



**Sensorex**<sup>®</sup>

## PRODUCT SPECIFICATION SHEET

### General Use Plastic and Glass pH Electrodes



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**Fast - 95% Response in Less than 1 Second**

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**Combination or Half Cell Designs**

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**Single or Double Junction Construction**

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**Choose between Sealed and Re-fillable Models**

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**Choose between Glass and Plastic Body Models**

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#### **Combination or Separate Electrodes?**

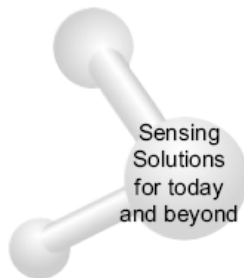
Sensorex makes both types. The convenience of handling one combination electrode as compared to using separate pH and reference electrodes has been well established in laboratory and portable pH measurements. And since the price of Sensorex combination electrodes is much less than the total price of the separate electrodes, separate electrodes are used only for special purposes.

#### **Glass or Plastic Body Electrodes?**

Sensorex makes both body types and they provide the identical excellent pH measurements. Traditionally, pH electrodes have been made of all glass construction. Today's plastics allow pH electrodes to be constructed with sturdy and chemically resistant epoxy or premium ULTEM bodies. The recessed protected design of the Sensorex plastic body electrodes extends over the measuring surface so that the pH glass bulb is virtually un-breakable.

#### **Single or Double Junction Reference?**

Most pH measurements can be made with single junction reference electrodes. However, materials such as heavy metals, proteins and sulfides can precipitate at the junction. Double junction designs use a buffering salt such as KNO<sub>3</sub> in the lower chamber contacting the sample, and prevent these reactions. Both combination or separate reference electrodes are available from Sensorex.





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How do I choose the appropriate laboratory electrode for my use?

OR: Select by electrode type you currently use:

- a) Combination pH or ORP
- b) Sealed or re-fillable reference
- c) Epoxy or glass body
- d) Dimension required Length and diameter
- e) Separate pH or ORP half-cell/separate reference half -cell

**Sensorex Laboratory/Portable  
pH Electrode Selection Guide**

Application	Sensorex Part Number		
	Glass Body	Epoxy body	PHASE Series
Standard Laboratory use	SG201C	S200C	Not needed
Field Use	Not recommended	S200CD	Not needed
Biological Samples, proteins,...	SG360CD	S350CD	S1021CD
Fluoride in acidic conditions	Not available	S350CD or 450CDHF	Not available
Low Ionic conditions	Not available	970070	S1021CD*
Viscous Samples	SG360CD	450CD	S1030CD
Test tubes and small diameter containers	SG901C	S901C	Not available
Tall flasks and reactors	SG301C	S300C	Not available
Meats, cheeses, jellies and jams and other viscous foods	Not recommended	450CD or SPEAR TIP S175CD	Not recommended
Varying temperatures from sample to sample	Not recommended	Not recommended	S1010CD S1021CD SG1030CD SG1041CD
High pH (up to 14)	<i>Any model</i>	<i>Any model</i>	<i>Any model</i>
Mixed aqueous/organic solvents	SG201CD SG360CD	Not recommended	SG1030CD SG1051CD
Samples containing heavy metals	SG200CD	S200CD	S1021CD
Paint	Not recommended	450CD	S1030CD
Soil Samples	Not recommended	450CD	Not recommended
Surface measurement (agar plates, electrophoresis gels)	SG360CD	450CD S350CD	S1030CD
Dairy products(milk, yogurt, cheese)	SG360CD	450CD S350CD	SG1041CD
Photographic	SG200CD	S200CD	S1021CD SG1041CD
Beer, wine and liquors	SG201C	S201C	S1021CD

