

# S8000 Series Modular pH & ORP Systems



## Specifications

pH Range:	0 - 14pH (0-12.3pH with low Na <sup>+</sup> ion error)
Temperature Range:	0-100 Degrees Celsius, de-rated under pressure. 0-80 Degrees Celsius, when mounted in flow cell or 70 Degrees Celsius with submerged electronic module.
Pressure Range:	0-100 psig (7.5 Bar), de-rated under temperature
Reference Type:	Double Junctions, Sensorex ERP System
Optional Models:	ORP Redox Electrode: -1000mV to +1000mV
HF resistant pH electrode:	0-12pH, 0-50 degrees Celsius
Low Ionic models:	for solutions of <100uS/cm conductivity

Modular Flat Surface pH/ORP Electrodes  
 Configurable for In-line or Submersion Use  
 Optional plug-in Electronic Interfaces  
 Enhanced Sensorex ERP Reference System  
 REDOX, HF and Low Ionic Solution Options

The S8000 series flat surface self cleaning electrode platform is designed for versatility and flexibility. You purchase only the components you need, and can adapt what you have to changing installation needs or interface options.

The sensor utilizes Sensorex's proven flat surface self cleaning technology. The reference system has been enhanced with Sensorex's ERP technology. This provides a complex path which protects the reference in the presence of interacting ions such as heavy metals, proteins, silver and sulfides that interact with silver or chloride. Heavy duty high temperature reference gels offer protection against thermal breakdown of the gel. The same electrode is used for in-line or submersion applications and is constructed in a chemically resistant PPS body.

For applications which require more than a direct electrode output, plug-in electronic modules are available.

The first three modules available are:

- Battery powered unity gain module EM800
- Battery powered differential module EM801
- Blind 2 wire 4-20 mA transmitter EM802/pH or EM802/ORP

Cap/cables are stocked in two standard lengths, 10 feet and 25 feet. Both cap cable utilize an 8 pin connector. Special cable lengths are also available.

# BUILD YOUR S8000 MODULAR pH/ORP SYSTEM

## CABLE ASSEMBLY



S853 or S855  
Cap Cable

## ELECTRONIC MODULE



EM800, EM801,  
EM802

## FLOW CELL (inline only)



FC800 - 1.5" Slip

FC875/T - 3/4" NPT  
FC875/S - 3/4" SLIP

## ELECTRODE ADAPTER



EA890

EA891

EA899 or  
EA899TC

## ELECTRODE



S8000CD  
S8000CDHF  
S8000CD-LC  
S8000CD-ORP

## BUILD YOUR S8000 MODULAR pH/ORP SYSTEM- USE YOUR OWN TEE

### CABLE ASSEMBLY



### ELECTRONIC MODULE



### ELECTRODE



### 3/4" SCH 80 TEE



## ORDERING INFORMATION

### ELECTRODE - pH or ORP

Part Number	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

### ELECTRODE ADAPTER

Part Number	Description
EA890	Electrode adapter, retrofits S8000 to old S653 cables
EA891	Electrode adapter, Submersion mount, NO TC. Use with cable S853
EA899	Electrode adapter, Submersion or in-line mount, NO TC, with solution ground. Use with cable S855
EA899TC	Electrode adapter, Submersion or in-line mount, with TC & solution ground. Use with cable S855. Specify TC

### ELECTRONIC MODULES

Part Number	Description
EM800	Battery-powered, unity gain amplifier. Use for cable length >30ft only. Use with S853 cable.
EM801	Battery-powered, differential amplifier. Requires Electrode adapter EA899 or EA899 TC. Use with S853 cable.
EM802-pH	24V DC-powered, 4-20mA pH transmitter module. Requires Electrode adapter EA899 TC/P1k. Use with S853 cable.
EM802-ORP	24V DC-powered, 4-20mA ORP transmitter module. Requires Electrode adapter EA899 or EA891. Use with S853 cable

