LEVEL/PRESSURE
OPTIONAL WITH TEMPERATURE OUTPUT SIGNAL

SDCPS LEVEL METER - EXI LEVEL METER ATEX

Special Features:

• Measuring ranges
o 0...100 mbar up to 0...25 bar,
(0... 1m.Wc up to 0... 250m.Wc)

• Robust construction
o Wetted parts of stainless steel
o Stainless steel case (316L)
o Protection category IP 68
o PUR cable (standard), FEP cable (optional)
o resistant against ad blue
o Micro PTFE coating (optional)

• Programmable by PC programming kit or service tool
o Zero point (offset)
o Range able 1:4 (beginning with 400mbar)

• 0utput signals
o 4 ... 20 mA
o 0 ... 10 V
o RS 485 available in the future

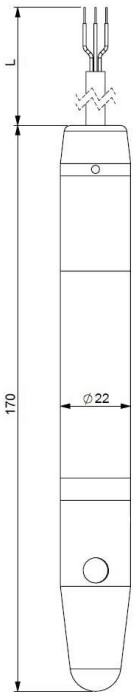
• Measuring system

o Sensor	stainless steel membrane poly-Si on SiO (thin film resistors)
o System filling	silicon oil

• Flush diaphragm

Description:

A wide application field of level meter is guaranteed by the high accuracy and the rugged, compact design.
The compensation and adjustment is carried out electronically. Thus the pressure transmitters have a very low total error and a very good long-term stability. The measuring cell is characterised by its high long-term resistance and long-term stability. With the precision of modern electronics, the measured data can be captured and spent very accurately. Even the programming of the pressure transducers by the user can be realised on a service tool or PC programming kit. The graduation of the measuring range and the zero point can be set up through the digital interface. Furthermore sensor data can be readout from the device. By using permanent magnets the adjustment of the zero point can easily and securely be done at any time.



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SDCPS									
Standard pressure ranges *) (bar)			0...0,1	0..0,16	0..0,25	0..0,4	0..0,6	0...1	0..1,6
	0..2,5	0..4	0..6	0..10	0..16	0..25			
Over pressure (bar) *)	2 times - depending on pressure range								
Burst pressure (bar) *)	3 times - depending on pressure range								
Kind of pressure	gauge pressure (air tube with Goretex filter)								
Wetted parts :	Stainless steel								
Weight (g)	under construction								
Supply voltage	12..32 VDC; ATEX construction 20-27 VDC								
Output signals and max. load	4…20 mA, 2 wire $\mathbf{R_A} \leq (U_B\text{-}12V) / 20mA$ ATEX: $\mathbf{R_A} \leq (U_B\text{-}20V) / 20mA$ min 100Ohm								
	0…10V, 3 wire (not ATEX compatible) $\mathbf{R_A} > 10\ k\Omega$								
Adjustability of zero	Straightforward zero correction by using a magnet or via interface and PC programming kit								
Accuracy **)	% FS ≤ +/-0,5 (100…400mbar) ≤ +/-0,35 (>400 mbar) (Including non-linearity, zero point and full scale error, hysteresis, non-linearity and repeatability)								
Non-linearity ***)	% FS ≤ 0,3 of nominal range EN 60770-1								
Repeatability	% FS ≤ 0,1								
Long-term stability	% FS ≤ 0,1 1-year stability at reference conditions								
Permissible temperatures									
Media temperature	-10...+ 70 °C (ATEX construction zone 0 max +60°C)								
Ambient temperature	-10...+ 70°C (ATEX construction zone 0 max +60°C)								
Storage temperature	-20....+ 100 ° C								
CE-conformitiy									
Pressure equipment directive	97/23/EG								
EMC directive	89/336/EEC emission (class B) immunity according to EN61326								
Shock resistance	g 100 to IEC 60068-2-27 mechanical								
Vibration resistance	g 20 to IEC 60068-2-6 resonance								
Wiring protection									
Overvoltage	32 VDC not for ATEX								
Short-circuit strength	Out+ / U_B- (for 1s)								
Reverse polarity	for power supply								

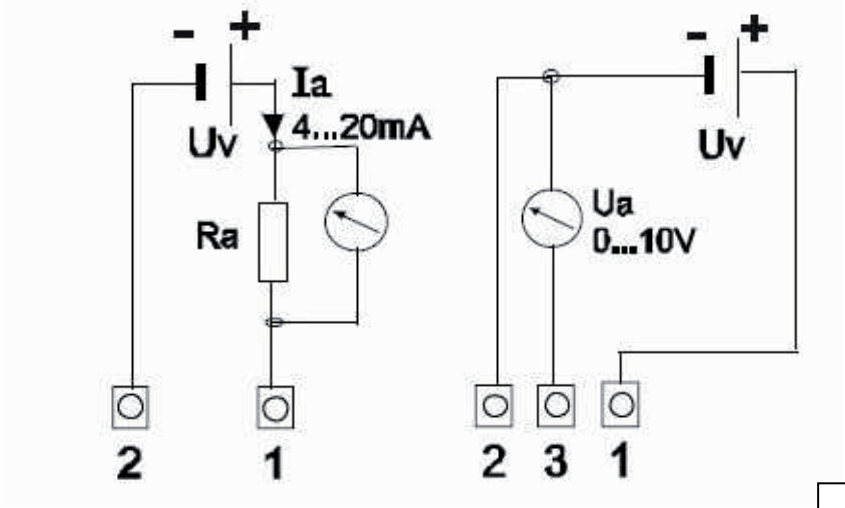
***) Others on request**
****) Special custom design with optional better accuracy on request**
*****) integral linearity error (FS = Full Scale, BFSL = Best Fit Straight Line)**

