



Correflux 5420

Carryover probe gives real-time indication of particle flow changes

The Correflux™ 5420 is used as a particulate carryover probe monitoring conditions within gas recycle lines and gas discharge lines of various process vessels. The Correflux measure increases in the quantity of entrained particles within these lines to give an immediate indication of process upset conditions.

With real-time feedback of particle entrainment, reactor control can be improved, and process parameters changed to optimize process conditions and production rates. This information is also critical in protecting expensive down-stream equipment from damage caused by excessive particle carryover.

The Correflux probe is ruggedized for installation in the harsh conditions of reactor discharge lines. The sensing probe can be customized for insertion into an available port or nozzle with standard flanged connections. It is designed to withstand the impact of entrained particles and to quickly alert plant operators of upset conditions. The Correflux probe is available in either an integral or remote electronics configuration for cases with extreme process conditions such as high temperature.

BENEFITS

- Real-time indication of entrained particle concentration changes
- Allows optimization of fluidizing gas flow
- User-selectable sensitivity
- No moving parts; 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
- Designed for harsh industrial environment
- Approved for use in hazardous areas

TECHNICAL SPECIFICATIONS

MECHANICAL

- Standard port (nozzle) sizes: 1.5" and 2" (others available)
- Flange mounting (300# typical)
- Cylindrical enclosure is 5.6" (14.3 cm) in diameter, 5.7" (19.4 cm) L
- Built to withstand significant impacts and reactor conditions
- Distance from flange face to tip of sensor is user specific

ENVIRONMENTAL

- ATEX / IECEx (Ex II 2 G/Ex db ia IIC T3 Gb)
- cULus Listed [E487115] nonincendive for Class I, Division 2, Groups A, B, C, and D
- Operating Temperature Range: -20°C up to 55°C
- Consult LexMar Global for high temperature applications

ELECTRICAL

- 120 or 230 VAC 50/60 Hz or 24 VDC, 10 VA
- Two ¾" NPT entries for power and analog output signal
- Intrinsically safe probe connection
- Probe tip operates at <1 volt, eliminating the dangers of a 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 0.1nA to 1000nA of electrostatic current
- User selectable signal damping

DISPLAY

- LED display indicates real-time signal and allows navigation through system menus
- Menu selectable output range adjustment
- Menu selectable outputs: Instantaneous DC, Instantaneous AC, Avg. DC, Avg. AC, and device temperature
- Menu selectable signal smoothing
- All controls and indicators viewable through the enclosure window

PROVEN RELIABILITY

The Correflux™ 5420 probe is engineered to operate continuously 24 hours per day, seven days per week.

It is designed for the harsh environment of a polymer reactor, requiring no maintenance or spare parts. The Correflux probe measures current generated by particles impinging upon the probe. This low-level signal is proportional to the relative amount of particles hitting the probe.