### CABLE ASSEMBLIES

Part Number	Description
S853/10/"X"	Coaxial cable assembly for S8000 Series., 10ft cable length. Specify connector in place of "X"
S853/25/"X"	Coaxial cable assembly for S8000 Series., 25ft 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"
S855/25/"X"/"Y"	Coaxial cable assembly + 3 wire (R, G, B) S8000 Series., 25ft cable length. Specify pH connector in place of "X", TC connector in place of "Y"

**10ft and 25ft cables are in stock. Other cable lengths can be made. Consult Sensorex for details.**  
**Cable Connector Choices: BNC, Tinned lead ("TL"), Spade Lug ("SL")**

## ORDERING INFORMATION (Cont.)

### FLOW CELLS

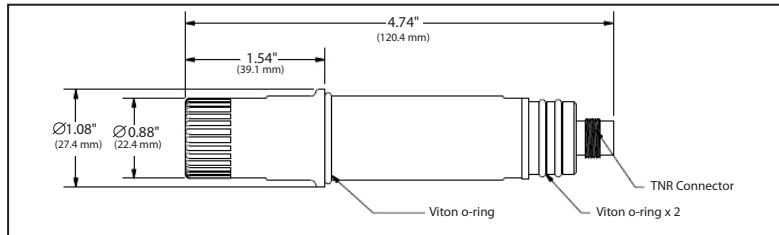
Part Number	Description
FC800	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 1.5" Slip connection.
FC805	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode adapters, 1.0" FNPT connection.
FC95C	Flow cell, CPVC for S8000 Series. Fits EA899 or EA899TC electrode 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.

### PRE-CONFIGURED KITS

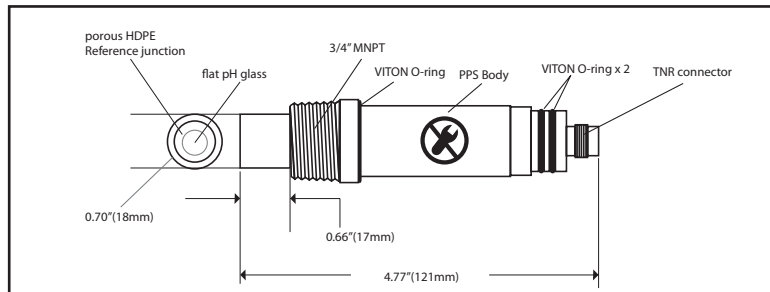
Part Number	Description
S8100/10/BNC	Kit, S8000CD + EA891 + S853/10/BNC (Submersion mount pH, no ATC), 10ft cable, BNC connector
S8100-ORP/10/BNC	Kit, S8000CD-ORP + EA891 + S853/10/BNC (Submersion mount ORP), 10ft cable, BNC connector
S8100TC/10/BNC/TL	Kit, S8000CD + EA899TC/P1K + S855/10/BNC/TL (Submersion 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)

## Outline and Dimensions

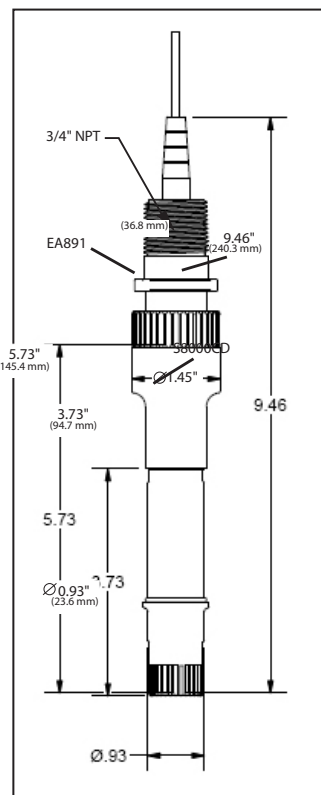
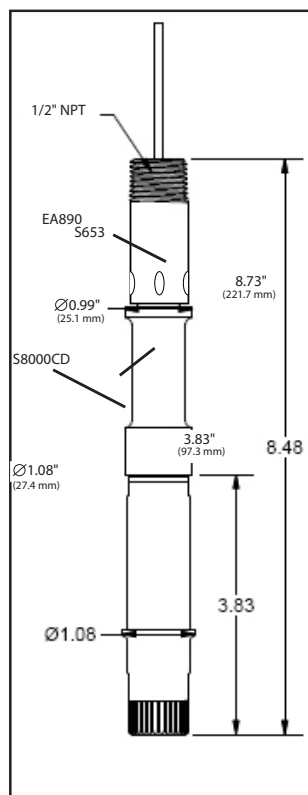
### S8000CD, S8000CDHF, S8000CD-ORP, S8000CD-LC



