



Füllstand



Druck



Durchfluss



Temperatur



Flüssigkeits-
analyse



Registrierung



Systeme
Komponenten



Services



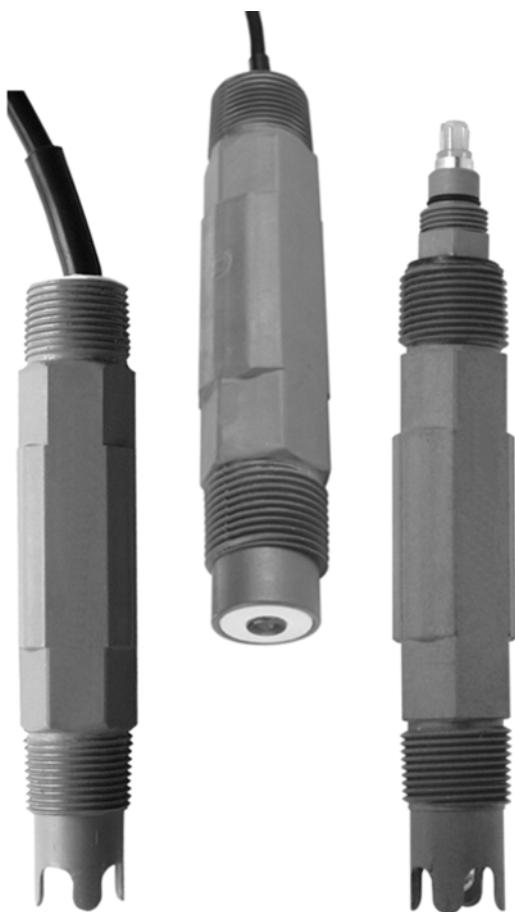
Solutions

Technical Information

Orbipac CPF81 and CPF82

Compact pH/ORP electrodes

For flow or immersion installation in industrial water and wastewater



Application

- Industrial and municipal wastewater treatment
- Water conditioning
- Condensate cleaning

Your benefits

- Suitable for flow and immersion installation
- Suitable for measurement within pH range 0 ... 14 pH and temperature range 0 ... 110 °C
- Three fixed cable lengths available (5 m/15 ft, 10 m/30 ft and 45 m/45 ft) or TOP68 plug-in head
- pH combination electrode with or without integrated temperature sensor
- With patented KNO_3 electrolyte bridge for better protection against electrode poisons like S^{2-} or CN^- ions
- Protection guard against damage
- Flat membrane suitable for high flow rates and fibrous media
- Optional integrated preamplifier for noise-free measuring value transmission
- Screw-in thread NPT 3/4"

Input

Measured values

pH value
Temperature

Measuring range

Electrode version LH

pH: 0 ... 14 pH
Temperature: 0 ... 110 °C / 32 ... 230 °F

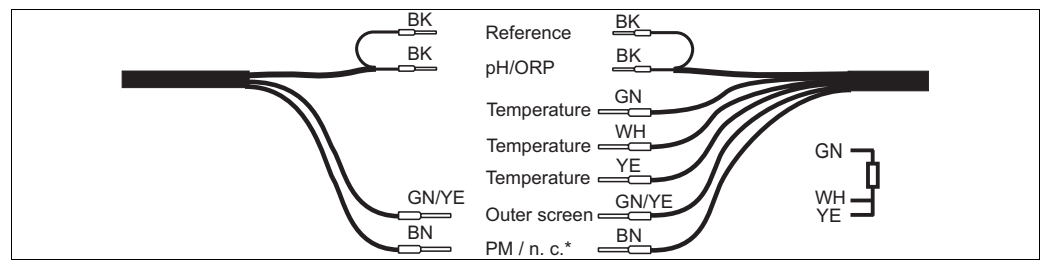
Electrode version NN

pH: 0 ... 14 pH (12 ... 14 pH reduced accuracy)
Temperature: 0 ... 80 °C / 32 ... 176 °F



Caution!
Please note the process operating conditions.

Cable specification



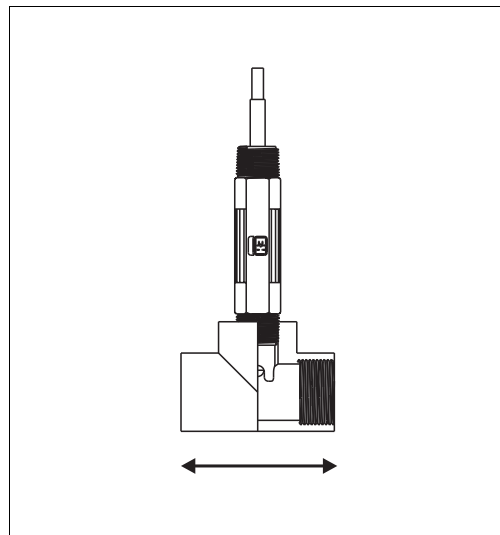
Measuring cable

* PM is only connected for sensor versions with internal solution ground (CPF81-xxx2xx).

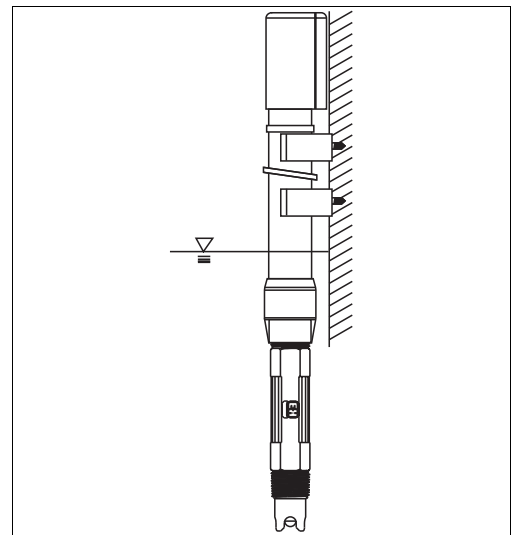
Installation

Installation instructions

The electrode is suitable for flow and immersion installation.



