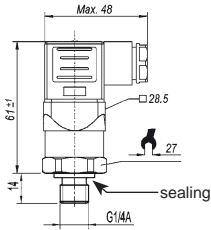


Pressure transmitter



A-10

Pressure transmitter (relative pressure, zero output at atmospheric pressure)

Application:

Suitable for all applications in machine and systems engineering, automotive technology as well as cooling and air conditioning technology.

Specification:

Measuring range (MR), Overload limit (OL), Burst pressure (BD):

	1,	1.6,	2.5,	4,	6,	10,	16,	25,
MB:	40,	60,	100,	160,	250,	400,	600	
ÜL:	2	3.2	5	8	12	20	32	50
	80	120	200	320	500	800	1200	
BD:	5	10	10	17	34	34	100	100
	400	550	800	1000	1200	1700	2400	

Output signal: 4-20 mA, 2-wire, R_A [Ω] < (Uv [V] - 8V) / 0.02 A
0-10 V, 3-wire, R_L > 10 kΩ
(other output signals upon request)

Auxiliary energy Uv: 8 ... 30 VDC (for output 4-20 mA)
14 ... 30 VDC (for output 0-10 V)

Accuracy: * ≤ 1.0 % FS (optional: ≤ 0.5 % FS)
* = including non-linearity, hysteresis, zero point and scale error. Corresponds to error of measurement per IEC 61298-2.
Sensor adjusted in vertical mounting position with lower pressure connection

Non-Linearity: ≤ 0.5 % FS (optional: ≤ 0.25 % FS)

Zero Offset: ≤ 0.5 % FS (typ.), ≤ 0.8 % FS (max.),
(Optional: ≤ 0.15 % FS (typ.), ≤ 0.4 % FS (max.))

Hysteresis: ≤ 0.16 % FS

Repeatability: ≤ 0.1 % FS

Long-term drift: ≤ 0.1 % FS (according to IEC 61298-3)

Response time: T₉₀ ≤ 4 ms

Permitted temperature of measurement media: 0 ... +80 °C (optional: -30 ... +100 °C)

Ambient temperature: 0 ... +80 °C (optional: -20 ... +100 °C)

Storage temperature: -20 ... +80 °C

Temperature compensated area: 0 ... +80 °C

Temperature error in compensated area: ≤ 1.0 % FS (typ.), ≤ 2.5 % FS (max.)

Material: Parts coming into contact with pres. media

- **Pressure connection:** 316 L

- **Pressure sensor:** 316 L (as of 10 bar rel. 13-8 PH)

- **Housing:** 316 L

Pressure connection: G 1/4 A, DIN 3852-E with NBR sealing

Protection rating: IP65 or IP67 with cable

Electric connection: elbow-type plug acc. to EN 175301-803/A or connection cable, cable length 2 m

Electric protections: reverse voltage and short-circuit protection

Weight: approx. 80 g

Optionen:

- **Absolute pressure**
(0 ... 1 bar abs. to 0 ... 25 bar abs.)

- **Under pressure**
(-1.0 ... +1.5 bar, -1.0 ... +3.0 bar, -1.0 ... +9.0 bar)

Accessories and spare parts:

Higher sensor accuracy (class 0.5)

Extended temperature range: -30 ... +100 °C

Output signal 0-10 V

Fixed connecting cable

2 m with bend protection (instead of elbow-type plug, IP67)

GWA1214

V4A thread adapter G 1/2" with internal thread G 1/4" and external thread G 1/2"

Pressure measuring transducer for over/under and absolute pressure



S-10



S-11



S-20



S-10 REL

Pressure measuring transducer (Standard, zero output at ambient pressure)

S-11 REL

Pressure measuring transducer (Flush, zero output at ambient pressure)

S-20 REL

Pressure measuring transducer (Standard, zero output at ambient pressure)

S-10 ABS

Pressure measuring transducer (Standard, absolute, zero output at vacuum)

S-11 ABS

Pressure measuring transducer (Flush, absolute, zero output at vacuum)

S-20 ABS

Pressure measuring transducer (Standard, absolute, zero output at vacuum)

Description:

Piezoresistive pressure sensor with temperature compensation. Completely welded and stainless steel design, filled food safe (up to 16 bar), thin film strain (above 25 bar).

Specification:

Measuring ranges: in bar (other values upon request)

S-10 / S-11 REL: 0.1, 0.16, 0.25,

S-11 / S-20 REL: 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60, 100, 160, 250, 400, 600, **only S-20 REL:** 1000, 1600

S-10 / S-11 ABS: 0.25,

S-11 / S-20 ABS: 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, **only S-20 ABS:** 20, 40

S-10 ABS: 0.8 ... 1.2,

Available overload 3-fold at measuring range <10 bar (150 psi)

pressure limits: 2-fold at measuring range ≥10 bar (150 psi)

Output signal: 4-20 mA (0-10 V - refer to options; others upon request)

Permissible impedance: R_A [Ω] ≤ (Uv [V] - 10 V) / 0.02 A (for output 4-20 mA)

Permissible load: R_L > 10 kΩ (for output 0-10 V)

Auxiliary energy: 10 ... 30 V DC (14 ... 30 V DC for output 0-10 V)

Accuracy:

deviation from ≤ 0.5 (setting of cut-off point)

parameter (% of Span): ≤ 0.25 (setting of tolerance band, BFSL)

Repeatability (% of Span): ≤ 0.1 %

Stability/year (% of Span): ≤ 0.2 (at reference conditions)

Hysteresis (% of Span): ≤ 0.1

Permissible temperature of media: -30 ... +100 °C (refer to options)

Operating temperature ambient: -20 ... +80 °C

Compensated temperature range: 0 ... +80 °C

Temperature coefficient: ≤ 0.02 % FS / K (or ≤ 0.04 % FS for MB ≤ 0.25 bar)

Housing: stainless steel 1.4435 (IP65)

Pressure connection: (other upon request)

Type S-10/-20... : G 1/2 B, other upon request

Type S-11... : G 1 B (up to 1.6 bar), G 1/2 B (from 2.5 ... 600 bar)

Mounting position: any

Electric connection: standard via elbow-type plug EN 175301-803/A

Electric protections: reverse voltage protection, over voltage and short-circuit protection.

Accessories and spare parts:

Special measuring range

Media temperature: -40 ... +125 °C (S-10/-20 only)

Media temperature: -30 ... +125 °C (S-11 only)

Media temperature: -20 ... +150 °C

(S-11 only with cooling section)

Output signal 0-10 V

(other upon request)

Ex-protection

upon request