

pH Detector for FIA, HPLC, IEF and Other Low Volume Flow pH Measurements



Specifications

pH Range	0-14 pH Na+ error >12.3 pH)
Wetted Materials	Acrylic, PVDF, pH Glass, epoxy, BUNA-N
Max Temperature	100 degrees C
Max Pressure	60 psig except for 970282 = 100 psig
Cable Length	30 inches
Connectors	Choice of BNC Others available at additional cost.

Fast response!

Choice of 200uL or ultra-low volume 50uL flow cells

Acrylic or PVDF (biocompatible) materials of construction

Supplied with flangeless 1/4-28 fittings for 1/16" OD for tubing

Use with Flat-Surface Easy-To-Clean Electrode

Model available for 100psi use

Sensorex manufactures fast response 50 and 200 microliter internal volume flow cells for pH measurement. All cells are made of clear Acrylic or Kynar (PVDF). Designs include 1/16" inlet and outlet fittings. All cells use the standard, economical Sensorex 450CD Flat Surface Combination pH/Reference Electrode or a special version of 450CD with 100psig pressure tolerance (model 970277).

The pH Detectors are designed for use with a variety of instrumental techniques such as FIA, HPLC and IEF and are also used to continuously monitor the pH of low volume flows in bench scale chemical systems.

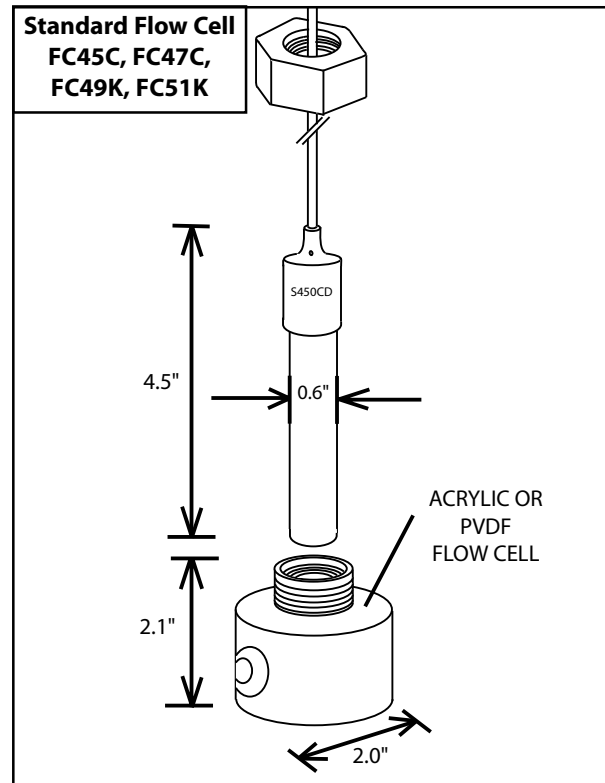
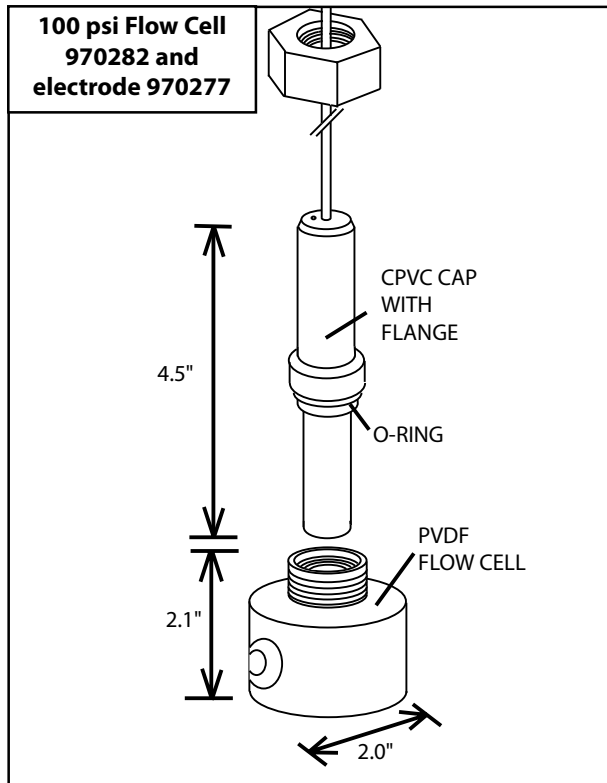
Both the 50 and 200 microliter internal volume flow cells are available in acrylic or PVDF and are supplied with inlet and outlet fittings sized for standard 1/16" OD tubing. The cells' ports have 1/4-28 threads which accept a variety of other tube fittings.

Very low internal volumes are achieved by using a flat surface pH electrode located at the top of the flow cavity. The resulting rectangular cross-section flow path has no protruding parts which could interfere with a clean sweeping flow. The result of this design is the fast system response shown on the performance curves on page 2.

The Flat Surface Electrode, Sensorex Model 450CD, is a combination pH/Reference electrode with double reference junction design. It includes both a pH and reference half cell. The reference electrode is a sealed, gel-filled design and includes a peripheral, semi-porous polyethylene junction.

Parts covered by this product data sheet include:
FC45C, FC47C, FC49K, FC51K, 970282, S450CD, 970282, 970277

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Ordering Information

Flow cells

Part number	Description
FC45C	200uL low volume acrylic flow cell. Includes 2 each 1/16" tube fittings
FC47C	50uL low volume acrylic flow cell. Includes 2 each 1/16" tube fittings
FC49K	50uL low volume PVDF flow cell. Includes 2 each 1/16" tube fittings
FC51K	200uL low volume PVDF flow cell. Includes 2 each 1/16" tube fittings
970282	50uL low volume PVDF flow cell for 100 psig use. Includes 2 each 1/16" tube fittings

Electrodes

Part number	Description
S450CD	60 psig rated flat pH electrode with double reference junction, 30 inches of cable and connector choice
970277	100 psig rated flat pH electrode with double reference junction, 30 inches of cable and connector choice. For use with flow cell 970282