

Pioneering new technologies
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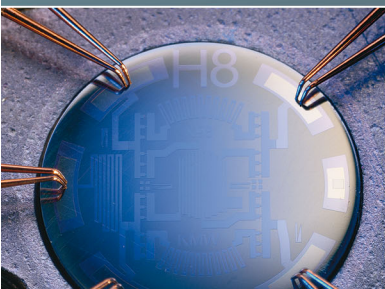
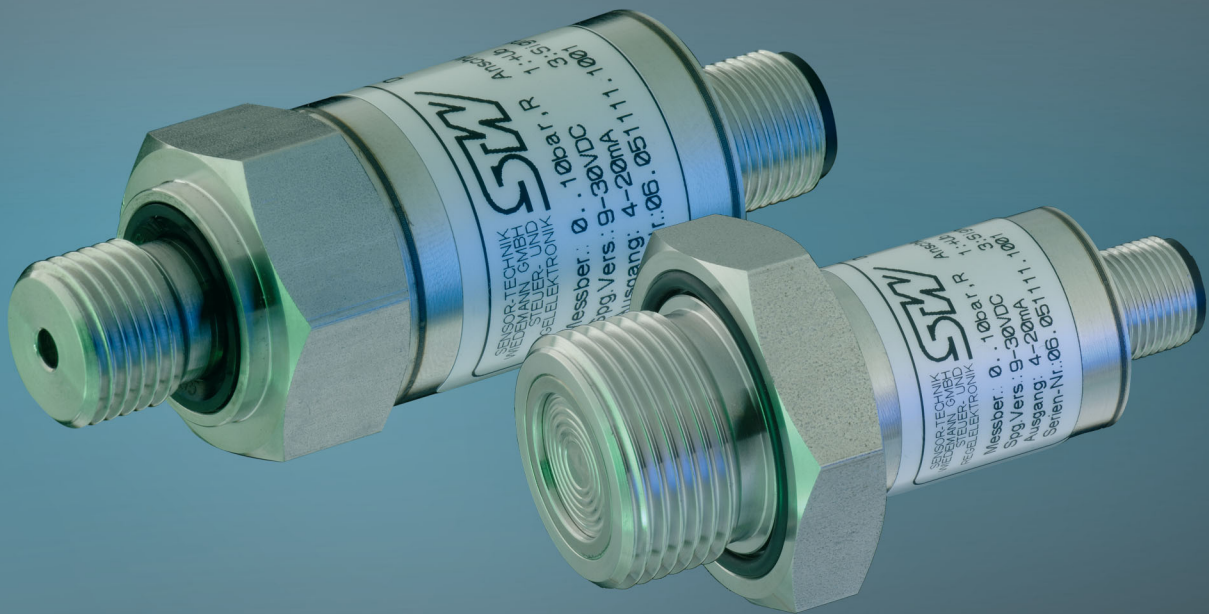


Sensor-Technik Wiedemann GmbH
Mobile Controllers and Measurement Technologies

TEC *Tect Electronics*
The authorized distributor in the Greater China Region

Pressure transmitter S02/S04

Pressure transmitter S02/S04



Standard pressure transmitter S02/S04 – for absolute and gauge pressure

Characteristics

- Piezoresistive measuring element
- Rugged and compact construction
- Stainless steel diaphragm and housing
- High temperature range up to 125°C (option: -HT)
- Pressure equalization with GORETEX®-membrane (optional)

Applications

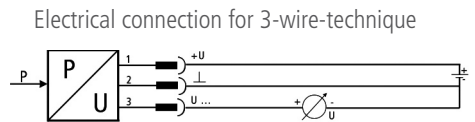
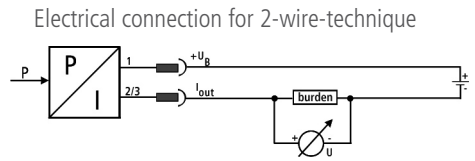
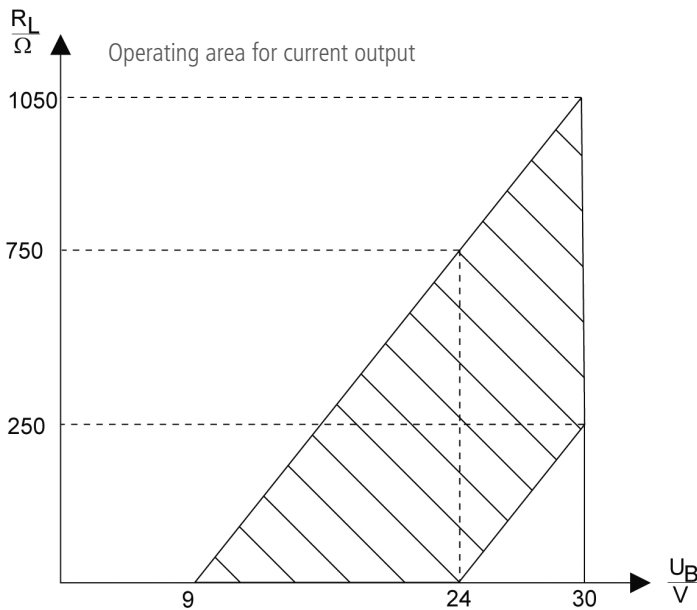
- Industrial measurement and testing facilities
- Hydraulik and pneumatic facilities
- Process controlling
- Plant construction
- Automatization



