pH probes

FOR HIGH-PRECISION PH MEASUREMENT

pH

The knowledge of pH, which represents a classic measure of the acidity or alkalinity of water, is essential in many applications that involve chemical laboratory analysis. pH meters are used to control water quality in situations such as the water supply of cities, swimming pools, environmental remediation, food and beverage production processes and many other applications.

Electronic pH meters measure the potential difference between two electrodes present in the probe immersed in the solution and display the corresponding value, converted into pH. The probe has a special glass membrane, permeable to the hydrogen ion H+ which allows it to reach the measuring electrodes; the quality of the glass determines the quality of the probe in terms of sensitivity, response speed and mechanical resistance.

Technical features

Features	SPH1-WP-SJ	SPH1-WP-DJ	SPH2 –WP-SJ	SPH3-WW-DJ	SPH4-HP-DJ	SPH4-HT-DJ	SPH4-LC-DJ	SPH4-CR-DJ	SPH4-HF-DJ
Measurement range	pH 2 – 12	pH 2 – 12	pH 2 – 12	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14	pH 0 – 14
Working temperature	0 – 60°C	0 – 60°C	0 – 60°C	0 – 80°C	-10 – 60°C	0 – 130°C	-10 – 40°C	0 – 60°C	-10 – 100°C
Max pressure	6 bar	6 bar	6 bar	6 bar	6 bar	0–6 bar @ 130°C; 0–16 bar @ 25°C	0.5 bar	2 bar	16 bar @ 100°C
Minimum conductivity	50 µS/cm	50 µS/cm	50 µS/cm	5 µS/cm	5 µS/cm	50 µS/cm	<0.2 µS/cm	5 µS/cm	2 µS/cm
Probe body material	Polycarbonate	Polycarbonate	Epoxy	Glass	Glass	Glass	Glass	Glass	Glass
Membrane material	Glass	Glass	Glass	Glass	Glass	Glass	Glass	Glass	Glass
Type of diaphragm	Pellon PTFE	Pellon PTFE	Pellon PTFE	Open hole diaphragm	Double diaphragm with open hole	Triple ceramic diaphragm	Sleeve type diaphragm	Ceramic diaphragm	Double diaphragm with open hole
Junction type	Single	Double	Single	Double	Double	Double	Double	Double	Double
Electrolyte	KCL Gel	KCL Gel	KCL Gel	KCL Gel	KCL Gel	Blue 3M KCL Pharma	3M KCL Gel	KCL Gel	Polisolve
Mechanical connection	Ø 12 mm	Ø 12 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm	Thread PG 13.5 mm
Electrical connection	BNC (Blue)	BNC (Blue)	S8	S8	S8	S8	S7	S8	S8
Cable	1.5m or 6 m	6 m	Not included	Not included	Not included	Not included	Not included	Not included	Not included
Dimensions	Ø 12 mm; L=120 mm								

SPH1-WP-SJ

Single-junction polycarbonate-body pH probe. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C

Maximum pressure 6 bar

Body material PP ; **Membrane material** Glass

Diaphragm type Pellon PTFE ; **Junction type** Single

Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm

Electrical connection BNC ; **Cable** 1.5 or 6 m

SPH1-WP-DJ

Double-junction polycarbonate body pH probe. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C

Maximum pressure 6 bar

Body material PP ; **Membrane material** Glass

Diaphragm type Pellon PTFE ; **Junction type** Double

Electrolyte KCL Gel ; **Mechanical connection** Ø 12 mm

Electrical connection BNC ; **Cable** 6 m

SPH2-WP-SJ

Single-junction epoxy body pH probe. Suitable for general laboratory, swimming pool and water-monitoring applications.

Technical features

Measurement range 2 – 12 pH ; **Operating temp** 0 – 60°C

Maximum pressure 6 bar

Body material Epoxy ; **Membrane material** Glass

Diaphragm type Pellon PTFE ; **Junction type** Single

Electrolyte KCL Gel

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included

SPH3-WW-DJ

Double-junction glass body pH probe. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** 0 – 80°C

Maximum pressure 6 bar

Body material Glass ; **Membrane material** Glass

Diaphragm type open hole ; **Junction type** Double

Electrolyte KCL Gel

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included

SPH4-HP-DJ

Double-junction glass reinforced pH probe. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** -10 – 60°C

Maximum pressure 6 bar

Body material Reinforced glass ; **Membrane material** Glass

Diaphragm type 2 open hole diaphragms ;
Junction type Double

Electrolyte KCL Gel

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included

SPH4-HT-DJ

Double-junction, high-temperature, triple-ceramic diaphragm pH probe with reinforced glass body. Suitable for ammonia, chrome plating, reverse osmosis, galvanic processes and bisulfite applications.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** 0 – 130°C

Maximum pressure 6 bar @ 130°C; 16 bar @ 25°C

Body material Glass ; **Membrane material** Glass

Diaphragm type Triple ceramic diaphragm ;
Junction type Double

Electrolyte Blue 3M KCL Pharma

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included

SPH4-LC-DJ

Double-junction pH probe with reinforced-glass body. Suitable for fish farming, galvanic processes and wastewater, drinking water and cooling water treatment.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** -10 – 40°C

Maximum pressure 0.5 bar

Body material Reinforced glass ; **Membrane material** Glass

Diaphragm type Sleeve ; **Junction type** Double

Electrolyte 3M KCL Gel

Mechanical connection Thread PG 13.5 mm

Electrical connection S7 ; **Cable** not included

SPH4-CR-DJ

Double-junction pH probe with reinforced-glass body and single ceramic diaphragm. Suitable for ammonia, chrome plating, reverse osmosis, galvanic processes and bisulfite applications.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** 0 – 60°C

Maximum pressure 2 bar

Body material Reinforced glass ; **Membrane material** Glass

Diaphragm type 1 ceramic diaphragm ;
Junction type Double

Electrolyte KCL Gel

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included

SPH4-HF-DJ

Double-junction pH probe with reinforced-glass body, resistant to fluorides. Suitable for wastewater, drinking water, fish farming, well water and galvanic processes.

Technical features

Measurement range 0 – 14 pH ; **Operating temp** -10 – 100°C

Maximum pressure 16 bar @ 100°C

Body material Reinforced glass ; **Membrane material** Glass

Diaphragm type 2 open hole diaphragms ;
Junction type Double

Electrolyte Polisolve

Mechanical connection Thread PG 13.5 mm

Electrical connection S8 ; **Cable** not included