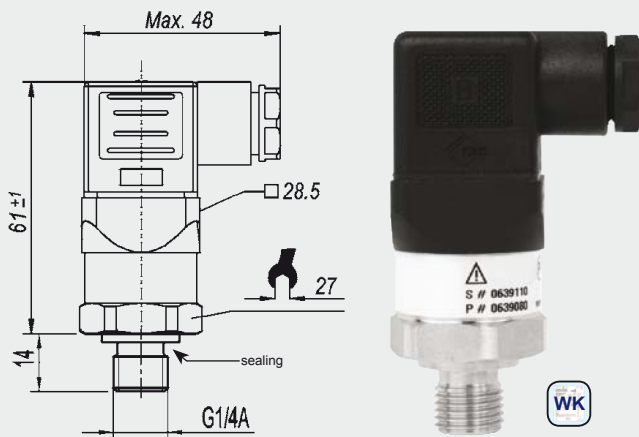


## Pressure transmitter



### A-10

(relative pressure, zero output at atmospheric pressure)

#### Option: Absolute Pressure

(0...1bar abs. to 0...25bar abs.)

#### Option: Under Pressure

(-1,0 ... +1,5 bar, -1,0 ... +3,0 bar, -1,0 ... +9,0 bar)

**General 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):**

**MR:** 1, 1.6, 2.5, 4, 6, 10, 16, 25, 40, 60, 100, 160, 250, 400, 600

**OL:** 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:** 4-20mA, 2-wire,  $RA [\Omega] \leq (U_v [V] - 8V) / 0.02 A$   
0-10V, 3-wire,  $RA \geq 10 k\Omega$   
(other output signals upon request)

**Auxiliary energy:** 8...30VDC (for output 4-20 mA)

14...30VDC (for output 0-10V)

**Accuracy:** \*  $\leq 1,0 \% FS$  (optional:  $\leq 0,5 \% FS$ )

(\* = 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:**  $\leq 0,5 \% FS$  (optional:  $\leq 0,25 \% FS$ )

**Zero Offset:**  $\leq 0,5 \% FS$  (typ.),  $\leq 0,8 \% FS$  (max.),  
(optional:  $\leq 0,15 \% FS$  (typ.),  $\leq 0,4 \% FS$  (max.))

**Hysteresis:**  $\leq 0,16 \% FS$

**Repeatability:**  $\leq 0,1 \% FS$

**Long-term drift:**  $\leq 0,1 \% FS$  (according to IEC 61298-3)

**Response time:**  $T_{90} \leq 4 ms$

**Perm. temperature of meas. media:** 0 ... +80 °C (optional: -30 ... +85 °C)

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

**Storage temperature:** -20 ... +80 °C

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

**Temperature error in comp. area:**  $\leq 1,0 \% FS$  (typ.),  $\leq 2,5 \% FS$  (typ.)

**Material:** Parts coming into contact with pres. media

- Pressure connection: 316 L

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

Housing: 316 L

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

**Protection rating:** IP65 resp. IP67 with cable

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

**Electric protections:** reverse voltage and short-circuit protection

**Weight:** approx. 150 g

#### Options, Accessories:

Higher sensor accuracy (class 0,5)

Extended temperature range

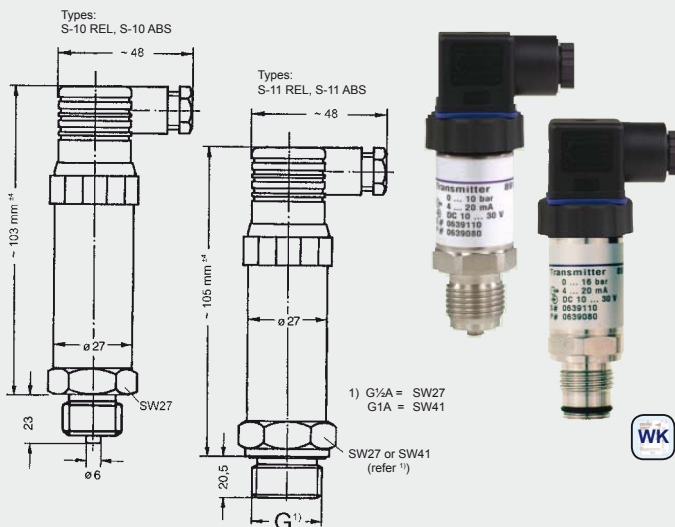
Output signal 0-10 V

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 REL

(Standard, zero output at ambient pressure)

### S-11 REL

(Flush, zero output at ambient pressure)

### S-10 ABS

(Standard, absolute, zero output at vacuum)

### S-11 ABS

(Flush, 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:

**Meas. ranges:** in bar (other values upon request)

S-10 REL and S-11REL: 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, 1000

S-10 ABS and S-11ABS: 0.25, 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16

**Measuring range (MB), Overload limit (ÜL):**

**MB (bar):** 0.1, 0.16, 0.25, 0.4, 0.6, 1, 1.6, 2.5, 4, 6, 10, 16, 25 ... 600, 1000

**ÜL (bar):** 1 1.5 2 2 4 5 10 10 17 35 35 80 2x MB 1500

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

**Permissible impedance:**  $RA [\Omega] = (U_v [V] - 10 V) / 0.02 A$  (for output 4-20 mA)  
 $RA [\Omega] > 10 k\Omega$  (for output 0-10V)

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

**Accuracy:**

deviation from parameter (% of span):  $\leq 0,5$  (setting of cut-off point)

$\leq 0,25$  (setting of tolerance band, BFSL)

Repeatability (% of span):  $\leq 0,05$

Stability / year (% of span):  $\leq 0,2$  (at reference conditions)

Hysteresis (% of span):  $\leq 0,1$

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

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

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

**Temperature coefficient:**  $\leq 0.02\% FS / K$  (or  $< 0.04 \% FS$  for MB < 0.25 bar)

**Filling:** KN77, food safe

**Housing:** stainless steel 1.4435 (IP65)

**Pressure connection:** (other upon request)

Type S-10... : G 1/2 B

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

#### Options:

**Special measuring range**

upcharge:

-40...+125 °C (media temperature)

upcharge:

-20...+150 °C (media temperature, S-11 only)

upcharge:

**Output signal 0-10V (other upon request)**

upcharge:

**Ex-protection**

upon request