Technical specifications

| | | | | | | | | | | | | | |
|---------------------------------------|---|---|-----|-----|-----|-----|---|----|----|----|-----|-----|--|
| Pressure range | 0 ... 0.1 bar to 0 ... 10 bar (S04), other ranges on request 0 ... 0.1 bar to 0 ... 200 bar (S02), other ranges on request | | | | | | | | | | | | |
| Standard pressure ranges | bar | 0.1 | 0.2 | 0.5 | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 | |
| Overload | bar | 2.5 | 2.5 | 2.5 | 3 | 4 | 7 | 15 | 30 | 75 | 150 | 300 | |
| Linearity | % FS (typ.) | 0.5 | | | | | | | | | | | |
| Pressure hysteresis and repeatability | % FS | 0.1 | | | | | | | | | | | |
| Thermal effect on zero | % FS/10K | 0.7 | 0.7 | 0.5 | 0.3 | 0.2 | | | | | | | |
| Thermal effect on span | % FS/10K | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | | | | | | | |
| Media temperature range | °C | -25 ... +85, -25 ... +125 (option: -HT) | | | | | | | | | | | |
| Operating temperature range | °C | -25 ... +85, -25 ... +110 (option: -HT) | | | | | | | | | | | |
| Storage temperature range | °C | -25 ... +90, -40 ... +125 (option: -HT) | | | | | | | | | | | |
| Excitation voltage | 9 ... 30 VDC 14 ... 30 VDC (voltage output) permissible ripple @ 50 Hz: 10% 5 V (ratiometric output) | | | | | | | | | | | | |
| Output signal | 4-20 mA (2-wire-technique), 0-20 mA, 0-10 V, 0.5 ... 4.5 V (ratiometric) | | | | | | | | | | | | |
| Electrical connection | M12 connector, plug according to EN 175301-803 (DIN 43650) 4 pole MPM connector reverse polarity and shortcircuit protection (not with ratiometric output) (M12-cable-connector not included) | | | | | | | | | | | | |
| Electrical connection | G 1/4, G 1/2, bei S04; G 3/4 at S02, other threads on request | | | | | | | | | | | | |
| Protection classification | IP 67* (M12 connector), IP 65 (other connectors) *by using the GORE-TEX® -membrane (up to 10 bar) | | | | | | | | | | | | |
| EMC | EN 61000-6-2 EN 61000-6-3 | | | | | | | | | | | | |
| Material housing / diaphragm | 1.4571 / 1.4435 | | | | | | | | | | | | |

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Connection STW-Pressure transducer

$$\text{Current output: load } R_L = \frac{U_B - 9 \text{ V}}{0,02 \text{ A}}$$

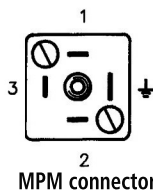
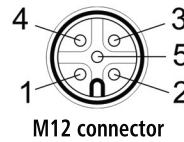
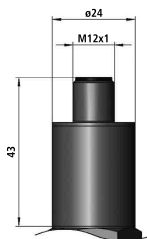
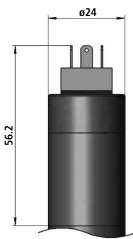
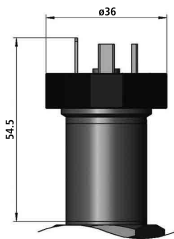
Voltage output: load $R_L > 10 \text{ k}\Omega$

| | 2-wire | | 3-wire |
|--------|----------|-------------|--------|
| | M12 plug | other plugs | |
| +UB | 1 | 1 | 1 |
| GND | – | – | 2 |
| Output | 3 | 2 | 3 |

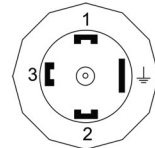
housing/ connector
DIN 175301-803

MPM

M12



Pin assignment

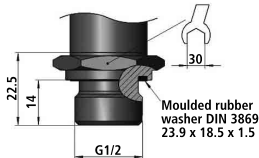
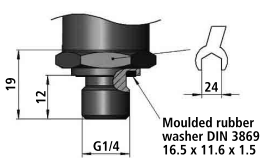


Connector according to
DIN 43650

pressure connection
G 1/4

G 1/2

G 3/4



Order codes overleaf!

Order codes

| model | | | | pressure range | | | | unit | | | | reference | | output | | pressure connection | | electrical connection | | option | |
|-------|---|---|---|----------------|---|---|---|------|---|---|---|-----------|---|---------------------------|---|---------------------|---|--------------------------------|---|--------|--|
| □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | □ | R | □ | □ | □ | □ | □ | □ | □ | □ |
| S | 0 | 2 | | | | | | b | a | r | | R | | 0 | 1 | 0 | 1 | 0 | 1 | H | T |
| S | 0 | 4 | | | | | | p | s | i | | gauge | | 4 - 20 mA | | G 1/4 | | M12 | | | enhanced temperature range (-40 ... + 125°C) |
| | | | | | | | | | | | | absolut | | 0 | 2 | 0 | 2 | 0 | 2 | | |
| | | | | | | | | | | | | | | 0 - 20 mA | | G 1/2 | | sec. EN 175301-803 (DIN 43650) | | | |
| | | | | | | | | | | | | | | 0 | 3 | 0 | 3 | 0 | 3 | | |
| | | | | | | | | | | | | | | 0 - 10 V | | G 3/4 | | 4 pol. MPM | | | |
| | | | | | | | | | | | | | | 0 - 5 V | | ... | | ... | | | |
| | | | | | | | | | | | | | | 0 - 5 V | | 9 9 | | 9 9 | | | |
| | | | | | | | | | | | | | | 1 - 6 V | | custom specific | | custom specific | | | |
| | | | | | | | | | | | | | | 0 | 6 | | | | | | |
| | | | | | | | | | | | | | | 0,5 - 4,5 V (ratiometric) | | | | | | | |
| | | | | | | | | | | | | | | ... | | | | | | | |
| | | | | | | | | | | | | | | 9 9 | | | | | | | |
| | | | | | | | | | | | | | | custom specific | | | | | | | |



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