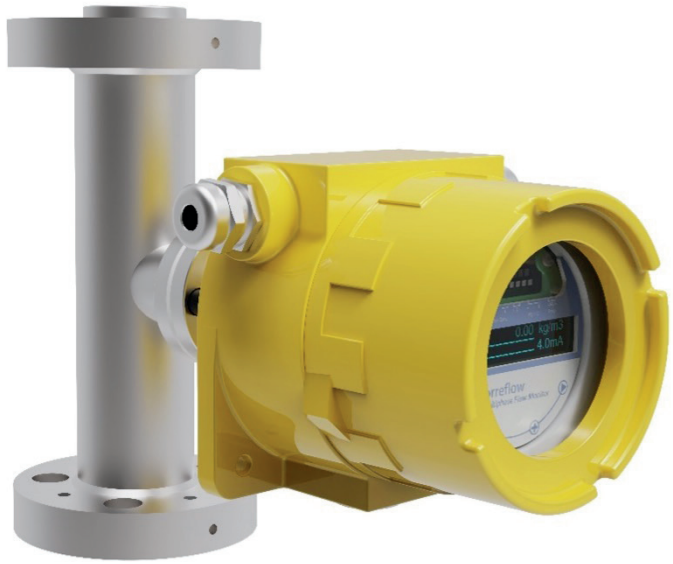
ELECTROSTATIC MEASUREMENT SOLUTIONS



Correflow® 6400

Real-time catalyst feed measurement

In the production of polymer resins, instantaneous and average catalyst mass flow feedback is essential for reaction rate control and high-quality production. The Correflow 6400 provides direct measurement of catalyst concentration and mass flow, enabling closed-loop process control from this critical parameter. Other methods indirectly measure only the mass flow of the slurry, not the catalyst fraction, and erroneously assume that the slurry concentration is always constant.

Unlike those alternatives, this in-line, real-time system directly measures velocity, concentration, and mass flow of each component in various two-phase mixtures. It works with gas, solid, or non-conducting liquid in nearly any combination of two materials. In most catalyst feed streams, it's the only way to accurately monitor actual feed rates.

BENEFITS

- Improved process and quality control from direct catalyst monitoring
- Downtime avoidance by immediate detection of catalyst feeder clogging or leaking
- Better product consistency due to catalyst feed concentration variations corrected in real-time
- Rapid return on investment

ADVANTAGES

- No pressure drop or flow impact to catalyst feed stream
- Unaffected by vibration or color
- Directly measures volume fraction, velocity and concentration
- Suitable for any flow patterns
- Highly reliable due to no moving parts
- UL approved for hazardous locations
- Low cost of installation and ownership

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TECHNICAL SPECIFICATIONS

MECHANICAL

- In-line flange: 3/4" or 1" 300#
- Swagelok fitting: 1/8" tubing
- 316 SS sensor with PEEK lining
- Cast aluminum electronics housing
- Mounting Orientation: Horizontal or vertical (vertical recommended)

ENVIRONMENTAL:

- Ambient temperature range: -40°C to +80°C
- Process pressure <10 MPa
- IP Rating IP66
- ATEX/IECEx (Ex db IIC T4 Gb, Ex tb IIIC T80C Db)
- UL Class I, Division 2 Groups A, B, C, and D

ELECTRICAL

- 24V DC (<15W)
- 4–20 mA outputs, 4 × user selectable
- Digital communication via USB or RS485

PERFORMANCE

- Concentration 0.1–99.9%
- Velocity range: 0.25–64 m/s
- Velocity measurement error <1%
- Flow rate measurement error <1%
- Response time 0.25 seconds

DISPLAY

- OLED display reports measurements locally
- On-screen menu to configure parameters and select outputs
- All controls and indicators viewable through the enclosure window

PROVEN RELIABILITY

The Correflow 6400 is an industrialized, non-intrusive mass flow meter designed for continuous, real-time flow monitoring in demanding process environments. Leveraging advanced cross-correlation time-of-flight and capacitance tomography technologies, it delivers precise, dependable measurement of flow rate and concentration in two-phase (solid-liquid/solid-gas/liquid-gas) streams. Its robust design is ideally suited for monitoring catalyst injection rates, suspended density, and particle velocity across a variety of flow regimes.