

pressure transmitter with piezoresistive sensor, accuracy 0,35%



Compliant to directives
EMC EMC 2014/30/EU - PED 2014/68/EU - RoHS 2002/95/EU

The ST2 model is a compact electronic transmitter with piezoresistive sensor with excellent linearity, for air, industrial and technical gases, water, oil and process media compatible with AISI 316.

8.ST2

Measuring ranges: 0...0,1/0...1000 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, 1...5 Vcc, 0,5...4,5 Ratiometric Vcc.

Non-linearity (BFSL): $\leq \pm 0,175$ % of the range, according to IEC 61298-2.

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

Accuracy: $\leq \pm 0,35$ % of the range ⁽¹⁾.

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

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: piezoresistive, silicon oil.

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

Protection degree: IP 65 according to IEC 60529 ⁽³⁾.

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

(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).

(2) + 0,5% of span for measuring range \leq 0,6 bar

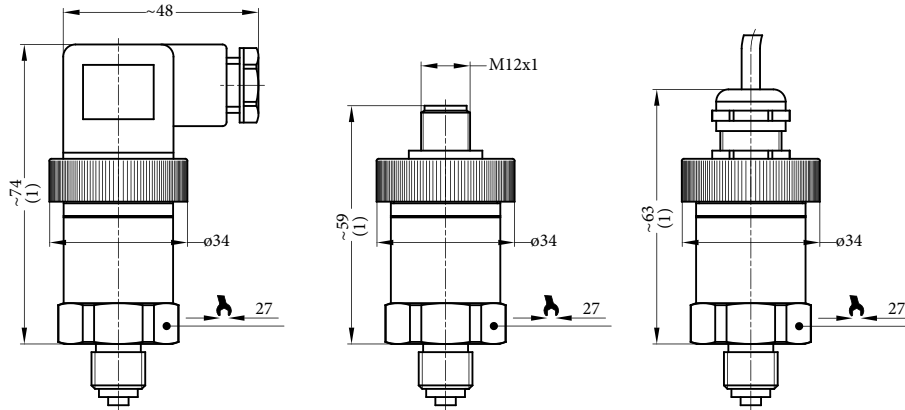
(3) with properly assembled electric connection

Ranges bar, relative	Overpressure bar, relative
0...0,1	0,3
0...0,16	0,5
0...0,25	0,8
0...0,4	1,2
0...0,6	1,8
0...1	2
0...1,6	3,2
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	380
0...400	600
0...600	900
0...1000	1500

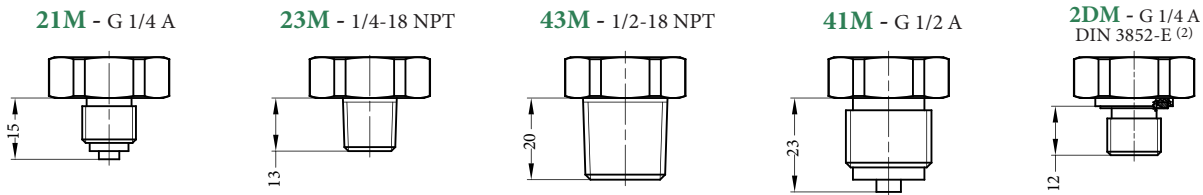
Other ranges available on demand. Units of measurement available in psi, MPa, kPa too.

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ST2



Dimensions: mm; (1) for pressures ≥ 160 bar add 5 mm



Torque 20...30 Nm; (2) process connection DIN 3852-E for pressures ≤ 600 bar

Output signals	4...20 mA	0...5 Vdc	0...10 Vdc	1...5 Vdc	0,5...4,5 Vdc ratiometric - R
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: +Ub (Vdc)	8...30	8...30	14...30	8...30	5 ±10%
Absorbed current (mA)	< 25	< 10	< 10	< 10	< 10

Other output signals available on demand. 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	
	12G	123	132	134	MBG	MBV
N. of wires	2	3	2	3	2	3
Supply connection: Ub	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	EPD - EPDM gasket for sensor
M12 - Connector M12 x 1, 4 poles	NBR - NBR gasket for sensor ⁽¹⁾
PVC - Cable exit, with 1 mt PVC cable	CO1 - Calibration certificate
FPM - FPM gasket for sensor ⁽¹⁾	A02 - Accuracy $\pm 0,25\%$ of the range ⁽²⁾
CRP - CR gasket for sensor	VS3 - Restrictor $\phi 0,3$ mm for pressure range 60 bar

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

(2) Non-Linearity (BFSL) $\leq \pm 0,125\%$ of span; for measuring ranges ≤ 60 bar

“HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Electric connection / Wiring / Gasket / Options
8 ST2 **21M** **1** --- **12G...134** **FPM** **CO1...VS3**
 2DM **4** **M12** **MBG. MBV** **CRP**
 23M **5** **PVC** **EPD**
 41M **8** **NBR**
 43M **R**

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