



pHix[®] Compact

PH, TEMPERATURE AND REDOX MEASUREMENT

4.10

General

The advanced and unique design of pHix[®] Compact ensures that your work is done fast, easy and with much accuracy.

The compact design offers a union in one end, and male thread in the other. This makes it easy to mount pHix[®] Compact in pipelines or open tanks.

The double-junction electrode is developed especially for pHix[®] Compact and will provide significantly lower impedance, increased electrolyte volume, increased junction area and a longer lifetime compared to most traditional electrodes.

Simple communication for setup, calibration, electrode diagnosis and troubleshooting, goes without saying.

The electrode works well in waste water, drinking water, aqua culture and water with low ion concentration.

Features

- Compact design; electrode, fitting and transmitter in one
- Built-in temperature transmitter
- 4-20 mA output
- Unique and simple buffer adjustment
- Constructed in fiberglass reinforced PPS and stainless steel
- Automatic buffer sequence
- Very resistant to clogging
- Suitable for acid/alkalic fluids.

Application

- Waste water outlets/treatment
- Drinking water
- Raw water pipes
- Process water
- Aqua culture.



DATASHEET

EN 4.10 PHIX DATASHEET 1905

pHix® Compact

Specifications

pHix® Compact	
Input, pH and mV	0 - 14 pH / -1000...+ 1000 mV
Input impedance, pH	> 2 x 10 ¹² Ω
Input impedance and mV	> 2 x 10 ¹² Ω
Temperature range	- 20 ... +60 °C / -4...+176°F
Accuracy pH	± 0,01 pH / 1 mV
Accuracy temperature	± 0,5 % FS
Linearity pH	± 0,01 pH / 1 mV
Linearity temperature	± 0,2 %
Repeatability	± 1,0 %
Response time pH	Approx. 10 seconds
Response time temperature	95% in less than 60 seconds (when sensor is fully submerged)
Temperature compensation	Built-in sensor, -20 ... +80 °C / -4...+176°F
Materials	Ryton® (PPS) and/or stainless steel (EN 1.4404 / AISL316)
Supply voltage	12-30 V DC. 2-wire supply
Output signal	4-20 mA for pH / mV / temperature - Scaled:0-14 pH/ -1000...+1000mV / 0 - 50 °C (32-122 °F)
Cable	2 X 2 x 0,5 mm ² , shielded, PUR insulaton
Cable length	6 meter (19.7 ft)
Weight	1,8 kg / 3,97lb
Enclosure	IP 68
CE approvals	EN61000-6-4 2007-02-19, EN61000-6-2 2005-09-08

Notice: pHix® Compact holds standard warranty,. The changeable sensors are consumable, hence they hold a limited warranty.

Electrodes			
	160310 pH electrode	160311 pH electrode	160312 Redox/ORP electrode
Membrane	Glass	Glass	Platinum
Reference system	Ag/AgCL, 3.5M KCl	Ag/AgCL, 3.5M KCl	Pt/KCL, 3.5M KCl
Reference system material	PTFE	PTFE	PTFE
Impedance	50 MΩ	50 MΩ	n/a
Measuring range	0-14 pH	0-14 pH	-1000 / +1000 mV
Temperature range	0-80 deg.C / 32-122° F	0-80 deg.C / 32-122° F	0-80 deg.C / 32-122° F
0-point pH	4,60 pH, +/- 0.2 pH	7,00 pH, +/- 0.2 pH	n/a
Response time	t95 - 5 sec.	t95 - 5 sec.	t95 - 5 sec.
Pressure	0-100 psig / 0-6,8 bar	0-100 psig / 0-6,8 bar	0-100 psig / 0-6,8 bar

