**QuantiMass™ PRO**

*Mass Flow Measurement System*

**FEATURES & ADVANTAGES**

- **Measure flow of quantities** in pneumatic conveying & free-falling processes.
- **Continuous in-line measuring** without the use of weight scales.
- **Latest microwave Doppler effect technology** to provide accurate and reproducible flow measurements...typically 1 to 3%.
- **Compact size** for easy installation into existing processes.
- **Sturdy, non-intrusive sensor design** minimizes maintenance and wear & tear on instrument.
- **Fast measuring & adjustable sensitivity** to produce quick, precise data for the specific material being processed at the time.
- **Output via a DIN-Rail Mounted transmitter** to provide communication with an existing control system.
- **Application versatility**...*QuantiMass PRO* is suitable for powders, dust, pellets, and granular up to 0.75 inch (2cm).

**PRINCIPLE OF OPERATION**

The *QuantiMass™ PRO* Mass Flow Measurement Sensor / Meter is designed with the latest microwave technology and is used to quantify the flow of powders & solids being conveyed in metallic pipes. The *QuantiMass PRO* is based on technology that has been developed and proven over several years. The measurement process of the sensor is centered on the Doppler effect. The mass flow-rate is determined by evaluating the frequency and amplitude changes during the measurement process. Particles at rest, such as deposits, do not influence the measurement. All powders, dust, pellets and granules can be measured reproducibly, up to the size of 0.75 inch (2cm). The *QuantiMass PRO* sensor is suitable for in-line measurements in pneumatic or in free-fall pipelines.

A complete *QuantiMass PRO* system consists of the DIN-Rail Mounted transmitter and the mass flow measurement sensor. The DIN-Rail transmitter allows for easy integration into an existing control system. Calibration software is provided. In addition, up to 24 different product parameters can be recorded to accommodate product or process changes.

**PRACTICAL APPLICATIONS**

- Monitor for variable flow quantities due to disturbances like different densities.
- Measure for proper mixing of additives.
- Non-contact, in-line mass flow measure for most bulk solids and many dusts (Ex. coal dust, saw dust).
- Suitable for powders, dust, pellets, and granular up to 0.75 inch (2cm).

For more detailed information, please contact a Monitor representative or visit Monitor’s website at [http://www.monitortech.com/mass-flow-meter.shtml](http://www.monitortech.com/mass-flow-meter.shtml)

**OPTIONS**

- Choose from standard or high temperature styles.
- Select from 304 SS or 316 SS sensor housing construction.
- DIN-Rail Mounted transmitter style options include:
  - DIN-Rail transmitter with enclosure
  - DIN-Rail transmitter without enclosure
- BCD Product Characteristics Switching (up to 15 product char.)

**Practical Tip**

*QuantiMass is ideal for monitoring material flow rates to verify blending mixture ratios.*

Scan this with a smartphone QR-Code app for more product details.
**SPECIFICATIONS**

**Process Data**
- Pipe diameter: 1" to 12" (25mm to 300mm)
- Particle size: .001 micron to 0.75" (1nm to 20mm)
- Moisture: Depending on the product
- Pressure: Up to 6 bar (Option up to 30 bar)
- Temperature: -4 to +194°F (-20 to +90°C) (Higher temperatures on request)

**Sensor Data**
- Medium contact parts: 304 SS (1.4307) or 316 SS (1.4571) and Polyamide 6.6
- Process connection: Specialty welding branch
- Housing material: 304 SS (1.4307) or 316 SS (1.4571)
- Protection class: IP 65
- Ambient temperature: +14 to +158°F (-10 to +70°C)
- Sensor dimensions: -11.42" x 2.36" Diameter (~290 x 60mm)
- Sensor weight (approx.): 3 lbs. (1.4 kg)
- Accuracy: ±1 to ±3% typical
- Power: Via transmitter
- Interconnection: 4 wires, shielded, 3280 ft (1000m) max
- Welding branch dim: 3.94" x 1.18" Diameter (100 x 30mm)

**Transmitter Data**
- Construction: Housing for 35mm DIN-Rail (EN 50022)
- Input power: 24 V AC/DC (Power supply ordered separately)
- Ambient temperature: +14 to +140°F (-10 to +60°C)
- Protection class: IP 30
- Output signal: 0/4-20 mA (max. 750 Ohm); 0/2-10 Volt
- Interfaces: RS-232, RS-485
- Transmitter dimensions: 4.53" x 0.89" x 3.94" (~115 x 22.5 x 100mm)
- Transmitter weight (approx.): 0.33 lbs. (0.15 kg)

**ACCESSORIES:**

**Part #**
- 17-3401 Welding Branch, Steel, with Drill Bit
- 17-3402 Welding Branch, 304 SS, with Drill Bit
- 17-3403 Welding Branch, 316 SS, with Drill Bit
- R0514-18001 Cable, 4-Wire, Shielded, 18 AWG
- 17-8021 Power Supply, Universal AC to 24VDC
- 17-8061 BCD Product Characteristics Switching

**Note:**
- 1 Cable or power supply are not included. Must be ordered separately.
- Information on this sheet is subject to change without notice

**ORDERING INFORMATION**

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**2-Year Limited Warranty**

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