### Correflux<sup>™</sup>3420

Carryover probe gives real-time indication of particle flow changes



The Correflux 3420 can be used as a particulate carryover probe monitoring conditions within gas recycle lines and gas discharge lines of various process vessels. The Correflux 3420 has the ability to 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 3420 probe is ruggedized to be installed in the harsh conditions of reactor discharge lines. A sensing probe can be customized to be inserted 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 probe and electronics configuration for cases with extreme process conditions such as high temperature.

# progression

#### **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

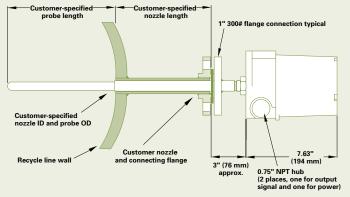
- Compact one-piece design standard (remote version also available)
- Custom-designed probe for easy low-cost installation into existing ports
- Designed for harsh industrial environment
- Approved for use in hazardous areas
- Required standard part of polyolefin plant package

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#### **Specifications**

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| Mechanical            | Standard port (nozzle) sizes: 1.5" (3.8 cm), and 2" (5.1 cm) (others available)                                   |
|-----------------------|---|
|                       | Flange mounting (300 lb typical)  |
|                       | Built to withstand significant impacts and severe reactor conditions  |
|                       | Distance from flange face to tip of sensor is user specific   |
|                       | Standard operating temperatures<br>Probe: ambient to 120°C  |
|                       | Electronics: ambient up to 40°C<br>Consult Progression for high temperature applications                          |
| Electronics Enclosure | Two 3/4" NPT hubs for power and analog output signal  |
| Electronics Enclosure |   |
|                       | Cylindrical enclosure is 5.6" (14.3 cm) in diameter, 7.6" (19.4 cm) long  |
|                       | Designed NEMA 4/7/9, ATEX approved EEx d ia IIC T4  |
|                       | Typically extends 10.6" (27 cm) from flange   |
| Electrical            | 120/230 VAC 50/60 Hz or 10 – 32 VDC   |
|                       | Frequency Response: 0 – 100Hz   |
|                       | Intrinsically safe probe connection   |
|                       | 4 – 20mA output   |
|                       | Full scale output is user-selected: 5 position full scale current range adjustment with an additional X100 switch |
|                       | Signal damping fixed at two seconds   |
| Display               | 10 segment LED bar graph to indicate real-time signal   |
|                       | Green LED power indicator   |
|                       | All controls and indicators viewable through window in enclosure  |
|                       |   |



The Correflux 3420 probe is engineered to operate continuously 24 hours per day, seven days a 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.

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