



- hydrostatic level transmitters
- nominal range: from 0...1 mH₂O up to 0...250 mH₂O
- output signal: 2-wire: 4...20 mA; 3-wire: 4...20 mA / 0...20 mA / 0...10 V / 0...5V (option)
- stainless steel probe and diaphragm (diameter 48 mm)
- separator diameter 76 mm, height 10 mm
- accuracy from 0.35 % span
- high resistance to contamination / deposits / mechanical damage
- certified for contact with drinking water by the Polish National Institute of Public Health (PZH) - EPDM/PUR version

A large, thickened membrane (48 mm) in a special separator reduces the impact of sediments and enables stable operation in contaminated media, including those with abrasive particles, such as sand. The membrane can be cleaned with a gentle stream of water. However, the use of pressurized water is not recommended, as it may damage the probe.



Input pressure range														
Nominal pressure gauge	[bar]	0.10	0.16	0.20	0.40	0.60	1	1.6	2.5	4	6	10	16	25
Level	[mH ₂ O]	1	1.6	2	4	6	10	16	25	40	60	100	160	250
Overpressure	[bar]	0.5	1	1	2	5	5	10	10	20	40	40	80	80
Burst pressure ≥	[bar]	1.5	1.5	1.5	3	7.5	7.5	15	15	25	50	50	120	120
Vacuum resistance		P _N ≥ 1 bar: unlimited vacuum resistance P _N < 1 bar: on request												
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} 4 ... 20 mA / V _S = 14 ... 30 V _{DC} 0 ... 5 V / V _S = 14 ... 30 V _{DC} 0 ... 10 V / V _S = 14 ... 30 V _{DC}												
Performance														
Accuracy ¹		nominal pressure < 0.4 bar: ≤ ± 0.5 % span nominal pressure ≥ 0.4 bar: ≤ ± 0.35 % span												
Permissible load		R _{max} = [(V _S – V _S min) / 0.02 A] W												
Influence effects		supply: 0.05 % span / 10 V load: 0.05 % span / kW												
Long term stability		≤ ± 0.1 % span / year at reference conditions												
Mean response time		≤ 10 ms												
¹ accuracy according to EN IEC 62828-2– limit point adjustment (non-linearity, hysteresis, repeatability)														
Thermal effects (Offset and Span)														
Nominal pressure P _N		[bar]		< 0.40						≥ 0.40				
Tolerance band		[% span]		≤ ± 1.5						≤ ± 0.75				
in compensated range		[°C]		0 ... 70										
Permissible temperatures ²				medium ² : -40 ... 125°C for filling fluid (silicon oil) electronics / environment: -40 ... 85°C storage: -40 ... 100°C										
² max. temperature of the medium for nominal pressure gauge > 0 bar: 150 °C for 60 minutes with a max. environmental temperature of 50 °C														
Electrical protection														
Short-circuit protection		permanent												
Reverse polarity protection		no damage, but also no function												
Electromagnetic compatibility		emission and immunity according to EN 61326												
Filling fluids														
Standard		silicon oil												

