SenzTx
Oxygen Transmitter
ST100 Range

The Senz-Tx is a highly reliable and cost-effective two-wire, loop-powered transmitter with a linearized 4 to 20 mA output. It measures oxygen in 0-1000 ppm, 0-25% and 0-96% ranges. This compact transmitter uses proven zirconia sensor technology to accurately measure O2 in a variety of gases.

Proven Sensor Technology

The SenzTx Transmitters are a range of high quality instruments for the measurement of oxygen in the 1 to 1000 ppm range, 0 to 25% range and 0 to 96% range. Process Interface connection is by intergral Flow Through adapter with standard 1/8" NPT(F) thread orifices. User interface connection to the SenzTx is via a robust screw-on connector for power and 4-20mA feeds. Recovery from air at low ppm levels takes just a few minutes. The Senz Tx uses a long life Zirconia sensor which has a fast response and no sensor drift. There is also no shelf life associated with zirconia sensors.

Sample Systems

In addition to standard features and options, Inmatec offers a full line of sample handling systems for a variety of applications. If needed, Inmatec can design and build a sample conditioning system to meet unique application requirements. Please contact Inmatec for details.

Installation Flexibility

The compact SenzTx, with its built-in microprocessor, is designed to fit easily into any installation site. The SenzTx can be installed right at the sampling point, whereas other transmitters must be rack or panel mounted.

Features

- Measurement ranges:
  0 - 1000 PPM / 0-25% / 0-96%

- Zirconia Sensor Technology

- Industry Standard 4-20mA Output

- 24VDC Power Supply

- RS485 Modbus Communication

- Inline Process Connection / Flowthrough

- M12 Screw-On Power / Signal Connection

SenzTx
Product specifications

Gas Type / Range
Oxygen / 0 - 1000 Ppm
Oxygen / 0 - 25%
Oxygen / 0 - 96%

Response Time (0-90%)
<10 seconds

Power Requirements
24VDC +/- 10%, Max 160mA

Connection
M12 Electrical Connection

Lifespan
3 to 5 years
(dependant on O2 levels and other gases)

Output Signal
4 to 20mA

Accuracy
• 0.01% O2

Resolution
0.01% O2

Temperature range:
+5 to +50 Degrees C

Pressure Range
800 to 1200mbar Absolute

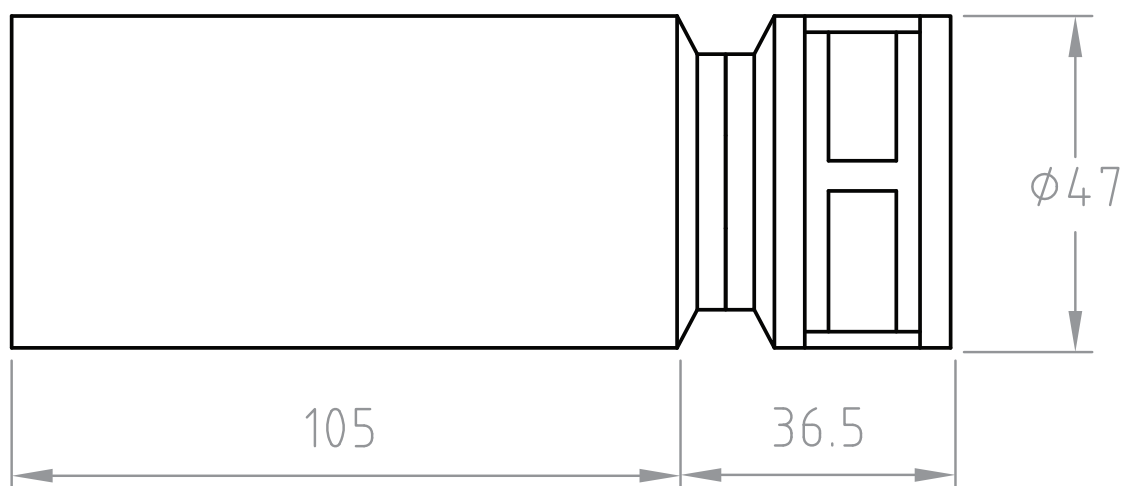**Process Connection**
Flowthrough (1/8" in NPTF)

Dimensions
47mm Dia x 120mm - 140mm
Depending on connection option.

Weight
0.260Kg

European Compliance
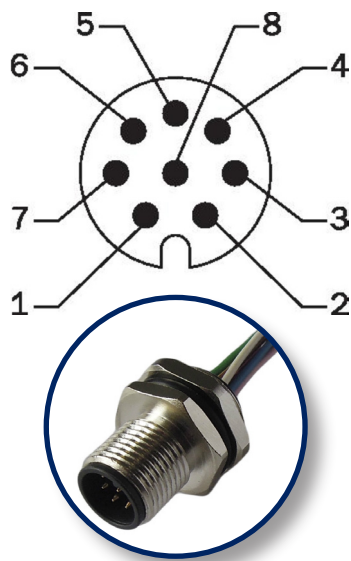Complies with EMC Directive 2004/108/EC

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SenzTx
Ordering information

Product	Sensor Type	Measurement Range	Process Connection	Part No.
ST 100	Zirconia	0 - 1000 PPM	Flowthrough	2009012258
ST 101	Zirconia	0 - 25%	Flowthrough	2009012259
ST 102	Zirconia	0 - 96%	Flowthrough	2009012260

For other sensor types see the other Senz Tx Application sheets. Electrochemical: ST 200 etc

M12 Connector Pin Assignment		
Pin	**Assignment**	**Cable Core Colour**
1	Not Used (Note 1)	Black
2	Not Used (Note 1)	Brown
3	Analogue Output Ground	Green
4	Serial RS485 (B)	Yellow
5	Serial RS485(A)	Grey
6	Power Ground OVDC	White
7	Power Supply +24VDC	Blue
8	Analogue Output (mA)(Note 1)	Red

Notes:
1. Cable cores that are not used must be insulated / heat-shrinked.