

# S8000 pH & ORP Systems



## Digital Communication for More Process Visibility:

- Modbus and 4-20 mA output options now available
- Configuration and calibration can be done using web based software

## Customizable, Configurable, and Versatile

- Customizable packages reduce total cost of ownership!
- Only purchase the components you need
- Adapt the solution to your application requirements
- Available in 2 standard cable lengths: 10 and 20 feet

## Reduce Maintenance and Downtime

- No tools or rewiring needed for replacing sensor cartridge
- Flat glass measurement surface reduces the threat of breakage
- Heavy duty high temperature reference gels offer protection against thermal breakdown
- PPS body allows for durability in a range of chemical environments
- ERP technology protects the reference cell and prevents contamination



pH & ORP sensor cartridges & quick change replacements



Electrode adapters with optional built-in ATC



Optional electronic modules - amplifier, transmitter



Cable assemblies - 10ft, 20ft or custom length

**DESIGNED AND ASSEMBLED IN CALIFORNIA, USA**

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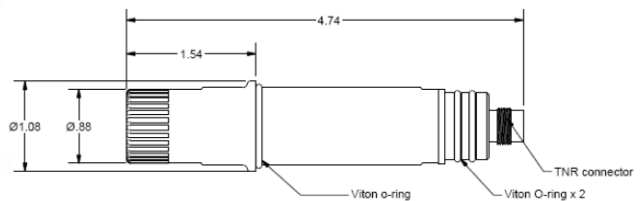
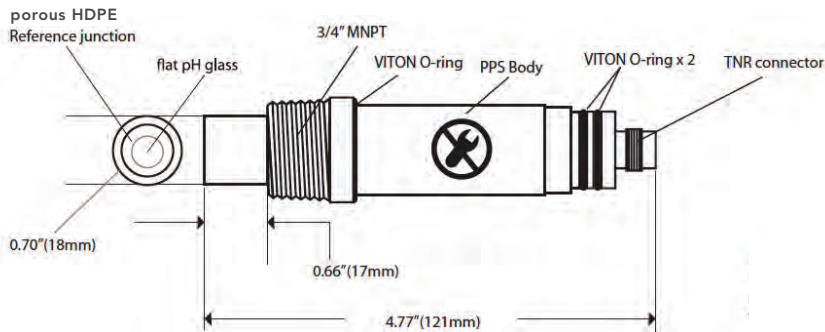
## Specifications

pH Range	0 - 14pH (0-12.3pH with low Na <sup>+</sup> ion error)
Temperature Range	0-100°C, de-rated under pressure 0-80°C when mounted in flow cell 70°C with submerged electronic module
Pressure Range	0-100 psig (7.5 Bar), de-rated under temperature
Reference Type	Double Junction, Sensorex ERP System

## Optional Models

ORP Redox Electrode	-2000mV to +2000mV
HF Resistant pH Electrode	0-12pH, 0-50°C, <2% HF by volume
Low Ionic Models	For solutions of <100uS/cm conductivity
EM802-pH	0-14pH = 4-20mA
EM802-ORP	-1000 to +1000mV = 4-20mA

## Outline and Dimensions



## pH & ORP Electrode Ordering Information

Part #	Description
S8000CD	Flat surface pH electrode cartridge S8000 Series, Ryton body, double junction reference
S8000CD-ORP	Flat surface ORP electrode cartridge S8000 Series, Ryton body, double junction reference
S8000CDHF	Flat surface pH electrode cartridge S8000 Series, HF resistant, Ryton body, double junction reference
S8000CD-LC	Flat surface pH electrode cartridge S8000 Series, for low conductivity water (<100uS), Ryton body, double junction reference
S8075CD	Flat surface pH electrode cartridge S8000 Series, Ryton body, double junction reference, integrated 3/4" NPT threads
S8075CD-ORP	Flat surface ORP electrode cartridge S8000 Series, Ryton body, double junction reference, integrated 3/4" NPT threads
S8075CDHF	Flat surface pH electrode cartridge S8000 Series, HF resistant, Ryton body, double junction reference, integrated 3/4" NPT threads
S8075CD-LC	Flat surface pH electrode cartridge S8000 Series, for low conductivity water (<100uS), Ryton body, double junction reference, integrated 3/4" NPT threads

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# Build Your S8000 Modular pH/ORP System



## Cable Assembly

S853 or S855  
Cap Cable



## Electronic Module

EM800, EM801,  
EM802, EM802-MB



## Electrode Adapter

EA890

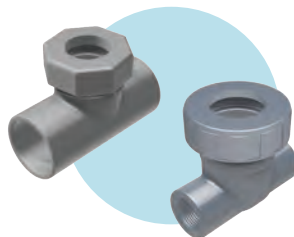
EA891

EA899 or EA899TC



## Electrode

S8000CD, S8000CDHF,  
S8000CD-LC, S8000CD-ORP



## Flow Cell *(Inline Only)*

Fc800 - 1.5" Slip

FC875/T - 3/4" NPT

FC875/S - 3/4" SLIP

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# Build Your S8000 Modular pH/ORP System

