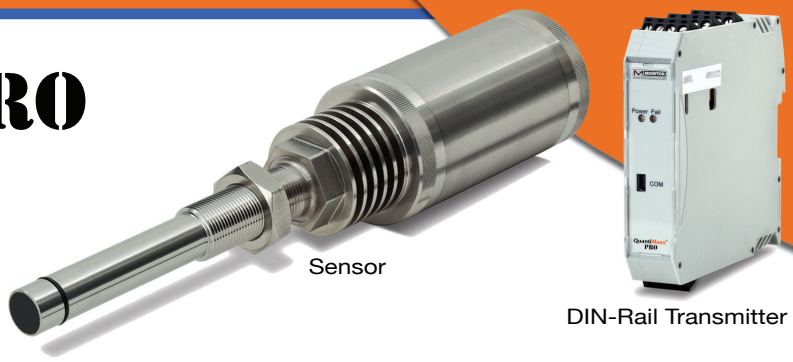
MONITOR

Practical solutions... at every level!

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).

Practical Tip

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

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).

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.)

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

follow us on facebook LinkedIn Google+

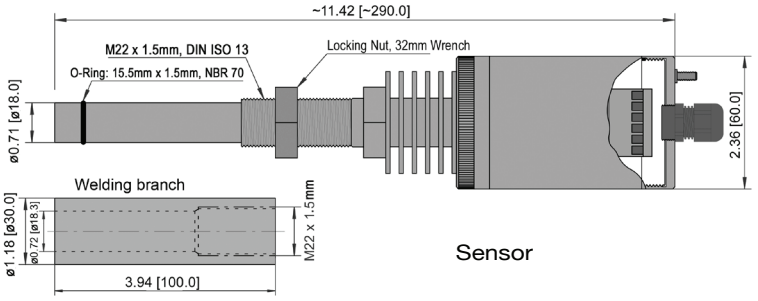
Scan this with a smartphone QR-Code app for more product details.

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 transmitter
Interconnection:	4 wires, shielded, 3280 ft (1000m) max
Welding branch dim:	3.94”L 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”L x 0.89”W x 3.94”H (115 x 22.5 x 100mm)
Transmitter weight (approx.):	0.33 lbs. (0.15 kg)

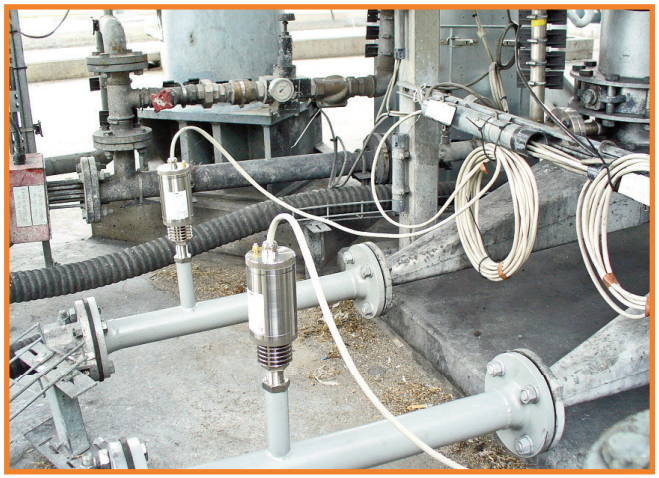
MECHANICALS

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



Sensor

Mass flow measurement of dry sand



Mass flow measurement of calcium carbonate

ORDERING INFORMATION

QuantiMass™ Pro Mass Flow Measurement System

Select	Base System
6	QuantiMass™ Pro Mass Flow Measurement System

Select	Operating Voltage
3	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
1	Transmitter, DIN
2	Transmitter, DIN w Encl.

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	6	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]
17-8021	Power Supply, Universal AC to 24VDC [1]
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

2-Year Limited Warranty

MONITOR TECHNOLOGIES, LLC
44W320 Keslinger Road ▼ Elburn, IL 60119 USA
Tel: 1-630-365-9403 ▼ In US/CAN 1-800-766-6486
Fax: 1-630-365-5646 ▼ monitor@monitortech.com
www.monitortech.com ▼ www.flexar.info
Blog: www.monitortech.typepad.com