

# General Specifications

Model SX42  
2-electrode Conductivity sensor  
for high temperature

SC

*These high temperature conductivity sensors have a stainless steel body and a ceramic insulation, especially designed to withstand high temperatures and pressures. A special treatment of the electrodes ensures optimal resistance against polarisation.*

*The conductivity cells have extremely high temperature and pressure ratings: the threaded types can handle 16 bar at 200°C and the flanged types can handle 40 bar at 250°C.*

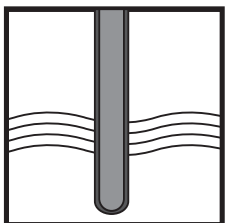
*The combination of the sensor plug and cable is watertight and can handle temperatures upto 100°C. The aluminium connection box of the flanged types has been selected to have a easy connection with high temperature cabling.*

## Features

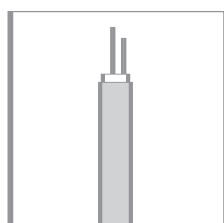
- High temperature and pressure ratings
- Built-in temperature resistor: Pt1000
- High precision of the cell constant
- Fast temperature response
- Plug and cable form a water tight connection to IP65
- Model with flange has an integral connection box
- Threaded models have standardized connections 1" NPT or R1
- Selection of two cell constant 0.1 or 0.01 cm<sup>-1</sup>



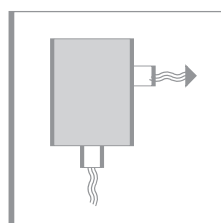
## System Configuration



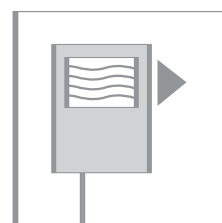
Sensors



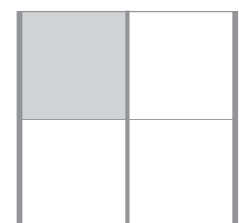
Cables



Fittings



Transmitters



Accessories

**Specifications**

**General Specifications**

**Materials**

Wetted parts

- Body : stainless steel AISI 316
- Insulation : ceramic (aluminium oxide)
- Electrodes : stainless steel AISI 316
- Lance : stainless steel AISI 316

Electrical connector : PBT reinforced with glass for threaded models or aluminium terminal box for flanged models

Process connections

- Screw-in : R 1 to ISO 7-1 or 1" NPT male
- Flange : Flange to DIN2527 Form E DN50 PN64  
Flange to ANSI B16.5 2" 600 lbs  
JIS 10K-50-RF

Shipping weight

- Model : approx. 0.5 kg for SX24-BS or NS
- : approx. 0.7 kg for SX34-BS or NS
- : approx. 5.7 kg for SX24-DF,AF or JF
- : approx. 6.0 kg for SX34-DF,AF or JF

Shipping dimensions

- Threaded models : approx. 27 x 5 x 5 cm
- Flanged models : approx. 40 x 20 x 20 cm

**Technical specifications**

Temperature range : up to 200° C for threaded models

(see figure 1) : up to 250° C for flanged models

Pressure range : up to 16 bar (1.6 MPa) for threaded models

(see figure 1) : up to 40 bar (4.0 MPa) for flanged models

Temperature sensor : Pt1000 to IEC 751

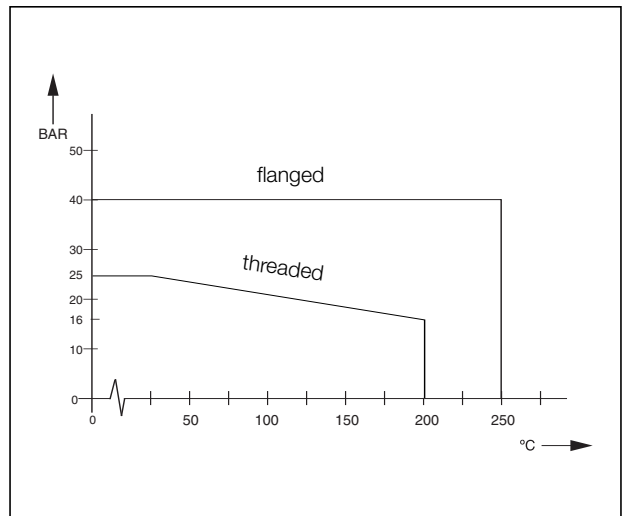
Cell constant : 0.1 cm<sup>-1</sup> for models SX42-SX24-n n

