






# 12mm Flat Surface pH & ORP Electrodes

## XE14 Series 12mm combination laboratory electrodes

-  Flat surface design is ideal for viscous materials as well as meat, bread dough, cheese and other dairy products.
-  Double junction reference with *POLARIS* technology is highly resistant to contamination.
-  Sturdy 12mm diameter epoxy body.
-  Easy clean design prevents carry over errors in samples and calibration buffers.
-  1, 5, or 10 metre of low noise cable and high quality BNC connector standard

### Specifications

pH range:	0 to 13 pH
ORP range:	±2000mV
Temp range:	0 to 60°C
Response time:	95% <1 second
Cable length:	1, 5 or 10 metre
Connector:	BNC
Reference cell:	Double junction - 4M KCl / sat. AgCl
Wetted materials:	Epoxy, glass & (platinum (ORP))

### Order codes

<b>pH electrode:</b>	
with 1m cable	P-PHXE141MBN
with 5m cable	P-PHXE145MBN
with 10m cable	P-PHXE1410MBN

<b>ORP electrode:</b>	
with 1m cable	P-ORXE141MBN
with 5m cable	P-ORXE145MBN
with 10m cable	P-ORXE1410MBN
Other cable lengths available	to order

### pH Calibration Solutions

4.00 buffer 200mls:	PHBUF-4-00-0.2L
4.00 buffer 500mls:	PHBUF-4-00-05L
4.00 buffer 1 litre:	PHBUF-4.00-1L
7.00 buffer 200mls:	PHBUF-7.00-0.2L
7.00 buffer 500mls:	PHBUF-7.00-0.5L
7.00 buffer 1 litre:	PHBUF-7.00-1L
10.00 buffer 200mls:	PHBUF-10.00-0.2L
10.00 buffer 500mls:	PHBUF-10.00-05L
10.00 buffer 1 litre:	PHBUF-10.00-1L

### Optional BNC to bootlace connection adapter

Electrode connection adapt. P-BNC/BP-100



The XE14 flat surface pH and ORP electrodes are easy to use and clean. The flat glass design allows the electrode to rest against the bottom of a beaker without damaging the glass. In many applications the design eliminates the need for electrode holders.

The electrodes are suitable for a wide range of applications. These include measurements in viscous materials and semi solids - the electrodes are equally suitable for general purpose laboratory measurements.

The sealed double junction reference provides excellent stability and fast response and features the *POLARIS* technology.

The standard 12mm diameter electrode body is universally used in laboratories.

XE14 flat surface electrode shown full size



Enlarged detail of the XE14 flat surface tip featuring the *POLARIS* reference junction

#### What is *POLARIS*?

*POLARIS* is a high porosity polymer material which, when used as a pH electrode reference junction, provides a superior amount of surface area that will not plug or clog quickly from process particulates.

The high porosity of the *POLARIS* junction allows ion diffusion to be very constant in processes containing high particle concentrations. The honeycomb configuration of this material combined with the tortuous path throughout *POLARIS* allows for normal migration of ions but not process contaminants.

Processes with hydrocarbons or organics become less challenging and these electrodes last longer, requiring less maintenance and fewer replacement costs.



BNC to pin adapter - P-BNC/BP-100

PHXE14-2.1-0

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