Flow installation



Immersion installation with Flowfit CYA611



Note!
Make sure to follow the installation instructions in the operating instructions of the used assembly.

Environment

Ambient temperature



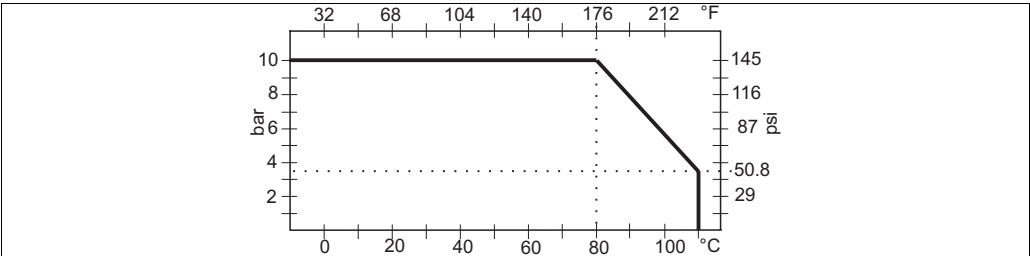
Caution!
Danger of frost damage
Do not use the electrodes at temperatures below 0 °C / 32 °F.

Storage temperature

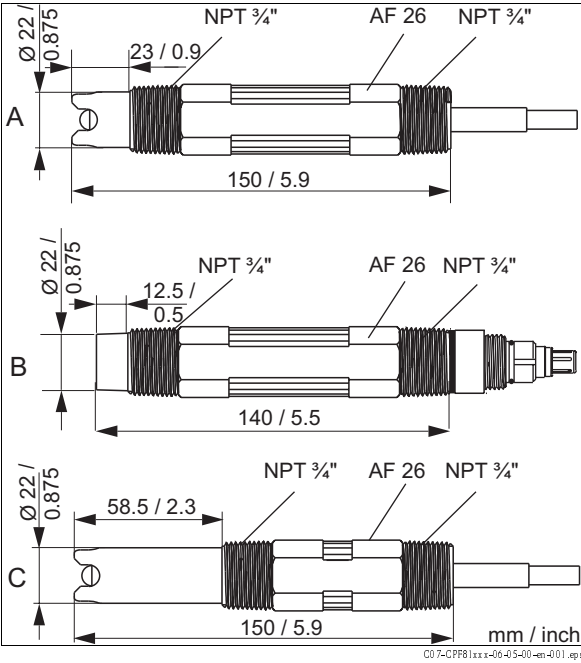
0 ... 50 °C / 32 ... 122 °F

Ingress protection	Fixed cable version:	IP 67
	TOP68 plug-in head:	IP 68

Process

Process temperature	0 ... 80 °C / 32 ... 176 °F (0 ... 110 °C / 32 ... 230 °F)
Process pressure	0 ... 10 bar (at 80°C) / 0 ... 145 psi (at 176 °F)
Pressure temperature load curve	
Glass impedance	150 MΩ at 25 °C / 77 °F
Minimum conductivity	min. 50 µS/cm

Mechanical construction

Design, dimensions		<p>A xx1 version with short shaft and protection guard</p> <p>B xx2 version with short shaft and flat membrane, TOP68 plug-in head</p> <p>C xx3 version with long shaft and protection guard for installation in large pipe diameters</p>
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Material	Housing, electrode shaft pH electrode (in contact with medium) ORP electrode (in contact with medium) Double chamber reference system	PPS lead-free membrane glass, suitable for process applications platinum pin KNO ₃ and KCl/AgCl
Process connection	NPT 3/4" thread	
Integrated preamplifier (if ordered)	Design Power supply Reference potential Note!	cast in sensor body via integrated round cells reference electrode With preamplifier versions, the SCS function of the transmitter is not available and should be turned off.

Ordering information

Product structure CPF81

Application range					
	LH	pH 0 ... 14, T = 0 ... 110 °C / 32 ... 230 °F			
	NN	pH 0 ... 11, T = 0 ... 80 °C / 32 ... 176 °F			
Version					
		1	Insertion length 23 mm / 0.9" with protection guard		
		2	Insertion length 12.5 mm / 0.5" with flat membrane		
		3	Insertion length 58.5 mm / 2.3" with protection guard		
Process connection					
		1	¾" NPT		
		2	¾" NPT with integrated solution ground		
Equipment					
		A	No preamplifier, no Pt 100		
		B	With preamplifier, no Pt 100		
		C	No preamplifier, with Pt 100		
		D	With preamplifier, with Pt 100		
Cable connection					
		2	5 m / 15 ft fixed cable		
		3	10 m / 30 ft fixed cable		
		4	15 m / 45 ft fixed cable		
		8	TOP68/ESA plug-in head		
CPF81-					complete order code

Product structure CPF82

Application range					
PA	ORP, platinum pin, 0 ... 80 °C / 32 ... 176 °F				
Version					
1	Insertion length 23 mm / 0.9" with protection guard				
3	Insertion length 58.5 mm/ 2.3" with protection guard				
Process connection					
1	¾" NPT				
Equipment					
A	No preamplifier				
B	With preamplifier				
Cable connection					
2	5 m / 15 ft fixed cable				
3	10 m / 30 ft fixed cable				
4	15 m / 45 ft fixed cable				
8	TOP68/ESA plug-in head				
CPF82-					complete order code

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