

# pHASE - High Accuracy Research Grade pH Electrodes



Fast - response stable to 0.01 pH within 30 Seconds with temperature change of 35C to 75C

Accurate - to 0.04 pH between 0-100 Degrees C

Stable - 0.005 pH or less drift per 24 hours

Choose between Sealed or Refillable models

Choose between Glass or Plastic body models

## REFERENCE DESIGN SELECTION

pHASE electrodes are available with Sealed or with Rapid-Renew built-in reference half cell designs.

SEALED designs are the most economical, are the easiest to use and they minimize maintenance. They have large area porous polyethylene junctions that resist clogging. They are useful in a broad range of applications.

RAPID-RENEW designs are re-fillable. They are used with dirty or other samples that cause junction fouling. Simply pushing a spring loaded knob opens the electrode's sleeve junction to instantly provide a fresh junction. These designs also include a TWIST-SEAL re-fill hole. Just a quarter turn of a collar opens or closes the hole's leak-tight O-ring seat. The need for awkward rubber sleeves and screwed plugs is eliminated.

## BODY MATERIAL SELECTION

pHASE electrode 12 mm diameter pH electrodes are offered in a choice of Epoxy or Glass bodies. EPOXY bodies provide maximum ruggedness and good chemical resistance. They are supplied with removable bulb guards which protect the pH bulb from breakage. The guard can be quickly removed to expose the bulb for cleaning. Replacement bulb guard (Part Number 170279) can be ordered to fit any epoxy body pHASE electrode.. GLASS bodies provide the maximum chemical resistance. Their ruggedized pH bulbs are fully exposed.

## pH BULB SHAPE SELECTION

pHASE electrodes with epoxy bodies and bulb guards have SPHERICAL bulbs. They are useful for a broad range of relatively clean samples. Flat Surface designs have epoxy bodies (they do not have bulb guards). They are quite resistant to breakage since they do not have protruding bulbs. They make excellent contact with viscous materials and solid surfaces and are recommended for use with slurries.

Glass body electrodes have RUGGEDIZED pH bulbs that have hemispherical shapes. They are more resistant to breakage than spherical bulbs and can be used in a wide range of non-slurry applications.

pHASE electrodes, unlike ordinary electrodes, provide fast, accurate, stable pH measurements, even with large sample temperature changes. All pHASE electrodes are combination types with built-in double reference junctions which keep silver ions from contacting samples. Undesirable reactions with heavy metals, sulfides, and proteins are eliminated.

## SPECIFICATIONS

<b>pH Range</b>	0-14pH (0-12pH without Na <sup>+</sup> ion error)
<b>Body material</b>	Plastic Epoxy or Glass
<b>Max Temperature</b>	100 Degrees C
<b>Isopotential Point</b>	7.0 pH
<b>Slope</b>	95-100%
<b>Cable length</b>	30 inches (76 cm)
<b>Connectors</b>	BNC . US STD and other connectors are available for an extra charge.

## ORDERING INFORMATION

pHASE electrodes are supplied standard with a 30 inch (76 cm). cable and BNC connector. US Std connectors are available at an additional cost.

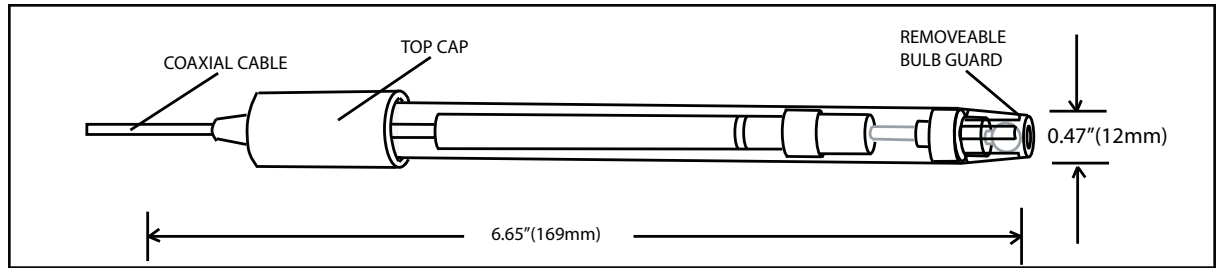
### Model

S1010CD	Epoxy Body, Sealed with Bulb Guard
S1021CD	Epoxy Body, Re-Fillable Rapid Re-New Reference with Bulb Guard
S1030CD	Epoxy Body, Sealed, Flat Measuring Surface
SG1041CD	Glass Body, Re-Fillable Rapid Re-New Reference Ruggedized Bulb
SG1050CD	Glass Body, Sealed with Ruggedized Bulb

