

## pressure transmitter with ceramic sensor, accuracy 0,5%



**CE** Compliance to requirements of directives:  
EMC 2014/30/EU - PED 2014/68/EU - RoHS 2011/65/EU

The ST18 model is an electronic transmitter with ceramic sensor, with adjustable zero and span, for air, industrial and technical gases, water and oil. When assembled to diaphragm seals, it measures the pressure of corrosive, highly viscous and hot fluids.

### 8.ST18

**Measuring ranges:** 0...1/0...600 bar, relative; -1...0/-1...+24 bar, relative; 0...1/0...25 bar, absolute.

**Output signals:** 4...20 mA, 0...5 Vcc, 0...10 Vcc.

**Non-linearity (BFSL):**  $\leq \pm 0,25$  % of the range, according to IEC 61298-2.

**Non-repeatability:**  $\leq 0,1$  % of the range, according to IEC 61298-2.

**Accuracy:**  $\leq \pm 0,5\%$  of the range <sup>(1)</sup>.

**Thermal drift:** between 0 and 80°C, 1% of span; 2,5% of span, max <sup>(2)</sup>.

**Long term drift:**  $\leq 0,1$  % of span.

**Zero and span adjustment:**  $\pm 10$  % span typical.

**Process fluid temperature:** -25...+100 °C.

**Ambient temperature:** -25...+85 °C.

**Stocking temperature:** -30...+85 °C.

**Response time:** <4 ms (measuring); <150 ms (switching on).

**Emission and immunity:** according to EN 61326, (group 1 - class B; industrial applications).

**Vibration resistance:** 20g (10...2000 Hz, according to IEC 60068-2-6).

**Shock resistance:** 40g (6 ms, according to IEC 60068-2-27).

**Sensor:** ceramic in Al<sub>2</sub>O<sub>3</sub>.

**Case:** in AISI 316L, vented up to 16 bar.

**Protection degree:** IP 65 according to IEC 60529 <sup>(3)</sup>.

**Process connection:** in AISI 316L, hole  $\varnothing$  2,5 mm (with restrictor  $\varnothing$  0,7 mm for measuring ranges  $\geq 60$  bar).

**Weight:** 0,18 kg

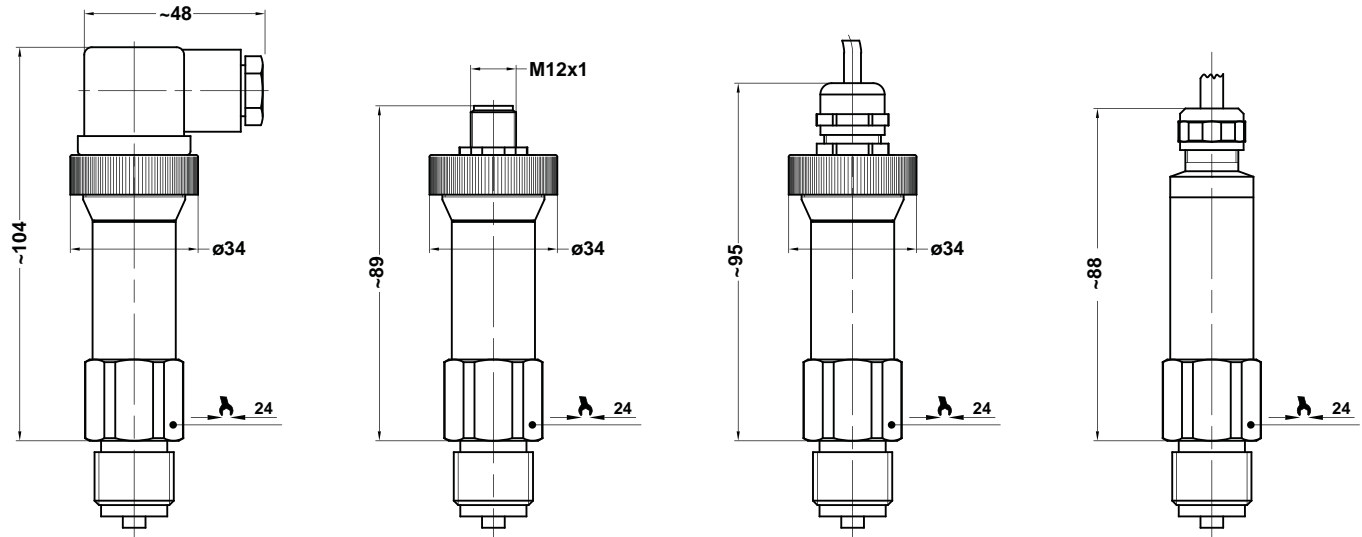
Ranges bar, relative	Overpressure bar, relative
0...1	5
0...1,6	5
0...2,5	5
0...4	8
0...6	12
0...10	20
0...16	32
0...25	50
0...40	80
0...60	120
0...100	200
0...160	320
0...250	500
0...400	600
0...600	800

