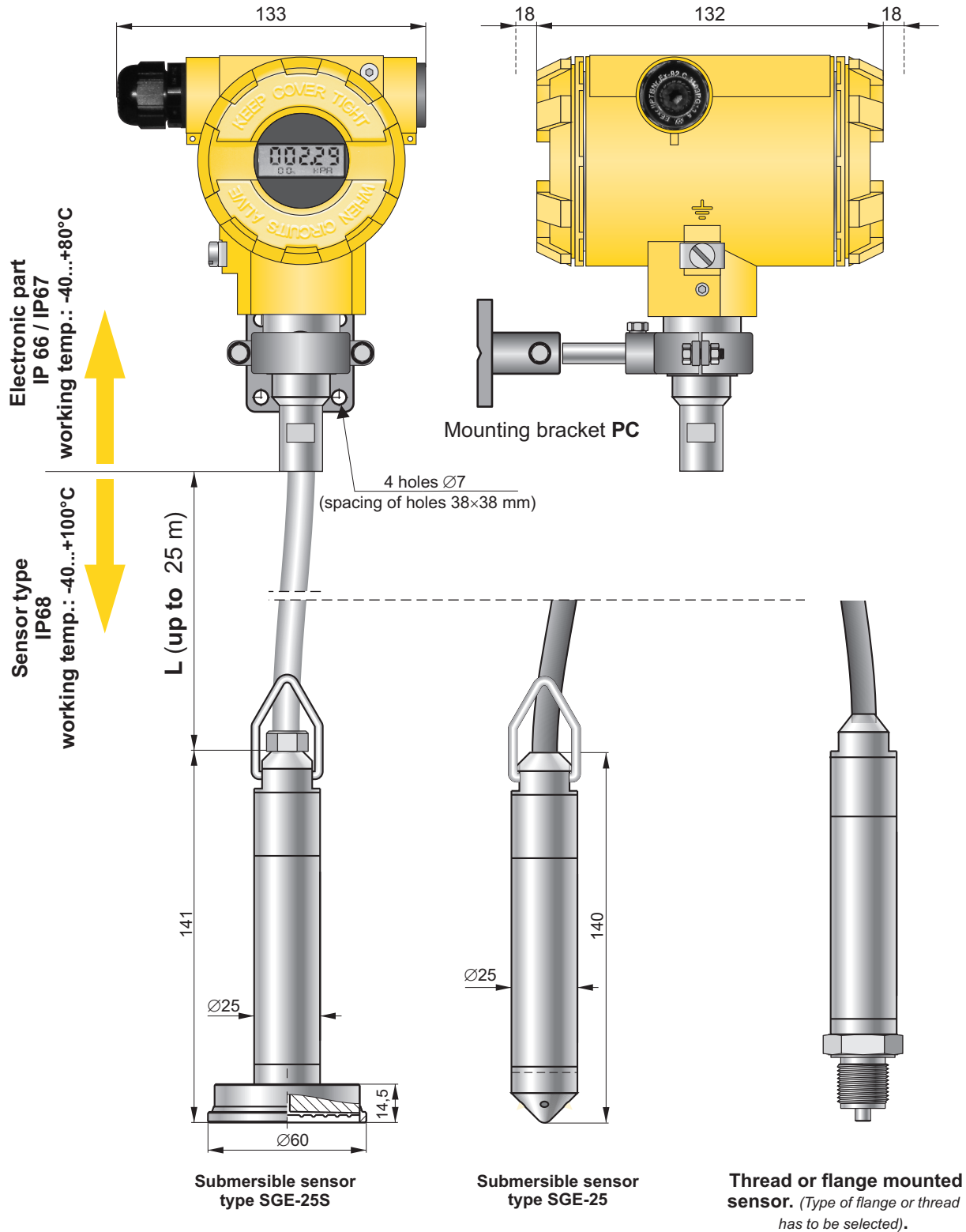


Smart level transmitter type APC-2000ALW/L

- ✓ Programmable zero shift, range and damping ratio
- ✓ 4...20 mA output signal + HART protocol
- ✓ Accuracy 0,16%
- ✓ Local display
- ✓ Intrinsic safety certificate (ATEX, IECEx)

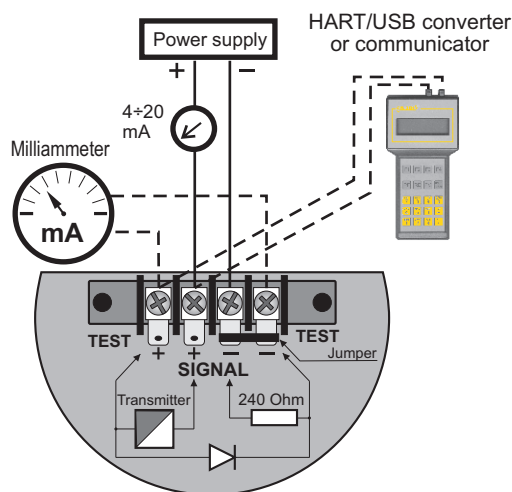
Ex II 1/2G Ex ia IIB T4/T5 Ga/Gb II 1D Ex ia IIIC T105 C Da IECEx Ex ia IIB T4/T5 Ga/Gb Ex ia IIIC T105 C Da



APC-2000ALW/L function:

- ☑ 4...20 mA output signal + HART protocol,
- ☑ Possibilities of the adjusting both zero point and of the start and end of the measuring range, characteristic etc. with the display panel keys,
- ☑ Configurable display 5 digits with illumination (working temperature range -40...+85°C)

Electrical diagrams



Application

The APC-2000ALW/L level probe is applicable to measure liquid levels in tanks, deep wells or piezometers.

