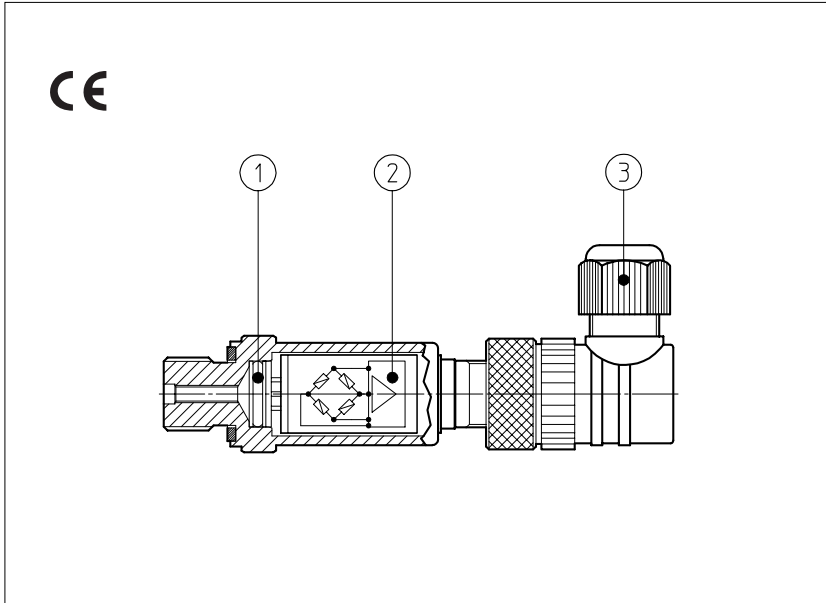


Pressure transducers type E-ATR-6

for open and closed loop systems



The E-ATR-6 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.

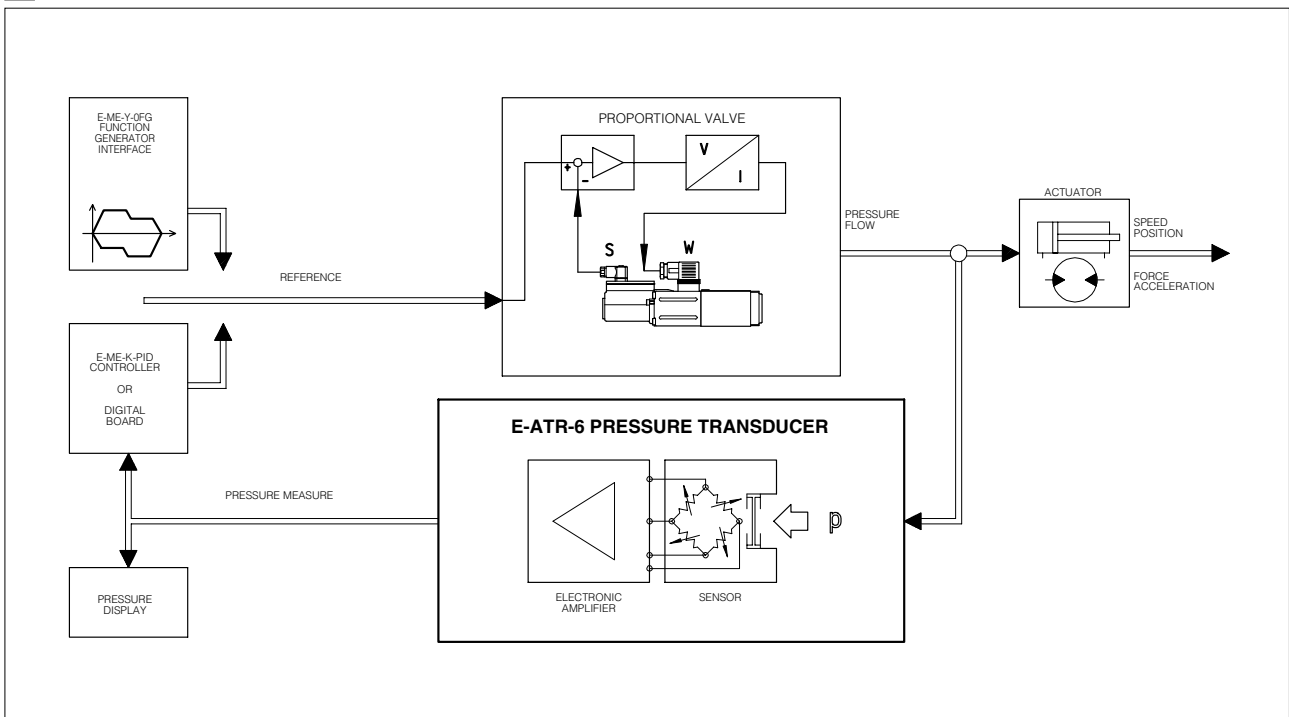
In closed loop systems the E-ATR-6 pressure transducers can be used coupled with Atos proportional valves with digital drivers -AERS (see tab. G205), -TES (-LES) /SP and /ZP (see tab. G210) or with P/Q proportional pumps (see tab. G215). They can be used also with commercial pressure control boards, 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-6	/	400	/I	**
E-ATR-6 = Pressure transducer amplified type		Design 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-6 PRESSURE TRANSDUCERS

