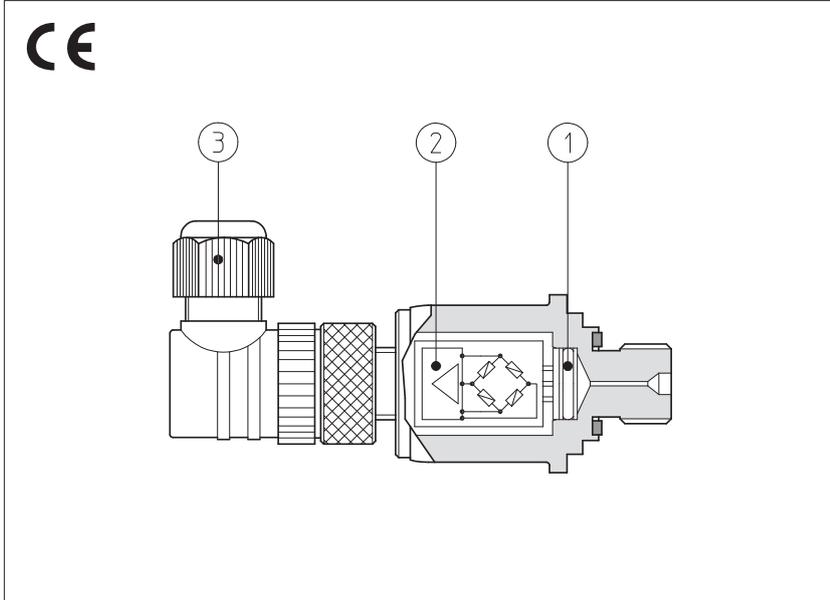


Pressure transducers type E-ATR-7

analog, for open and closed loop systems



The E-ATR-7 pressure transducers measure the static and dynamic pressure of the hydraulic fluid, giving a proportional voltage or current output signal.

They are designed to be used in open or closed loop regulation systems, according to the block diagram 2.

The sensor ① is composed by a thin film circuit ②, with high resistance to overloads and pressure peaks. The integrated electronic circuit with thermal drift compensation supplies an amplified voltage or current output signal, proportional to the pressure of the circuit.

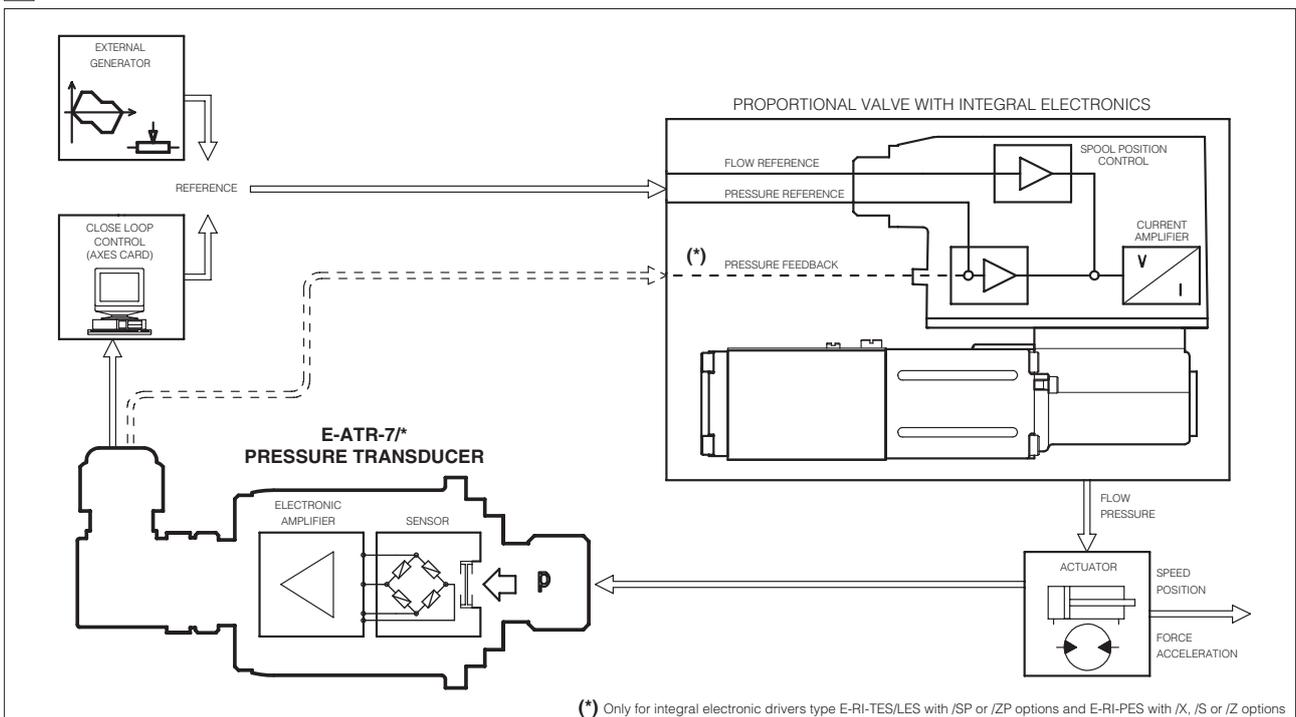
In closed loop systems the E-ATR-7 pressure transducers can be used coupled with Atos proportional valves with digital drivers -AERS (see tab. G205), -TES (-LES) /SP and /ZP (see tab. G210) or with P/Q proportional pumps (see tab. G215). They can be used also with commercial pressure control boards, according to the block diagram 2.