The APC-2000ALW/L probe is applicable to measure levels of liquids containing contaminants or suspensions. A typical use for this probe is the measurement of levels of liquid waste in intermediate pumping stations, fermentation chambers, settling tanks etc. Because in submersible part of level probe is mounted only measuring sensor level probe can be use for measurement hot liquids max. 100°C.

Configuration

The following metrological parameters can be configured:

- ◆ The units of pressure;
- ◆ Start and end-points of set range;
- ◆ damping time constant;
- ◆ inverted characteristic (output signal 20 + 4 mA).

Communication

The communication standard for data interchange with the probe is the Hart protocol.

Communication with the probe is carried out with:

- KAP-03 communicator
- Raport 2 software or other Hart communication devices.

Measuring range

No	Nominal range (FSO)	Min. set range	Overpressure limit
1	0...20 m H ₂ O	2 m H ₂ O	0...200 m H ₂ O
2	0...10 m H ₂ O	1 m H ₂ O	0...100 m H ₂ O
3	0...2,5 m H ₂ O	0,5 m H ₂ O	0...25 m H ₂ O

*other measuring ranges on request

Technical data*

Metrological parameters

Accuracy	≤±0,16%
Long-term stability	≤0,16% for 2 years
Thermal error	< ±0,1% (FSO) / 10°C max. ±0,4% (FSO) in the whole compensation range
Thermal compensation range	-25...100°C -40...80°C special version
Output actualization time	0,5 s
Additional electronic damping	0...60 s
Error due to supply voltage changes	0,002% (FSO) / V

Electrical parameters

Power supply	10...55 VDC (Exia: 10,5...30 VDC)
Output signal	4...20 mA 2-wires + Hart protocol
Resistance required for communication	min. 240 Ω

Load resistance $R[\Omega] = \frac{U_{ZAS}[V] - 10V}{0,0225A}$

Operating conditions

Operating temperature range (ambient temp.)	-40...85°C
Medium temperature range:	-40...40°C
	ETFE, PU+PTFE version: -40...80°C
	ETFE+PTFE version: -40...100°C

* more information about technical data available in user's manual.

Model	Code	Description								
APC-2000ALW/L		Smart level probe								
Sensor type	/SGE-25..... /SGE-25S..... /SGE-25S.Titanium.....									
Versions, certificates	/Exia..... /-40...80°C.....	II 1/2G Ex ia IIC T4/T5 Ga/Gb II 1/2G Ex ia IIB T4/T5 Ga/Gb (with PTFE cable) I 1D Ex ia IIIC T105 C Da IECEx Ex ia IIC T4/T5 Ga/Gb Ex ia IIB T4/T5 Ga/Gb (with PTFE cable) Ex ia IIIC T105 C Da Compensation range -40...80°C								
Nominal measuring range	/0...2,5 m H ₂ O..... /0...10 m H ₂ O..... /0...20 m H ₂ O.....	<table border="1"> <thead> <tr> <th>Range</th> <th>Min. set range</th> </tr> </thead> <tbody> <tr> <td>0...2,5 m H₂O</td> <td>0,5 m H₂O</td> </tr> <tr> <td>0...10 m H₂O</td> <td>1 m H₂O</td> </tr> <tr> <td>0...20 m H₂O</td> <td>2 m H₂O</td> </tr> </tbody> </table>	Range	Min. set range	0...2,5 m H ₂ O	0,5 m H ₂ O	0...10 m H ₂ O	1 m H ₂ O	0...20 m H ₂ O	2 m H ₂ O
Range	Min. set range									
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0...10 m H ₂ O	1 m H ₂ O									
0...20 m H ₂ O	2 m H ₂ O									
Measuring set range	/...+... [required units]	Calibrated range in relation to 4mA and 20mA output								
Cable	/PU..... /PU PZH..... /ETFE..... /ETFE-R..... /PU + PTFE..... /ETFE + PTFE.....	Polyurethane cable (medium temp. up to 40°C) Polyurethane, halogen free cable with hygienic certification (medium temp. up to 40°C) ETFE cable (not suitable for mineral oil products, medium temp. up to 80°C) ETFE cable with Viton/silicon sealing (suitable for mineral oil products, medium temp. up to 40°C) Polyurethane cable with PTFE shielding (medium temp. up to 80°C) ETFE cable with PTFE shielding (medium temp. up to 100°C)								
Accessories	L=...m /PC..... /F.....	Cable length (max. 25m) Mounting bracket Flange type connection								