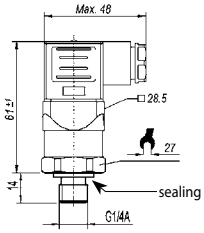
PRESSURE TRANSMITTER



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.

Specifications:

Measuring range (MR), Overload limit (OL), Burst pressure (BP):								
MB:	1, 40,	1.6, 60,	2.5, 100,	4, 160,	6, 250,	10, 400,	16, 600	25,
ÜL:	2 80	3.2 120	5 200	8 320	12 500	20 800	32 1200	50
BD:	5 400	10 550	10 800	17 1000	34 1200	34 1700	100 2400	100

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 V DC (for output 4 ... 20 mA) 14 ... 30 V DC (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: T_{90}	≤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 ¼ 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

Options:

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)

G2: Higher sensor accuracy (class 0.5)

T2: Extended temperature range: -30 ... +100 °C

V2: Output signal 0 ... 10 V

Fixed connecting cable:
2 m with bend protection (instead of elbow-type plug, protection rating: IP67)

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)

General:

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).

Specifications:

Measuring ranges:	in bar (other values upon request)
S 10 / S 11 REL: **S 11 / S 20 REL:**	0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60, 100, 160, 250, 400, 600, **S 20 REL only:** 1000, 1600
S 10 / S 11 ABS: **S 11 / S 20 ABS:** **S 10 ABS:**	0.25, 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, **S 20 ABS only:** 20, 40 0.8 ... 1.2,
Available overload pressure limits:	3-fold at measuring range <10 bar (150 psi) 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 kOhm (for output 0 ... 10 V)
Auxiliary energy:	10 ... 30 V DC (14 ... 30 V DC for output 0 ... 10 V)
Accuracy:	
deviation from parameter (% of span):	≤0.5 (setting of cut-off point) ≤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:	-30 ... +100 °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 ½ B, other upon request
Type S 11... :	G 1 B (up to 1.6 bar), G ½ 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

Options:

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