

Level Sensor TS02

for gauge pressure measurement

- piezoresistive measuring element
- parts in contact with the medium consist of stainless steel
- compact construction
- with atmospheric pressure compensation
- high accuracy and long term stability



Applications

Water level/depth measurements in wells, drill holes, stagnant waters, tanks

Technical specifications

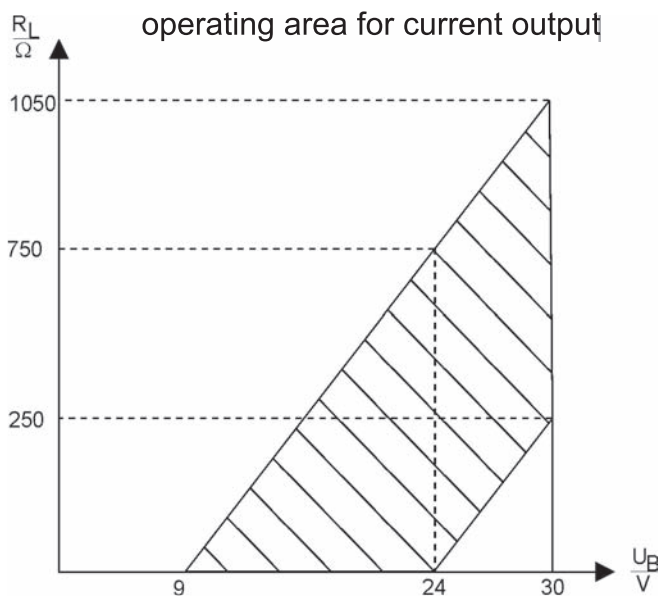
Gauge pressure range	bar	0..0.25 to 0..10; other ranges on request					
		1 m (= 98,1 mbar) to 100 m water column					
Standard pressure range	bar	0.25	0.6	1.6	2.0	5.0	10
Overpressure	bar	0.5	1.2	3.2	4	7	15
Linearity	% FS	0.5 (typ.)					
Pressure hysteresis & repeatability	% FS	0.1					
Thermal effect on zero	% FS/10K	0.6	0.3		0.2		
Theramal effect on span	% FS/10K	0.6	0.3		0.1		
Media temperature	°C	-10..+85 for liquid media					
Storage temperature	°C	-25..+125					
Excitation voltage		9..30 V 14..30 V (voltage output) permissible ripple @ 50 Hz: 10%					
Output signal		4-20mA (2-wire-technique), 0-20mA, 0-10V					
Electrical connection		5m cable with cover consisting of polyamide 12 (DIN 7337) with capillary tube for pressure compensation reverse polarity and shortcircuit protection					
Protection classification		IP68					
EMC		EN 50 081-1 EN 50 082-2					
Material housing/diaphragm		V4A (1.4571) / V4A (1.4435)					

Description of level sensor TS02

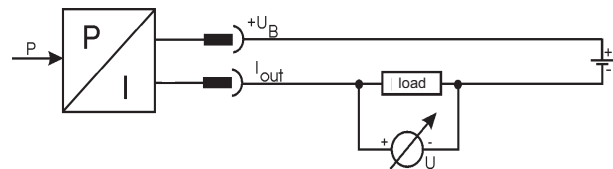
The depth sensing is based on the measurement of the hydrostatic pressure of a liquid level. The piezoresistive measuring element of the pressure transmitter transforms the mechanical pressure into a proportional current or voltage signal.

The measuring element is positioned in an oil filled chamber which is made of stainless steel. A stainless steel protection cap prevents damage to the diaphragm. The measuring element is separated from the medium by a stainless steel diaphragm. The sensor on the inside is connected with the atmosphere through a capillary cable Tube. This fluctuations of the atmospheric pressure are compensated for.

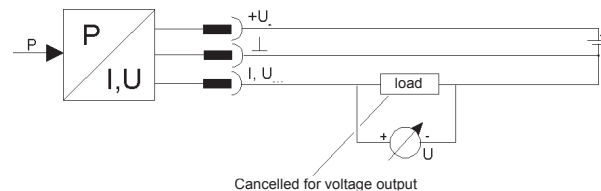
The connection cable is connected firmly and leaktight with the housing.



Electrical connection for 2-wire-technique

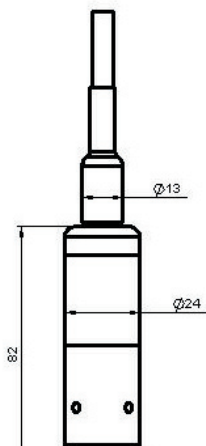


Electrical connection for 3-wire-technique



Output current: load resistance: $R_L = \frac{U_B - 9V}{0,02A}$

Output voltage: $R_L \geq 10k\Omega$



	2-wire	3-wire
+U _B	red/pink	red
GND	-	blue
Ausgang	blue	grey

Order characterization:

Pressure transmitter model TS02

Pressure range: ...(mWC, bar, psi, Torr, mmHG)

Output signal:

Cable length:

Subject to change without notice
MS 12/04