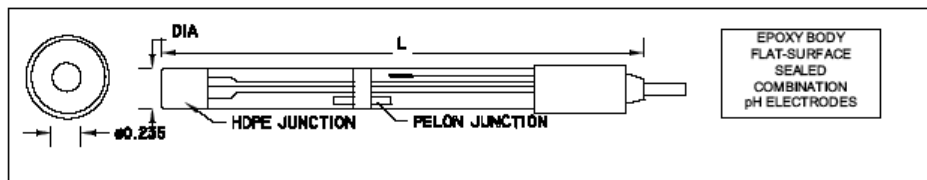
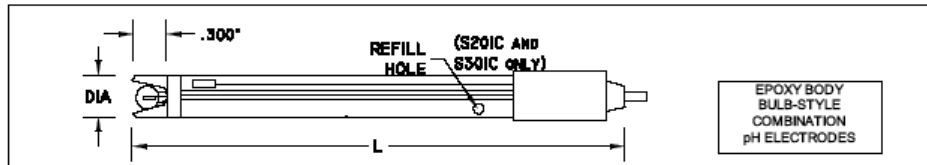


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**PRODUCT SPECIFICATION SHEET**

**EPOXY BODY COMBINATION pH ELECTRODES**

MODEL	SIZE				REFERENCE		SJ	DJ	JUNCTION	REF SOLN	GLASS TYPE
	IN		MM		SEALED	REFILL					
S900C	3/8	6	9	150	X		X		Pelon	3.5M KCl	Bulb
S100C	3/8	3 1/2	9.5	90	X		X		Pelon	3.5M KCl	Bulb
120C	3/8	5	9.5	120	X		X		Pelon	3.5M KCl	Bulb
S700C	3/8	6	9.5	150	X		X		Pelon	3.5M KCl	Bulb
S300C	3/8	12	9.5	300	X		X		Pelon	3.5M KCl	Bulb
S301C	3/8	12	9.5	300		X	X		Pelon	3.5M KCl	Bulb
S300CD	3/8	12	9.5	300	X			X	Pelon	3.5M KCl/sat'd KNO <sub>3</sub>	Bulb
S200C	1/2	6	12	150	X		X		Pelon	3.5M KCl	Bulb
S201C	1/2	6	12	150		X	X		Pelon	3.5M KCl	Bulb
S200CD	1/2	6	12	150	X			X	Pelon	3.5M KCl/sat'd KNO <sub>3</sub>	Bulb
S350CD	1/2	6	12	150	X			X	HDPE/Pelon	3.5M KCl/sat'd KNO <sub>3</sub>	Flat
450C	9/16	4 1/2	15	115	X		X		HDPE	3.5MKCl	Flat
450CD	9/16	4 1/2	15	115	X			X	HDPE/fiber	3.5M KCl/sat'd KNO <sub>3</sub>	Flat



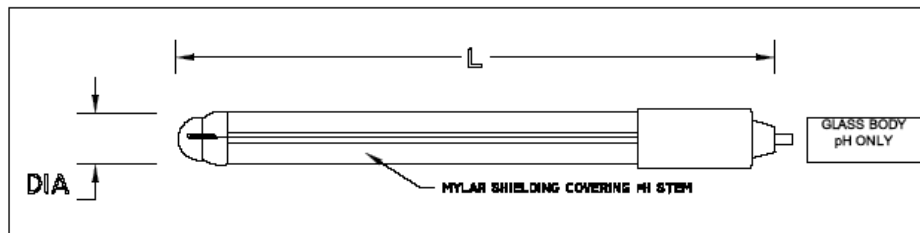
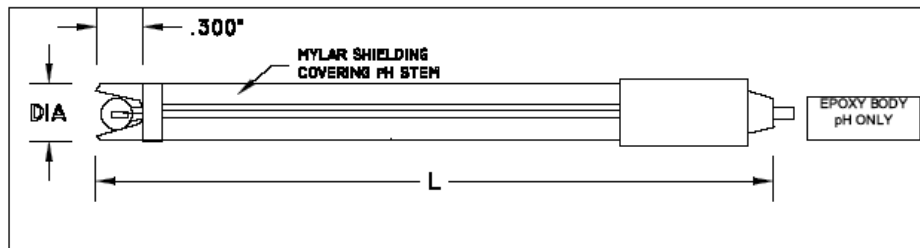


