

pressure transmitter with piezoresistive sensor, accuracy 0,35%



CE Complying with standards:
EMC 2014/30/EU - PED 2014/68/EU - RoHS 2011/65/EU

The ST9 model is an electronic transmitter with piezoresistive sensor with excellent linearity, with adjustable zero and span, for air, industrial and technical gases, water, oil and process media compatible with AISI 316. When assembled to diaphragm seals, it is able to measure corrosive, highly viscous and hot fluids pressure.

8.S09

Measuring ranges: 0...0,1/0...1000 bar, relative; -1...0/-1...+24 bar, relative; 0...1/0...25 bar, absolute.

Output signal: 4...20 mA.

Non-linearity (BFSL): $\leq \pm 0,175$ % of 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 range ⁽¹⁾.

Zero and span adjustment: ± 10 % span typical.

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

Long term drift: $\leq 0,2$ % 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 ≥ 60 bar).

Weight: 0,23kg

(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% span for measuring range $\leq 0,6$ bar

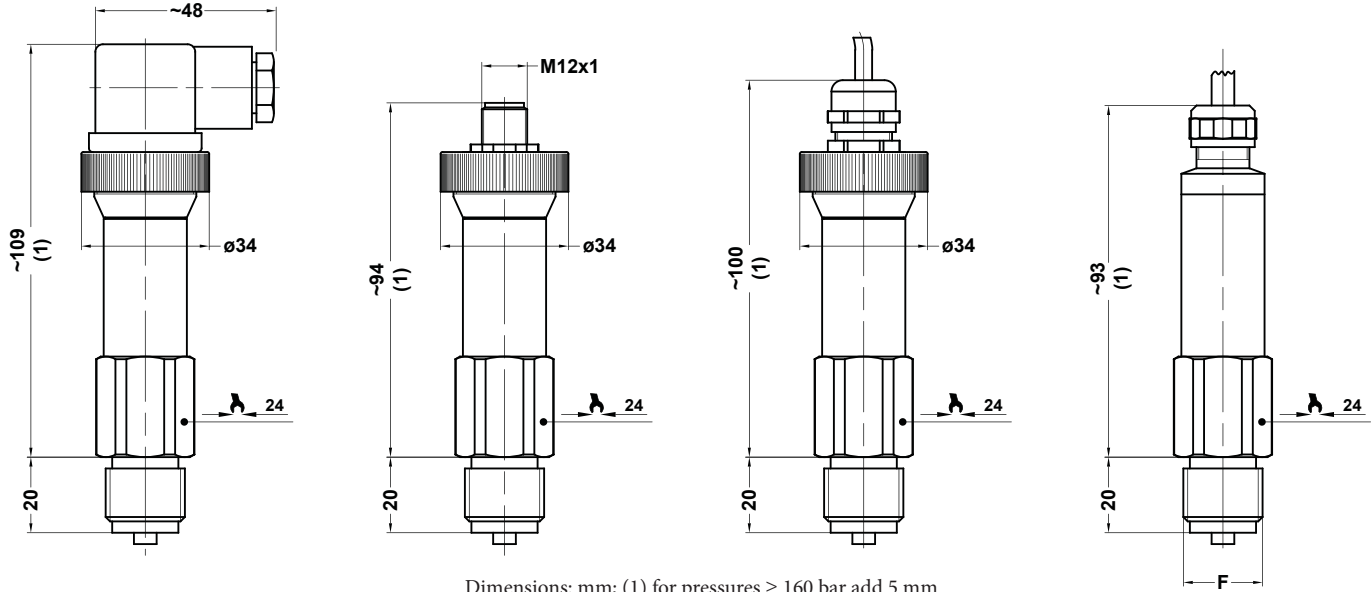
(3) with properly assembled electric connection

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. Measurement units available in psi, MPa, kPa too.

Output signal	4...20 mA 1
N. wires	2
Load (Ohm)	$R_L \leq (U_b - 10)/0,02$
Supply: +Ub	10...30

Other output signals available on demand. All output signals are protected against short circuit and polarity inversion. Insulation tension 500 Vdc.



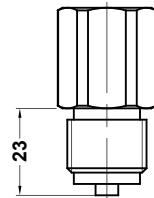
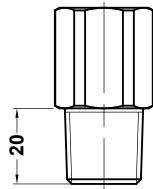
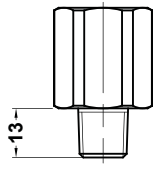
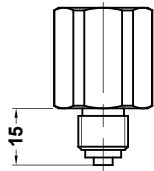
Dimensions: mm; (1) for pressures ≥ 160 bar add 5 mm

21M - G 1/4 A

23M - 1/4-18 NPT

43M - 1/2-18 NPT

41M - G 1/2 A



Torque 20...30 Nm

WIRING

	DIN 175301-803 A	M12 x 1	Cable exit
N. of wires	2	2	2
Supply connection: Ub+	1	1	brown
Negative connection; 0V-	2	3	white
Output signal: S+	-	-	-
Ground	GND	2	grey

OPTIONS

M12 - Connector M12 x 1, 4 poles	EPD - EPDM gasket for sensor
PVC - Cable exit, with 1 mt PVC cable	NBR - NBR gasket for sensor
U68 - Cable exit IP68, with 1 mt polyurethane cable	C01 - Calibration certificate
FPM - VITON gasket for sensor	A02 - Accuracy $\leq \pm 0,25\%$ of the range ⁽¹⁾
CRP - CR gasket for sensor	VS3 - Restrictor $\varnothing 0,3$ mm

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

“HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Electric connection / Gasket / Options
 8 S09 41M 1 --- FPM C01...VS3
 21M M12 CRP
 PVC EPD
 U 68 NBR