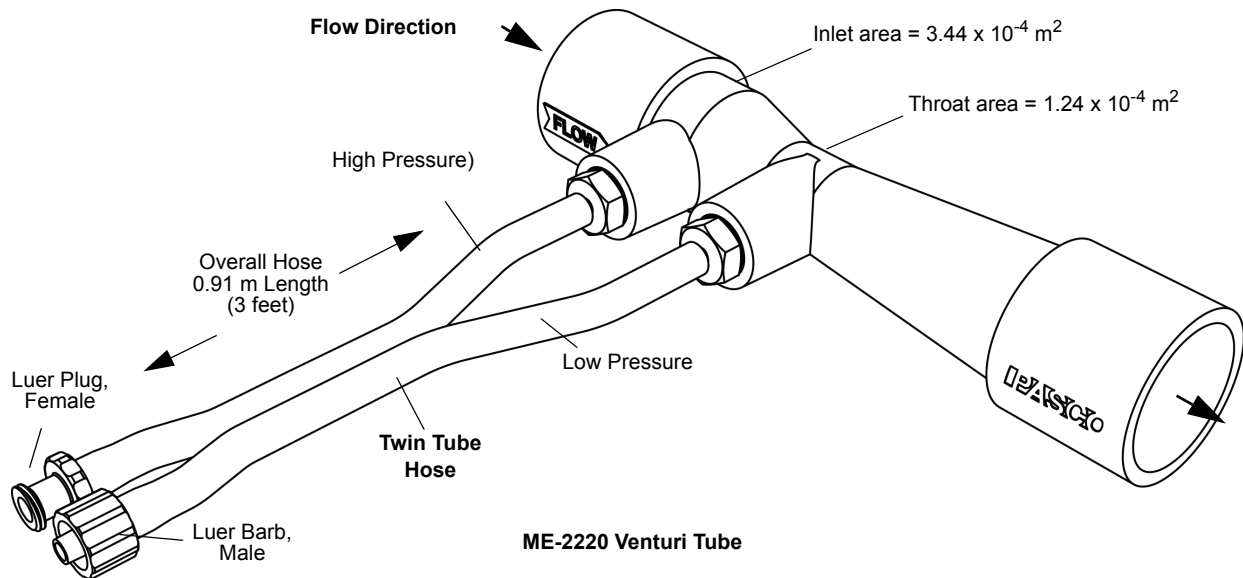


Venturi Tube

ME-2220



ME-2220 Venturi Tube

| Required Items* | Information* |
|---------------------------------|--|
| General Flow Sensor | PS-2222 |
| PASCO Interface | see www.pasco.com |
| PASCO Data Acquisition Software | see www.pasco.com |

*See the PASCO catalog or the PASCO web site at www.pasco.com for more information.

Product Description

The ME-2220 Venturi Tube is designed to work with the PASCO PS-2222 General Flow Sensor. The Venturi Tube connects to the General Flow Sensor by way of a flexible twin tube hose. The connectors on the General Flow Sensor are reversed from the connectors on the Venturi Tube so that they cannot be attached incorrectly.

The General Flow Sensor is a versatile differential pressure measuring device. It measures the difference in pressure between the two input tubes.

The ME-2220 Venturi Tube is designed to be used with standard Schedule 40 polyvinyl chloride (PVC) pipe. The open ends of the Venturi Tube have an inside diameter of approximately 2.69 cm (1.05 in). The inlet cross sectional area of the Venturi Tube is $3.44 \times 10^{-4} \text{ m}^2$ and the throat cross sectional area is $1.24 \times 10^{-4} \text{ m}^2$.

The plastic used in the Venturi Tube is compatible with standard PVC glues and the Venturi Tube may be glued into a piping network to measure flow rates. Alternatively, the Venturi Tube may be temporarily placed in a piping network using tape. The overall hose length is 0.91 m (three ft.).

Using the PASCO data acquisition software, the user can select the accessory that is attached to the sensor and what fluid is flowing through the accessory. Once these selections are made, the sensor provides the calculated values for flow velocity or volumetric flow (assuming standard temperature and pressure). The units of measure are selectable as metric or non-metric.

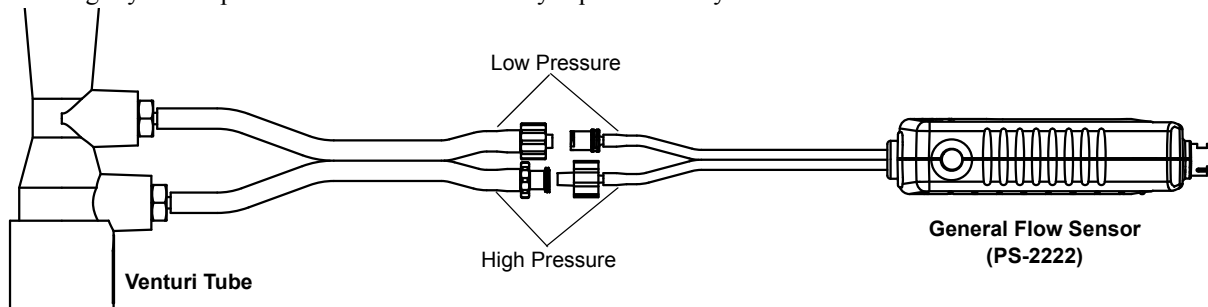
General Flow Sensor with the Venturi Tube

| Item | Value with Venturi Tube |
|------------------|---|
| Accuracy - Water | ± 2.1 gallons per minute (gpm) |
| Accuracy - Air | ± 2.5 scfm |
| Range - Water: | 0 to $0.00530 \text{ m}^3/\text{s}$ (0 to 84 gpm) |
| Range - Air: | 0 to $0.0488 \text{ m}^3/\text{s}$ (0 to 102 gpm) |

Setup and Use with the General Flow Sensor

Connect the Sensor

Connect tubes from the Venturi Tube (ME-2220) to the General Flow Sensor (PS-2222). Insure that connections are tightly sealed prior to the introduction of any liquids to the system.



Technical Support

For assistance with any PASCO product, contact PASCO at:

Address: PASCO scientific
10101 Foothills Blvd.
Roseville, CA 95747-7100

Web: www.pasco.com

Phone: +1 916-786-3800 (worldwide)
800-772-8700 (U.S.)

Email: support@pasco.com

For the latest information about the Venturi Tube, visit the PASCO web site at www.pasco.com and enter ME-2220 in the Search window.

Limited Warranty For a description of the product warranty, see the PASCO catalog. **Copyright** The PASCO scientific *Instruction Sheet* is copyrighted with all rights reserved. Permission is granted to non-profit educational institutions for reproduction of any part of this manual, providing the reproductions are used only in their laboratories and classrooms, and are not sold for profit. Reproduction under any other circumstances, without the written consent of PASCO scientific, is prohibited. **Trademarks** PASCO, PASCO Capstone, PASPORT, SPARK Science Learning System, SPARK SLS, and SPARKvue are trademarks or registered trademarks of PASCO scientific, in the United States and/or in other countries. For more information visit www.pasco.com/legal.