, lubricated or unlubricated compressed air

Fluid connection:

G 1/4 female, flange or 1/4 NPTF

Mounting position:

Optional

Weight:

0.15 kg

Fluid Temperature:

-10 °C – +85 °C

Ambient temperature:

-10 °C – +85 °C

Interference emission:

EN 50081-1

Interference immunity

EN 50082-2

Degree of protection (acc. to DIN 40050):

IP 65 (with mounted plug)

Materials (in contact with fluid):

Housing Aluminium anodized

Sensor Silicon piezoresistant (with passive side to the fluid)

O-ring NBR (flange option)

Power supply:

10 – 32 VDC

Residual ripple (max.):

10 % (within 10 – 32 V)

Output signal:

4 – 20 mA (two-wire technology)

Load resistance:

See diagram

Electrical connection:

DIN 43650

M 12 x 1

Polarity:

Short-circuit-proof

Measuring range:

See table overleaf

Linearity:

$\pm 0.5\%$  final value

Hysteresis:

$< \pm 0.15\%$  FS

Temperature sensitivity:

Zero point  $< \pm 0.3\%$  FS / 10 K

Range  $< \pm 0.4\%$  FS / 10 K



**Standard versions (Electrical connection DIN 43650<sup>1)</sup>)**

Type	Measuring range (bar) (Relative pressure)	Max. value (bar) (Over pressure)	Fluid connection	Output signal (mA)	Dimensional drawing no.
0862081	-1 – +1	10	G 1/4	4 – 20	01
0862085	-1 – +1	10	Flansch	4 – 20	02
0862181	0 – 10	30	G 1/4	4 – 20	01
0862185	0 – 10	30	Flansch	4 – 20	02
0862381	0 – 25	40	G 1/4	4 – 20	01
0862385	0 – 25	40	Flansch	4 – 20	02

<sup>1)</sup> Plug within scope of supply.

**On request**

**Variations with electrical connection M 12 x 1<sup>2)</sup>**

Type	Measuring range (bar) (Relative pressure)	Max. value (bar) (Over pressure)	Fluid connection	Output signal (mA)	Dimensional drawing no..
0862082	-1 – +1	10	G 1/4	4 – 20	03
0862086	-1 – +1	10	Flansch	4 – 20	04
0862182	0 – 10	30	G 1/4	4 – 20	03
0862186	0 – 10	30	Flansch	4 – 20	04
0862382	0 – 25	40	G 1/4	4 – 20	03
0862386	0 – 25	40	Flansch	4 – 20	04

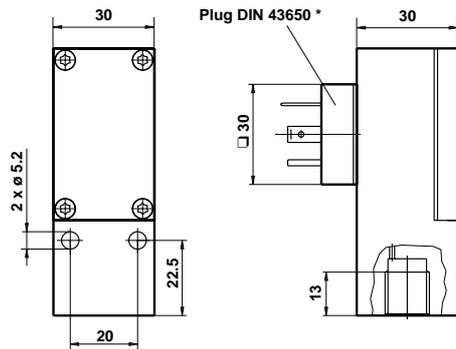
<sup>2)</sup> Plug not within scope of supply. Please refer to accessories on page 4.

**Option selector (versions on request)**

<b>0 8 6 2</b>	<b>X</b>	<b>X</b>	<b>X</b>	<p><b>X = Fluid connection</b></p> <p>1 = G 1/4 female / DIN 43650            2 = G 1/4 female / M 12 x 1            3 = 1/4 NPT / DIN 43650            4 = 1/4 NPT / M 12 x 1            5 = Flange / DIN 43650            6 = Flange / M 12 x 1</p> <p><b>X = Output signal</b></p> <p>8 = analog 4 – 20 mA</p> <p><b>X = Measuring range</b></p> <p>0 = -1 – +1 bar            1 = 0 – 10 bar            3 = 0 – 25 bar</p> <p>Series 18S</p>	<p>0862 = 18S - Pressure sensor</p>
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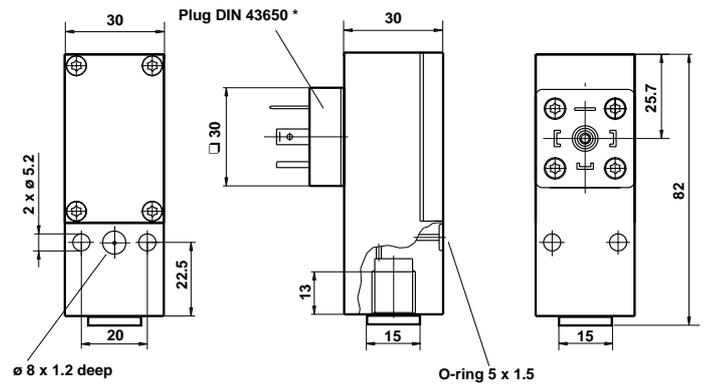


