

## Ion Selective Electrodes

These electrodes can be used with any conventional laboratory or hand held pH meter with a millivolt mode.

A 1 metre cable terminated with a BNC connector is fitted as standard. A longer cable length can be specified at the time of ordering (maximum 10 metres).

Probe dimensions are 120 x 12mm.

Main features and benefits include:

- No Reference electrode needed
- Available in fully submersible and water proof format
- Solid state sensors
- Ideal for unskilled operatives
- No filling solution required
- Virtually unbreakable
- Can be left dry for long periods
- Long lifetime



PH/85220

Cat. No.	Description	Concentration	Limits (ppm)	Temp Range °C	Main Interferences	pH Range	ISAB
PH/85220	Ammonium ( $\text{NH}_4^+$ )	$0.5 - 5 \times 10^{-5}$	9,000 – 0.9	0 – 50	$\text{K}^+, \text{Na}^+$	0 – 8.5	$\text{CH}_3\text{COOH}$
PH/85222	Barium ( $\text{Ba}^{2+}$ )	$10^{-1} - 10^{-5}$	13,000 – 1.4	0 – 50	$\text{Sr}^{2+}, \text{K}^+, \text{Na}^+$	3 – 10	$\text{LiAc}$
PH/85224	Bromide (Br)	$1 - 5 \times 10^{-6}$	81,000 – 0.4	5 – 50	$\text{I}^-, \text{CN}^-, \text{S}^{2-}$	1 – 12	5M $\text{KNO}_3$
PH/85226	Cadmium ( $\text{Cd}^{2+}$ )	$10^{-1} - 1 \times 10^{-6}$	11,200 – 0.1	5 – 50	$\text{Hg}^{2+}, \text{Ag}^+, \text{Cu}^{2+}$	3 – 7	5M $\text{KNO}_3$
PH/85228	Calcium ( $\text{Ca}^{2+}$ )	$10^{-1} - 5 \times 10^{-7}$	4,010 – 0.02	0 – 50	$\text{Ba}^{2+}, \text{Al}^{3+}, \text{Sr}^{2+}$	3.5 – 11	$\text{KCl}$
PH/85230	Chloride ( $\text{Cl}^-$ )	$1 - 3 \times 10^{-6}$	35,000 – 1	5 – 50	$\text{I}^-, \text{Br}^-, \text{CN}^-, \text{S}^{2-}$	1 – 12	5M $\text{KNO}_3$
PH/85232	Cupric ( $\text{Cu}^{2+}$ )	$10^0 - 1 \times 10^{-7}$	64,000 – 0.006	5 – 50	$\text{Hg}^{2+}, \text{Ag}^+, \text{S}^{2-}$	2 – 7	5M $\text{KNO}_3$
PH/85234	Cyanide ( $\text{CN}^-$ )	$10^{-2} - 1 \times 10^{-6}$	260 – 0.03	5 – 50	$\text{I}^-, \text{S}^{2-}, \text{Br}^-$	11 – 13	10M $\text{NaOH}$
PH/85236	Fluoride ( $\text{F}^-$ )	$10^{-1} - 1 \times 10^{-6}$	1,900 – 0.02	5 – 50	$\text{CH}^-$	4 – 8	TISAB
PH/85238	Iodide ( $\text{I}^-$ )	$1 - 5 \times 10^{-7}$	127,000 – 0.06	5 – 50	$\text{CN}^-, \text{S}^{2-}$	2 – 12	5M $\text{KNO}_3$
PH/85240	Lead ( $\text{Pb}^{2+}$ )	$10^{-1} - 1 \times 10^{-6}$	20,800 – 0.02	5 – 50	$\text{Hg}^{2+}, \text{Ag}^+, \text{Cu}^{2+}$	3 – 7	$\text{LiAc}$
PH/85242	Nitrate ( $\text{NO}_3^-$ )	$1 - 7 \times 10^{-6}$	62,000 – 0.4	0 – 50	$\text{Cl}^-, \text{NO}_3^-$	2 – 11	4M $(\text{NH}_4)_2\text{SO}_4$
PH/85246	Potassium ( $\text{K}^+$ )	$1 - 10^{-6}$	39,000 – 0.04	0 – 50	$\text{Cs}^+, \text{NH}_4^+$	1 – 9	TEAC
PH/85248	Silver ( $\text{Ag}^+$ )	$10^0 - 1 \times 10^{-7}$	107,900 – 0.01	5 – 50	$\text{S}^{2-}, \text{Hg}^{2+}$	1 – 9	5M $\text{KNO}_3$
PH/85250	Sodium ( $\text{Na}^+$ )	$3 - 10^{-7}$	69,000 – 0.002	0 – 50	$\text{Ba}^{2+}, \text{Li}^+, \text{K}^+$	1 – 9	SISAB
PH/85252	Sulphide ( $\text{S}^{2-}$ )	$1 - 1 \times 10^{-7}$	32,00 – 0.003	5 – 50	$\text{Ag}^+, \text{Hg}^{2+}$	13 – 14	10M $\text{NaOH}$
PH/85254	Thiocyanate ( $\text{SCN}^-$ )	$10^{-1} - 2 \times 10^{-6}$	5,800 – 1	5 – 50	$\text{I}^-, \text{Cl}^-, \text{S}^{2-}, \text{Br}^-$	2 – 12	5M $\text{KNO}_3$
PH/85256	Water Hardness	$2 \times 10^{-1} - 5 \times 10^{-5}$	-	0 – 50	$\text{Ba}^{2+}, \text{Cd}^{2+}, \text{Cu}^{2+}$	4.5 – 10	$\text{LiAC}$
PH/85258	Ammonia ( $\text{NH}_3$ )	1M – $10^{-6}\text{M}$	0.02	0 – 50	Hydrazine & Aliphatic Amines	11 – 13	1M $\text{NaOH}$

Mono Ion Selective Electrodes are also available, please ask for details.

Please note: That a reference electrode is required for use with mono ion selective electrodes.



## Ion Selective Electrode Solutions



E3

Cat. No.	Description	Pack
E3NH34P	Ammonia 1000 ppm PrimAg-plus ion reference solution	500ml
E3BA4P	Barium 1000 ppm PrimAg-plus element reference solution	500ml
E3BR4P	Bromide 1000 ppm PrimAg-plus ion reference solution	500ml
E3CD4P	Cadmium 1000 ppm PrimAg-plus element reference solution	500ml
E3CA4P	Calcium 1000 ppm PrimAg-plus element reference solution	500ml
E3CL4P	Chloride 1000 ppm PrimAg-plus ion reference solution	500ml
E3CU4P	Cupric 1000 ppm PrimAg-plus element reference solution	500ml
E3CN4P	Cyanide 1000 ppm PrimAg-plus ion reference solution	500ml
E3F4P	Fluoride 1000 ppm PrimAg-plus ion reference solution	500ml
E3I4P	Iodide 1000 ppm PrimAg-plus ion reference solution	500ml
E3PB4P	Lead 1000 ppm PrimAg-plus element reference solution	500ml
E3NO34P	Nitrate 1000 ppm PrimAg-plus ion reference solution	500ml
E3PCH4P	Perchlorate 1000 ppm PrimAg-plus ion reference solution	500ml
E3K4P	Potassium 1000 ppm PrimAg-plus element reference solution	500ml
E3AG4P	Silver 1000 ppm PrimAg-plus element reference solution	500ml
E3NAN4P	Sodium 1000 ppm PrimAg-plus element reference solution	500ml
E3SCN4P	Thiocyanate 1000 ppm PrimAg-plus ion reference solution	500ml

Many more solutions available, please send your specific requirements.