*Use your own TEE*



**Cable Assembly**  
S853 or S855  
Cap Cable



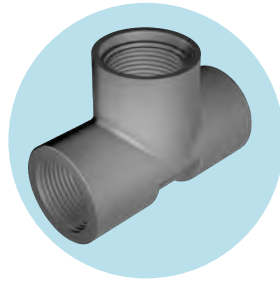
**Electronic Module**  
EM800, EM801,  
EM802, EM802-MB



**Electrode Adapter**  
EA891



**Electrode**  
S8075CD, S8075CDHF,  
S8075CD-LC, S8075CD-ORP



**3/4" SCH 80 TEE**  
Customer supplied

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## Electrode Adapter Ordering Information

Part #	Description
EA890	Electrode adapter, retrofits S8000 to old S653 cable.
EA891	Electrode adapter, submersion mount, no temperature compensation. Use with cable S853.
EA899	Electrode adapter, submersion or in-line mount, no temperature compensation, with solution ground. Use with cable S855.
EA899TC	Electrode adapter, submersion or in-line mount, with temperature compensation and solution ground. Use with cable S855. Specify temperature compensation. Pt1 = PT100, P1k = PT1000

## Electronic Module Ordering Information

Part #	Description
EM800	Battery-powered, unity gain amplifier. Use for cable length >30ft only. Use with S853, or (S855 cable when using EA899TC).
EM801	Battery-powered, differential amplifier. Requires Electrode adapter EA899 or EA899 TC. Use with S855 cables.
EM802-pH	24V DC-powered, 4-20mA pH transmitter module. Requires Electrode adapter EA899/TC or EA891. Use with S853 cable.
EM802-ORP	24V DC-powered, 4-20mA ORP transmitter module. Requires Electrode adapter EA899 or EA891. Use with S853 cable.
EM802-pH-MB2**	24V DC-powered, Modbus pH transmitter module. Requires Electrode adapter EA899 or EA891. Use with S856 cable.
EM802-ORP-MB2**	24V DC-powered, Modbus ORP transmitter module. Requires Electrode adapter EA899 or EA891. Use with S856 cable.

### S857 Cal + Configure cable

\*\*12V powered versions also available. Inquire at Sensorex

## Cable Assembly Ordering Information

Part #	Description
S853/10/"X"	Coaxial cable assembly for S8000 Series., 10ft cable length. Specify connector in place of "X"
S853/20/"X"	Coaxial cable assembly for S8000 Series., 20ft cable length. Specify connector in place of "X"
S855/10/"X"/"Y"	Coaxial cable assembly + 3 wire (R, G, B) S8000 Series, 10ft cable length. Specify pH connector in place of "X", TC connector in place of "Y"
S855/20/"X"/"Y"	Coaxial cable assembly + 3 wire (R, G, B) S8000 Series, 20ft cable length. Specify pH connector in place of "X", TC connector in place of "Y"
S856/10/TL/TL	Cable assembly 10ft for use with EM802-pH-MB and EM802-ORP-MB versions
S856/20/TL/TL	Cable assembly 20ft for use with EM802-pH-MB and EM802-ORP-MB versions

10ft and 20ft cables are in stock. Other cable lengths can be made. Consult Sensorex for details. Cable Connector Choices: BNC, Tinned lead ("-TL"), Spade Lug ("SL")

## Flow Cell Ordering Information

Part #	Description
FC800	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 1.5" Slip connection.
FC805	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 1.0" FNPT
FC95C	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 2.0" Slip connection.
FC806	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 1.0" Slip connection.
FC875/T	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 3/4" MNPT connection.
FC875/S	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 3/4" slip/socket connection.

