

TSI 4040/4140

Mass Flowmeters for Gases

TSI 4000/4100 Series Flowmeters are designed for a multitude of gas flow measurement applications. Whether measuring gas flows in a laboratory or manufacturing setting, TSI general-purpose flowmeters provide accurate results with multiple data output options. TSI general-purpose flowmeters come complete with accessories making setup and operation fast and convenient.

Highlights

- 4 millisecond flow response
- $\pm 2\%$ of reading for high accuracy
- High turndown ratio
- Low pressure drop
- Convenient analog output of flowrate
- Versatile digital output of flowrate, volume, pressure, temperature
- Built-in temperature and pressure compensation
- NIST-traceable calibration certificate included at no additional cost

BC Group International, Inc.

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Applications

- Product Development, Prototypes, Production Testing:
 - Ventilators
 - Anesthesia systems
- Secondary calibration standard
- QA testing
- Laboratory
 - Aerosol science
 - Gas blending
 - Analytical instrumentation
 - Carrier gas measurement
- Fuel cells
- Reformers



Low Flow–Model 4140/4143

Flow Measurement:

Range: 0.01 to 20 standard L/min

Accuracy: $\pm 2\%$ of reading or 0.005 standard L/min, whichever is greater, for air and O₂; $\pm 3\%$ of reading or

0.010 standard L/min, whichever is greater, for N₂O and N₂

Response: 4 ms to 63% of full scale flow

Overall Dimensions: 127 × 49 × 32 mm (5 × 2 × 1.25 in.)

High Flow–Models 4040/4043/4045

Flow measurement:

Range: Model 4040 and 4045: 0 to 300 standard L/min

Model 4043: 0 to 200 standard L/min

Accuracy: $\pm 2\%$ of reading or 0.05 standard L/min, whichever is greater, for air and O₂, $\pm 3\%$ of reading or 0.10

standard L/min, whichever is greater, for N₂ and Air/O₂ mixture

Response: 4 ms to 63% of full scale flow

Overall Dimensions: 182 × 63 × 53 mm (7.2 × 2.5 × 2.1 in.)

All Models

Volume Measurement*:

Range: 0.01 to 99.9 liters

Accuracy: $\pm 2\%$ of reading

Pressure Measurement:

Range: 50 to 199 kPa absolute

Accuracy: ± 1 kPa

Response: <4 ms to 63% of final value for step change

Temperature Measurement:

Range: 0 to 50°C

Accuracy: $\pm 1^\circ\text{C}$ at flows greater than 1 standard L/min

Response: <75 ms to 63% of final value for step change

Analog Output: 0 to 10 VDC, zero and span adjustable via RS232

DC Power Input: 7.5 VDC ± 1.5 V, 300 mA max

*Specifications subject to change without notice
-Supplied through RS232 port only.*

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