

• Description

This 4-electrode sensor is designed for air quality monitoring to measure the low-concentration SO₂ gas with ultra-high resolutions. The design optimizes the sensor sensitivity, accuracy and long-term stability and enables the sensor to detect ozone variations at parts per billion (ppb) levels.

• Performance Characteristics

Nominal Range:	0 ~ 5 ppm
Maximum Overload:	20 ppm
Sensitivity (20°C):	0.4 ± 0.2 µA/ppm
Response Time (T90):	≤ 60 s
Zero Signal (20°C):	< ±80 nA
Baseline Shift (-40°C ~ 50°C):	< 60 ppb (After compensation)
Resolution:	10 ppb
Linearity:	Linear up to 5 ppm
Bias Voltage:	0 mV

• Environmental

Temperature Range:	-40°C ~ 50°C
Pressure Range:	1 ± 0.1 atm
Humidity Range:	15% ~ 90%RH non-condensing

• Life Time

Long Time Output Drift:	< 2% signal/month
Recommended Storage Temp:	10°C ~ 30°C
Expected Operating Life:	3 years in clean air
Storage Life:	6 months in original packaging
Warranty:	24 months

• Intrinsic Safety Data

Max. Current at 20ppm SO ₂ :	< 0.2 mA
Max. O/C Voltage:	1.3 V
Max. S/C Current:	< 1.0 A

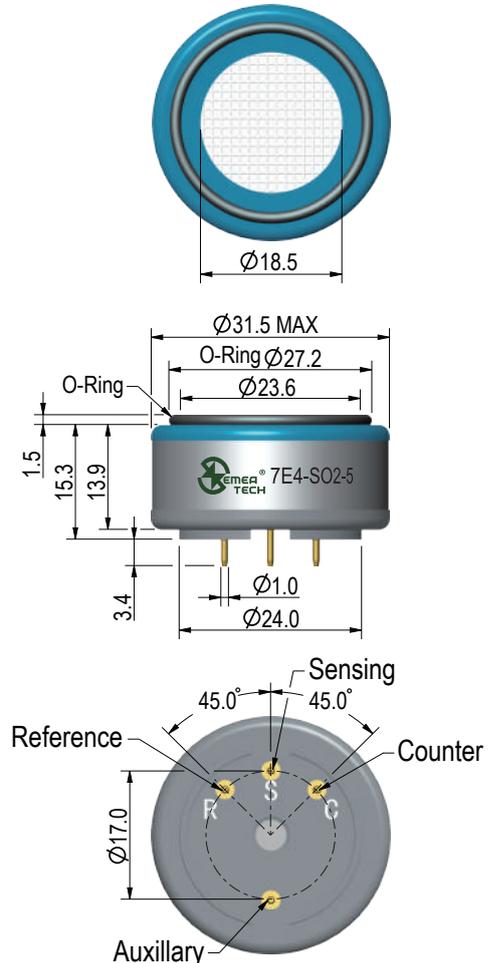
• Physical Characteristics

Housing Material:	ABS
Weight (Nominal):	8 g
Orientation:	None

• Installation

Output signals from the sensor pins are different. Inappropriate use of the pins in product design will affect the sensor functionality. Exposure to high concentrations of solvent vapors should be avoided under any condition. Mechanical overstress may cause deformation or cracks of the plastic enclosure of the sensor. If the sensor is used in extreme environmental conditions, please contact us for more details.

• Product Dimensions



All dimensions in mm
All tolerances ± 0.10 mm unless otherwise stated

• Note

The performance data in this document are conducted by using SemeaTech recommended test circuitry and test environment at 20°C, 50%RH and 1 atm. Sensor performance varies under different environmental conditions. Please contact us if you need more details.