Other ranges available on demand. Units of measurement available in psi, MPa, kPa too.

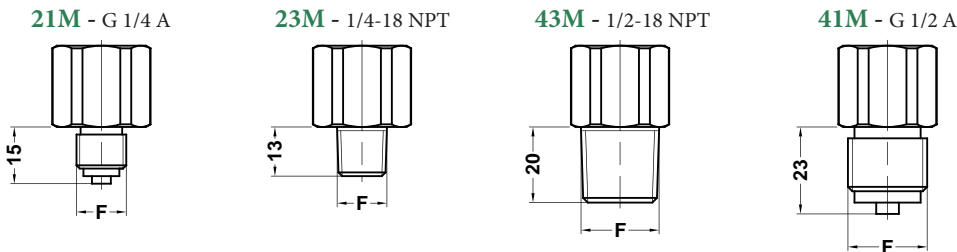
(1) max measuring error according to IEC 61298-2, including non-linearity and hysteresis (limit-point calibration and reference conditions according to IEC 61298-1); accuracy  $\leq \pm 0,75\%$  of span for measuring ranges 0...1 bar and 0...600 bar.

(2) + 0,5% of span for measuring range 1 bar

(3) with properly assembled electric connection



Torque 20...30 Nm



Output signals	4...20 mA 1	0...5 Vdc 4	0...10 Vdc 5
N. of wires	2	3	3
Load max (Ohm)	$R_L \leq (U_b - 8)/0,02$	$R_L \geq 5 \text{ K}\Omega$	$R_L \geq 10 \text{ K}\Omega$
Supply: +Ub (Vdc)	8...30	8...30	14...30
Absorbed current (mA)	< 25	< 10	< 10

All output signals are provided of protection against short circuit and polarity inversion. Insulation tension 500 Vdc.

### WIRING

N. of wires	DIN 175301-803 A		M12 x 1		Cable exit	
	2	3	2	3	2	3
Supply connector: Ub	1	1	1	1	brown	brown
Negative connector: 0V	2	2	3	3	white	white
Signal: S +	-	3	-	4	-	green
Ground	GND	GND	2	2	grey	grey

### OPTIONS

<b>M12</b> - Connector M12 x 1, 4 poles	<b>EPD</b> - EPDM gasket for sensor
<b>PVC</b> - Cable exit, with 1 mt PVC cable	<b>NBR</b> - NBR gasket for sensor
<b>U68</b> - Cable exit IP68, with 1 mt polyurethane cable	<b>C01</b> - Calibration certificate
<b>FPM</b> - FPM gasket for sensor	<b>VS3</b> - Restrictor ø 0,3 mm
<b>CRP</b> - CR gasket for sensor	

### “HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Gasket / Options  
**8 S18**                      **41M**                      **1**                      **FPM**                      **C01...VS3**  
    **43M**                      **4**                      **CRP**  
    **21M**                      **5**                      **EPD**  
    **23M**                      **NBR**