

# OEM FLOW SENSORS FOR EMBEDDED APPLICATIONS SERIES 840200 AND 840500

TSI, a worldwide leader in air and gas flow measurement technology, designed these affordable high-performance flow sensors to measure air, oxygen, and other gases for embedded applications. A compact size and standard configurations make it easy to design into your products. You save engineering time, reduce costs and get your products to market faster.



## Applications

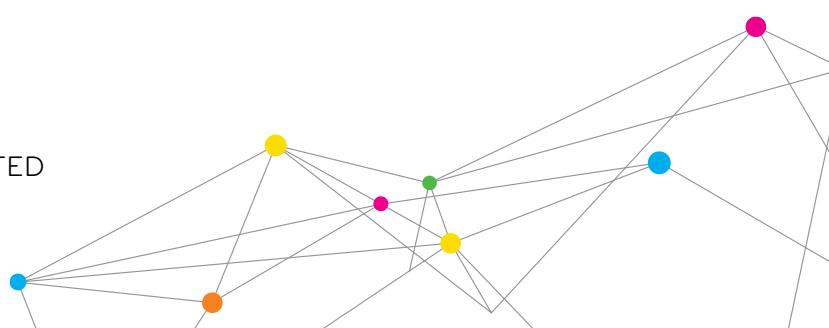
- + Patient Ventilators
  - Critical and sub-acute care
  - Pediatric and neonatal
  - Portable and transport
- + Anesthesia Systems
  - Fresh gas delivery
  - Ventilator system
- + Medical Equipment
  - Nitric oxide delivery
  - Oxygen generation
  - Other gas flow systems

## Features and Benefits

- + Fully calibrated and ready to install
  - Calibration data stored on-board
  - No additional calibration required
- + Mass flow measurements
  - Independent of temperature and pressure
- + Fast response
  - Ideal for dynamic flow measurements
  - Improves control performance
- + Accuracy as a percent of reading
  - Assures high accuracy over a wide flow range
  - Wide dynamic operating range
- + Low pressure drop
  - Eliminates sensor effects on flow rate
  - Reduces pump/blower size and power



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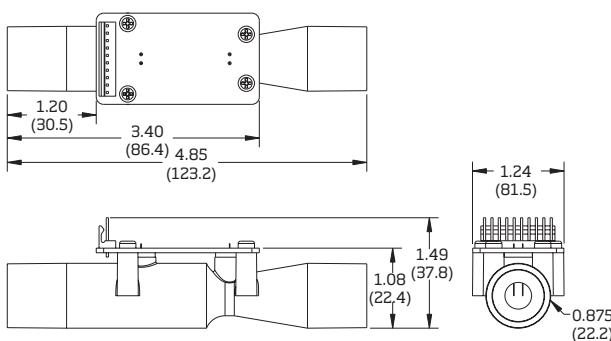
## SPECIFICATIONS

### OEM FLOW SENSORS FOR EMBEDDED APPLICATIONS SERIES 840200 AND 840500

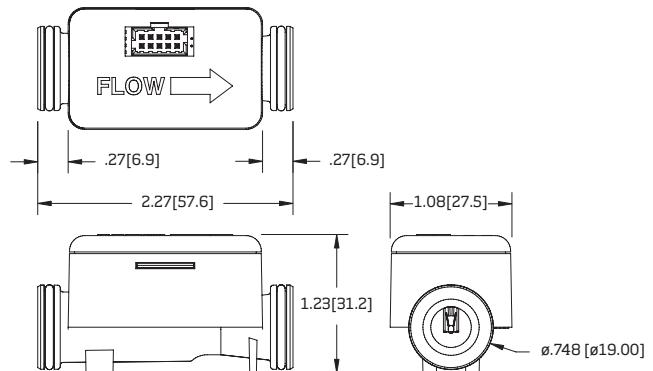


Features	TSI Series 840200	TSI Series 840500
TSI Models (Listed by gas calibrations stored on-board)	Model 840205 Air Model 840206 Oxygen	Model 840521 Air Model 840522 Oxygen Model 840523 Air and Oxygen
Flow Range	0 to 300 standard l/min	0 to 300 standard l/min, Air and Oxygen
Accuracy*	$\pm 2.5\%$ of reading $\pm 0.1$ l/min @ 21°C	$\pm 2\%$ of reading $\pm 0.05$ l/min @ 21°C
Temperature Range	0 to 65 °C	0 to 50 °C
Pressure Drop	18 cm H <sub>2</sub> O at 300 l/min	12 cm H <sub>2</sub> O at 300 l/min
Response Time	5 msec (0 to 63% of full-scale flow)	5 msec (0 to 63% of full-scale flow)
Output Signals Flow	0 to 4 vdc non-linear, 1 Channel	0 to 2.5 vdc non-linear, 2 Channels
Output Signal Temperature	0 to 4.5 vdc non-linear	0 to 2.5 vdc non-linear
Input Voltage	5 vdc $\pm 5\%$ , Regulated	5 vdc $\pm 5\%$ , Regulated, 3.3 vdc eeprom
Power Consumption	0.65 watts at full-scale flow	0.8 watts at full-scale flow
Mating Connector	Amp 1-640456-0	Molex 51110-1060 (Wire) or Molex 87568-1074/87568-1073 (IDC)
Eeprom Interface	SPI Communication	I <sup>2</sup> C Communication
Warranty	1 year	1 year
RoHS Compliance	Meets RoHS Directive 2011/65/EU	Meets RoHS Directive 2011/65/EU

**TSI Series 840200**



**TSI Series 840500**



Dimensions in inches (millimeters)

\*Consult TSI for complete product specifications.

Specifications are subject to change without notice.

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