

## Pressure Transmitter-Series

## PS 1

### Tank Pressure and Level Probe

<b>Pressure range(relative):</b>	<b>5 kPa, max 0...2500 kPa</b> (from 1 m WC /water column, 0...50 mbar, max 0...25 bar)
<b>Ambient temperature:</b>	<b>+ 5 °C to + 70 °C</b>
<b>Output:</b>	<b>4...20 mA - 2 wire/ 0...10 V - 3 wire/ 0...5 V - 3 wire</b>
<b>Operating voltage:</b>	<b>12...30 V</b>

- Protection class: DIN EN 60 529 - IP 68 down to 250 m navigable depth
- Media - contacting parts and housing made of CrNi steel and plastics with NBR O-ring
- Cable ventilated

### Construction

- Piezo-resistive, vacuum-proof, stainless steel diaphragm with pressure range resistor (Poly-Si on SiO<sub>2</sub>) or optional Silicon < 1 bar
- Mixed signal ASIC
- cable Santopren TPE-V or Pur optional grey
- Case: Stainless steel,  
Lenght: ca. 140 mm, ø 22 mm
- Accuracy: Class 0,5 % F.S.
- Weight: 250 g

### Application / possible uses

- Liquid-level and standard level measuring in tank-storage
- reservoirs
- Hydro-engineering plants

### Description

The most reasonable ADZ Floater Probe SML-PS1 has been developed for standard level and filling level indication in hydro-plants, oil or other non-aggressive media down to 250 m in depth. For more aggressive media, there is an optional variant designed with a special coating.

It is easy to handle, very robust and supplied in a housing of stainless steel with an attached cable (pressure compensation integrated). There are two variants regarding cap configuration (as a weight of steel or as a plastic cap). The transmitters are long-term stable and may be supplied in variants with 0,25 % FS respectively.



Technical information		Type: PS 1			
<b>Measuring range</b> (bar / kPa) standard pressure ranges * )		<b>bar</b>	<b>kPa</b>	<b>bar</b>	<b>kPa</b>
		0,10	10	4,0	400
		0,25	25	6,0	600
		0,40	40	10,0	1000
		1,0	100	16,0	1600
		1,6	160	25,0	2500
		2,5	250		
Overload range (bar) * )	2-times > 350 bar, 1,5-times > 700 bar, 1,2-times up to 1000 bar				
Bursting pressure (bar) * )	3-times > 350 bar, 1,5-times > 700 bar, 1,2 times up to 1000 bar				
Pressure type	Relative pressure				
Pressure connection * )	G1/4 " E Standard plus weight				
Diaphragm	Stainless steel				
Material used Materials of parts with contact to measuring medium: Material of casing:	CrNiCuNb 17-4 PH - stainless steel no O-ring, no silicon oil				
Protection class according to DIN EN 60 529	IP 68				
Cable/material	PUR cable ventilated				
Span	<b>Min.</b>	<b>Type</b>	<b>Max</b>	<b>unit</b>	
Output at FS		16		mA	
Zero output		20		mA	
Total error (from 5°C to 40°C)		4		mA	
Response time			1,0	% FS **)	
Supply voltage (Vs)		0,5	1,5	msec	
Load resistor	10		32	V	
Isolation resistively	(Vs-10 V)/20 mA			M	
	100				
<b>Remarks:</b>					
<ul style="list-style-type: none"> <li>• All parameter guaranteed for specified conditions.</li> <li>• Output is calibrated at zero and full scale.</li> <li>• Total accuracy includes non-linearity, hysteresis, repeatability and temperature effects. (New parts, max. drift per 0,1 % FS). Compensated range.</li> <li>• Measured from initial value to output at 90 %.</li> <li>• Measured between case and pin ( 50 V<sub>DC</sub> for one minute)</li> <li>• Wetted components 17-4PH stainless steel. No O-ring, no silicone oil.</li> <li>• Measuring volume less than 1 mm<sup>3</sup>.</li> <li>• Piezo-resistive principle, calibrated using mixed signal ASIC, no potentiometer, no laser trimming.</li> <li>• Pressure port - submarine weight diameter 22mm, electrical connection - ventilated cable</li> <li>• Calibrated at the factory.</li> </ul>					

\*) Others on request

\*\*) Integral linearity deviation (FS = Full Scale)

- Mistakes and changes in the sense of technical improvements reserved. -

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