

ELECTROSTATIC MEASUREMENT SOLUTIONS

BENEFITS

- Auto ranging for optimum performance across varying conditions
- User selectable output range and smoothing settings
- Real-time bipolar measurement
- No artificially high voltage source within the reactor
- Fast data sampling with on-board data processing
- Two 4-20mA outputs for simultaneous multi-parameter monitoring
- No maintenance or spare parts required

ADVANTAGES

- Compact one-piece design standard (remote version also available)
- Custom-designed probe for easy, low-cost installation into existing ports
- Will hold international approval for use in hazardous areas



Correstat 5410

Probe measures charge imbalances within the reactor

The Correstat™ 5410 electrostatic probe monitors conditions within gas phase reactors. The probe can measure charge imbalances within the reactor chamber allowing plant operators to avoid problems associated with sheeting and polymer agglomeration. With the real-time reactor electrostatic charge measurements provided by the Correstat 5410, process continuity can be improved and shutdowns avoided.

The Correstat 5410 reactor probe is installed directly in the reactor. The sensing probe can be customized to fit into existing ports or nozzles with standard flanged connections. The Correstat 5410 probe is available in either integral or remote probe and electronics configuration to allow for a variety of process requirements.

LexMar Global
Analyze with Integrity®

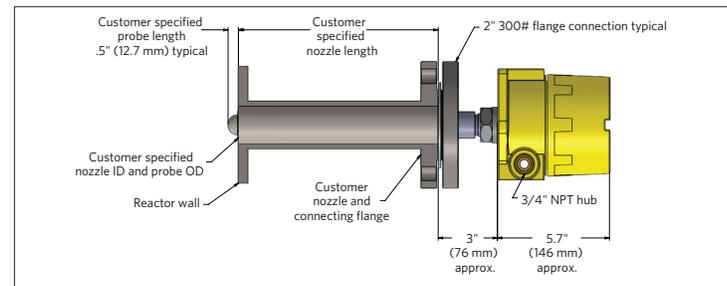
PROVEN RELIABILITY

The Correstat 5410 sensor is engineered to operate continuously 24 hours per day, 7 days per week. It is designed for the harsh environment of fluidized bed reactors, requiring no maintenance or spare parts. Unlike traditional electrostatic probes, the Correstat sensor measures current. This keeps the potential of the active probe tip under 1 volt—compared to nearly 10 kv from traditional probes.

TECHNICAL SPECIFICATIONS

MECHANICAL

- Standard port (nozzle) sizes: 1.5" and 2" (others available)
- Flange mounting (300 lb. typical)
- Cylindrical enclosure is 5.6" in diameter, 5.7" long
- All metals exposed to reactor are stainless steel
- Built to withstand significant impacts and reactor conditions
- Distance from flange face to tip of sensor is user specific
- Pressure tested up to at least 750 psi (higher pressure systems available)



ENVIRONMENTAL

- IECEx Ex db ia IIC T4 Gb
- Probe: ambient to 125°C
- Electronics: ambient up to 50°C
- Consult LexMar Global for high temperature applications

ELECTRICAL

- Two 3/4" NPT hubs for power and analog output signal
- 120/230 VAC 50/60 Hz or 10-32 VDC
- Intrinsically safe probe connection
- Probe tip operates at <1 volt, eliminating the dangers of an artificially high voltage source within the reactor
- 4-20mA bipolar outputs, two user-selected parameters can be assigned as outputs
- Full scale output range selectable from ±0.1 to ±1000nA of electrostatic current
- Signal damping selectable 0-100 seconds

DISPLAY

- LED Display indicates real-time bipolar signal and allows navigation through system menus
- Menu selectable output range adjustment
- Menu selectable outputs: Instantaneous DC, Instantaneous AC, Avg. DC, Avg. AC, Device Temperature
- Menu selectable signal smoothing
- All controls and indicators viewable through window in enclosure