

PH ELECTRODES

Maintenance and Storage of pH Electrodes

pH electrodes are delicate measuring instruments that require proper care and maintenance to produce accurate and reliable results as well as to ensure a long useful life.

Always keep the pH electrode moist when not in use by using an electrode storage solution (3M KCl). DO NOT store the electrode in distilled or deionized water as this will cause ions to leak out of the glass bulb and reference electrolyte, causing a slow and sluggish response.

Electrodes may be shipped with either protective caps or in electrode soaking bottles to prevent cracking or scratching and to keep the glass bulbs moist. Remove the electrode gently from the storage bottle and rinse it with distilled water before use. For long-term storage, always keep the electrode in the bottle in enough storage solution to cover the bulb. Replenish the bottle as needed.



	ST410	ST420	ST350	ST322	ST320	ST320 IP67	ST310	ST272	ST270
pH Range	0 to 14	2 to 12	0 to 14	0 to 14	0 to 14	0 to 14	0 to 14	2 to 12	0 to 14
Temperture	5 to 90°	5 to 90°	0 to 100°	5 to 60°	0 to 80°	0 to 80°	0 to 80°	0 to 50°	0 to 100°
Type of junction	Ceramic	Ceramic	Annular Ceramic	Fiber Pin	Fiber Pin	Fiber Pin	Ceramic	Annular Ceramic	Annular Ceramic
Shaft Material	Glass	Glass	Glass Body	Plastic	Epoxy Body	Epoxy Body	Epoxy Body	Epoxy Body	Glass Body
Connector	BNC	BNC	BNC&Cinch	BNC & Cinch	BNC & Cinch	BNC & Cinch	BNC & Cinch	BNC	BNC
Sensor Type	Combined Electrode	Combined Electrode	3 in 1	3 in 1	3 in 1	3 in 1	3 in 1	Combined Electrode	Combined Electrode
Reference System	Ag/AgCl Double Junction	Ag/AgCl Double Junction	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Reference electrolyte	3.3 M KCl	3.3 M KCl	3.3 M KCl	Polymer Gel	Gel Filled	Gel Filled	3.3 M KCl	Gel Filled	Gel Filled
Cable	1 m	1 m	1 m	1 m	1 m	3 m	1 m	1 m	1 m
Fill Type	Refillable	Refillable	Refillable	Non-Fillable	Non-refillable	Non-refillable	Refillable	Non-refillable	Non-refillable
Description	Double Junction combination pH electrode	Double Junction combination pH electrode	pH/ATC with glass body	3-in-1 pH/ATC electrode with low maintenance	pH/ATC with epoxy body, low maintenance	pH/ATC with epoxy body, low maintenance gel	pH/ATC with epoxy body, refillable	Combination pH electrode with stainless steel cutting blade	Combination pH electrode, glass body, spear tip
Application	Strong Acid/Alkali Solution	Low ionic strength solutions, TRIS, protein, sulfide, or any other samples that react chemically with the Ag/AgCl reference element.	Top performance for QC and research	Laboratory general purpose, routine or research applications	General purpose, high performance	High performance pH analysis in the field	General purpose for everyday use	For meat, cheese and sludge where glass alone may break	For meat, cheese and fruit samples
Feature	Chemical resistant glass body	Chemical resistant glass body	Chemical resistant glass body	Low maintenance	Epoxy body for ruggedness	Epoxy body and built-in ATC	Long-lasting	Annular junction prevents clogging	Annular junction prevents clogging

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OHAUS Starter series electrochemistry instruments include electrodes that support advanced pH analysis, including a glass shaft 3-in-1 electrode, micro sample, double salt-bridge, and flat surface pH electrodes.

OHAUS launched several pH electrodes, include glass shaft 3-in-1 ST350, micro sample pH electrode STMICRO5 and STMICRO8; double-salt bridge pH electrode ST260 which is fit for tris-buffer solution pH measurement, flat surface pH electrode STSURF and puncture electrodes ST270 and ST272.



	ST280	ST260	ST230	ST210	STMICRO8	STMICRO5	STPURE	STSURF
pH Range	0 to 14	0 to 14	0 to 14	0 to 14	0 to 14	0 to 14	2 to 12	0 to 14
Temperture	5 to 60°	0 to 100°	0 to 100°	0 to 80°	0 to 100°	0 to 100°	0 to 80°	0 to 100°
Type of junction	Open Junction	Ceramic	Annular Ceramic	Ceramic	Annular Ceramic	Annular Ceramic	Ground Glass	Ground Glass
Shaft Material	Glass	Glass Body	Glass Body	Epoxy Body	Glass Body	Glass Body	Glass Body	Epoxy Body
Connector	BNC	BNC	BNC	BNC	BNC	BNC	BNC	BNC
Sensor Type	Combined Electrode	Combined Electrode	Combined Electrode	Combined Electrode	Combined Electrode	Combined Electrode	Combined Electrode	Combined Electrode
Reference System	Ag/AgCl	Ag/AgCl Double Junction	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl	Ag/AgCl
Reference electrolyte	Polymer gel	3.3 M KCl	3.3 M KCl	3.3 M KCl	3.3 M KCl	3.3 M KCl	3.3 M KCl	3.3 M KCl
Cable	1 m	1 m	1 m	1 m	1 m	1 m	1 m	1 m
Fill Type	Non-Fillable	Refillable	Refillable	Refillable	Refillable	Refillable	Refillable	Refillable
Description	Open junction combination pH electrode	Double junction refillable combination pH electrode	Combination pH electrode with rugged bulb	Combination pH electrode with epoxy body	Combination pH electrode with glass body, long length	Combination pH electrode with glass body, semi-micro tip	Combination pH electrode	Combination pH electrode with epoxy body, flat surface
Application	Highly suspended, dirty samples	Use in dirty water or TRIS, sulfide and protein samples	For soil, sludge, colloids, viscous material	For routine applications	For routine or research applications	For samples with size constraints For samples with size limitations	For samples with low ionic strength	Measure moist surfaces such as agar gel lates, meats and cheese
Feature	Toughened bulb for rugged lab use	Long-lasting	Toughened bulb for rugged lab use	Economical	Measure samples as small as 0.5 mL in tube	Measure samples as small as 0.2 mL in 96 well plates	Economical	A flat pH bulb and refillable designs