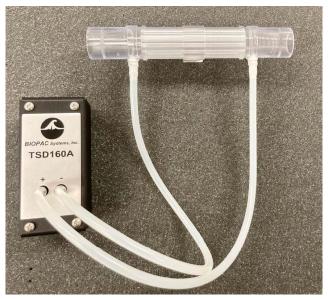




TSD157B-MRI - LAMINAR FLOW TRANSDUCER ±120 LPM



The TSD157B-MRI laminar flow transducer (± 120 LPM) is suitable for precision ventilator bidirectional airflow measurements or resting airflow measures in fMRI. It consists of flow head RX157B + pressure transducer TSD160A + Tubing. Available with 20 m tubing for MRI use or 1 m tubing for non-MRI use (option TSD157B-MRI-01). Tubing presses over the barbs on the flow head and transducer and should be cut to fit for max separation, typically 10 m for MRI or 0.5 m for non-MRI.

- For ventilator flow measurements, the flow noise of TSD157B-MRI greatly outperforms earlier offering of TSD127 + TSD117B over the typical ventilator flow range of ± 100 LPM.
- For MRI use, the TSD157B-MRI can go inside the bore; the tubing from the RX157B flow head goes through the waveguide to the TSD160A+DA100C in the Control Room and should be cut to fit. The TSD157B-MRI can also interface with the AFT35-MRI valve: AFT35-MRI to AFT7 tubing to AFT11E to RX157B. (This same setup also works with RX127, instead of RX157B, with an additional coupler AFT11B.)

BIOPAC supplied linearization polynomials are available on request as a template.

Additional or replacement flow heads available as RX157B. Ask about options for 60 LPM or below or 240 LPM and below.

OPTIONAL ACCESSORIES

TSD157B-MRI can be used with the AFT35-MRI low-profile mouthpiece and non-rebreathing T-valve assembly and AFT7 tubing with AFT11B coupler:





PRODUCT SHEET

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SPECIFICATIONS

Components: RX157B Flow head + TSD160A Differential Pressure Transducer + Tubing

Type: Bidirectional Flow Measurement

Range: ±120 Liter/Min

Noise: Standard Deviation – 0.085 Liters/Min @ 25 LPM @ DC-10 Hz Bandwidth

Interchangeability

Accuracy:

±5% (nominal)

Ports: Single Barb accepts 3.5 mm ID Tubing Connects to Standard 22 mm ID

Ventilator Tubing

Tubing—Length options: 1 m (non-MRI) or 20 m (MRI)

Temperature Range: 0 °C to 40 °C

Dimensions: 140 mm long x 22 mm OD x 15 mm ID

Mounting: 14" x 20 standard female camera mount

MR Safe: RX157B Flowhead

Sterilization: Cold sterilization only (Cidex® OPA or equivalent)

Flow Rate (Liters/Min) Pressure Delta

 Inches H₂O
 RX157B

 20
 0.02

 50
 0.08

 100
 0.26

 120
 0.31

Calibration, noise and accuracy data: download TSD157B to TSI4000 flow standard (xls and txt)