

pressure transmitter



Compliant to directives EMC 2004/108/CE - PED
97/23/CE - RoHS 2002/95/CE

The ST2 model is a piezoresistive sensor transmitter designed for measuring air, industrial and technical gases and process media compatible with AISI 316. It is designed to be installed in gas distribution plants, on bottles, on compressors and refrigerators, on vacuum pumps. This products is ideally suited for the industry in general and process industry, for gas stocking or machines production, light or heavy pneumatic plants, refrigeration, welding or vacuum industry. They are particularly suitable for the measuring of low pressures with high functional characteristics.

8.ST2 - Standard Model

Design: EN 61298-2.

Ranges: 0...0,1/0...1000 bar, relative; -1...0/+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): $\leq \pm 0,25$ % of the range.

Non-repeatability: $\leq 0,1$ % of the range.

Output signal deviation of zero:

$\leq \pm 0,25$ % of span, typical; $\leq \pm 0,4$ % of span, max.

Accuracy: $\leq \pm 0,5\%$ 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 the range.

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

Ambient temperature: -25...+85 °C.

Stocking temperature: -30...+85 °C.

Response time: <4 ms (adjustment); < 150 ms (starting).

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

Vibration Resistance: 20g (10...2000 Hz, according to EN 60068-2-6).

Schock Resistance: 40g (6 ms, according to EN 60068-2-27).

Sensor: piezoresistive, with silicone oil.

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

Protection degree: IP 65 according to EN 60529/IEC 529 ⁽³⁾.

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

Weight: 0,14 kg

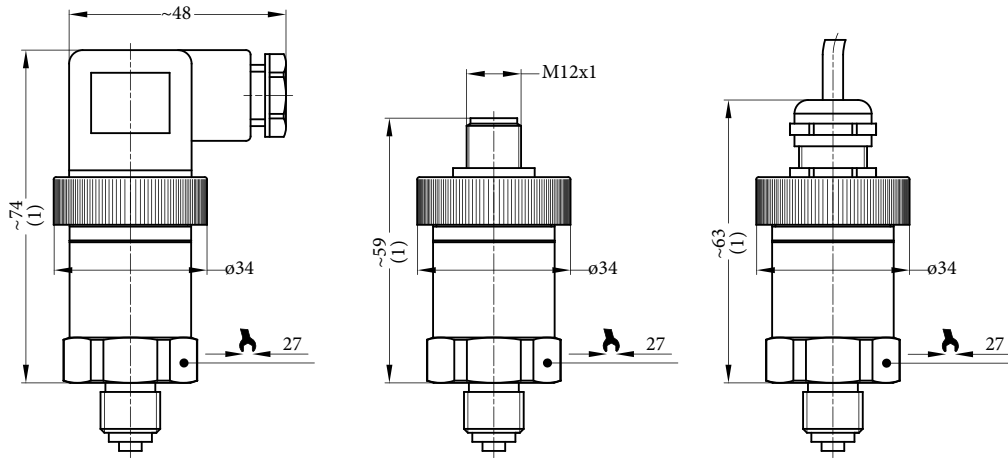
(1) measurement error according to EN 61298-2: non-linearity included, hysteresis, zero
drift and output signal full scale range (calibration on extreme values at conditions of
reference according to directive EN 61298-1).

(2) + 0,5% of the scale range for pressures $\leq 0,6$ bar

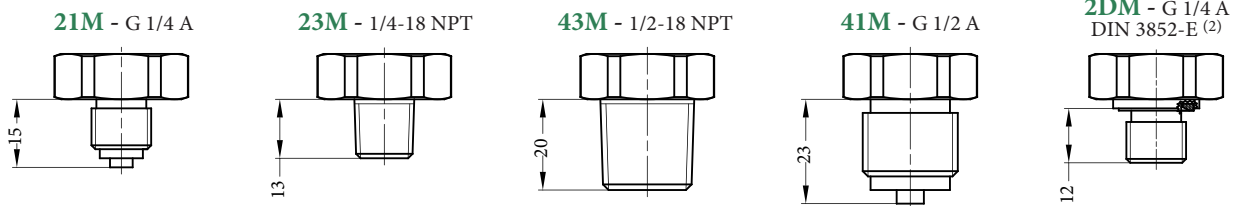
(3) with properly assembled electric connection .

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.



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 1	0...5 Vcc 4	0...10 Vcc 5	1...5 Vcc 8	0,5...4,5 Vcc ratiometric - R
N. of wires	2	3	3	3	3
Load max (Ohm)	$R_L \leq (V_{in}-8)/0,02$	$R_L \geq 5 \text{ K}\Omega$	$R_L \geq 10 \text{ K}\Omega$	$R_L \geq 5 \text{ K}\Omega$	$R_L \geq 4,5 \text{ K}\Omega$
Supply: +Ub (Vcc)	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 Vcc.

CONNECTIONS

	Connector DIN 175301-803 A		Connector M12 x 1		Cable exit	
	2	3	2	3	2	3
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
Output signal: S+	-	3	-	4	-	green
Ground	GND	GND	2	2	grey	grey

OPTIONS

CRP - CR gasket for sensor	VS3 - Restrictor ø 0,3 mm for pressure range 60 bar
EPD - EPDM gasket for sensor	K02 - Accuracy ≤ ± 0,25% of the range
NBR - NBR gasket for sensor ⁽¹⁾	PVC - Cable exit, with PVC cable
FPM - VITON gasket for sensor ⁽¹⁾	M12 - Connector M12 x 1, 4 poles
C01 - Calibration certificate	

“HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Gasket / Options
8 ST2 **21M** **1** **FPM CRP...M12**
 2DM **4** **CRP**
 23M **5** **EPD**
 41M **8** **NBR**
 43M **R**

