

CPA-K-307



- hydrostatic level transmitter
- submersible probe, diameter 27 mm
- nominal pressure: from 0...4 mH₂O up to 0...250 mH₂O
- 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
- certified for contact with drinking water by the Polish National Institute of Public Health (PZH) - EPDM/PUR version

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 ₂ 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 _S = 8 ... 32 V _{DC}
Options 3-wire	3-wire: 0 ... 20 mA / V _S = 14 ... 30 V _{DC} 0 ... 10 V / V _S = 14 ... 30 V _{DC}

Performance	
Accuracy	± 0.5 % span
Permissible load	current 2-wire: R _{max} = [(V _S - V _{S min}) / 0.02 A] W current 3-wire: R _{max} = 500 W voltage 3-wire: R _{min} = 10 k W
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / kW
Response time	≤ 10 msec
¹ 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 ²	
Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic protection	emission and immunity according to EN 61326
² 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 ³	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 ⁴ (-25 ... 75 °C) black Ø 7,4 mm
Bending radius	static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter
³ shielded cable with integrated air tube for atmospheric pressure reference	
⁴ do not use freely suspended probes with an FEP cable if effects due to highly charging processes are expected	

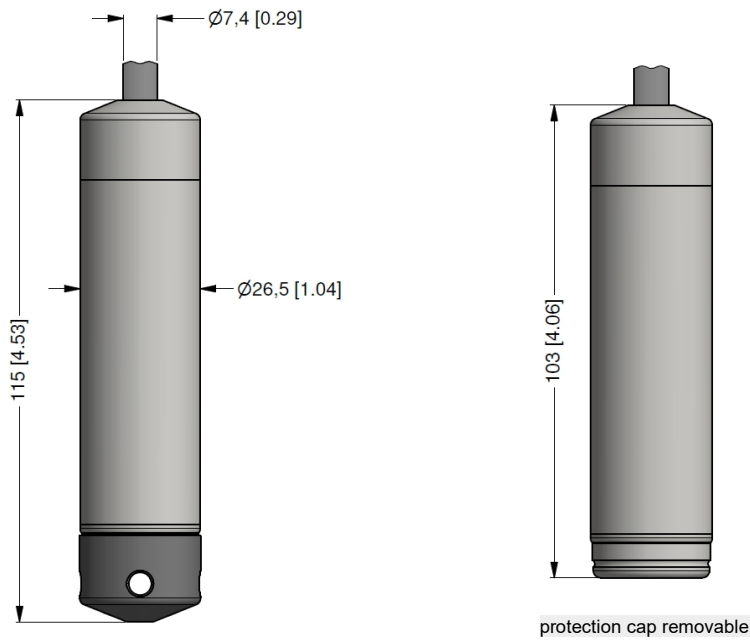
Level transmitters

Materials (media wetted)	
Housing	stainless steel 1.4404 (316L)
Seals	FKM EPDM (with drinking water certificate)
Diaphragm	ceramics Al ₂ O ₃ 96 %
Protection cap	POM-C
Cable sheath	PVC / PUR (with drinking water certificate) / 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 + Supply - Signal + (only 3-wire)	wh (white) bn (brown) gn (green)
Shield	ye/gn (yellow / green)

DIMENSION DRAWINGS





- 1 - shielded cable with integrated ventilation tube for atmospheric pressure reference
- 2 - maximum length of PVC cable – 25 m, PUR, FEP, TPE – 40 m
- 3 - drinking water certification only possible with EPDM seal (code 3) in combination with PUR cable