### S8075CD, S8075CD-ORP



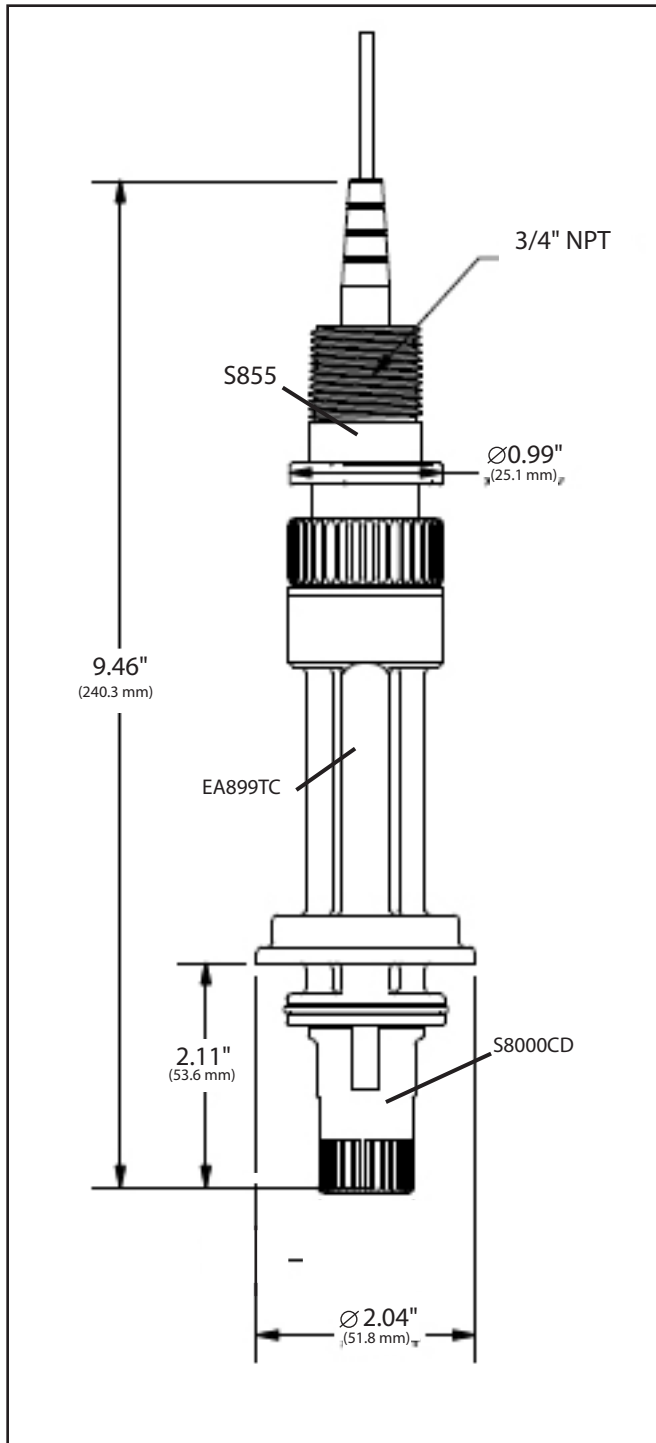
### S8000CD + EA890 + S653    S8000CD + EA891 + S853



