

# General Specifications

## Model SC42 high pressure/high temperature Small-Bore Conductivity Sensors

GS 12D07J02-01E-A

Model SC42 small-bore conductivity sensors have a stainless steel body, PEEK insulation, and integral junction box, especially designed to withstand both high temperatures and pressures. These rugged sensors can deliver accurate, repeatable conductivity measurements in temperatures up to 200°C and withstand pressures up to 400 PSIG. A platinum 1000 temperature element is standard for accurate temperature compensation.

The sensor is double-sealed with EPR o-rings for maximum protection from the hostile environment for which these sensors are designed.

### FEATURES

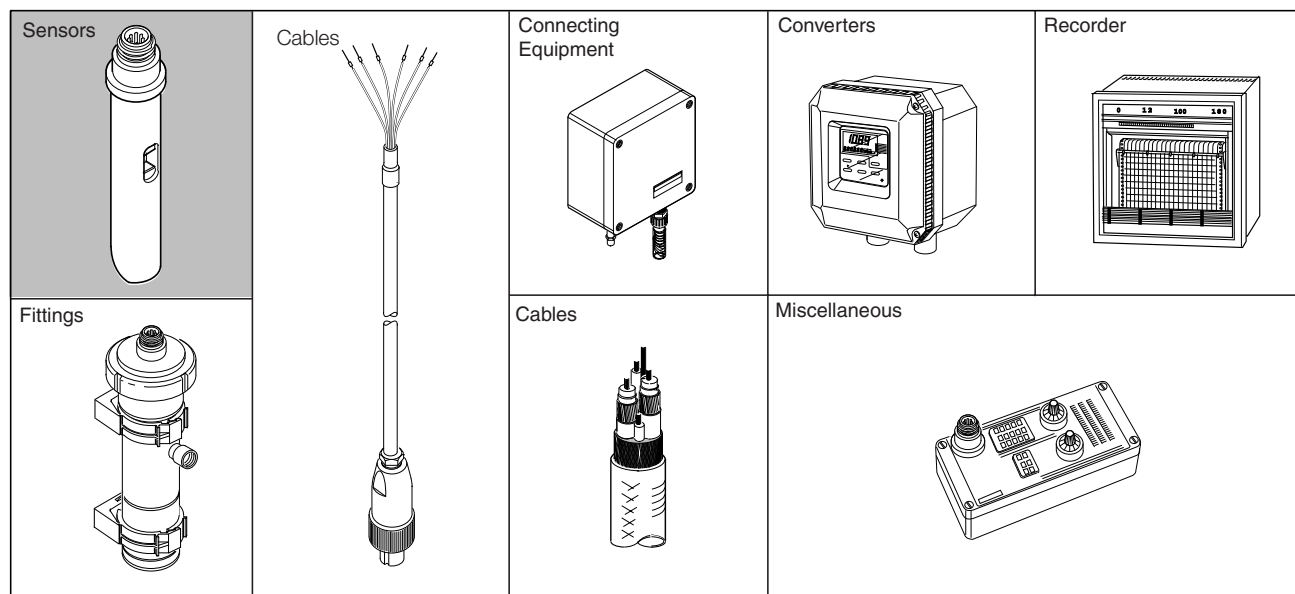
- Rugged 316 stainless steel construction with PEEK insulation
- Integral junction box for installation and maintenance ease
- Standard 3/4" MNPT process connection
- Platinum 1000 temperature compensation
- Double EPR o-ring seals for maximum reliability

### APPLICATIONS

- Automatic boiler blowdown control
- Condensate monitoring
- Leak detection on heat exchangers
- Steam purity tracking



### SYSTEM CONFIGURATION



**SPECIFICATIONS:**

**Wetted materials**

- a. Body & electrodes: 316 SS
- b. Insulator: PEEK

**Connections**

- a. Process: 3/4" MNPT 316 SS
- b. Electrical: 3/4" FNPT conduit hub; terminal strip to accept WF10 signal cable with stripped leads.

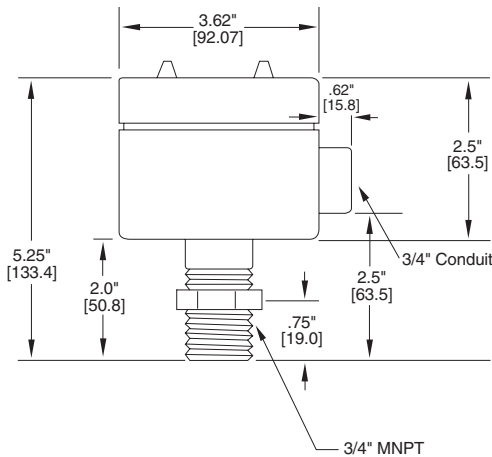
**Operation**

- Measuring system: 2-electrode
- Temperature comp.: Platinum 1000
- Maximum temperature: 200°C at 250 PSIG
- Maximum pressure: 400 PSIG at 100°C

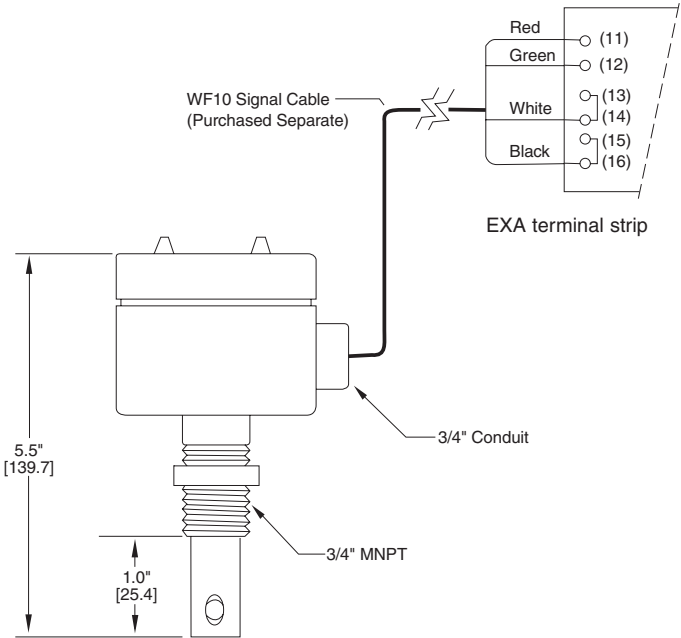
**Measuring range:**

Model	Cell Constant	Range
SC42-SH24	0.1/cm	0.4–2,000 $\mu$ S
SC42-SP14	1.0/cm	4.0–5,000 $\mu$ S

**SC42-SH24 (cell constant = 0.1/cm)**



**SC42-SP14 (cell constant = 1.0/cm)**



<b>HOW TO ORDER:</b>		
Model code	Suffix code	Description
SC42		High-temperature/high-pressure small-bore conductivity sensor; Pt1000
	-SH24	Cell constant = 0.1/cm
	-SP14	Cell constant = 1.0/cm



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