: 0.01 cm<sup>-1</sup> for models SX42-SX34-n n

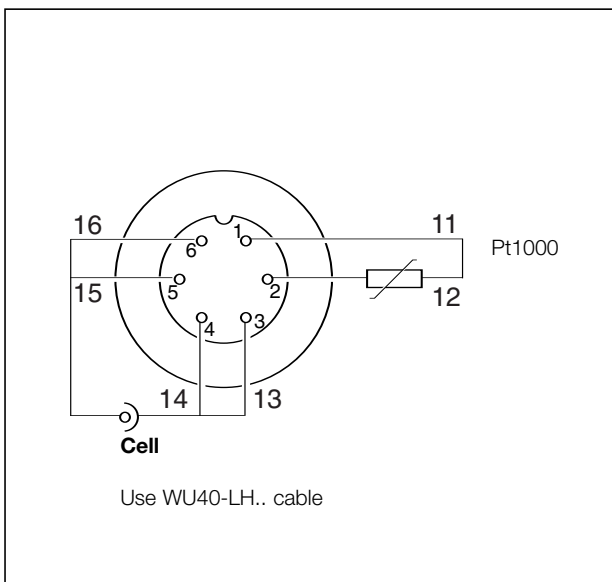
Measuring principle : 2 electrodes system

**Model and Suffix Codes**

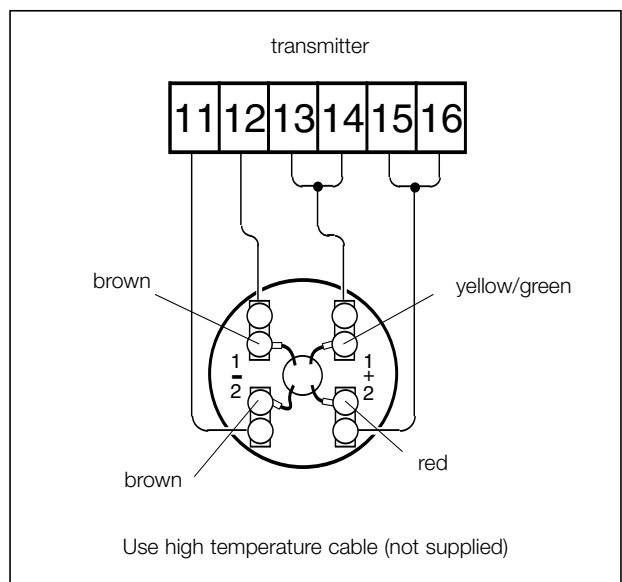
Model Code	Suffix code	Option	Description
SX42		.....	Conductivity cell for high temperature
Cell constant	-SX24	.....	Cell constant 0.1 cm <sup>-1</sup>
	-SX34	.....	Cell constant 0.01 cm <sup>-1</sup>
Process Connection	-BS	.....	R1 (ISO 7-1)
	-NS	.....	1" NPT male
	-DF	.....	DIN flange DN50 PN64
	-AF	.....	ANSI Flange 2" 600 Lbs
	-JF	.....	JIS 10K-50-RF
Style code	*A	.....	Style A
Certificates		/M .....	Material certificate 3.1.
		/Q.....	according to EN 10024 Quality Inspection Certificate



**Figure 1. Pressure and temperature diagram**



**Figure 2. Wiring diagram threaded models**



**Figure 3. Wiring diagram flanged models**

Dimensions

Units: mm (inch)