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**PRODUCT SPECIFICATION SHEET**

**GLASS AND EPOXY BODY MEASURING pH HALF-CELL ELECTRODES**

MODEL	SIZE				BODY		GLASS TYPE
	IN	MM	GLASS	EPOXY			
SG900G	3/8	6	9	150	X		Hemi
SG700G	3/8	6	9.5	150	X		Hemi
S700G	3/8	6	9.5	150		X	Bulb
SG300G	3/8	12	9.5	300	X		Hemi
SG200G	1/2	6	12	150	X		Hemi
S200G	1/2	6	12	150		X	Bulb



**Sensorex NIST traceable pH buffers are available in pints, quarts and gallons.**

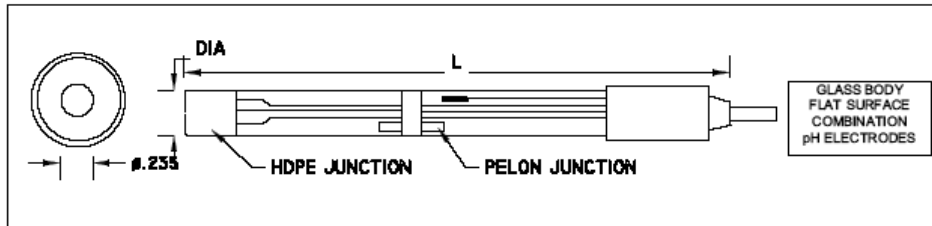
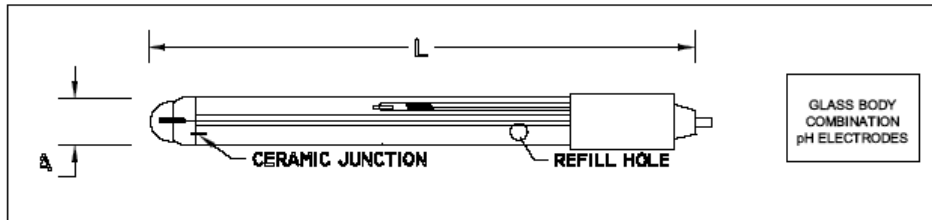


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**GLASS BODY COMBINATION pH ELECTRODES**

MODEL	SIZE				REFERENCE		SJ	DJ	JUNCTION	REF SOLN	GLASS TYPE
	IN	MM	SEAL	REFILL	SEALED	REFILL					
SG900C	¼	6	9	150	X		X		Ceramic	3.5M KCl	Hemi
SG901C	¼	6	9	150		X	X		Ceramic	3.5M KCl	Hemi
SG700C	3/8	6	9.5	120	X		X		Ceramic	3.5M KCl	Hemi
SG701C	3/8	6	9.5	150		X	X		Ceramic	3.5M KCl	Hemi
SG300C	3/8	12	9.5	300	X		X		Ceramic	3.5M KCl	Hemi
SG301C	3/8	12	9.5	300		X	X		Ceramic	3.5M KCl	Hemi
SG300CD	3/8	12	9.5	300	X			X	Ceramic x 2	3.5M KCl/sat'd KNO <sub>3</sub>	Hemi
SG200C	½	6	12	150	X		X		Ceramic	3.5M KCl	Hemi
SG201C	½	6	12	150		X	X		Ceramic	3.5M KCl	Hemi
SG200CD	½	6	12	150	X			X	Ceramic x 2	3.5M KCl/sat'd KNO <sub>3</sub>	Hemi
SG360CD	½	6	12	150	X			X	HDPE/Pelon	3.5M KCl/sat'd KNO <sub>3</sub>	Flat



All electrodes are supplied with 30 inch cable and a BNC or US Standard Connector. Many other optional connectors are available for an additional charge.

