

CPA-K-358



- hydrostatic level transmitter
- detachable probe, diameter 39.5 mm
- nominal pressure: from 0...40 cmH₂O up to 0...100 mH₂O
- output signals: 2-wire: 4...20 mA; 3-wire: 0...10 V
- stainless steel probe
- ceramic sensor
- accuracy 0.35 % / 0.25 % span
- especially for sewage, viscous and pasty media
- optional: diaphragm 99.9 % Al₂O₃, different kinds of cables and seals

The detachable stainless steel probe **CPA-K-358** has been designed for level measurement in waste water, waste and higher viscosity media.

Basic element is a capacitive ceramic sensor. In order to facilitate stock-keeping and maintenance the transmitter head is plugged to the cable assembly with a connector and can be changed easily.

PREFERRED AREAS OF USE ARE



Water

- ground water level measurement
- rain spillway basin



Sewage

- waste water treatment
- water recycling



Fuel / Oil

- level monitoring in open tanks with low filling heights
- fuel storage
- tank farms / biogas plants

TECHNICAL DATA

Input pressure range														
Nominal pressure gauge	[bar]	0.04	0.06	0.1	0.16	0.25	0.4	0.6	1	1.6	2.5	4	6	10
Level	[mH ₂ O]	0.4	0.6	1	1.6	2.5	4	6	10	16	25	40	60	100
Overpressure	[bar]	2	2	4	4	6	6	8	8	15	25	25	35	35
max. ambient pressure (housing)		40 bar												

Output signal / Supply	
Standard	2-wire: 4 ... 20 mA / V _S = 9 ... 32 V _{DC}
Option 3-wire	3-wire: 0 ... 10 V / V _S = 12.5 ... 32 V _{DC}

Performance	
Accuracy ¹	standard: ≤ ± 0.35 % span option: ≤ ± 0.25 % span
Permissible load	R _{max} = [(V _S - V _{S min}) / 0.02 A] Ω
Influence effects	supply: 0.05 % span / 10 V load: 0.05 % span / kΩ
Long term stability	≤ ± 0.1 % span / year
Turn-on time	700 msec
Mean response time	< 200 msec
Max. response time	380 msec

¹ accuracy according to EN IEC 62828-2— limit point adjustment (non-linearity, hysteresis, repeatability)

Thermal effects (Offset and Span)	
Thermal error	≤ ± 0.1 % span / 10 K in compensated range 0 ... 70 °C

Permissible temperatures	
Permissible temperatures	Medium/ electronics/ environment/ storage: -20 ... 125 °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
Lightning protection	2-wire: integrated 3-wire: without
Electromagnetic compatibility	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