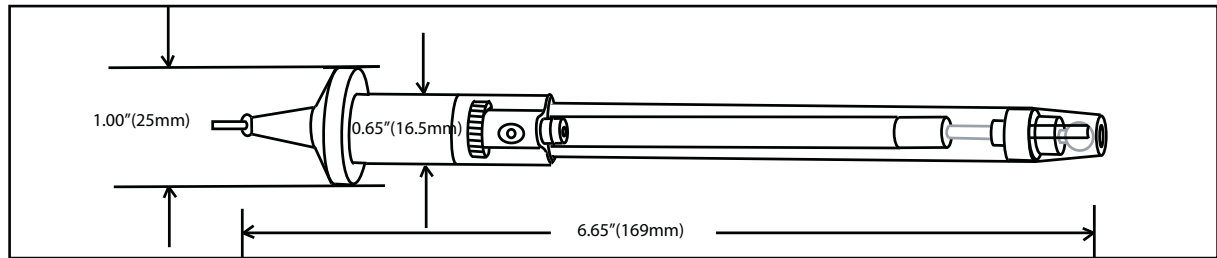
### Accessories

S20	3.5M KCl pHASE re-fill solution, 4 oz. (100ml)
BG279	Replacement Bulb Guard for S1021CD and S1010CD

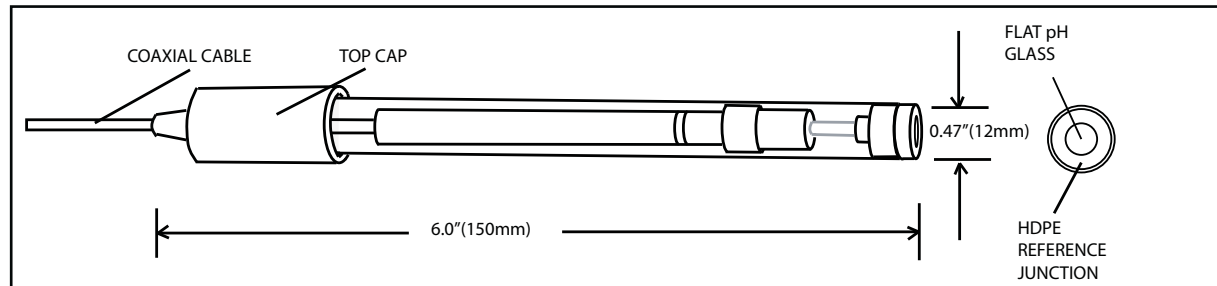
**S1010CD-**  
epoxy body w/  
sealed reference  
and removable  
bulb guard



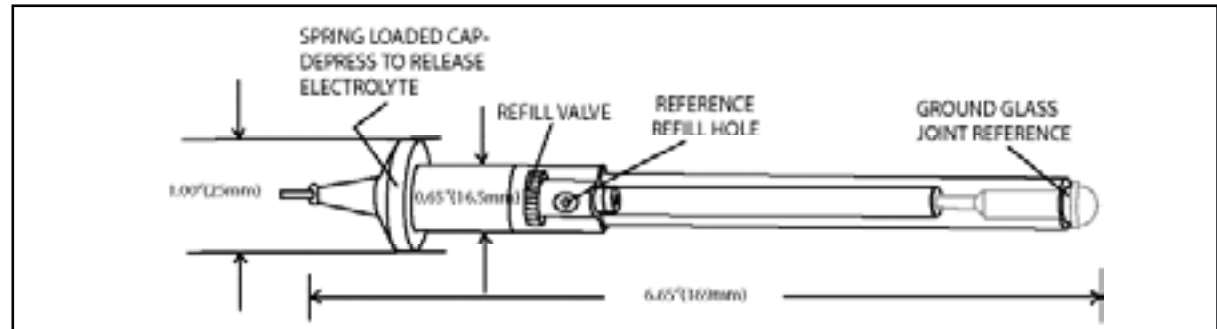
**S1021CD-**  
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refillable reference  
and removable  
bulb guard



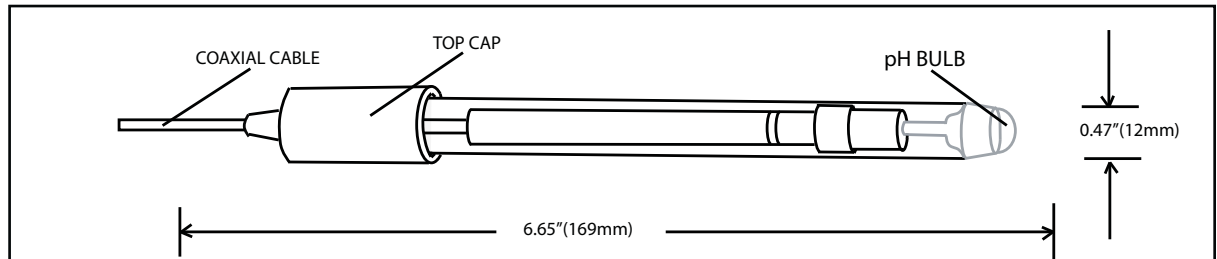
**S1030CD-**  
epoxy body w/  
sealed reference  
and flat pH glass



**SG1041CD-**  
glass body w/  
refillable reference



**SG1050CD-**  
glass body w/  
sealed reference



**Parts covered by this product data sheet include:**  
S1010CD, S1021CD, S1030CD, SG1041CD, SG1050CD,  
BG279, S20



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