### Specifications

Compact for direct insertion into 3/4" or 1" pipe without special flow cell

Temperature: -35°C to 120°C Pressure: 100 PSIG @ 100°C Polypropylene ; 150 PSIG@120°C Kynar; - 500 PSIG @100°C or 200PSIG @120°C with 316SS fitting

Connection: 1/2" or 3/4" MNPT

#### **Cell Constants:**

SC-10: K = 0.01, 0.02, 0.05, 0.1, 1.0, 3.0, 10.0 /cm

SC-51: K=0.1, 1.0 /cm

#### Measuring Range:

SC10: 0.05 to 1,000,000 µS

SC51: to 20,000 µS

Wetted Materials

Insulator: Teflon<sup>™</sup> PTFE

Electrodes: 316SS, Titanium, Hastelloy C276

O-Rings: EPDM, Viton, Kalrez

**Process Fitting:** 1/2" or 3/4" MNPT Polypropylene,

1/2" MNPT Kynar or 316SS

**Temperature Element:** 

PT1000, PT 100 or others on request

Can be welded to flanges for sanitary Tri-Clover applications or used with Hot Tap valve retractable assemblies

Made in America



# SC-10, SC-51 Conductivity Sensors



The compact design of the Foxcroft SC-10 and SC-51 contacting conductivity sensors allows you avoid flow cells and install directly into a 3/4" or 1" process line using compression fittings. The SC-51 is a shorter 2.75" long version of the SCON-10.

The sensors can be screwed into a line, a tank or attached to a standpipe for submersion by way of 1/2" or 3/4" MNPT threads on a through bored compression fitting.

Compression fittings can be supplied in polypropylene, Kynar<sup>™</sup> (PVDF) or 316 SS.

Teflon<sup>™</sup> insulators are backed by dual O-ring construction, the rear ring protects the electronics while only the front ring is exposed to the process fluid.

Temperature sensing element is potted into the inner electrode to assure accurate and fast response for temperature compensation.

10-ft long cables are standard, lengths up to 100 feet can be supplied. Cable extensions with water proof and corrosion resistant quick disconnect fittings make it quick and easy to remove the sensor for maintenance.

#### GENERAL INSTALLATION NOTES:

The sensors may be installed at any orientation as desired. Ensure that the measuring cell is completely full at all times (no entrapped air bubbles or times when this part of the line is dry). In the case of batch operation where the tank is periodically drained, installation with the sensor tip to the top of the tank (inverted style) is preferred. For inline installations, the vent hole should be entirely in the path of flow and unobstructed by the compression fitting to ensure that the sample in the measuring cell is representative of the process fluid at all times. Alternatively, if the vent hole cannot be installed to be entirely in the flow the tip should be installed into the direction of flow typically at an elbow in the piping. For low-flow installations please contact the factory for additional assistance. Custom insertion depth may be available for some configurations as special order options upon request.



## Dimension Details for SC-10 & SC-51 in Cell Constants 0.1 & 1.0



## Dimension Details for SC-10 in Cell Constants 3.0 & 10.0



The SC-10 sensors are often installed with the tip into the direction of flow when line sizes are too small to ensure that the vent holes will be wetted at all times (see the diagram below).

## Typical Installation Scheme for SC-10 in Cell Constant 10.0/cm



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