Level transmitters

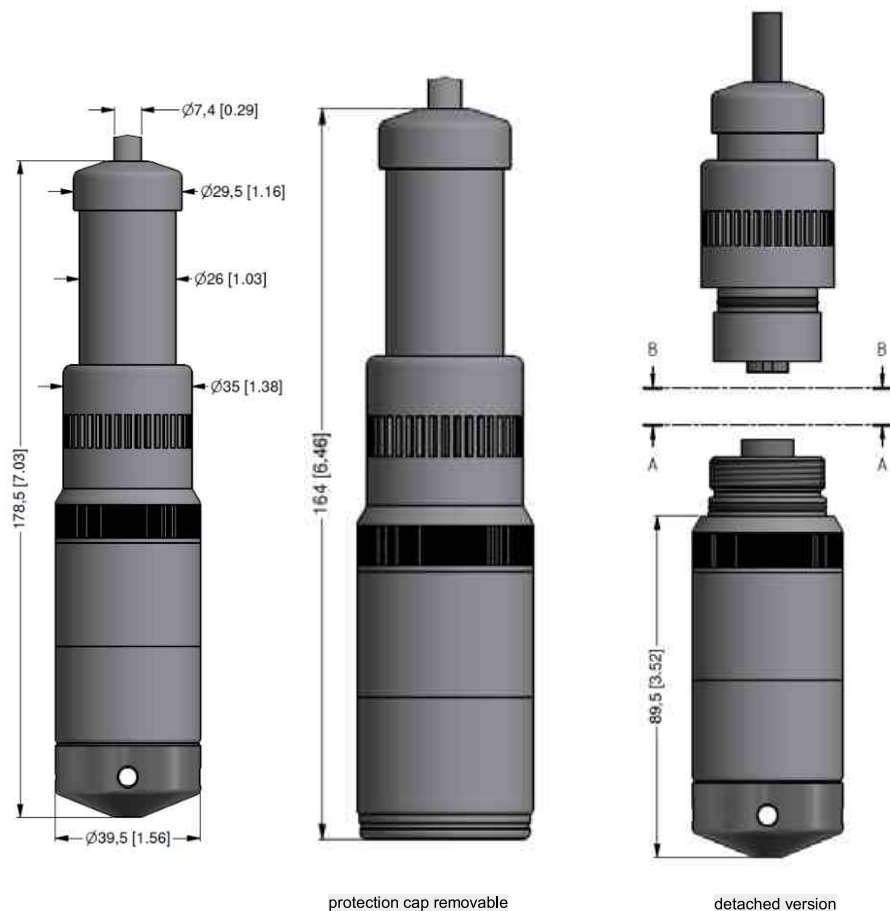
Electrical connection		
Cable with sheath material ³	PVC (-5 ... 70 °C) grey (-25 ... 70 °C in fixed condition)	Ø 7,4 mm
	PUR (-25 ... 80 °C) black (with drinking water certificate)	Ø 7,4 mm
	FEP ⁴ (-25 ... 75 °C) black	Ø 7,4 mm
	TPE-U (-25 ... 125 °C) blue	Ø 7,4 mm
Bending radius	static installation: 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		
Materials (media wetted)		
Housing	stainless steel 1.4404 (316L)	
Seals	FKM EPDM others on request	
Diaphragm	standard: ceramics Al ₂ O ₃ 96 % option: ceramics Al ₂ O ₃ 99.9 %	
Cable sheath	PVC, PUR, FEP, TPE-U	
Protection cap	POM-C	
Miscellaneous		
Current consumption	max. 21 mA	
Weight	approx. 650 g (without cable)	
Ingress protection	IP 68	
CE-conformity	EMC Directive: 2014/30/EU	

ELECTRICAL CONNECTION

Wiring diagram			
2-wire-system (current)	3-wire-system (voltage)		connector
Pin configuration			
Electrical connection	Binder series 723 ⁶ (5-pin)		cable colours (DIN 47100)
	2 - wire	3 - wire	
Supply +	3	3	wh (white)
Supply -	1	4	bn (brown)
Signal + (only for 3-wire)	-	1	gn (green)
Shield	5	5	gn/ ye (green / yellow)
⁶ in detached version			



DIMENSION DRAWINGS



protection cap removable

detached version

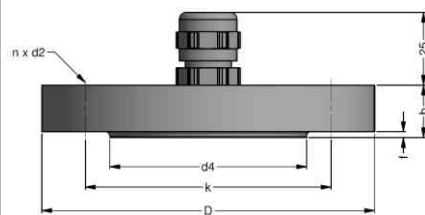
ACCESSORIES

Assembling flange with cable gland

Technical Data

Suitable for	all probes
Flange material	stainless steel 1.4404 (316L)
Material of cable gland	standard: brass, zinc plated on request: stainless steel 1.4305 (303); plastic
Seal insert	material: TPE (ingress protection IP 68)
Hole pattern	according to DIN 2507

Version	Size (in mm)	Weight
DN25 / PN40	D = 115, k = 85, b = 18, n = 4, d = 14	1.4 kg
DN50 / PN40	D = 165, k = 125, b = 20, n = 4, d = 18	3.2 kg
DN80 / PN16	D = 200, k = 160, b = 20, n = 8, d = 18	4.8 kg



Ordering type

Ordering type	Ordering code
Assembling Flange DN25 / PN40	5000275
Assembling Flange DN50 / PN40	5000278
Assembling Flange DN80 / PN16	5000279

Cable clamp

Technical Data

Suitable for	all probes with cable $\varnothing 5.5 \dots 10.5$ mm
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)
Weight	approx. 160 g



Ordering type

Ordering type	Ordering code
Terminal clamp, of steel, zinc plated	1003440
Terminal clamp, of stainless steel 1.4301 (304)	1000278

