



pH FIELD & LAB ELECTRODES

ALpHA® pH Combination Electrodes For Laboratory Use

RoHS

All electrodes shown smaller than actual size.

PHE-2121, general purpose lab, \$71.

PHE-2721, double junction for applications normally requiring calomel, \$81.

PHE-2114, general purpose, large bulb, \$80.

PHE-2414, large bulb sealed double junction, \$101.

PHE-357, \$995 shown smaller than actual size. See page B-30 in the GREEN BOOK® section of this handbook.

Each electrode supplied with either BNC (shown) or US standard connector.

To Order (Specify Model Number)

Model No. BNC	Model No. US Std	Applications/Features	Length mm (in)	Diameter mm (in)	pH Range	Temp. Range °C (°F)
PHE-2121	PHE-2121-U	General purpose laboratory	150 (5.9)	12 (0.47)	0 to 14	0 to 100 (32 to 212)
PHE-2721	PHE-2721-U	Double junction reference suitable for applications that normally require calomel	150 (5.9)	12 (0.47)	0 to 14	0 to 100 (32 to 212)
PHE-2114	PHE-2114-U	General purpose, large bulb	110 (4.3)	12 (0.47)	0 to 13	0 to 100 (32 to 212)
PHE-2414	PHE-2414-U	Large bulb, sealed double junction	110 (4.3)	12 (0.47)	0 to 13	0 to 110 (32 to 230)
PHE-2314	PHE-2314-U	General purpose, large bulb sealed	110 (4.3)	12 (0.47)	0 to 13	0 to 110 (32 to 230)
PHE-2214	PHE-2214-U	Sealed inner, refillable outer junction	110 (4.3)	12 (0.47)	0 to 13	0 to 110 (32 to 230)
PHE-2319	PHE-2319-U	High pH, sealed	110 (4.3)	12 (0.47)	0 to 14	5 to 110 (41 to 230)
PHE-2116	PHE-2116-U	Rugged bulb design	140 (5.5)	12 (0.47)	0 to 14	5 to 110 (41 to 230)
PHE-2131	—	Test tubes, flasks	150 (5.9)	6 (0.24)	0 to 14	0 to 100 (32 to 212)
PHE-2731	PHE-2731-U	Test tubes, flasks for organics, proteins, metals	150 (5.9)	6 (0.24)	0 to 14	0 to 100 (32 to 212)
PHE-2123	PHE-2123-U6	Large test tubes, flasks	150 (5.9)	9.5 (0.37)	0 to 14	0 to 100 (32 to 212)
PHE-2723	PHE-2723-U	Large test tubes, flasks for organics, proteins, metals	150 (5.9)	9.5 (0.37)	0 to 14	0 to 100 (32 to 212)
PHE-2124	PHE-2124-U	Extra long for measurement in narrow vessels	300 (11.8)	9.5 (0.37)	0 to 14	0 to 100 (32 to 212)
PHE-1477	PHE-1477-U	Flat surfaces, PTFE double junction	127 (5.0)	12 (0.47)	1 to 10	0 to 60 (32 to 140)



Laboratory pH Combination Electrodes

For a complete selection of field and laboratory pH instrumentation, see Section B of the GREEN BOOK® section of this handbook.



PHE-2124, extra long for narrow vessels, \$101.

PHE-2723, large test tubes, flasks for organics, proteins and metals, \$101.

PHE-2731, test tubes, flasks, \$122.

PHE-2319, high pH, sealed, \$91.

PHE-2214, sealed inner, refillable outer junction, \$97.

PHE-2314, general purpose, large bulb, sealed, \$86.

All electrodes shown smaller than actual size.

Recommended Reference Book: Advanced pH Measurement and Control, FW-332, \$89. See Section Y for Additional Books.



MOST POPULAR MODELS HIGHLIGHTED!

Reference Type	Liquid Junction	Body Material	Refillable or Gel	R @ 25°C (77°F) MΩ	Price	
					BNC	US Std
Ag/AgCl	Ceramic	Glass	Refillable	50 to 80	\$71	\$78
Ag/AgCl Double	Ceramic	Glass	Gel	50 to 80	81	88
Ag/AgCl	Annular Ceramic	Glass	Refillable	50	80	84
Ag/AgCl Double	Annular Ceramic	Glass	Gel	50	101	105
Ag/AgCl	Annular Ceramic	Glass	Gel	50	86	90
Ag/AgCl Double	Annular Ceramic	Glass	Gel/Refillable	50	97	101
Ag/AgCl	Annular Ceramic	Glass	Gel	250	91	95
Ag/AgCl	Annular Ceramic	Glass	Refillable	250	86	90
Ag/AgCl	Ceramic	Glass	Refillable	50 to 80	116	—
Ag/AgCl Double	Ceramic	Glass	Gel	50 to 80	122	129
Ag/AgCl	Ceramic	Glass	Refillable	50 to 80	84	91
Ag/AgCl Double	Ceramic	Glass	Gel	50 to 80	101	108
Ag/AgCl	Ceramic	Glass	Refillable	50 to 80	101	108
Ag/AgCl Double	PTFE	Poly Ether Sulfone	Gel	200	120	127

Comes complete with 0.75 to 1 m (2.5 to 3') cable and operator's manual.

Ordering Examples: PHE-2121, general purpose laboratory electrode, \$71.

PHE-2116, rugged bulb electrode, \$86.

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