

pH Electrode Selection Guide

		3-in-1 ELECTRODES											COMBINATION ELECTRODES						ISFET ELECTRODE		
		PLASTIC				STANDARD ToupH	LONG ToupH	MICRO ToupH	SLEEVE ToupH	SLEEVE	NON-AQUEOUS	NEEDLE	PLASTIC	STANDARD ToupH	MICRO ToupH	SLEEVE ToupH	LONG	LONG ToupH	FLAT	GENERAL	
		9625-10D	9630-10D	9631-10D	9632-10D	9615S-10D	9680S-10D	9618S-10D	9681S-10D	6367-10D	6377-10D	6252-10D	9425-10C	9415-10C	9418-10C	9481-10C	6069-10C	9480-10C	6261-10C	0040-10D	
Specification	Applicable temperature range (°C)	0-100	0-100	0-60	0-100	0-100	0-100	0-60	0-60	0-60	0-60	0-60	0-60	0-100	0-100	0-60	0-60	0-60	0-100	0-50	0-60
	Diameter (mm)	16	16	16	16	12	8	3	12	12	12	12	12	16	12	3	12	3	8	12	16
	Length (mm)	150	150	155	150	198	283	185	203	150	150	150	150	150	198	185	203	291	283	150	190

pH - Sample Conditions

Aqueous Solution	Conductivity	Normal (over 100 mS/m)	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
		Low (approx. 10 -100 mS/m)		●						○		●					○					
		Very low (approx. 5 -100 mS/m)		○						○		●					○					
		High (approx. 5 S/m)	○	○	○	○	○	○		●				○	○		●		○			
	Strong alkaline (pH 10-12)				●	○	○		○	○				○		○		○				
	Strong acidity (pH 0-2) * Except HF sample			●		●								●								
	Quick heat change (within 50°C)	●	●	●	●									●								
	High viscosity (approx. 5 Pa-S)									●	○	●				●						
	Containing non-aqueous solvent					○	○	○	○	○	○	●			○	○	○		○		○	○
Solid/ Semisolid	Inside																					
	Surface											○								●	●	

Sample Containers	Microtube/plate (> 50 µL)								●							●						
	Ampule > ø4 mm								●							●		○				
	Micro container (> 2 mL)							○	●							●		○		○		
	Tube ID:13 mm, L:100 - 150 mm							●										●		●		
	Beaker 10 mL ~ 1 L	●	●	●	●	●	○	○	○	○	○	○	○	●	●	○	○	○	○	○	○	○
	Large container (> 1 L)	○	○	○	○	○	○	●						○	○					●		
	Petri dish																				●	●
Droplet																				●	●	

Water	Pure/ion-exchange water (approx. 0.1 mS/m)/ Distilled water (approx. 0.5 mS/m)					○						●			○							
	Tap/drinking water (approx. 10 mS/m)	○	●			○			○			●		○	○		○					
	Surface water		●			○			○			●		○	○		○					
Chemical reagent/ solvent	Pharmaceutical water/ Enviromental water/acid rain	○	○			○			○			○	○		○							
	Caustic/strong acid (Except HF sample)			●		●			○					●		○						
	Hydrofluoric acid			●																		
	Surfactant					○			●			○		○		●						
Pharmaceutical/ biological sample	Water-based paint					○			●			○		○		●						
	Dye/coloring agent								●			○				●						
	Protein-containing sample					○		○	●	○				○	○	●						
	Medicinal preparation							○	○			○			○	○						
	Enzyme solution						○	●				○			●			○				
Food	Tris buffer					●		○	○					●	○	○						
	Suspension					○			●			●		○		●						
	Agar medium																			●	●	
	Jam					○			●		○	○		○	○	●				○	●	(surface)
	Meat/fish/Fruit/vegetable/ Dough											●								○	●	(surface)
	Honey											●									○	(surface)
Beverage/ seasoning	Cheese/butter											○								○	○	(surface)
	Yogurt	○	○			○			○	○			○	○		○				○	○	(surface)
	Beer	○	○			○			●	○	●		○	○		●						●
Cosmetic/ lotion	Milk/Carbonated drink/juice/ sauce/soy sauce					○			●	○	○			○		●						
	Mayonnaise/ketchup					○			●		○		○	○		●						
	Beauty cream/mascara					○			●		○	○		○		●						
	Gel/soap/shampoo/Hairdye lotion					○			●		○			○		●						
Emulsified liquid					○			○		●			○		○							

● Recommended ○ Can be measured