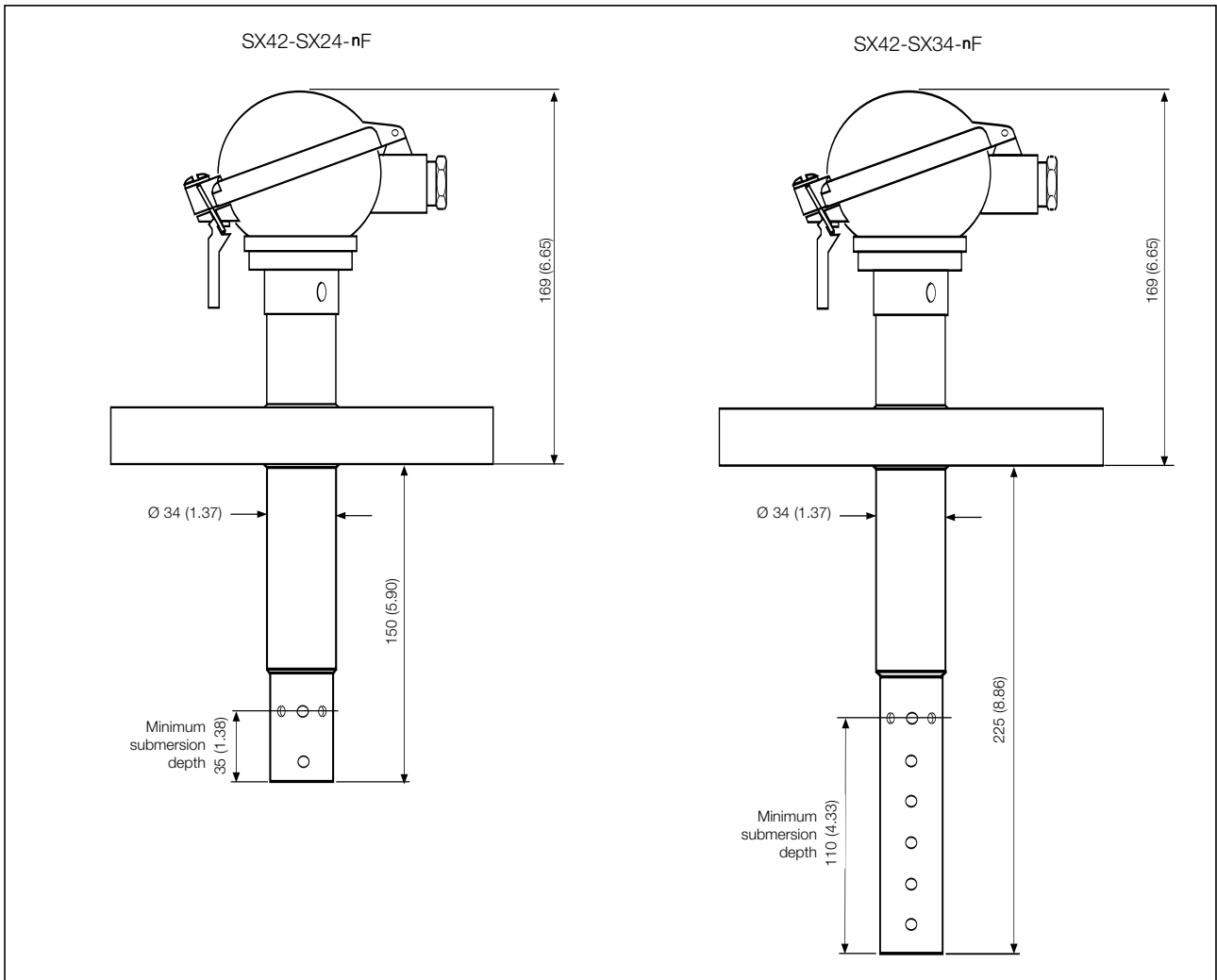


Figure 4. Flanged models (flange dimensions see fig.5)

