



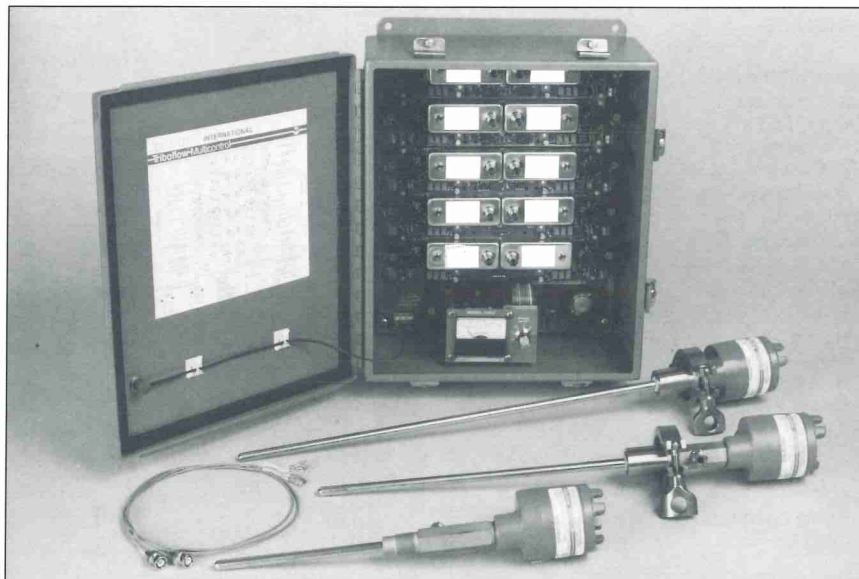
Multichannel Solids Flow Monitors

Model 2500-1

Auburn's **Triboflow**[®] Model 2500-1 provides a reliable and repeatable means to continuously monitor the flow rate of dry solids at multiple points.

The Model 2500-1 is the multi-channel version of the 2601 Solids Flow Monitor. The multi-channel version permits the use of six, eight or ten sensors with one electronics unit thus substantially reducing the price per sensing point.

The 2500-1 directly monitors the flow of solids not just presence. As particles in a flow stream rub or collide with the sensor, an electrical signal is generated due to the triboelectric effect (frictional electrification). As the number of collisions changes, so does the signal. The highly repeatable output can be instantaneous or dampened, while the sensitivity can be adjusted for low or high rates.



Triboflow Advantages

- ◆ No moving parts
- ◆ No lenses to align or clean
- ◆ 10,000 to 1 sensitivity range (Adjustable for each channel)
- ◆ Virtually maintenance-free
- ◆ Customized sensors are available including non-intrusive "ring" style

Applications

- ◆ Pneumatic Conveying
- ◆ Gravity Feed
- ◆ Powder Spraying
- ◆ Additive Blending
- ◆ Pulse Injection

ELECTRONICS

Outputs: (each channel)

4-20mA, 600 OHMS loop max.,
Non-isolated (Std)
0-10V Isolated (Opt)

Temperature Range:

-10 to 120°F (-23 to 49°C) (Operating)
-40 to 160°F (-40 to 71°C) (Storage)

Humidity Range:

0 to 95% Relative Non-Condensing

Power:

105 to 130 VAC 50/60 Hz (Std)
210 to 260 VAC 50/60 Hz (Opt)
15 Watts Maximum Load

Response Time: (Maximum Input Change)

.5 to 30 Seconds, Customer Adjustable

Enclosure:

NEMA 4 (Std)
NEMA 4x or 7/9 (Opt)

SENSOR

Number of Sensor Points: 6, 8, or 10

Temperature Range:

-40 to 300°F (-40 to 149°C) - Teflon Ins. (Std)
-40 to 450°F (-40 to 232°C) - Extended High Performance Insulation (Opt)
-40 to 1000°F (-40 to 538°C) - Ceramic Insulation (Opt)

Pressure Range:

30 psi (2 bar) (Std), 2000 psi (138 bar) (Opt)

Probe: 316 Stainless Steel (Std)

Tungsten Carbide or Inconel (Opt)

Other Parts: 303 Stainless Steel (Std)

Insertion Length: ½ inch (1.3 cm) (Std)

3, 6, 12, 18, 30, 36 inch (7.6, 15.2, 30.5, 45.7, 76.2, 91.4 cm) (Opt)

Other, including non-intrusive (Special)

Hazardous Rating: Designed Intrinsically Safe

for Class I, II, III in Division 1 & 2, Groups A, B, C, D, E, F, G

Enclosure: NEMA 4x (Std)

CONNECTIONS

Process/Sensor: ½ inch NPT Male Fitting or Quick Release Clamp (Std)

Sensor/Electronics: Special Triboelectric Coax Cable 300 feet (91 m) max.

Cable Temperature Range:

-60 to 400°F (-43 to 204°C) (Std)
Cable above 400°F - Contact Factory

INSTALLATION

Weld a half coupling or the quick release ferrule over a hole in the side of the pipe or duct. Screw in or clamp the sensor in place. (Please refer to the manual for details.)

*Covered by one or more of the following patents: 4,063,153, 4,074,184, 4,291,273 4,288,741, 4,631,482, 4,619,145, 4,714,890, 4,904,944, 4,774,453, 5,054,325, 5,095,275. Product also covered by patents in countries other than the United States.