

CPA-K-807



- hydrostatic level transmitter for aggressive media
- submersible probe, diameter 35 mm
- nominal pressure: from 0...4 mH₂O up to 0...250 mH₂O
- output signals: 2-wire: 4...20 mA
- ceramic sensor
- plastic probe
- accuracy 0.5 % span
- excellent long term stability
- optional: various kinds of cables and seals



The plastic submersible probe **CPA-K-807** is designed for continuous level measurement for waste water or and different aggressive media.

Basic element of the plastic submersible probe is the flush mounted ceramic sensor, which makes cleaning easier when solid parts of the medium deposit on it. Different cable and elastomer materials are available in order to achieve maximum media compatibility.

PREFERRED AREAS OF USE ARE



Sewage
waste water treatment
water recycling
dumpsite



Aggressive media
most of acids and lyes

TECHNICAL DATA

Input pressure range										
Nominal pressure gauge	[bar]	0.4	0.6	1	1.6	2.5	4	6	10	
Level	[mH ₂ O]	4	6	10	16	25	40	60	100	
Overpressure	[bar]	1	2	2	4	4	10	10	20	
Burst pressure ≥	[bar]	2	4	4	5	5	12	12	25	
max. ambient pressure (housing)		20 bar								
Output signal / Supply										
Standard	2-wire: 4 ... 20 mA / V _S = 8 ... 32 V _{DC}									
Performance										
Accuracy ¹	≤ ± 0.5 % 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									
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 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										
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
Cable capacitance	signal line/shield also signal line/signal line: 160 pF/m									
Cable inductance	signal line/shield also signal line/signal line: 1 µH/m									
Bending radius	static installation: 10-fold cable diameter dynamic application: 20-fold cable diameter									
³ 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										



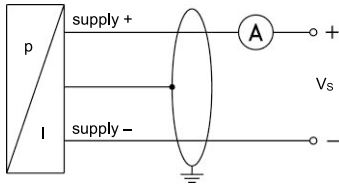
Level transmitters

Materials (media wetted)	
Housing	PP-HT
Seals	FKM / EPDM / FFKM
Diaphragm	ceramics Al ₂ O ₃ 96 %
Cable sheath	PVC, PUR, FEP
Miscellaneous	
Current consumption	max. 25 mA
Weight	approx. 200 g (without cable)
Ingress protection	IP 68
CE-conformity	EMC Directive: 2014/30/EU

ELECTRICAL CONNECTION

Wiring diagram

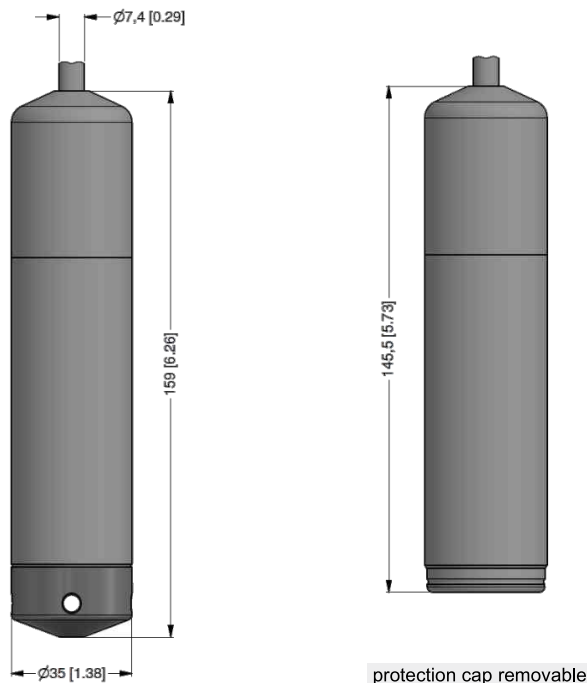
2-wire-system (current)



Pin configuration

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

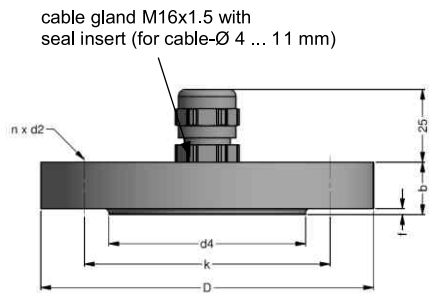
DIMENSION DRAWINGS



Level transmitters

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 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 ... 10.5 mm	
Material	standard: steel, zinc plated optionally: stainless steel 1.4301 (304)	
Weight	approx. 160 g	
Ordering type		Ordering code
Terminal clamp, of steel, zinc plated		1003440
Terminal clamp, of stainless steel 1.4301 (304)		1000278



ORDER CODE

CPA-K-807- [] [] - [] [] [] - [] - [] - [] - [] - [] - [] [] [] - [] [] []

Pressure																				
in bar			3	9	0															
in m H ₂ O			3	9	1															
Input	[mH₂O]	[bar]																		
0 ... 4	0 ... 4	0 ... 0,4				4	0	0	0											
0 ... 6	0 ... 6	0 ... 0,6				6	0	0	0											
0 ... 10	0 ... 10	0 ... 1				1	0	0	1											
0 ... 16	0 ... 16	0 ... 1,6				1	6	0	1											
0 ... 25	0 ... 25	0 ... 2,5				2	5	0	1											
0 ... 40	0 ... 40	0 ... 4				4	0	0	1											
0 ... 60	0 ... 60	0 ... 6				6	0	0	1											
0 ... 100	0 ... 100	0 ... 10				1	0	0	2											
0 ... 160	0 ... 160	0 ... 16				1	6	0	2											
0 ... 250	0 ... 250	0 ... 25				2	5	0	2											
Customer			9	9	9	9														
Housing material																				
PP-HT									R											
Customer									9											
Diaphragm material																				
Ceramic Al ₂ O ₃ 96%									2											
Customer									9											
Output signal																				
4 ... 20 mA / 2-wire									1											
0 ... 10 V / 3-wire ²									3											
Customer									9											
Seals																				
Viton (FKM)									1											
EPDM									3											
FFKM									7											
Customer									9											



Level transmitters

ORDER CODE

CPA-K-807----------

Accuracy			
0,5 %		5	
0,5 % including Calibration Certificate		T	
Customer		9	
Electrical connection			
PVC - cable (grey, Ø 7,4 mm, price for 1 m) ¹		1	
PUR - cable (black, Ø 7,4 mm, price for 1 m) ¹		2	
FEP - cable with PTFE sheath (black, Ø 7,4 mm, price for 1 m) ¹		3	
Customer		9	
Cable length			
in m			9 9 9
Special version			
Standard			0 0 0
Customer			9 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.