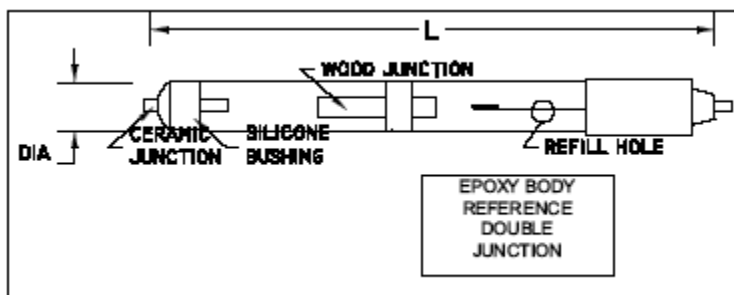
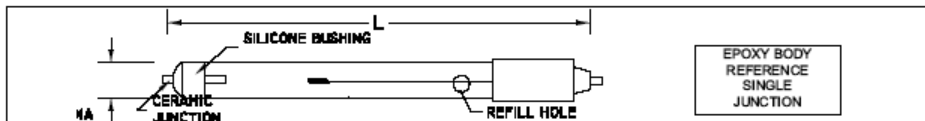
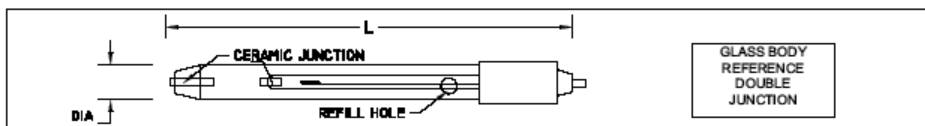
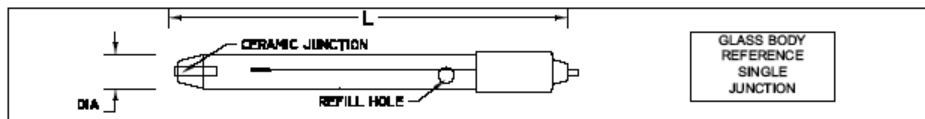


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**GLASS AND EPOXY BODY REFERENCE ELECTRODES**

MODEL	SIZE				REFERENCE		SJ	DJ	JUNCTION	REF SOLN	BODY MAT'L	
	IN	MM	SEAL	REFILL	Glass	Epoxy						
SG900R	3/8	6	9	150	X		X		Ceramic	3.5M KCl	X	
SG900RD	3/8	6	9	150	X			X	Ceramic	3.5M KCl/sat'd KNO <sub>3</sub>	X	
SG901R	3/8	6	9	150		X	X		Ceramic	3.5M KCl	X	
SG901RD	3/8	6	9	150	X			X	Ceramic x 2	3.5M KCl/sat'd KNO <sub>3</sub>	X	
S700R	3/8	6	9.5	150	X		X		Ceramic	3.5M KCl		X
S700RD	3/8	6	9.5	150	X		X	X	Ceramic/wood	3.5M KCl		X
SG200R	1/2	6	12	150	X		X	X	Ceramic	3.5M KCl	X	
SG200RD	1/2	6	12	150	X			X	Ceramic x 2	3.5M KCl/sat'd KNO <sub>3</sub>	X	
SG201R	1/2	6	12	150		X	X		Ceramic	3.5M KCl	X	
SG201RD	1/2	6	12	150	X			X	Ceramic x 2	3.5M KCl/sat'd KNO <sub>3</sub>	X	
S200R	1/2	6	12	150	X		X		Ceramic	3.5M KCl		X
S201R	1/2	6	12	150		X	X		Ceramic	3.5M KCl		X
S200RD	1/2	6	12	150	X			X	Ceramic/wood	3.5M KCl/sat'd KNO <sub>3</sub>		X
S201RD	1/2	6	12	150		X	X		Ceramic/wood	3.5M KCl/sat'd KNO <sub>3</sub>		X



**PHORP**

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800-284-9698 / 760-438-0890 / Fax: 760-438-3953

email: [info@phorp.com](mailto:info@phorp.com)