

pressure transmitter with piezoresistive sensor, accuracy 0,35%



PED 2014/68/EU
EMC 2014/30/EU



Compliant to directives

EMC EMC 2014/30/EU - PED 2014/68/EU - RoHS 2002/95/EU

The ST2 model is a compact electronic transmitter provided with piezoresistive sensor with excellent linearity, suitable for air, industrial and technical gases, water, oil and process media compatible with AISI 316. A purposely designed version for the medical equipment manufacturing industry is now available with a 0/0,06 bar range.

8.ST2

Measuring ranges: 0...0,06/0...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) for version MET (UL/CSA) max 600 bar

(2) max measuring error as per st. IEC 61298-2: non-linearity and hysteresis included (calibration according to extreme values as per IEC 61298-1); $\leq \pm 0,5$ % for range 0,06 bar, MET (UL/CSA) version

(3) $\leq \pm 0,25$ % for range 0,06 bar, MET (UL/CSA) version

(4) + 0,5% of range, for $\leq 0,6$ bar ranges, + 1% of range, for < 0,1 bar ranges. For standard version.

(5) -25...+75°C with cable exit for MET (UL/CSA) version

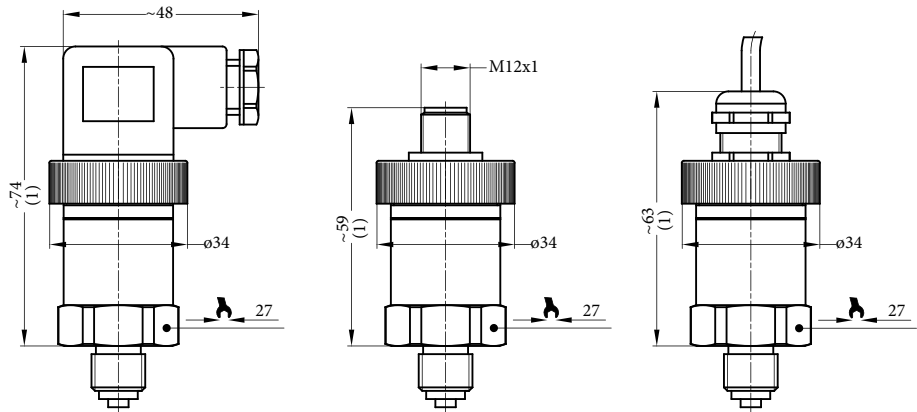
(6) provided with duly assembled electrical connection

Ranges bar, relative	Overpressure bar, relative	Overpressure MET (UL/CSA) bar, relative
0...0,06	0,3	0,3
0...0,1	0,3	0,3
0...0,16	0,48	0,48
0...0,25	0,75	0,75
0...0,4	1,2	1,2
0...0,6	1,8	1,8
0...1	2	3
0...1,6	3,2	4,8
0...2,5	5	7,5
0...4	8	12
0...6	12	18
0...10	20	30
0...16	32	48
0...25	50	75
0...40	80	120
0...60	120	180
0...100	200	300
0...160	320	375
0...250	380	500
0...400	600	800
0...600	900	1200
0...1000 ⁽¹⁾	1500	

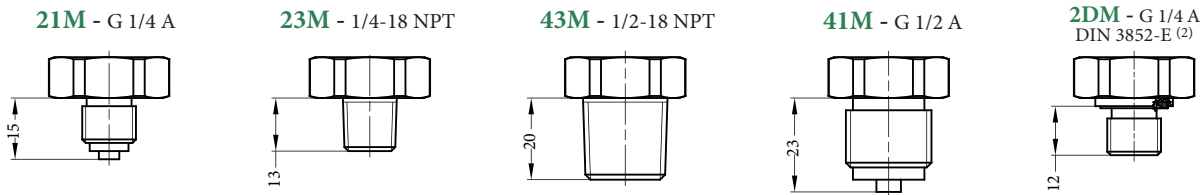
Other ranges available on demand. Units of measurement available in psi, MPa, kPa too.

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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 1	0...5 Vdc 4	0...10 Vdc 5	1...5 Vdc 8	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 with protection against short circuit and polarity inversion. Insulation tension 500 Vdc.

(1) not available for 0,06 bar range

WIRING

	EN 175301-803 A		M12 x 1		Cable exit	
Cod.	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	green
Signal: S +	-	3	-	4	-	white
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 ≤ ± 0,25% of the range (2)
CRP - CR gasket for sensor	VS3 - Restrictor ø 0,3 mm for pressure range 60 bar
	CUS - MET version complying with UL/CSA

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

(2) Non-Linearity (BFSL) ≤ ± 0,125% of span; for measuring ranges ≤ 60 bar. Not available for 0,06 bar range and for MET (UCL/CSA) version

“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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