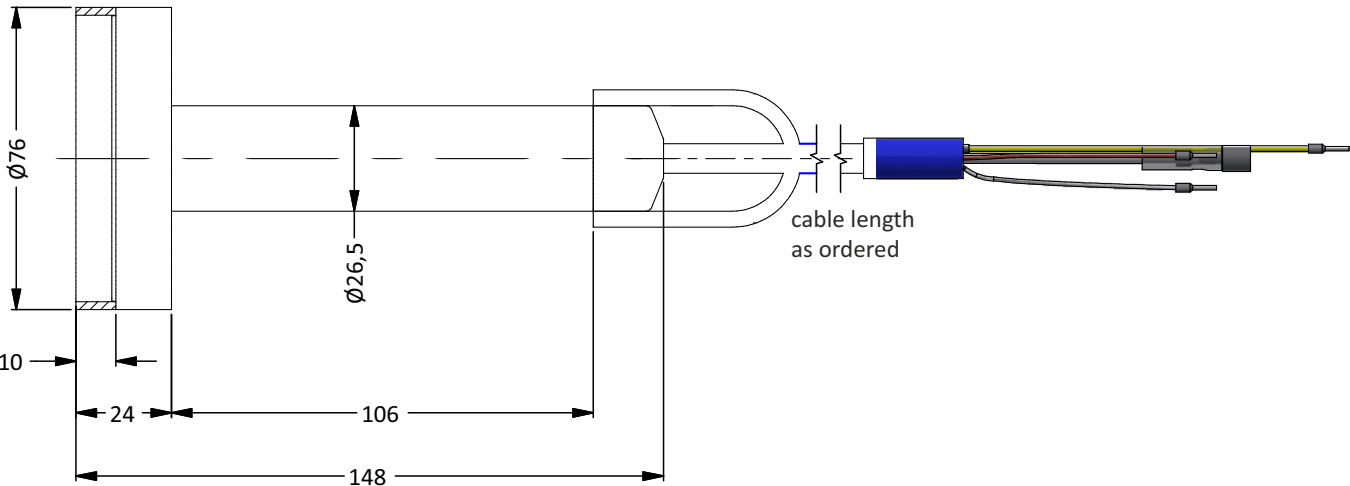
Level transmitters

Materials			
Pressure port	stainless steel 1.4404 (316 L)		
Housing	stainless steel 1.4404 (316 L)		
Diaphragm	stainless steel 1.4435 (316 L)		
Seals	EPDM (with drinking water certificate)		
Electrical connection			
Cable with sheath material ³	PUR, with drinking water certificate (-40 ... 80 °C)	black	Ø 7,4 mm
	PVC (-40 ... 80 °C)	grey	Ø 7,4 mm
	TPE-U (-40 ... 125 °C)	black	Ø 7,4 mm
	FEP ⁴ (-40 ... 80 °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			
Miscellaneous			
Drinking water certificate ⁵	according to Polish National Institute of Public Health (PZH) (with order please indicate if the device must be certificated for drinking water)		
Connecting cables (by factory)	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		
Current consumption	signal output current: max. 25 mA		
Weight	approx. 400 g (without cable)		
Ingress protection	IP 68		
CE-conformity	EMC Directive: 2014/30/EU		
⁵ only possible in combination with PUR cable			

ELECTRICAL CONNECTION

Wiring diagrams	
2-wire-system (current)	3-wire-system (current / voltage)
Wire configuration	
Electrical connection	cable colours (DIN 47100)
Supply +	wh (white)
Supply -	bn (brown)
Signal + (only 3-wire)	gn (green)
Shield	ye/gn (yellow / green)

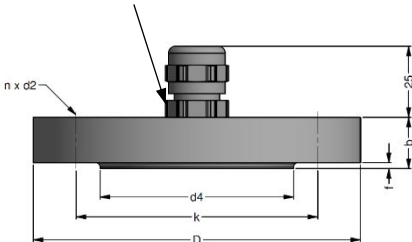
DIMENSION DRAWINGS



ACCESSORIES

Mounting flange with cable gland		
Technical data		
Suitable for	all probes	
Flange material	stainless steel 1.4404 (316L)	
Material of cable gland	standard: brass, nickel 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
DN25 / PN40 with cable gland brass, nickel plated		ZMF2540
DN50 / PN40 with cable gland brass, nickel plated		ZMF5040
DN80 / PN16 with cable gland brass, nickel plated		ZMF8016
Anchor clamp		
Technical Data		
Suitable for	all probes with cable $\varnothing$ 6 ... 9 mm	
Material	high quality thermoplastic stainless steel bail	
Weight	approx. 120 g	
Minimum breaking force	3,6 kN	
Ordering code	UMK-1	
Protection cover		
Technical Data		
Suitable for	mechanical protection of the measuring diaphragm	
Material	stainless steel 316L	
Weight	approx. 85 g	
Dimensions	$\varnothing$ 79,5 x 15 mm	
Ordering code	OS-325	

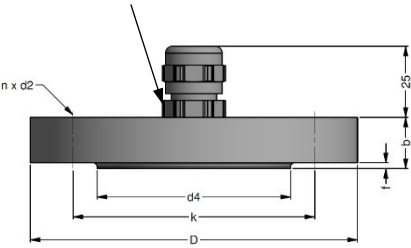
cable gland M16x1.5 with seal insert (for cable- $\varnothing$ 4 ... 11 mm)







cable gland M16x1.5 with seal insert (for cable-C 4 ... 11 mm)



ORDERING

CPA-325S/X-Xm/X/Xm/X

Start of measuring range in relation to start of output signal

End of measuring range in relation to end of output signal

type of cable:

PUR (with drinking water certificate)

PVC

TPE-U

FEP

options (available in addition to the standard 4...20 mA, 2-wire output):

4...20mA/3 : 4...20 mA, 3-wire

0...20mA/3 : 0...20 mA, 3-wire

0...10V/3 : 0...10 V, 3-wire

0...5V/3 : 0...5 V, 3-wire

cable length:

in [m]

Ordering sample:

CPA-325S/0-4m/PUR/10m

Level probe CPA-325S, measuring range 0...4 mH₂O, with PUR cable, length 10 m, output signal 4...20 mA, 2-wire (standard)

CPA-325S/0-2m/PVC/10m/0...10V/3

Level probe CPA-325S, measuring range 0...2 mH₂O, with PVC cable, length 10 m, output signal 0...10 V, 3-wire