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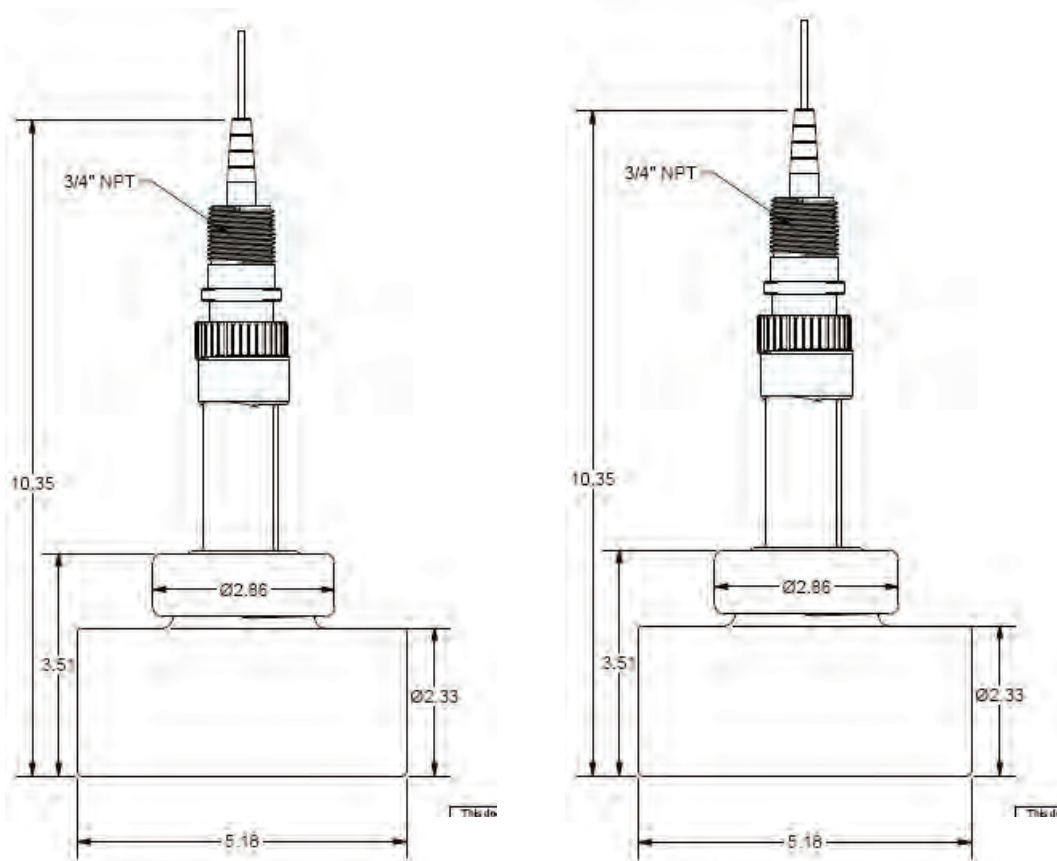
## Pre-configured Kits Ordering Information

Part #	Description
S8100/10/BNC	Kit, S8000CD + EA891 + S853/10/BNC (Submersion mount pH, no ATC), 10ft cable, BNC connector.
S8100-ORP/10/BNC	Kit, S8000CD-ORP + EA891 + S853/10/BNC (Submersion mount ORP), 10ft cable, BNC connector
S8100TC/10/BNC/TL	Kit, S8000CD + EA899TC/P1K + S855/10/BNC/TL (Submersion mount pH with ATC, 10ft cable, BNC connector, PT1000 TC type)
S8200/10/BNC	Kit, S8000CD + EA899 + FC800 + S853/10/BNC (In line pH, no ATC, 1.5" Flow cell, 10ft cable, BNC connector)
S8200-ORP/10/BNC	Kit, S8000CD-ORP + EA899 + FC800 + S853/10/BNC (In line ORP, 1.5" Flow cell, 10ft cable, BNC connector)
S8200TC/10/BNC/TL	Kit, S8000CD + EA899TC/P1K + S855/10/BNC/TL (In line mount pH with ATC, 1.5" Flow cell, 10ft cable, BNC connector, PT1000 TC type)
S8300/10/BNC	Kit, S8000CD + EA899 + FC875/T + S853/10/BNC (In line pH, no ATC, 3/4" Flow cell, 10ft cable, BNC connector)
S8300TC/10/BNC/TL	Kit, S8000CD + EA899TC/P1K + FC875/T + S855/10/BNC/TL (In line pH, with ATC, 3/4" Flow cell, 10ft cable, BNC connector, PT 1000 TC type)

## Outline and Dimensions

S8300TC/10/BNC/TL

S8000CD + EA899TC  
+ S855 + FC800/FC805/FC806



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# S8000 MODULAR SYSTEMS

## MODEL # S8000CD

DESCRIPTION	CODE	X	X	X	X	X	X	X	X
<b>MEASUREMENT TYPE</b> PH ORP	NA <i>(Leave Blank)</i> -ORP	○							
<b>HOLDER</b> EA891 Holder (Used with pH only) EA891 Holder (Used with ORP only)	EA891 EA899TC/P1K	○							
<b>CABLE</b> S856	S856	○							
<b>CABLE LENGTH</b> 10 Foot cable 20 Foot cable	10 20	○							
<b>LEADS</b> Tinned Lead Connector	TL/TL	○							
<b>FLOW CELL</b> None Flow Cell	NA <i>(Leave Blank)</i> +FC875T	○							
<b>EM802 MODULE</b> EM802-pH EM802-ORP	+EM802-pH +EM802-ORP	○							
<b>EM802 MODULE POWER</b> 12VDC 24VDC	- MB1 - MB2	○							
<b>CALIBRATION ACCESSORY</b> None (Replacement Probe) Calibration Adapter	NA <i>(Leave Blank)</i> S857	○							

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