



# ITCS3020 SMART TOROIDAL CONDUCTIVITY SENSOR

## GENERAL PURPOSE, NORYL BODY SENSOR

### PRODUCT SPECIFICATION SHEET



Noryl body resists coating, corrosion and fouling in many common applications

Comes preset for your preferred communication but can be modified in field using free Sensorex software

Threaded 3/4" NPT for submersion mounting;  
Flange for inline mounting (order flow cell separately)

Choose from two models

Modbus 485 or 4-20mA

## SPECIFICATIONS

**Measuring Range** 150-2,000,000 uS/cm

Note: 4-20mA version range is adjustable

<b>Body Material</b>	Noryl
<b>Max Temperature</b>	-25°C to 80°C
<b>Max Pressure</b>	150 psig
<b>Temperature Compensation</b>	Pt 1000 RTD
<b>Cable Length</b>	4 conductor in standard 20ft (6m) length; custom lengths available on request.
<b>Process Connection</b>	3/4" MNPT
<b>Reponse Time</b>	<10 seconds for 95% change
<b>Resolution - Conductivity</b>	
0.2-2000 uS/cm	0.2 uS
2,000-100,000 uS/cm	2 uS
>100,000 uS/cm	20 uS
<b>Accuracy - Conductivity</b>	+/-5uS or 2% of reading, whichever is greater
<b>Resolution - Temperature</b>	0.05°C
<b>Accuracy - Temperature</b>	0.5°C typical 1.0°C max.
<b>Accuracy - Loop Current</b>	32uA
<b>Power Supply</b>	
4-20mA mode	23-36 VDC
Modbus mode	7- 36 VDC

The Sensorex TCS series toroidal (inductive) conductivity sensors feature wide measurement ranges and dependable toroidal technology over the range 0-2000 ms/cm. Resistant to corrosion, coatings, and fouling common to contacting conductivity sensors, the TCS series is designed for a long and trouble-free service life.

Noryl material of construction has a wide solvent tolerance and temperature stability to 105 degrees C. All models can be submersed by utilizing the 3/4"MNPT threads on the sensor or installed inline using the FC95C flow cell. A Pt 1000 RTD ATC element is built into the TCS sensor. All TCS sensor models are supplied with 20 ft long 4-conductor cable. Custom lengths are available.

The 4-20 mA models provide temperature compensated conductivity output. The Modbus models provide conductivity and temperature along with calibration data and sensor name.

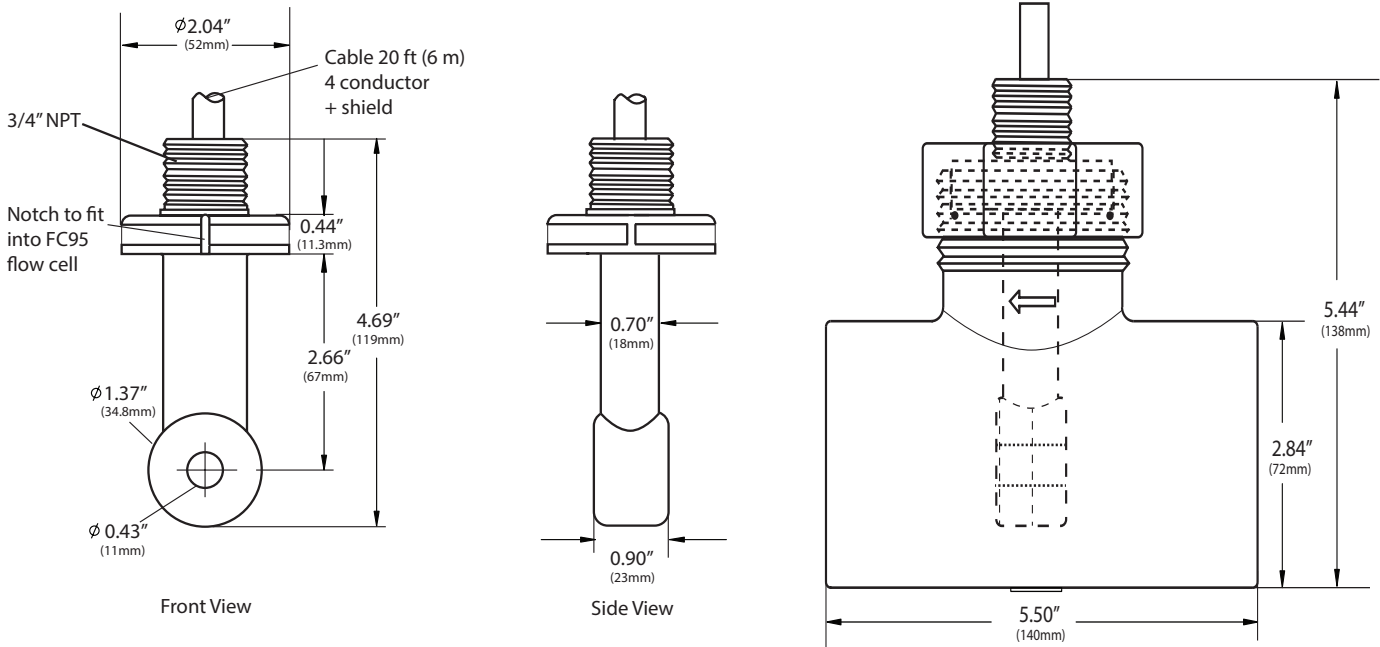
DESIGNED AND ASSEMBLED IN CALIFORNIA, USA

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# ITCS3020 DIMENSIONAL VIEWS

## ITCS3020



## ORDERING INFORMATION

### Part Number

### Description

**ITCS3020-MA**

Smart Toroidal Conductivity Sensor, Noryl body, 4-20 mA output, adjustable Range, 20 ft cable

**ITCSP3020-MB**

Smart Toroidal Conductivity Sensor, Noryl body, 485 Modbus output, 0-2000 mS Range, 20 ft cable

**FC95C**

Tee fitting with compression fitting for sensor, 2" Sockets for process, CPVC material

Notes: 1) Other cable lengths are available. Contact your Sensorex representative for price and delivery. 2) Adjustable range for 4-20mA versions maximum is 2000mS.

## OEM Ready

Sensorex toroidal sensors provide off the shelf options but are also designed with the OEM in mind. We can provide custom cable lengths, specialized connectors, and even match coil windings / inductance to work with your instrument or system. Contact your Sensorex sales representative or visit our [OEM page](#) (scan code at right).



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