Pressure measuring range	E-ATR-6/60: 0 ÷ 60 bar E-ATR-6/100: 0 ÷ 100 bar E-ATR-6/160: 0 ÷ 160 bar E-ATR-6/250: 0 ÷ 250 bar E-ATR-6/400: 0 ÷ 400 bar
Linearity and hysteresis range at 25°C	< ± 0,25% FS
Overload	2 x full-scale
Maximum pressure	4 x full-scale
Temperature range	nominal (-25 ÷ +85°C) - stocking (-40 ÷ +100°C)
Thermal compensation	zero ± 0,015% /K/FS max; span ± 0,015% /K/FS max
Response time	1 ms/10...90%
Hydraulic connection	1/4" GAS - ISO 228 male (DIN 16288)
Electronic supply	24 V _{DC} nominal; 12 ÷ 30 V _{DC} with I ≤ 50 mA (10÷30 V _{DC} for version /I)
Output signal	std: 0 ÷ 10V (3 pins); load minimum 2 kΩ /I: 4 ÷ 20 mA (2 pins); current limitation: 32 mA
Electromagnetic compatibility (EMC)	
Emission	EN 50081-1, EN 50081-2
Immunity	EN 50082-1, EN 50082-2
Plastic connector	type M12x1 at 90°; 4 pins max 0,75 mm ² , cable gland tipe 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 AISI 630; Case: stainless steel AISI 304
Protection class	IP 67
Weight	60 g

4 INSTALLATION AND USE

4.1 Warning

The E-ATR-6 transducer can be used in any position, it is however advisable to install the transducer as near as possible to the point of the system where the pressure must be measured.

4.2 Use

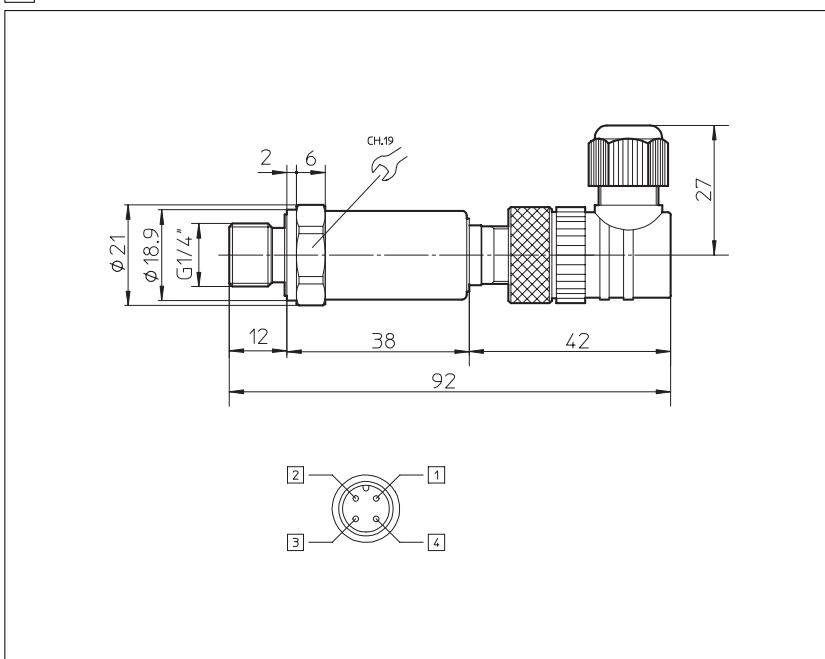
Install the transducer on the hydraulic circuit.

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).

The contact ⊕ is internally connected to the metallic case of the transducer and it must not be connected. In particular cases where this connection can improve the functionality, please contact our technical office to verify the correct connection.

5 DIMENSIONS [mm]



6 CONNECTIONS

