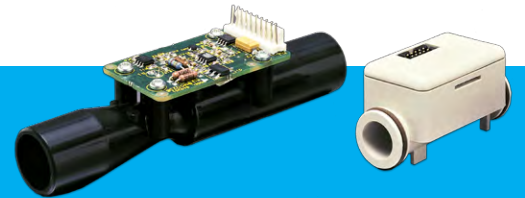


# OEM FLOW SENSORS FOR EMBEDDED APPLICATIONS MODEL 840200 AND 840500



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

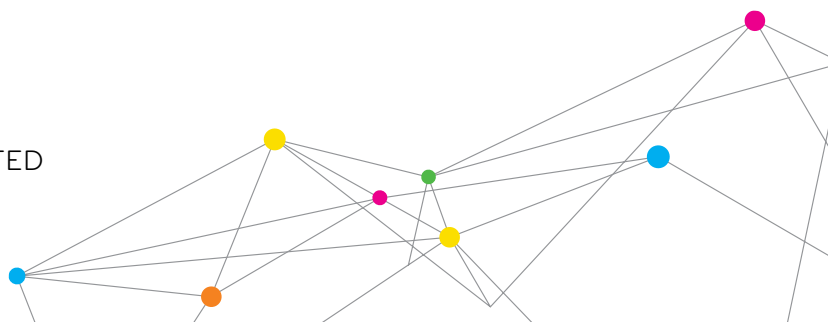
- + Patient Ventilators
  - Critical and sub-acute care
  - Pediatric and neonatal
  - Portable and transport
- + Anesthesia Systems
  - Fresh gas delivery
  - Ventilator system
- + Medical Equipment
  - Nitric oxide delivery
  - Oxygen generation
  - Other gas flow systems

## 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



UNDERSTANDING, ACCELERATED



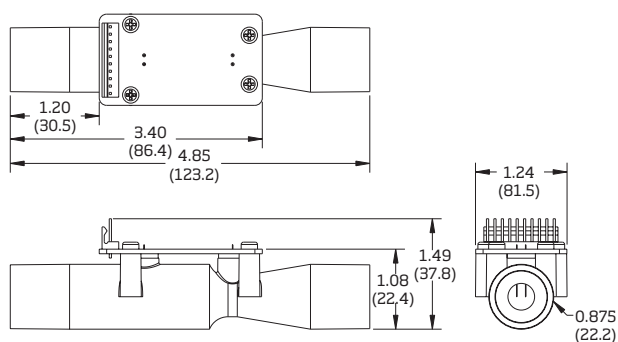
# SPECIFICATIONS

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

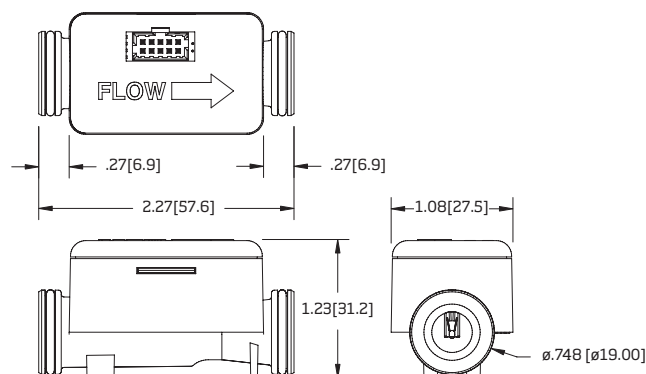


| Features   | TSI Series 840200                       | TSI Series 840500  |
|--|---|--|
| TSI Models<br>(Listed by gas calibrations stored on-board) | Model 840205 Air<br>Model 840206 Oxygen | Model 840521 Air<br>Model 840522 Oxygen<br>Model 840523 Air and Oxygen |
| Flow Range   | 0 to 300 standard l/min                 | 0 to 300 standard l/min, Air and Oxygen                                |
| Accuracy*  | ±2.5% of reading ±0.1 l/min @ 21°C      | ±2% of reading ±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 ±5%, Regulated                    | 5 vdc ±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<br>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.

TSI and the TSI logo are registered trademarks of TSI Incorporated.



UNDERSTANDING, ACCELERATED

TSI Incorporated - Visit our website [www.tsi.com](http://www.tsi.com) for more information.

**USA** Tel: +1 800 874 2811    **India** Tel: +91 80 67877200  
**UK** Tel: +44 149 4 459200    **China** Tel: +86 10 8219 7688  
**France** Tel: +33 1 41 19 21 99    **Singapore** Tel: +65 6595 6388  
**Germany** Tel: +49 241 523030