

# Plugged Chute Detector

Non-intrusive monitoring of chutes and hoppers for bulk material detection

Over 30 years of Arjay's field proven HF capacitance technology has been applied to the 9830-PCD plugged chute detectors. The flush mount sensor continuously monitors the change from a normal material chute condition to a plugged condition.

- capacitance technology responds to any material type
- no moving parts
- remote alarm unit mounts safely away from pipe
- no intrusion into chute or hopper



# 9830-PCD

The 9830-PCD sensor monitors the capacitance field in front of the sensor plate. The sensing plate forms part of the chute or hopper wall to sense the product within. The increased presence of product in front of the sensor due to a plugging condition increases the capacitance field and initiates an alarm.

The sensing plates are embedded into a polyethylene plate which provides monitoring without any intrusion into the product flow

## ■ Features and Benefits

- flush mount sensor forms part of the chute wall
- adjustable time delay and sensitivity to eliminate nuisance alarms
- remote electronics via standard twisted pair
- available with Intrinsic Safety Barrier for Hazardous Locations
- high erosion resistant polyethylene resists wear
- capacitance technology responds to all types of bulk materials
- non-intrusive sensor design does not restrict product movement

## ■ Technical Specifications - Control Unit

|                       |                              |
|-----------------------|------------------------------|
| Operating Temperature | -20°C to 60°C                |
| Power Input           | 24 vdc or 110 vac or 220 vac |
| Alarm Relay           | 5 amp, DPDT, dry             |
| Standards             | UL, CSA                      |
| Enclosure             | Type 4X, IP65                |
| Optional              | Lights and Buzzer            |

## ■ Technical Specifications - Sensor

|                       |  |
|-----------------------|--|
| Operating Temperature | 0°C to 50°C  |
| Approval              | CSA Class 1, Zone 2, Div 2, Groups A,B,C,D (also available with an Intrinsic Barrier Option) |



All calibration, control relays and power wiring is available at the main control unit. This can be safely mounted up to 1 km away from the chute.



The unique PMC circuit design, exclusive to Arjay, immediately converts the sensor signal to a frequency pulse for furtherance to the controller.



Alternate probe designs are available for specialty applications

Arjay SS-06



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