



TCSMA - Loop Powered, Isolated Toroidal Conductivity Transmitter



4-20mA Isolated Output, Loop Powered (16-35V DC)

User-adjustable Temperature Compensation (0-4%/ deg C)

Selectable Measuring Ranges

Adjustable zero and span

Direct/Reverse operation

Nema 4X enclosure with Multiple Mounting Configurations

The model TCSMA is designed for on-line monitoring of water treatment applications and aggressive process chemicals. This blind transmitter is ideally suited for applications where 4-20mA signals are required and reliable instrumentation is critical.

Key features include selectable measuring ranges, adjustable temperature compensation (%/deg C), isolated output and reversible cell drive.

A Nema 4X (IP66) enclosure provides durability. A variety of mounting choices are available for Wall, Pipe or DIN Rail installation.

Pair the TCSMA with a TCS-2030 toroidal sensor for trouble-free service. TCS-2030 sensors are offered in polypropylene or PEEK construction. The polypropylene version can be mounted in a custom flow cell (FC95C) for in-line use.

Parts covered by this product data sheet include:
TCSMA

Sensing
Solutions
for today
and beyond

PRODUCT SPECIFICATION SHEET

TCSMA, LOOP POWERED ISOLATED TOROIDAL CONDUCTIVITY TRANSMITTER

Specifications-Transmitter

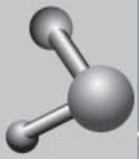
Measuring Range:	0-100,000 uS, - preset at factory as 4-20mA
Span Ranges:	2000-2500uS / 2500-15,00uS / 15,000-100,000uS / 100,00-1,000,000 uS
Sensitivity	0.1% of span
Repeatability	0.2% of span
Non-linearity	1% of span for span > 3000uS/cm --- 2% of span for span <3000uS/cm
Zero Drift	<1% span per month, non-cumulative
Operating Conditions	-20 to 60deg C, 0-95% R.H. non-condensing conditions
Temperature Drift	0.06% of range/degC, span or zero
Stability	0.2% of range per 24 hours, non-cumulative
Power Requirement	16-35V DC (2-wire device)
Insertion Loss	16 V DC
Output Isolation	Inherently isolated by sensor design
Enclosure	NEMA 4X (IP66) polycarbonate, wall, pipe or DIN Rail mount. Weatherproof and corrosion resistant. Dimensions = 4.4" (112mm) H x 4.4" (112mm) W x 3.5" (89mm) D.
Weight	1lb (0.45Kg)
Conduit Openings	2 each PG-9. Cord grips included.
Temperature Input	Pt1000RTD. Compensation adjustable from 0.0%/deg C to 4.0%/deg C
Maximum Cable Length	200ft. (61.0m)
Response Time	5 seconds to 90% full scale

Ordering Information

Part Number	Description
TCSMA	Blind, Loop-powered, 4-20mA toroidal conductivity transmitter (16-35VDC power supply not included)
TCS-2030	Polypropylene toroidal conductivity sensor. Includes 20ft of cable and tinned wire terminations
FC95C	CPVC flow cell for TCS-2030. Includes nut and o-ring seal.

For more details on toroidal conductivity sensors and flow cell, request toroidal conductivity sensor spec sheet or visit www.sensorex.com

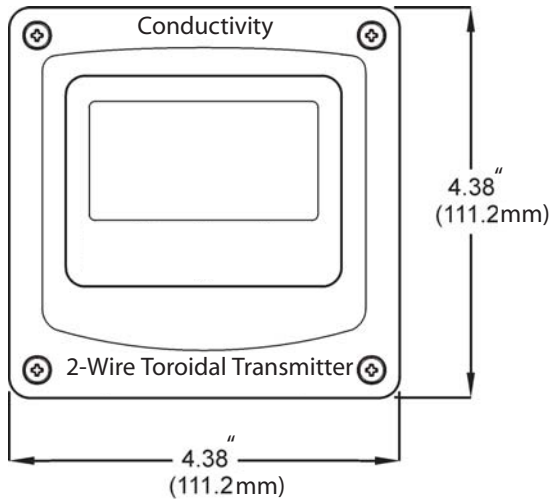
Parts covered by this product data sheet include:
TCSMA



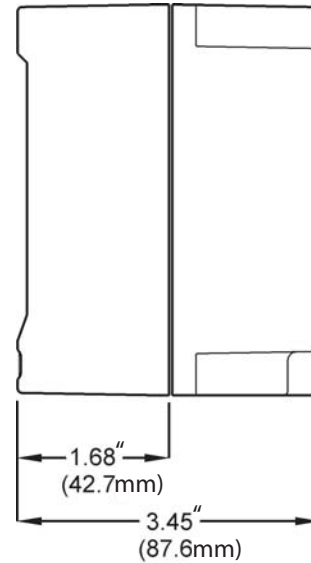
Sensorex

PRODUCT SPECIFICATION SHEET

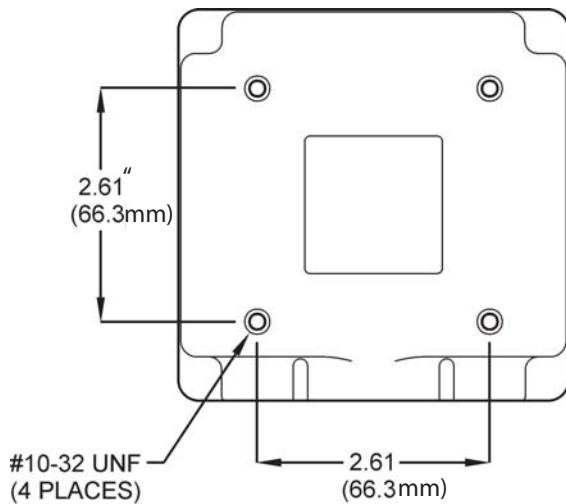
OUTLINE DRAWINGS OF TCSMA



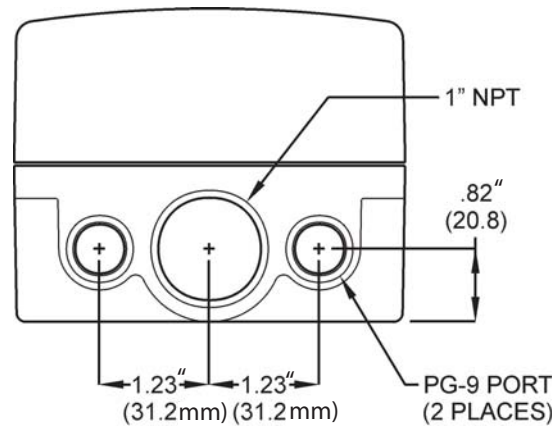
FRONT VIEW



SIDE VIEW



BACK VIEW



BOTTOM VIEW

Sensorex

11751 Markon Dr.
Garden Grove, CA 92841 USA

Tel: 714-895-4344
Fax: 714-894-4839
E-mail: info@sensorex.com
www.sensorex.com

Parts covered by this product data sheet include:
TCSMA-1