

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



Sensor



Desktop Controller Shown

Practical Tip

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



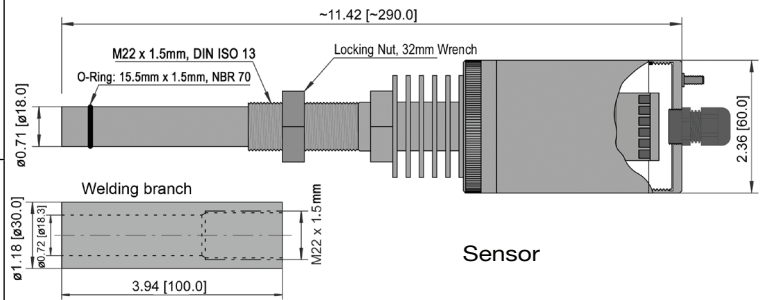
Scan this with a smartphone QR-Code app for more product details.

SPECIFICATIONS

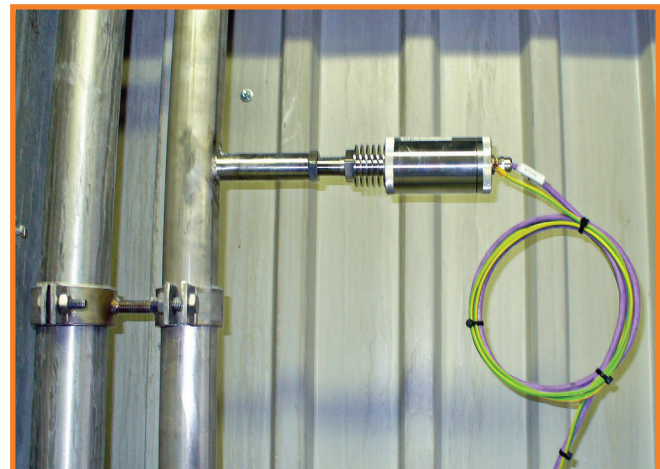
Process Data	
Pipe diameter:	1" to 12" (25mm to 300mm)
Particle size:	.001 micron to 0.75" (1nm to 20mm)
Moisture:	Depending on the product
Pressure:	Up to 6 bar (Option up to 30 bar)
Temperature:	-4 to +194°F (-20 to +90°C) (Higher temperatures on request)
Sensor Data	
Medium contact parts:	304 SS (1.4307) 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 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) Dimensions vary for other controller options.

MECHANICALS

DIMENSIONS ARE SHOWN IN INCHES WITH MILLIMETER EQUIVALENT IN BRACKETS UNLESS OTHERWISE STATED



Mass flow measurement of dry sand



Mass flow measurement of plastic powder

ORDERING INFORMATION

QuantMass™ Ultra Mass Flow Measurement System							
Select	Base System						
7	QuantMass™ Ultra Mass Flow Measurement System						
Select	Operating Voltage						
1	115 VAC / 24 VAC/DC						
2	230 VAC / 24 VAC/DC						
Select	Approvals						
1	Ordinary Location						
2	Hazardous Location, North America (Pending)						
3	Hazardous Location, ATEX for Dust						
Select	Sensor Construction						
1	304 SS & Polyamide 6.6						
2	316 SS & Polyamide 6.6						
Select	Output Configuration						
3	Controller, 19" Rack Mount						
4	Controller, Desktop						
5	Controller, Field Enclosure						
8	Mini Controller, 19" Rack Mount						
Select	Temperature Style						
1	Standard (to 194°F/90°C)						
2	Hi-temp (to 302°F/150°C)						
3	Hi-temp (to 842°F/450°C)						
17 - 8	7	X	X	-	X	X	X
							Order Number

ACCESSORIES:

Part #	Description
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 1

Note:

1 Cable is not included. Must be ordered separately.



Information on this sheet is subject to change without notice

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