Electrical connections

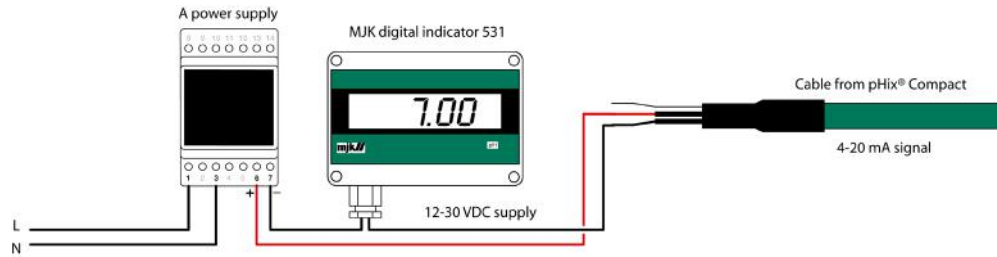
pHix® Compact has either 1 or 2 x 4-20 mA signal outputs. The PUR cable will therefore have either 3 or 5 wires respectively:

Connections			
No.	Designation	Colour	Channel
1	+ 12-30 V DC	Red	pH or redox signal
2	- 4-20 mA	Black	Output 1
3	+ 12-30 V DC	White	mA_temp signal
4	- 4-20 mA	Grey	Output 2
5	Shield	(none)	

