

pressure transmitter with ceramic sensor, accuracy 0,5%



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

The ST18 model is an electronic transmitter provided with ceramic sensor and adjustable zero and span designed to be used with air, industrial and technical gases, water and oil. When assembled to diaphragm seals it is able to measure pressure in fluids which may be corrosive, highly viscous or featuring a high temperature.

8.ST18

Measuring ranges: 0...1/0...600 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.

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 ⁽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.

Zero and span adjustment: ± 10 % span typical.

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: ceramic in Al₂O₃.

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: 0,18 kg

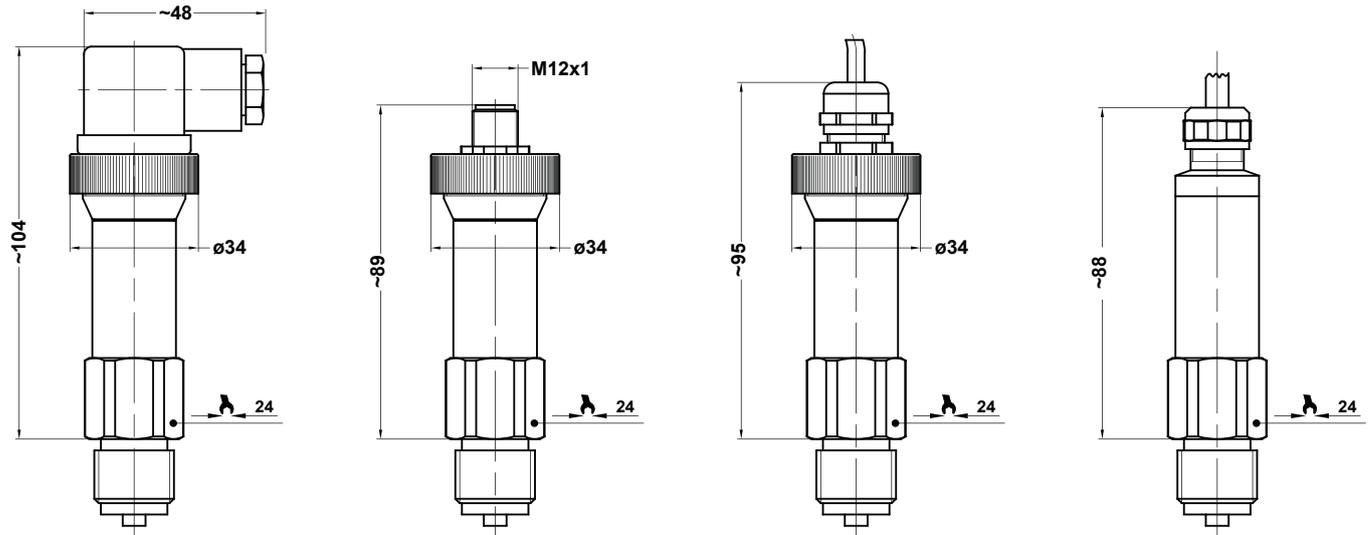
(1) max measuring error according to IEC 61298-2, including non-linearity and hysteresis (limit-point calibration and reference conditions according to IEC 61298-1); accuracy $\leq \pm 0,75\%$ of span for measuring ranges 0...1 bar and 0...600 bar.

(2) + 0,5% of span for measuring range 1 bar

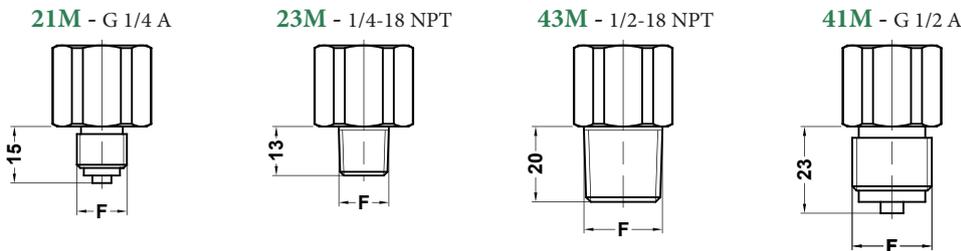
(3) provided with a properly assembled electric connection

Ranges bar, relative	Overpressure bar, relative
0...1	5
0...1,6	5
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

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



Torque 20...30 Nm



Output signals	4...20 mA 1	0...5 Vdc 4	0...10 Vdc 5
N. of wires	2	3	3
Load max (Ohm)	$R_L \leq (U_b - 8)/0,02$	$R_L \geq 5 \text{ K}\Omega$	$R_L \geq 10 \text{ K}\Omega$
Supply: +Ub (Vdc)	8...30	8...30	14...30
Absorbed current (mA)	< 25	< 10	< 10

All output signals are provided of protection against short circuit and polarity inversion. Insulation tension 500 Vdc.

WIRING

N. of wires	DIN 175301-803 A		M12 x 1		Cable exit	
	2	3	2	3	2	3
Supply connector: Ub	1	1	1	1	brown	brown
Negative connector: 0V	2	2	3	3	white	green
Signal: S +	-	3	-	4	-	white
Ground	GND	GND	2	2	grey	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 - FPM gasket for sensor	VS3 - Restrictor ϕ 0,3 mm
CRP - CR gasket for sensor	

“HOW TO ORDER” SEQUENCE

Section / Model / Range / Process connection / Output signal / Gasket / Options
8 S18 41M 1 FPM C01...VS3
43M 4 CRP
21M 5 EPD
23M NBR