

## 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/CE



The ST1 model is a compact electronic transmitter with ceramic sensor for air, industrial and technical gases, water and oil.

### 8.ST1

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

**Output signals:** 4...20 mA, 0...5 Vcc, 0...10 Vcc, 1...5 Vcc, 0,5...4,5 Ratiometric 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.

**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:** 0,14 kg

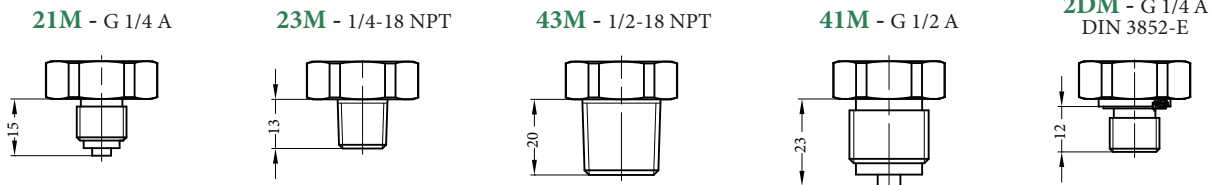
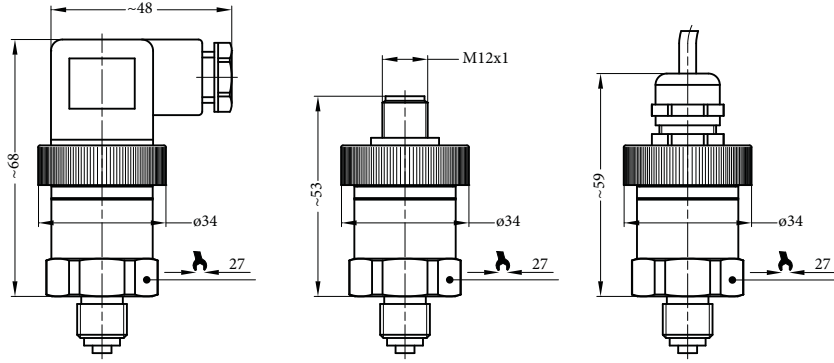
Ranges bar, relative	Overpressure bar, relative
0...1	5
0...1,6	5
0...2,5	5
0...4	8
0...6	12
0...10	20
0...16	32
0...25	50
0...40	80
0...60	120
0...100	200
0...160	320
0...250	500
0...400	600
0...600	800

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



Tightening torque: 20...30 Nm

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

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

WIRING

Cod.	EN 175301-803 A		M12 x 1		Cable exit	
	<b>12G</b>	<b>123</b>	<b>132</b>	<b>134</b>	<b>MBG</b>	<b>MBV</b>
N. of wires	2	3	2	3	2	3
Supply connection: $U_b$	1	1	1	1	brown	brown
Negative connection: 0V	2	2	3	3	white	white
Signal: S +	-	3	-	4	-	green
Ground	GND	GND	2	2	grey	grey

OPTIONS

--- Electric connection EN 175301-803 A	<b>EPD</b> - EPDM gasket for sensor
<b>M12</b> - Electric connection M12 x 1, 4 poles	<b>NBR</b> - NBR gasket for sensor <sup>(1)</sup>
<b>PVC</b> - Electric connection with 1 mt PVC cable	<b>C01</b> - Calibration certificate
<b>FPM</b> - FPM gasket for sensor <sup>(1)</sup>	<b>VS3</b> - Restrictor $\phi$ 0,3 mm
<b>CRP</b> - CR gasket for sensor	

(1) Available for process connection DIN 3852-E.

“HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Electric connection / Wiring / Gasket / Options
<b>8 ST1 21M 1 --- 12G...134 FPM C01...VS3</b>
<b>23M 4 M12 MBG, MBV CRP</b>
<b>41M 5 PVC EPD</b>
<b>43M 8 NBR</b>
<b>R</b>