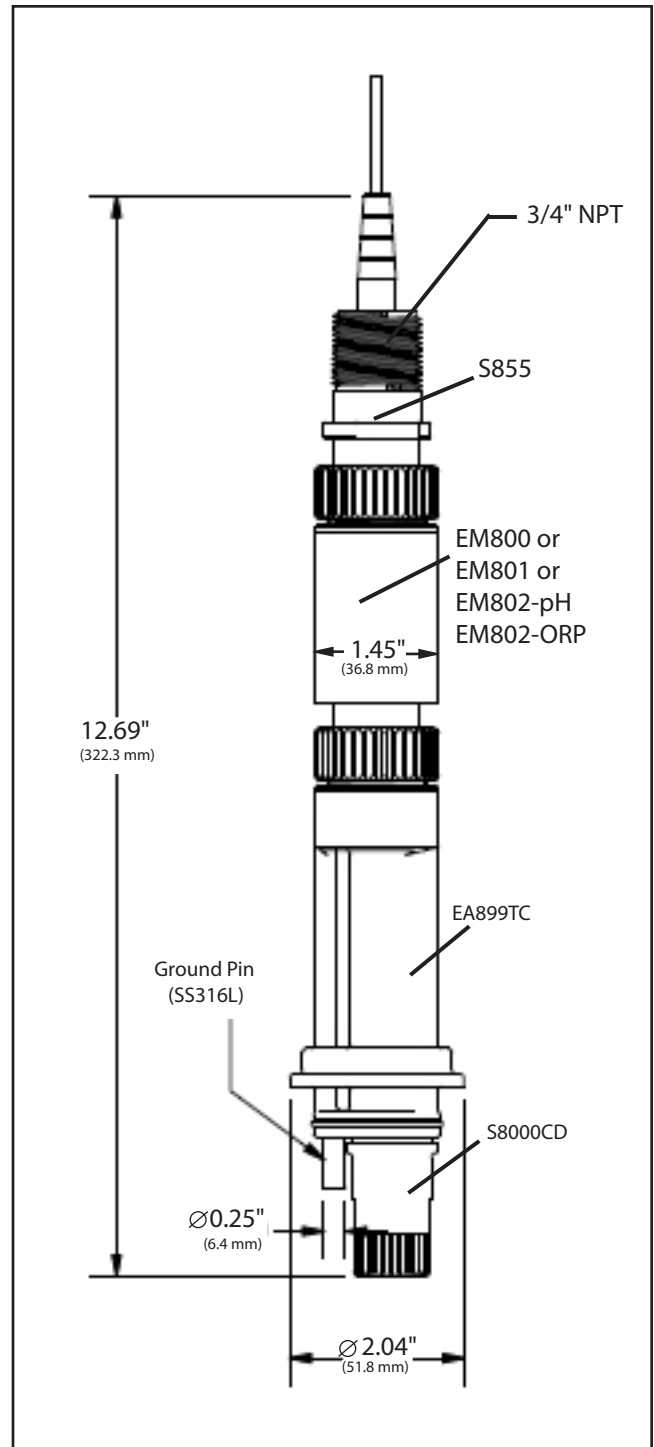


## Outline and Dimensions

**S8000CD + EA899TC + S855**

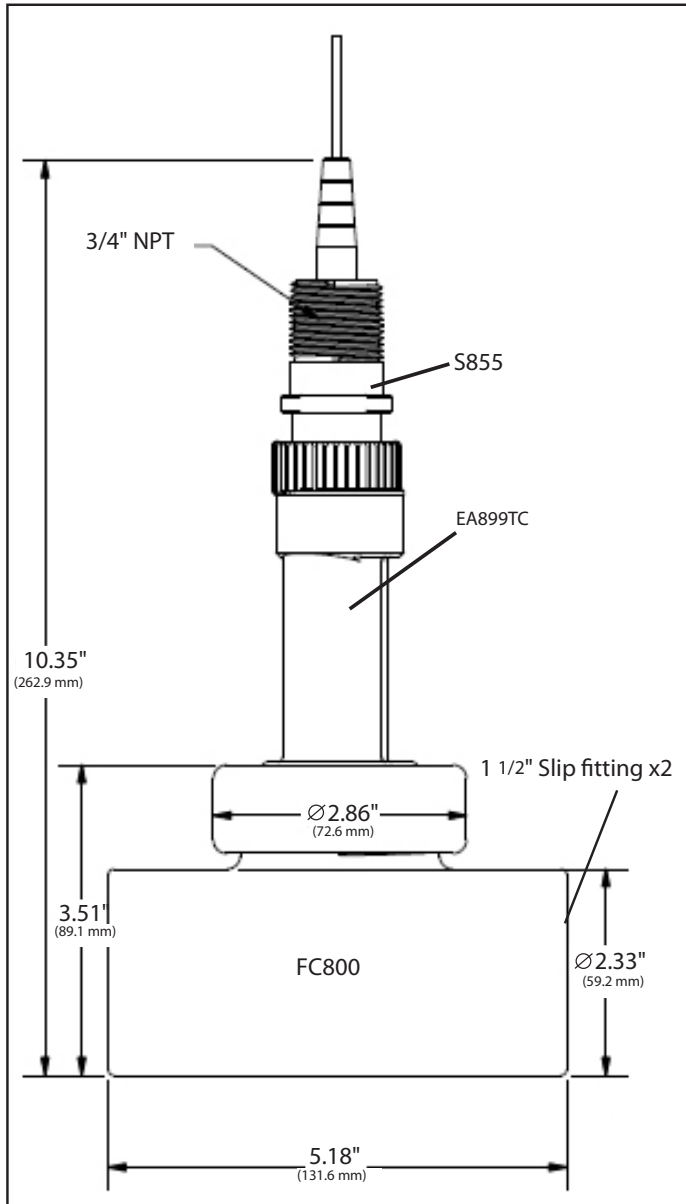


**S8000CD + EA899TC + EM800 