

TSz ../Ex

Pressure transducers - threaded Ex version

Pressure meters

INTRINSICALLY
SAFE
SECURITY SYSTEMS



DESCRIPTION:

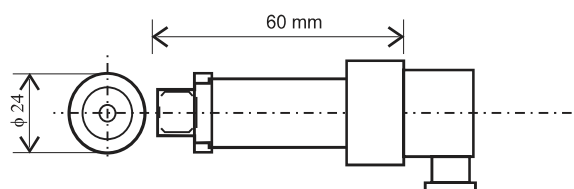
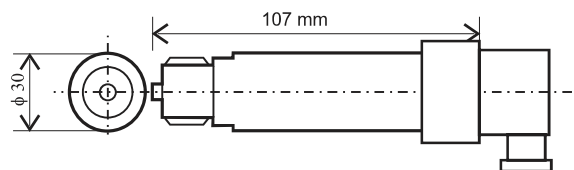
Pressure gauge type TSz - used for measuring the pressure of liquid or gas supplied through a screw joint (threaded fitting, flange) with a thread M20 x 1.5 (other threads sizes can be ordered).

Device output can be supplied with cable (IP68 protection) or connector (IP64 protection).

Pressure gauge can be calibrated using any pressure units (e.g.: kPa, MPa, bar etc.).

Calibration can also be based on the density of the liquid measured directly in longitudinal level units (e.g. m H₂O - metres of water column).

The production of all of sensors is designed as custom-made according to customer's requirements. The sensors can be supplied in several variants of mechanical design with different connector pin connections as required customer's requirement. See suitable table for the most common electrical connections. Connector wiring is shown on the label of the device.



Connecting the pins:

Cable, 4 - 20 mA:	Cable, other ranges:
Ucc - red	Ucc - red
Out - black	Out - black
	GND - blue

Connector, 4 - 20 mA:	Connector, 4 - 20 mA:	Connector, other ranges:
+Ucc - 1	+Ucc - 3	Ucc - 1
Out - 3	Out - 2	Out - 2
		GND - 3

TSz 05 / K / ___ / Ex abs

Pressures range:
70kPa - pressure in specified units
05 - pressure without units
indicates height of water column

Other specifications:
A - output current range 0 - 20 mA
B - output current range 4 - 20 mA
C - other (on request)
abs - measures absolute pressure

Cable length:
K - version with DIN 43650 connector
07 - cable length in meters (7 - 7m)

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TECHNICAL DATA:

Exemplary Marking	TSz 05 / K / _ _ / Ex abs
Version	EEx version requires isolation amplifier for 4 - 20 mA loop
Measuring ranges	-10 to 60 kPa, 0 ... 100 MPa
Gauge accuracy	+/- 0.5% of the range for pressures 100 kPa - 100 MPa
Power Supply Input	from intrinsically safe current loop
Electrical connection	DIN 43650 connector or cable
Output Signal	4 to 20 mA - two-wire connection
Long-term stability	0.15% of range/year
Transmitter lifetime	Sensor lifetime: min: 10 x 1000 000 cycles
Pressure overload capacity	100% - static
Measuring ranges	-10 to 60 kPa, 0 ... 100 MPa
Reference Temperature	Set at a reference temperature of 20°C
Ambient temperature	-30°C to 40°C
Measuring average temperature	-30°C to 125°C (125°C - short term)
Intrinsically Safe Circuit	+/- 0.5% of the range for pressures 100 kPa - 100 MPa
Additional Temperature Influence Error	0.3% / 10°C in the range of 0°C to 70°C
Gauge accuracy	+/- 4% of the range for pressures -20 to 60 kPa
Additional Temperature Influence Error for ranges below 60 kPa	- 60 / [Pn (kPa)] % / 10°C
Environmental Class	III 1G Ex ia IIC T5 Ga, II 2G Ex ia IIC T4 Ga I M1 Ex ia I Ma, II 3G Ex nA IIC T5, II 3G Ex ic IIC T5 Gc
Housing	
Dimensions	ø 30x107 mm
Housing Material	Stainless steel CSN 17 240 (DIN 1.4301, AISI 304)
Surface finish	Unprocessed
Diaphragm Material	DIN 17 352 (1.4436)
IP Rating	IP68
Temperature Range	-30°C to 40°C