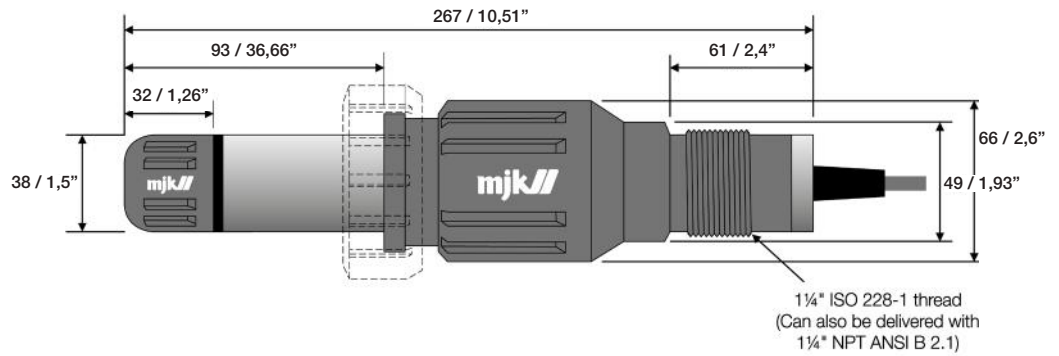


pHix® Compact

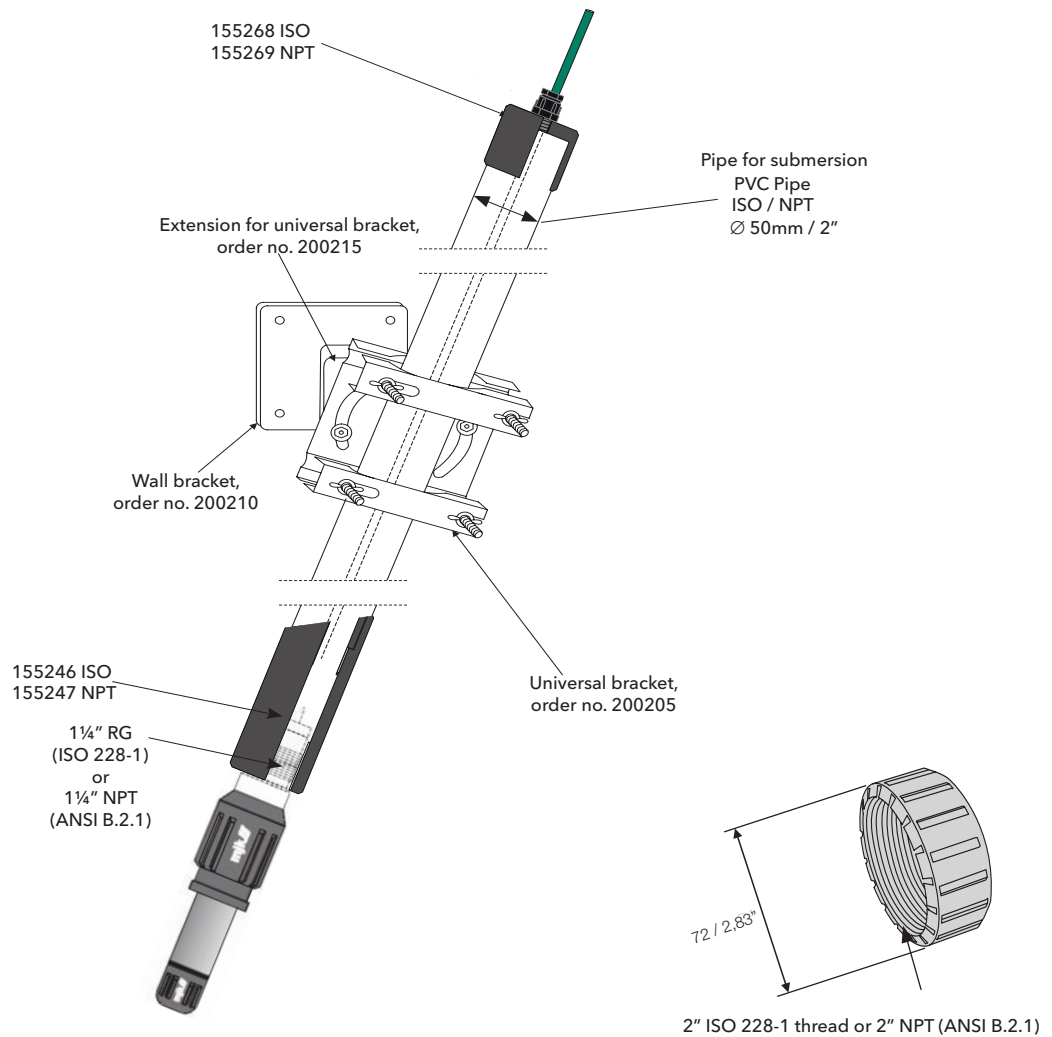
Connection example



Dimensions mm & inch



Accessories fittings



pHix® Compact

Calibration and correct storage

Electrodes are consumables; the lifetime of a pH electrode will vary depending on the pH value and temperature of the media in which it is submerged.

The lifetime of the electrode is also depending on the electrode being kept moist when not in use. The optimal way of securing the electrode is to clean it thoroughly after use, and use the cap delivered with the electrode.

To keep the electrode moist, a KCL solution must be used in the cap - with a cotton ball, a sponge, paper or simply by filling the cap.

Accessories liquids

pH buffer fluid.
pH values 4, 7 and 10 for calibration



KCL fluid.
Used for keeping the cotton or sponge inlay moist. This lengthen the lifetime of the electrodes



pHix® Compact

Order numbers pH

pHix® Compact pH Transmitter. Stainless steel 316 electrode holder. Without electrode	
203105	pHix® Compact pH transmitter, ISO thread, 0=4.6pH, w/o electrode
203105-7	pHix® Compact pH transmitter, ISO thread, 0=7.0pH, w/o electrode
203106	pHix® Compact pH transmitter, NPT thread 0=4.6pH, w/o electrode
203106-7	pHix® Compact pH transmitter, NPT thread 0=7.0pH, w/o electrode
pHix® Compact pH and temperature transmitter. Stainless steel 316 electrode holder. Without electrode	
203107	pHix® Compact pH and temperature transmitter, ISO thread, 0=4.6pH, w/o electrode
203107-7	pHix® Compact pH and temperature transmitter, ISO thread, 0=7.0pH, w/o electrode
203108	pHix® Compact pH and temperature transmitter, NPT thread 0=4.6pH, w/o electrode
203108-7	pHix® Compact pH and temperature transmitter, NPT thread 0=7.0pH, w/o electrode
pHix® Compact pH transmitter. Stainless steel 316 electrode holder. With electrode	
203110	pHix® Compact pH transmitter, ISO thread, w/electrode 160310
203111	pHix® Compact pH transmitter, NPT thread, w/electrode 160310
pHix® Compact pH and temperature transmitter. Stainless steel 316 electrode holder. With electrode	
203112	pHix® Compact pH and temperature transmitter, ISO thread, w/electrode 160310
203113	pHix® Compact pH and temperature transmitter, NPT thread, w/electrode 160310
pHix® Compact pH transmitter, PPS electrode holder. Without electrode	
203125	pHix® Compact pH transmitter (PPS) w/o electrode, 6m cable, ISO 0=4,6pH
203125-7	pHix® Compact pH transmitter (PPS) w/o electrode, 6m cable, ISO 0=7,0pH
203126	pHix® Compact pH transmitter (PPS) w/o electrode, 18ft cable, NPT, 0=4,6pH
203126-7	pHix® Compact pH transmitter (PPS) w/o electrode, 18ft cable, NPT, 0=7,0pH
pHix® Compact pH and temperature transmitter, PPS electrode holder. Without electrode	
203127	pHix® Compact pH/temp transm. (PPS) w/o electrode, 6m cable, ISO, 0=4,6pH
203127-7	pHix® Compact pH/temp transm. (PPS) w/o electrode, 6m cable, ISO 0=7,0pH
203128	pHix® Compact pH/temp transm. (PPS) w/o electrode, 18ft cable, NPT, 0=4,6pH
203128-7	pHix® Compact pH/temp transm. (PPS) w/o electrode, 18ft cable, NPT, 0=7,0pH

