

## CPA-K-307



- hydrostatic level transmitter
- submersible probe, diameter 27 mm
- nominal pressure: from 0...4 mH<sub>2</sub>O up to 0...250 mH<sub>2</sub>O
- output signals: 2-wire: 4...20 mA; 3-wire: 0...20 mA / 0...10 V
- stainless steel probe
- ceramic sensor
- accuracy 0.5 % span
- good linearity and long term stability
- optional: various kinds of cables and elastomers



The level transmitter **CPA-K-307** is designed for continuous level measurement in water or waste water applications. Basic element is a flush mounted ceramic sensor. Suitable for all fluids which are compatible with media wetted materials. Different cable and elastomer materials can be offered according to the customer specific operating conditions.

### PREFERRED AREAS OF USE ARE



**Water**  
drinking water system  
ground water monitoring  
storm water systems



**Sewage**  
waste water treatment  
water recycling  
dumpsite



**Fuel / Oil**  
fuel storage  
tank farm  
biogas plants

### TECHNICAL DATA

Input pressure range											
Nominal pressure gauge	[bar]	0.4	0.6	1	1.6	2.5	4	6	10	16	25
Level	[mH <sub>2</sub> O]	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	2	2	2	4	4	10	10	20	40	40
Burst pressure	[bar]	4	4	4	5	5	12	12	25	50	50
max. ambient pressure (housing)		40 bar									
Output signal / Supply											
Standard		2-wire: 4 ... 20 mA / V <sub>S</sub> = 8 ... 32 V <sub>DC</sub>									
Options 3-wire		3-wire: 0 ... 20 mA / V <sub>S</sub> = 14 ... 30 V <sub>DC</sub> 0 ... 10 V / V <sub>S</sub> = 14 ... 30 V <sub>DC</sub>									
Performance											
Accuracy		≤ ± 0.5 % span									
Permissible load		current 2-wire: R <sub>max</sub> = [(V <sub>S</sub> - V <sub>S min</sub> ) / 0.02 A] Ω current 3-wire: R <sub>max</sub> = 500 Ω voltage 3-wire: R <sub>min</sub> = 10 k Ω									
Influence effects		supply: 0.05 % span / 10 V load: 0.05 % span / kΩ									
Response time		≤ 10 msec									
<sup>1</sup> accuracy according to EN IEC 62828-2 – limit point adjustment (non-linearity, hysteresis, repeatability)											
Thermal effects (Offset and Span)											
Thermal error		≤ ± 0.2 % span / 10 K in compensated range -25 ... 70 °C									
Permissible temperatures											
Permissible temperatures		Medium/ electronics/ environment/ storage: -20 ... 80 °C *									
*If the cable is intended for use in a smaller temperature range, the use of the probe is limited by this range.											
Electrical protection <sup>2</sup>											
Short-circuit protection		permanent									
Reverse polarity protection		no damage, but also no function									
Electromagnetic protection		emission and immunity according to EN 61326									
<sup>2</sup> additional external overvoltage protection unit in terminal box KL 1 or KL 2 with atmospheric pressure reference available on request											
Electrical connection											
Cable with sheath material <sup>3</sup>		PVC (-5 ... 70 °C)	grey (-25 ... 70 °C in fixed condition)	Ø 7,4 mm							
		PUR (-25 ... 80 °C)	black (with drinking water certificate)	Ø 7,4 mm							
		FEP <sup>4</sup> (-25 ... 75 °C)	black	Ø 7,4 mm							
Bending radius		static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter									
<sup>3</sup> shielded cable with integrated air tube for atmospheric pressure reference											
<sup>4</sup> do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected											



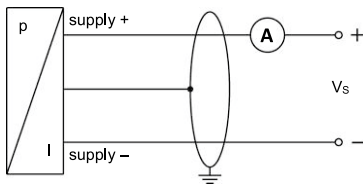
# Level transmitters

Materials (media wetted)	
Housing	stainless steel 1.4404 (316L)
Seals	FKM EPDM
Diaphragm	ceramics Al <sub>2</sub> O <sub>3</sub> 96 %
Protection cap	POM-C
Cable sheath	PVC, PUR, FEP, others on request
Miscellaneous	
Current consumption	signal output current: max. 25 mA signal output voltage: max. 7 mA
Weight	approx. 250 g (without cable)
Ingress protection	IP 68
CE-conformity	EMC Directive: 2014/30/EU

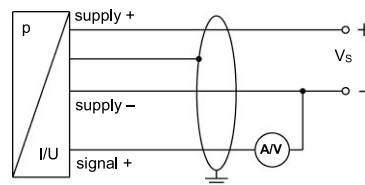
## ELECTRICAL CONNECTION

### Wiring diagrams

2-wire-system (current)



3-wire-system (current / voltage)



### Pin configuration

Electrical connection	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Signal + (only 3-wire)	gn (green)
Shield	ye/gn (yellow / green)

## DIMENSION DRAWINGS

