

pressure transmitter with ceramic sensor, accuracy 0,5%



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



UL, 61010-1
CSA, C22.2 No 61010-1
Authorization N. E114472



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

8.ST1

Measuring ranges: 0...1/0...600⁽¹⁾ 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 ⁽²⁾.

Thermal drift: between 0 and 80°C, 1% of span; 2,5% of span, max ⁽³⁾.

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

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

Ambient temperature: -25...+85 °C ⁽⁴⁾

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 Al₂O₃.

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

Protection degree: IP 65 according to IEC 60529 ⁽⁵⁾.

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 400 bar for MET (UL/CSA) version (2) measuring error according to IEC 61298-2, including non-linearity and hysteresis (limit-point calibration and reference conditions according to IEC 61298-1); for ranges from 0 to 1 bar and \leq 250 bar accuracy of $\leq \pm 0,75\%$ of span (3) + 0,5% of span for measuring range 1 bar (4) -25...+75°C with cable output fit to MET (UL/CSA) version (5) with properly assembled electric connection

Ranges (Overpressure) bar, relative
0...1 (3)
0...1,6 (4)
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)

Ranges (Overpressure) psi, relative
0...15 (45)
0...30 (90)
0...50 (150)
0...60 (180)
0...100 (300)
0...150 (450)
0...200 (600)
0...300 (900)
0...500 (1500)
0...750 (2250)
0...1000 (3000)
0...1500 (4500)
0...2000 (6000)
0...3000 (7500)
0...5000 (12500)

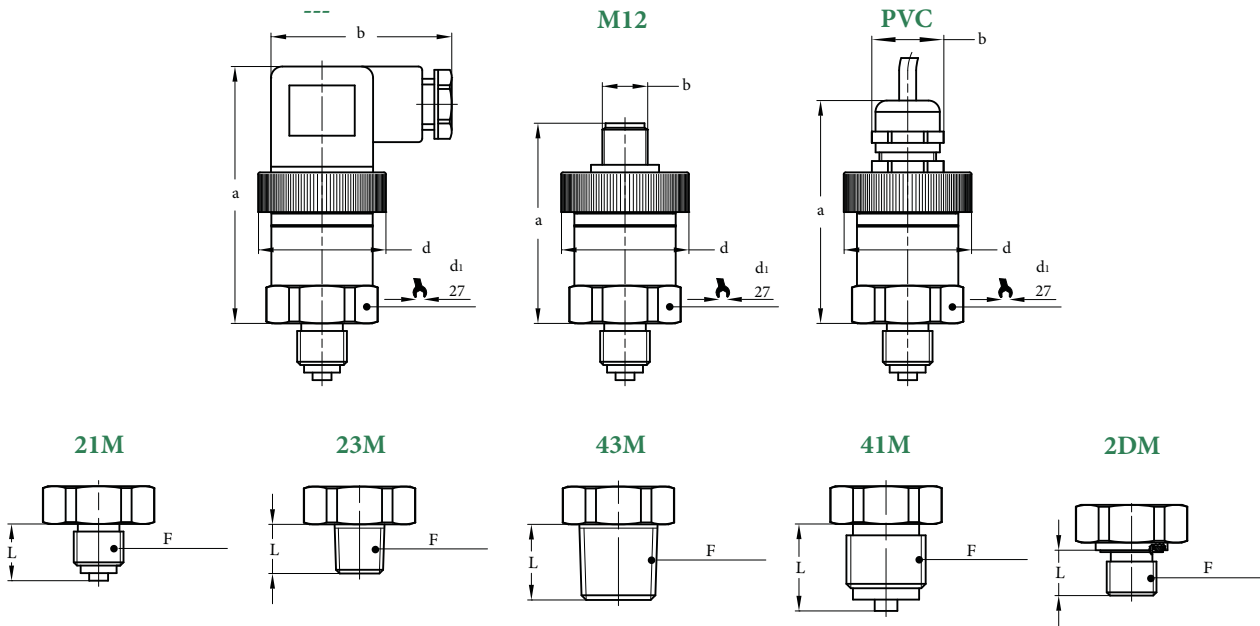
Other ranges available on demand. Units of measurement also available in MPa and kPa.

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 \pm 10%
Absorbed current (mA)	< 25	< 10	< 10	< 10	< 10

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accuracy 0,5%**

ST1

RC9 - 11/21



Tightening torque: 20...30 Nm

Cod.	F	L
21M	G 1/4 A	(0.59") 15
23M	1/4-18 NPT	(0.51") 13
43M	1/2-18 NPT	(0.47") 12
41M	G 1/2 A	(0.90") 23
2DM	G 1/4 A DIN EN ISO 1179-2	(0.07") 20

Electric connection	a	b	d	d ₁	Weight
---	(2.67") 68	(1.88") 48	(1.33") 34	(1.06") 27	(0.25 lbs) 115 g
M12	(2.08") 53	(ø 0.47") ø 12	(1.33") 34	(1.06") 27	(0.25 lbs) 115 g
PVC	(2.32") 59	(ø 0.66") ø 17	(1.33") 34	(1.06") 27	(0.33 lbs) 150 g

dimensions: mm - inches

Other output signals available on request. All output signals are provided with 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	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	Electric connection M12 x 1, 4 poles	NBR - NBR gasket for sensor ⁽¹⁾
PVC	Electric connection with 1 mt PVC cable	C01 - Calibration certificate
FPM	FPM sensor gasket ⁽¹⁾	VS3 - Restrictor ø 0,3 mm
CRP	CR sensor gasket	CUS - MET version complying with UL/CSA

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

HOW TO ORDER

Section / Model / Range /Version/ Process connection / Output signal / Electric connection / Wiring / Gasket / Options
8 ST1 --- **21M** **1** --- **12G...134** **FPM C01...VS3**
 CUS **2DM** **4** **M12** **MBG, MBV** **CRP**
 23M **5** **PVC** **EPD**
 41M **8** **NBR**
 43M **R**