Connection diagram

Standard cable connection: **2 wire : red + , black -**
3 wire : red + , black -, white out,

(changes possible)

4…20 mA **0…10 V**

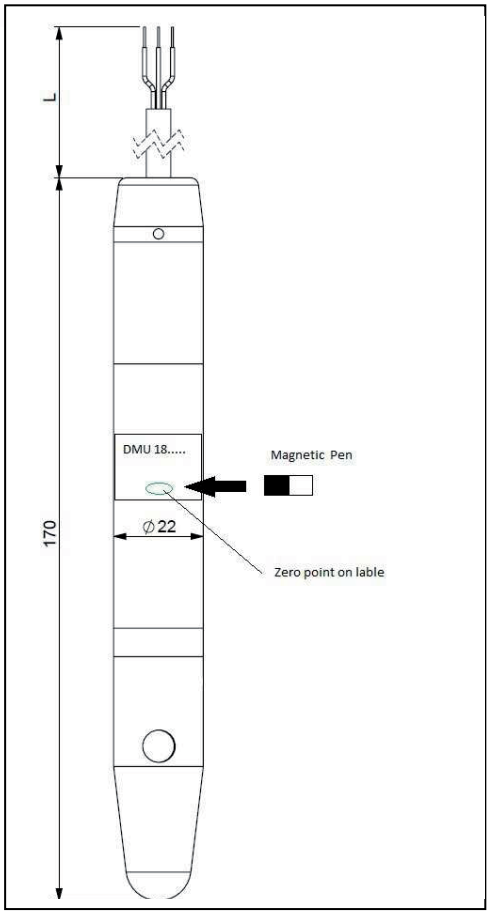


$R_A \leq (U_B\text{-}12V) / 20mA$ Uv=14..32VDC
ATEX: $R_A \leq (U_B\text{-}20V) / 20mA$
min 100Ohm
Uv= 12..32VDC (ATEX20...27VDC)

Zero correction

The zero can be set easily with a magnet within ± 10 % of the nominal range.

To correct the zero point, hold a permanent magnet – a pin board magnet, for example – at the position marked on the pressure transmitter (i.e. a letter in a circle) for ½ to 2 ½ minutes after the power has been switched on. To correct the zero, atmospheric pressure is applied. Offsets for previously set values for initial and ultimate pressures will be corrected automatically by the device. A magnetic field applied outside of this time period has no effect on the setting. The power must be switched off and on before the zero point can be set again.



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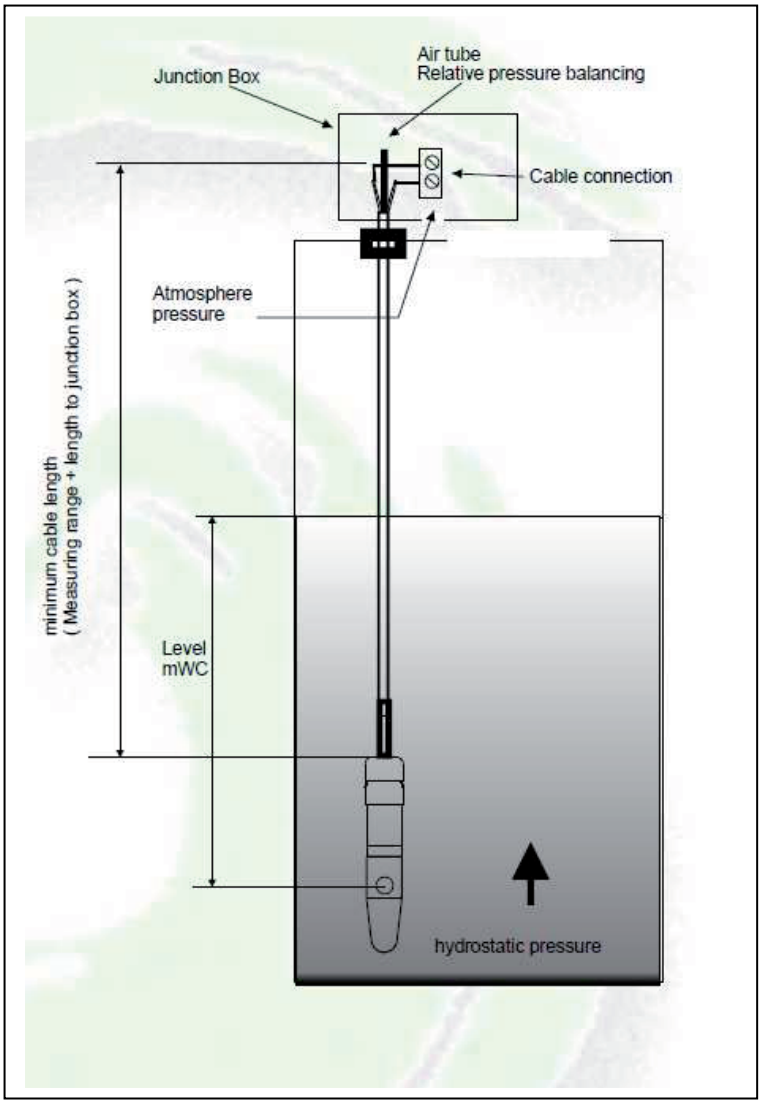

Safety information
During installation, putting into service and operation of these pressure sensors, it is necessary to observe the relevant safety regulations that are in force in the country of the user (as for example, DIN VDE 0100).
Errors excepted; subject to alterations in the sense of technical improvement.

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