

# EpoxyTough pH Electrodes

Low Maintenance Epoxy Bodied pH Electrodes



## Camlab EpoxyTough

Camlab EpoxyTough pH electrodes are tough epoxy bodied combination pH electrodes with a gel filling so you never need to worry about electrode maintenance or refilling again. They are compatible with nearly every pH meter straight out of the box or with a simple adapter cable.

Standard models feature an extended body which protects the sensitive pH sensing bulb. You can even use an EpoxyTough to stir your sample with to get a fast stable reading.

Available in single or double junction designs, spear tip, flat surface, micro and extended body versions, there is a Camlab EpoxyTough electrode to suit your requirements.



All electrodes come with a special pre-conditioning storage bottle filled with storage solution to ensure your electrode is immediately ready to use when you need it.



Flat surface design is ideal for pastes and solids.



Spear tip for meat, sausage, cheese and soil.



Body extends over the bulb to protect from damage.



## CAMLAB EpoxyTough pH range

- Rugged Construction
- Low maintenance gel filled design
- Fast - 95% Response in less than 1 second (bulb types)
- Single or double junction for demanding applications
- Choice of sizes available
- Flat and spear tip models for food and surface applications

## Specifications

pH Range: 0-14pH (Na+ error >12.3pH)

Response: 95% in one second (bulb types)

95% in 5 seconds (Flat types)

Body material: Plastic Epoxy

Isopotential Point: 7.0 pH (0 mV)

Offset: +/- 0.20 pH

Cable length : 1m

Span: 97% of theoretical or higher

Connectors: BNC or DIN

DIN, US STD and other connectors are available for an extra charge.



camlab

[www.camlab.co.uk](http://www.camlab.co.uk)

## REFERENCE DESIGN SELECTION

Most pH measurements can be made with a single junction reference electrode. However, materials such as heavy metals, proteins, and sulphides can precipitate with the KCL at the junction surface causing the electrode to slow down and drift. Double junction designs use a buffering salt (salt bridge) such as KNO<sub>3</sub> in a lower chamber. In this way only the lower chamber is contact with the sample and these reactions are prevented. This makes double junction designs ideal for fruit juice, photographic solutions and TRIS buffers.

## pH BULB SHAPE SELECTION

Depending on the type of sample you are testing you may wish to choose a specialised bulb shape such as spear tip, semi micro or flat surface. Spear tip models allow you to pierce the sample and have a special PVDF (Kynar) reference surface for excellent contact. The Flat surface models feature a completely flat measuring surface which is virtually unbreakable. The flat surface probe will respond marginally slower but will allow you to measure flat surfaces and gels with ease. The semi micro is a standard spherical bulb in a 6mm body to allow pH measurement in small tubes.

## EpoxyTough pH -combination pH

electrode with BNC connector and 1m cable

This tough epoxy bodied electrode is gel filled so you never need to worry about refilling. *Ideal for Standard Lab use.*

Order number: 1161693



## EpoxyTough pH - Double Junction combination pH

electrode with BNC connector and 1m cable

The double junction provides added protection from contamination of the reference, providing a longer life. This tough epoxy bodied electrode is gel filled so you never need to worry about refilling.

*Ideal for Lab and Field for a wide range of aqueous solutions, TRIS buffer, Photographic solutions, Beer, Wine, Liquor, samples containing heavy metals.*

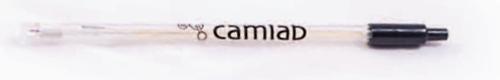
Order number: 1161694

## EpoxyTough pH - Double Junction combination pH

electrode with DIN connector and 1m cable

As above but with a DIN connector instead of BNC.

Order number: 1161695



## EpoxyTough pH - Micro combination pH

electrode with BNC connector and 1m cable

Combination pH electrode with 1m lead and fitted with a BNC connector. This tough epoxy bodied electrode has a narrow 6 mm x 150 mm body. *Ideal for test tubes and other narrow spaces.*

Order number: 1161697



## EpoxyTough pH - Long Double Junction combination pH

electrode with BNC connector and 1m cable

This tough gel-filled double-junction epoxy bodied electrode has a long & thin epoxy body - 9.5 mm x 300 mm. The double junction provides added protection from contamination of the reference, providing a longer life. *Ideal for tall flasks, bottles and other applications. Aqueous solutions and TRIS buffer.*

Order number: 1161696



## EpoxyTough pH - Flat Double Junction combination pH

electrode with BNC connector and 1m cable

The double junction provides added protection from contamination of the reference, providing a longer life. This robust & easy to clean sensor is *ideal for measuring hard to clean fluids and also for low volumes, or for tissue samples.*

Order number: 1161698



## EpoxyTough pH - Spear Tip Double Junction combination

pH electrode with BNC connector and 1m cable

The double junction provides added protection from contamination of the reference, providing a longer life. *Can be easily inserted into solids and semi-solids like meats, cheeses, and vegetables.*

Order number: 1161699



## EpoxyTough Redox - Double Junction ORP electrode

pH electrode with BNC connector and 1m cable

This tough epoxy bodied combination ORP is gel filled so you never need to worry about refilling.

Order number: 1161699

## Accessories

**Electrode Storage Bottle** with integral rubber seal can be attached to your electrode and filled with a storage solution to keep your electrode in great condition so it is ready to use as soon as you need it.

Order No. 1161708

**Filling solution for Rapid Super Liquid Junction electrodes 100ml**

3.5M KCL refill solution for Camlab Rapid Super Liquid Junction electrodes for 1161702 and 1161704

Order No. 1161709

**Replacement bulb guard** This guard fits the following Camlab electrodes - 1161702, and 1161701

Order No. 1161710

## Connectors and Adapters Cables types



US BNC DIN  
Std

**Adapter Cable** - BNR (BNC) to DIN M Single Pin (for connecting Camlab BNC electrodes to meters with a Din M connector) Suitable for Schott and WTW meters.

Order No. 1161706

**Adapter Cable** - BNR (BNC) to US Standard Beckman (for connecting Camlab BNC electrodes to meters with a Din M connector) Suitable for radiometer.

Order No. 1161707