The transducer is supplied with "zero" already set and calibrated. The connector ③ type M12 is 4 pin type with IP67 protection class.

1 MODEL CODE

E-ATR-7	/	400	/I	**
E-ATR-7 = Pressure transducer amplified type				Series number
Pressure measuring range: 60 = 0 ÷ 60 bar 100 = 0 ÷ 100 bar 160 = 0 ÷ 160 bar 250 = 0 ÷ 250 bar 400 = 0 ÷ 400 bar			Options: - = with voltage output signal 0 ÷ 10 V /I = with current output signal 4 ÷ 20 mA	

2 BLOCK DIAGRAM



3 MAIN CHARACTERISTICS OF E-ATR-7 PRESSURE TRANSDUCERS

Pressure measuring range	E-ATR-7/60: 0 ÷ 60 bar E-ATR-7/100: 0 ÷ 100 bar E-ATR-7/160: 0 ÷ 160 bar E-ATR-7/250: 0 ÷ 250 bar E-ATR-7/400: 0 ÷ 400 bar Other values available on request	Note: negative pressure can damage the pressure transducer
Linearity and hysteresis range at 25°C	< ± 0,25% full-scale	
Overload	2 x full-scale	
Maximum pressure	5 x full-scale	
Operating temperature	-25 ÷ +85 °C (storage -40 ÷ +100 °C)	
Thermal compensation	zero: ≤ ±0,025% FS/°C max; span: ≤ ±0,025% FS/°C max	
Response time	≤ 2 ms	
Hydraulic connection	1/4" GAS - DIN 3852	
Electronic supply	24 Vdc nominal; 12 ÷ 30 Vdc with I ≤ 50 mA (8 ÷ 30 Vdc for version /I)	
Output signal	std: 0 ÷ 10 V (3 pins); load minimum 2 kΩ /I: 4 ÷ 20 mA (2 pins); current limitation: 32 mA	
Electromagnetic compatibility (EMC)	EN 61000-6-1, EN 61000-6-2, EN 61000-6-3, EN 61000-6-4	
Plastic connector	type M12 at 90°; 4 pins max 0,75 mm², cable gland type PG7, cable max Ø 6 mm - DIN 43650-C Protection: IP 67 according to DIN 40050; Insulation: according to VDE 0110-C	
Materials	Sensor: stainless steel; seals: FPM	
Vibration resistance	25 g according to DIN EN 60068-2-6 from 5 to 2000 Hz	
Shock resistance	500 g / 1 ms / half-sinusoid according to DIN EN 60068-2-27	
Protection class	IP 67	
Weight	55 g	

4 INSTALLATION AND COMMISSIONING

4.1 Warning

It is advisable to install the E-ATR-7 transducer as near as possible to the point of the system where the pressure must be measured and where oil flow can be considered not turbulent.

4.2 Commissioning

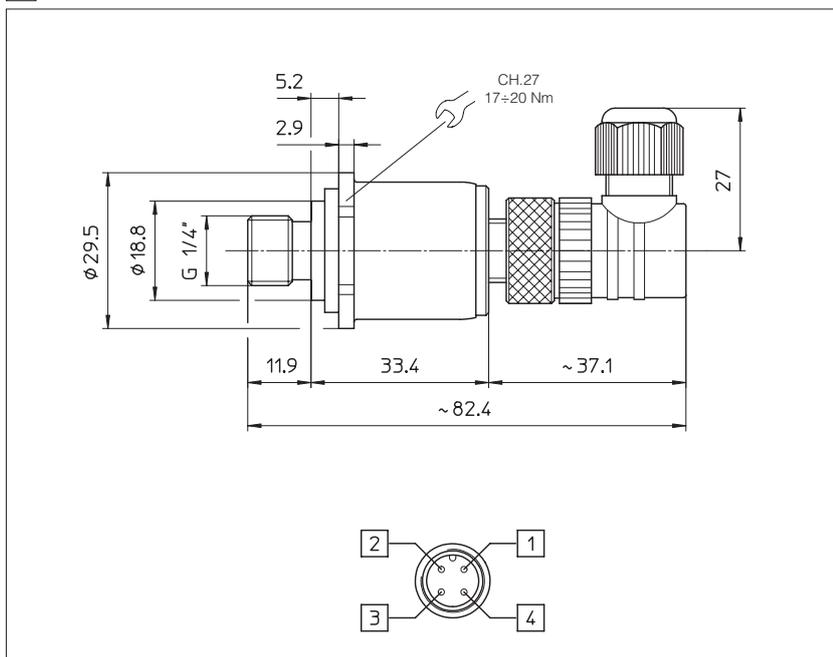
Install the transducer on the hydraulic circuit.

Wire as shown in [6] and supply the transducer with D.C.

The amplified output signal is available on the contact 4 of the connector.

In the versions with current output (2 cable supply) the signal is referred to the same earth of the supply (contact 3).

5 DIMENSIONS [mm]



6 CONNECTIONS

