**QuantiMass™ Ultra**

**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 through a controller to provide local operator interface, data logging function, temperature readings, alarm outputs and more.
- Integrator / Totalizer feature through the controller that provides a sum of the mass flow for a period of time.
- Application versatility...QuantiMass Ultra is suitable for powders, dust, pellets, and granular up to 0.75 inch (2cm).

**PRINCIPLE OF OPERATION**

The QuantiMass™ Ultra 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 Ultra is based on technology that has been developed and proven over several years. The measurement process of the sensor is based 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 Ultra sensor is suitable for in-line measurements in pneumatic or in free-fall pipelines.

A complete QuantiMass Ultra system consists of the controller and the mass flow measurement sensor. The controller provides graphic user interface with softkeys and a clearly arranged display of the measured, alarm and MIN/MAX values, combined with easy editing and parameterization for simple operation. In addition, up to 24 different product parameters can be stored in the controller 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

**OPTIONS**

- Choose from standard or high temperature styles.
- Select from 304 SS or 316 SS sensor housing construction.
- Controller style options include:
  - Controller, 19” Rack Mount
  - Controller, Desktop
  - Controller, Field Enclosure
  - Mini Controller, 19” Rack Mount

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” (1mm 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 up to +70°C)
- Sensor dimensions: ~11.42”L x 2.36” Diameter (~290 x 60mm)
- Sensor weight (approx.): 3 lbs. (1.4 kg)
- Accuracy: 1 to 3% typical
- Power: Via controller
- Interconnection: 4 wires, shielded, 3280 ft (1000m) max
- Welding branch dim.: 3.94”L x 1.18” Diameter (100 x 30mm)

**Controller**
- Response time: Approximately 1 second
- Averaging time: 0 – 999 seconds
- Power supply: 115 VAC / 24 VAC/DC or 230 VAC / 24 VAC/DC
- Outputs: ¼ VGA-LC Display, relay, analog, RS-485
- Desktop controller dim.: 9.33” x 5.22” x 11.61” (237 x 132.5 x 295mm)

**ORDERING INFORMATION**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
<th>Order Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-3401</td>
<td>Welding Branch, Steel, with Drill Bit</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>17-3402</td>
<td>Welding Branch, 304 SS, with Drill Bit</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>17-3403</td>
<td>Welding Branch, 316 SS, with Drill Bit</td>
<td>X X X X X X</td>
</tr>
<tr>
<td>R0514-18001</td>
<td>Cable, 4-Wire, Shielded, 18 AWG</td>
<td>X X X X X X</td>
</tr>
</tbody>
</table>

**ACCESSORIES:**

**Note:**
1. Cable is not included. Must be ordered separately.

Information on this sheet is subject to change without notice.

Visit www.monitortech.com