Redox/ORP

pHix® Compact Redox/ORP transmitter. Stainless steel 316 electrode holder. Without electrode	
203105-ORP	pHix® Compact Redox/ORP transmitter, ISO thread, w/o electrode
203106-ORP	pHix® Compact Redox/ORP transmitter, NPT thread, w/o electrode
pHix® Compact Redox/ORP and temperature transmitter. Stainless steel 316 electrode holder. Without electrode	
203107-ORP	pHix® Compact Redox/temperatur w/ ISO thread, w/o electrode
203108-ORP	pHix® Compact ORP/temp. transmitter, NPT thread, w/o electrode
pHix® Compact Redox/ORP transmitter. Stainless steel 316 electrode holder. With electrode	
203120	pHix® Compact Redox/ORP transmitter ISO thread, w/electrode 160312
203121	pHix® Compact ORP/Temp transmitter, NPT thread, w/electrode 160312
pHix® Compact Redox/ORP and temperature transmitter. Stainless steel 316 electrode holder. With electrode	
203122	pHix® Compact Redox/ORP/temperature transmitter ISO, w/electrode 160312
203123	pHix® Compact Redox/ORP/temperatur transmitter NPT, w/electrode 160312

Electrodes

Electrodes	
160310	pH electrode 0=4,6pH 0-14 pH, 0-80° C
160311	pH electrode 0=7,0pH 0-14 pH, 0-80° C
160312	Redox / ORP electrode Pt/KCL -1000mV +1000mV -20 +80° C

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Order numbers accessories

Electrolyte cleaning and buffer solution	
163010	KCL solution 0.5 l, 3.0 mol
163032	pH buffer, pH 4,00 - 0,25 l
163034	pH buffer, pH 7,00- 0,25 l
163036	pH buffer, pH 10,00- 0,25 l
163040	Redox buffer 6x20ml +180mV Pt/Kalomel/+220mV PT-Ag/AgCL

Fittings and accessories	
155200	Electrode fitting for pHix® Compact electrode
155246	pHix® sensor adaptor for immersion ISO
155247	pHix® sensor adaptor for immersion NPT
155254	pHix® adaptor for ball float, ISO
155260	PVC pipe 50mm - PN10 (ø50 x 2,4mm) per meter
155268	PVC CAP ISO 50mm w. PG9 cable glans
155269	PVC CAP US w. PG9 cable glans
155272	Sensor immersion bundle kit for pHix® Compact w/ISO thread
155273	Sensor immersion bundle kit for pHix® Compact w/NPT thread
200125	Field indicator 531, complete , 4-20mA loop powered
200205	Universal bracket
200210	Wall support for universal bracket



MJK
Blokken 9
DK-3460 Birkerød
Denmark

Tel +45 45 56 06 56

www.mjk.com



Intertek