

## 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 elastomeres









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 matierals can be offered according to the customer specific operating conditions.

#### PREFERRED AREAS OF USE ARE



<u>Water</u> drinking water system ground water monitoring storm water systems



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									

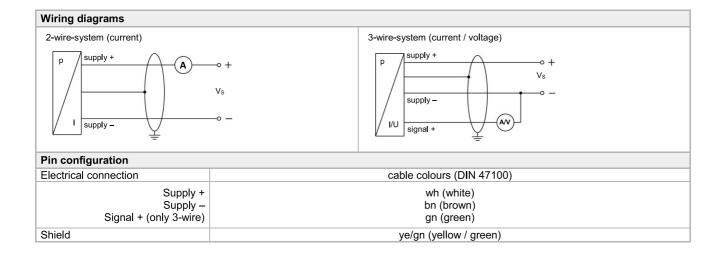
Output signal / Supply							
Standard	2-wire: 4 20 mA / V <sub>S</sub> = 8 32 V <sub>DC</sub>						
Options 3-wire	3-wire: 0 20 mA / V <sub>S</sub> = 14 30 V <sub>DC</sub>						
	$0 \dots 10 \text{ V}$ / $V_S = 14 \dots 30 \text{ V}_{DC}$						
Performance							
Accuracy	≤ ± 0.5 % span						
Permissible load	current 2-wire: $R_{max} = [(V_S - V_{S min}) / 0.02 A] \Omega$						
	current 3-wire: $R_{\text{max}} = 500 \Omega$						
	voltage 3-wire: $R_{min} = 10 \text{ k }\Omega$						
Influence effects	supply: 0.05 % span / 10 V						
	load: $0.05 \%$ span / $k\Omega$						
Response time	≤ 10 msec						
<sup>1</sup> accuracy according to EN IEC 6282	8-2– limit point adjustment (non-linearity, hysteresis, repeatability)						
Thermal effects (Offset and Sp	an)						
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 s	maller 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 prote	ection 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						
	be for atmospheric pressure reference with an FEP cable if effects due to highly charging processes are expected						



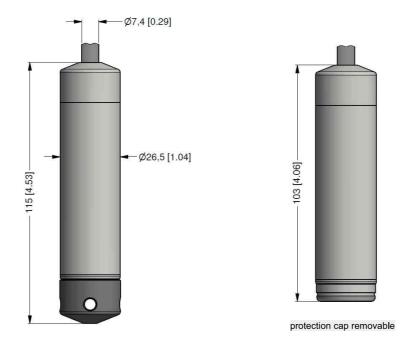
# **Level transmitters**

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



# DIMENSION DRAWINGS







# ACCESSORIES

Cable clamp					
Technical Data					
Suitable for	all probes with cable $\varnothing$ 5.5 10.5 mm	all probes with cable ∅ 5.5 10.5 mm			
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (30	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)			
Weight	approx. 160 g	approx. 160 g			
Ordering type		Ordering code	Ordering code		
Terminal clamp, of steel, zinc plated		1003440	1003440		
Terminal clamp, of stainless steel 1.4301 (304)		1000278	1000278		

### ORDER CODE

	CPA-K-307
Pressure	
in bar	3 8 0
in H <sub>2</sub> O	3 8 1
Input [mH <sub>2</sub> O] [bar]	
0 4 0 0,4	4 0 0 0
0 6 0 0,6	6 0 0 0
0 10 0 1	1 0 0 1
0 16 0 1,6	1 6 0 1
0 25 0 2,5	2 5 0 1
0 40 0 4	4 0 0 1
0 60 0 6	6 0 0 1
0 100 0 10	1 0 0 2
0 160 0 16	1 6 0 2
0 250 0 25	2 5 0 2
Customer	9 9 9 9
Housing material	
Stainless steel 1.4404 (316 L)	1
Customer	9
Diaphragm material	
Ceramic Al <sub>2</sub> O <sub>3</sub> 96 %	2
Customer	9
Output signal	
4 20 mA / 2-wire	1
0 20 mA / 3-wire	2
0 10 V / 3-wire <sup>2</sup>	3
Customer	9
Seals	
Viton (FKM)	1
EPDM	3
Customer	9 9
Accuracy	
0,5 %	5 T
0,5 % including Calibration Certificate	
Table of measured values for accuracy 0,5 % Customer	N
Electrical connection <sup>1</sup>	9
PVC - cable (grey, Ø 7,4 mm, price for 1 m)	1
PUR - cable (black, Ø 7,4 mm, price for 1 m)	
FEP - cable with PTFE sheath (black, Ø 7,4 mm, pr	
TPE-U - cable, up to 125 °C (blue, Ø 7.4 mm, price	
Customer	9
Cable length	
in m	9 9 9
Special version	
Standard	0 0 0
Customer	9 9
Accessories for submersible transmitter	
Terminal clamp - zinc plated	1003440
Terminal clamp - Stainless Steel 1.4301	1000278
Mounting screw PG16 - plastic	5002200

- 1 shielded cable with integrated ventilation tube for atmospheric pressure reference 2 maximum length of PVC cable 25 m, PUR, FEP, TPE 40 m

Manufacturer reserves the right to change sensor specifications without further notice.