Series+ S855**

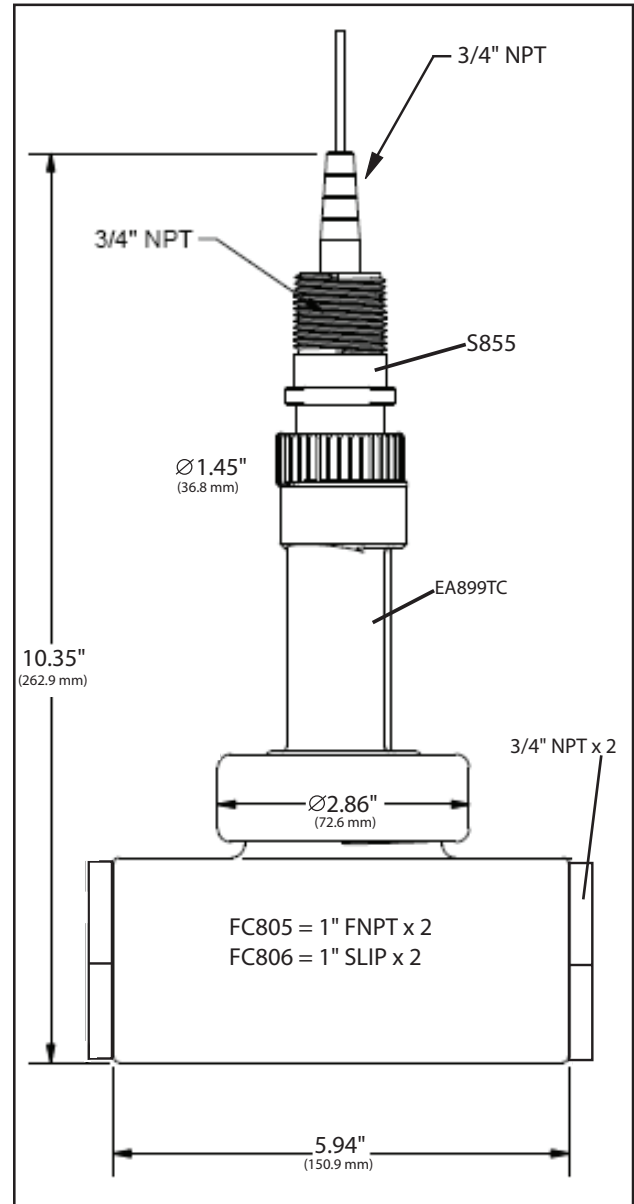


## Outline and Dimensions

**S8000CD + EA899TC  
+ S855 + FC800**



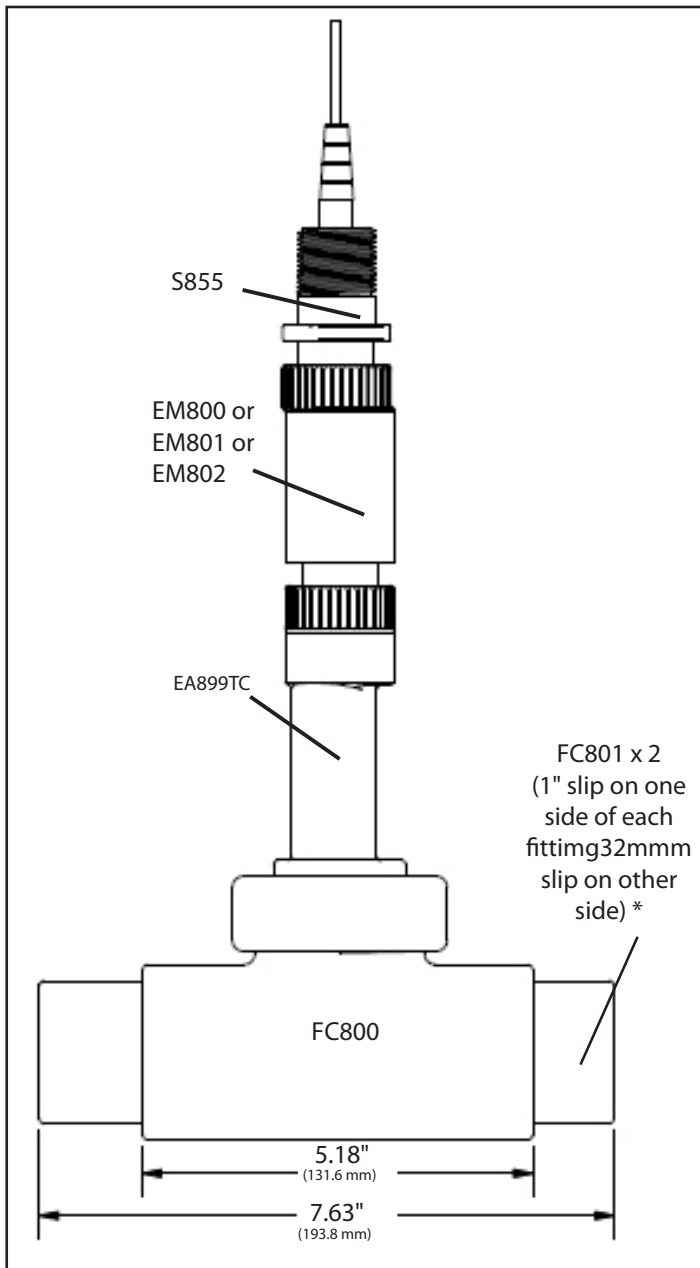
**S8000CD + EA899TC  
+ S855 + FC804 + EM800**





## Outline and Dimensions

**S8000CD + EA899TC  
+ S855 + FC800 + FC801**



**S8000CD + EA899TC  
+ S855 + FC875/T or FC875/S**