**Dimensional drawing 01**  
**Fluid connection G 1/4 / DIN 43650**

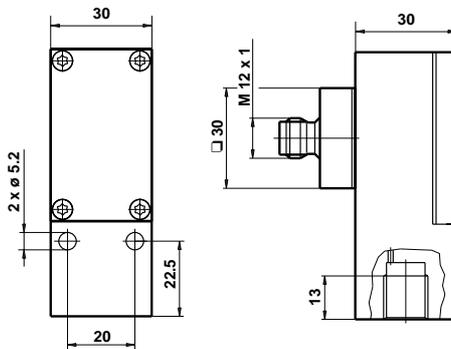


\* Dimension plug mounted: 75 mm

**Dimensional drawing 02**  
**Flange connection / DIN 43650**



**Dimensional drawing 03**  
**Fluid connection G 1/4 / M 12 x 1**



**Dimensional drawing 04**  
**Flange connection / M 12 x 1**

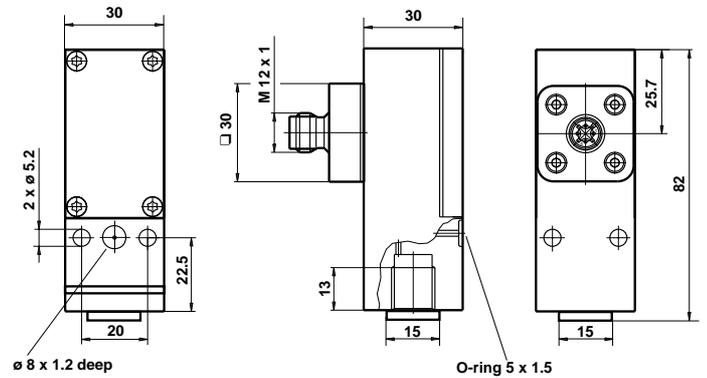




Diagram electrical connection

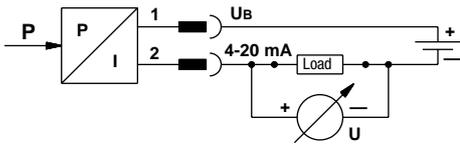
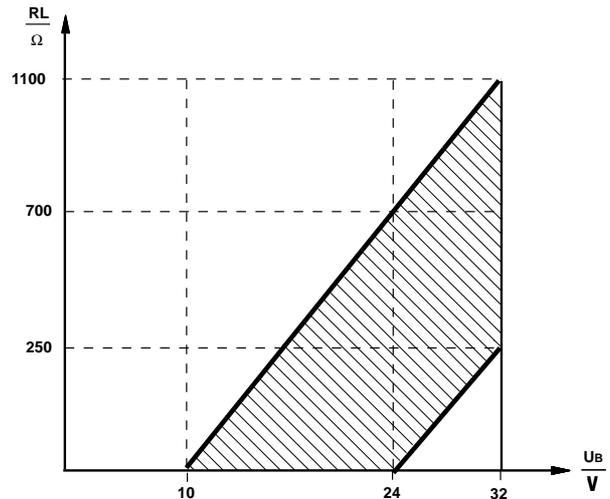


Diagram load resistance



$$\text{Max. Load: } R_L = \frac{U_B - 10 \text{ V}}{0.02 \text{ A}} (\Omega)$$

Terminal connection plug

	Plug connection
+ UB	1
Output	2



Socket  
DIN 43650

	Plug conn.
+ UB	1
Out	4



Socket  
M 12 x 1

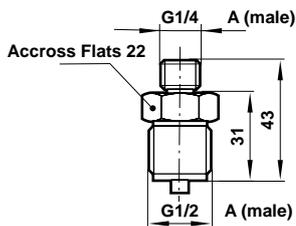
Plugs for Electrical connection M 12 x 1

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

Accessories

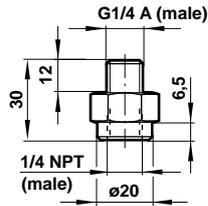
Adaptor

Type 0574767



Adaptor

Type 0574765 (Brass)



Damping

Type 0574773 (Brass/Steel)

