

# External Sidestream Capnograph Module

Our capnography technology is available in inexpensive and reliable mainstream or sidestream versions for manufacturers of patient monitors, anesthesia machines and ventilators.

SensoGas-SE is an excellent external sidestream alternative for CO<sub>2</sub> gas measurement adaptable to your applications.



ETCO<sub>2</sub>

INSO<sub>2</sub>



AwRR



## FEATURES

- ◆ Real-time and continuous measurement of EtCO<sub>2</sub>, InsCO<sub>2</sub>, Respiratory Rate
- ◆ Supports monitoring patients with high respiration rates, up to 150 rpm
- ◆ Supports intubated and non-intubated patients
- ◆ Sensitive CO<sub>2</sub> detection, can detect minimum 0.1 vol% CO<sub>2</sub> change
- ◆ Low rise-up Time (< 180ms), Response Time below 2s
- ◆ High accuracy with microflow sampling at 50ml/min
- ◆ Wide range of gas measurement (0 ~ 20%)
- ◆ Sensors for Software and Hardware status
- ◆ Capnogram data
- ◆ Automatic zeroing
- ◆ High quality and long pump life
- ◆ Microstream sampling line with parts made of PFSA polymer for humidity filtering
- ◆ Sampling line presence detection extending pump lifetime
- ◆ Simple connectivity with RS232 serial interface on DB9 connector (customizable)
- ◆ Automatic barometric pressure, temperature and anaesthetic gases compensation



Part # SGSE

## SPECIFICATIONS

### GENERAL

Principal of Operation . *Non-dispersive Infrared (NDIR) single beam optics, dual wavelength*  
Mechanical Robustness . *Compliant with the requirements of ISO 80601-2-55:2011 (Shock and Vibration).*  
Weight . . . . . ≤ 180g (without accessories)  
Dimension . . . . . 90 x 60 x 31mm  
Power Supply . . . . . 5V DC ±5%  
Typical Power Consumption . . . . . ≤ 1.5W  
Typical Power Consumption with O<sub>2</sub> sensor . ≤ 2.5W  
Max. Power Consumption when zeroing . . . ≤ 3.5W  
Interface . . . . . RS-232 serial interface operating at 19200bps.

### ENVIRONMENT

Operating Temperature . 10°C ~ 40 °C (50°F ~ 104°F)  
Storage Temperature . . -20°C ~ 70°C (4°F ~ 158°F)  
Humidity . . . . . 15% ~ 95%, non condensing  
Pressure . . . . . 400 ~ 1200 hpa

## ACCESSORIES

### SAMPLING FILTER LINE

Microstream PFSA Polymer  
2m Sampling Line  
Part # SGSS-M



### PERFORMANCES

Measurements . . *EtCO<sub>2</sub>, InsCO<sub>2</sub>, RR and real-time CO<sub>2</sub>*  
Automatic Compensation . . . . *Atmospheric pressure, temperature and anesthetic gases.*  
Rise Time . . . . . ≤ 180ms  
Total System Response Time . . . ≤ 2s (2m sampling line)  
Sample Frequency . . . . . 25Hz  
Measurements:  
• CO<sub>2</sub> Range . . . . . 0 ~ 20 vol%  
• CO<sub>2</sub> Resolution . . . . . 0.1 vol%  
• CO<sub>2</sub> Accuracy . . 0 ~ 12%: ±(0.2vol%+2% of reading)  
12 ~ 20%: ±(0.2vol%+6% of reading)  
AWRR Range . . . . . 0 ~ 150 rpm  
AWRR Resolution . . . . . 1rpm  
AWRR Accuracy . . . . . 0 ~ 70rpm, ±1rpm, otherwise undetermined.  
Fixed Microflow Sampling Rate . . . . . 50ml/min  
Flow Accuracy . . . . . ±10ml/min  
Sampling Line Length . . . . . 2m ±0.1m  
Breath Detection . . . . . Adaptive threshold, minimum 1 vol% change in CO<sub>2</sub> concentration.  
Accuracy standard . . .Compliant with the requirement of ISO 80601-2-55:2011.