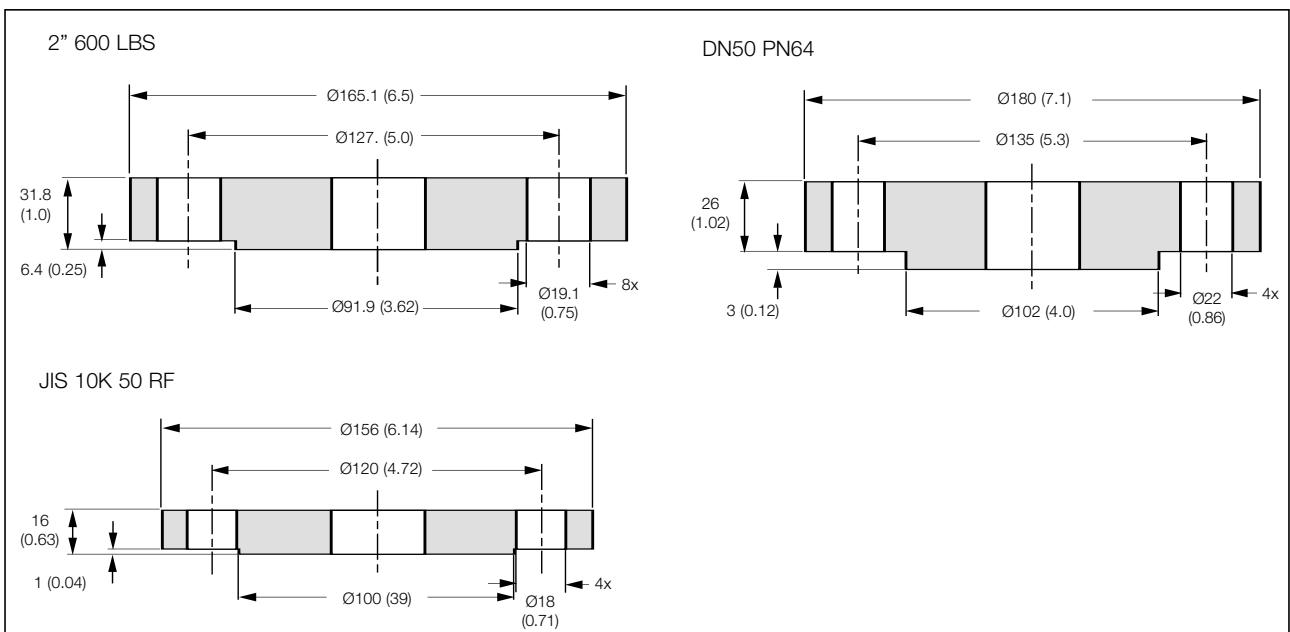
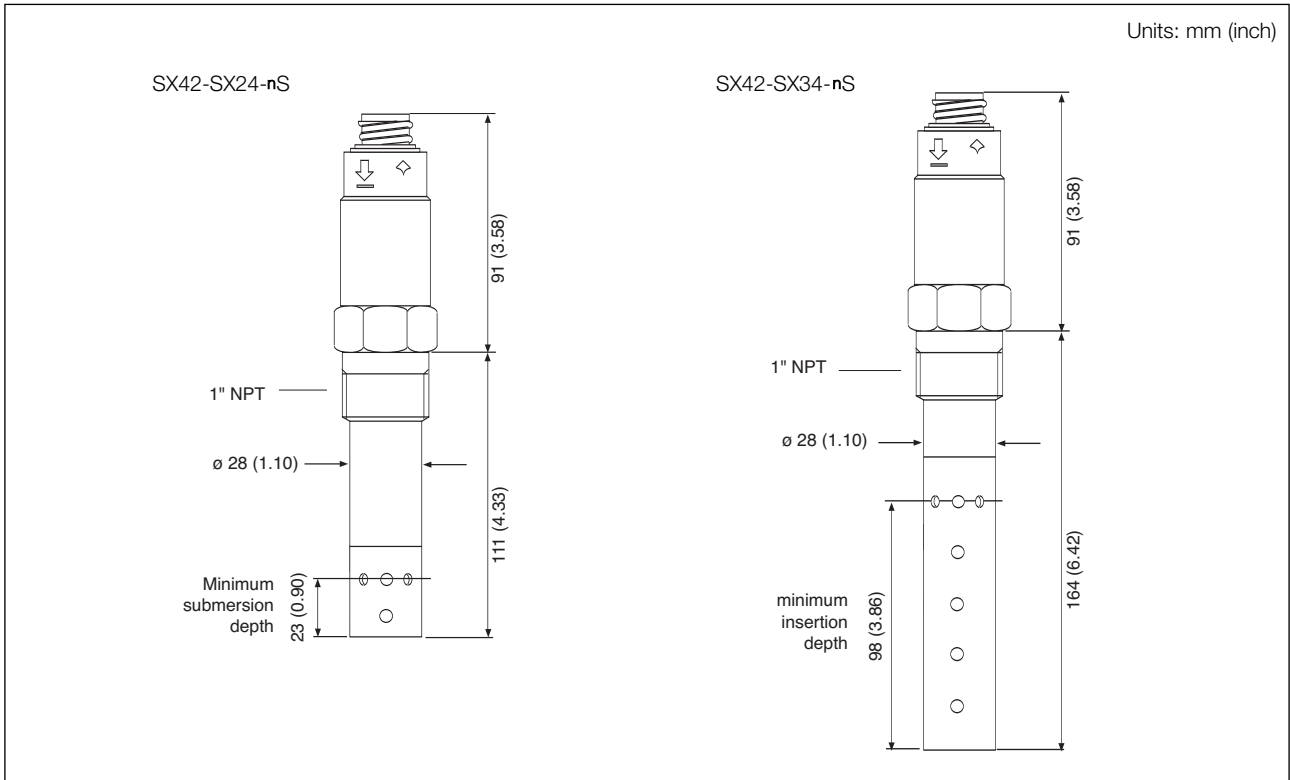
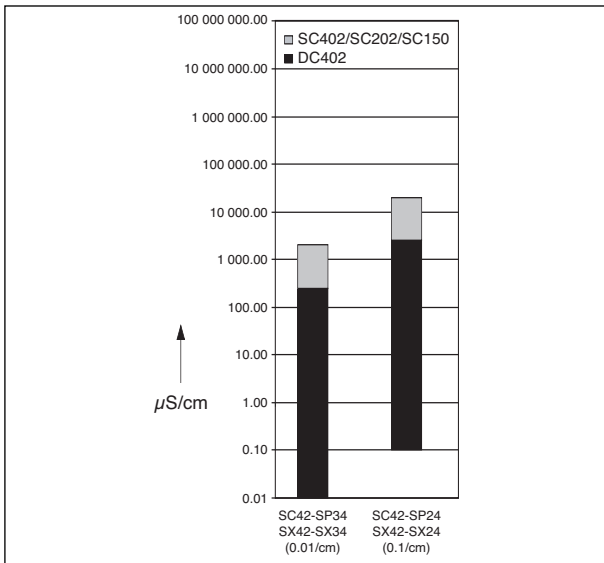


Figure 5. Flanges



**Figure 6. Threaded models**



**Figure 7. Sensor range**

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