



ThePoint™ RF Series

Point Level Switch for Plugged Chute Detection



Intelligent Electronics Save Time and Money

- Automatically recognizes and ignores coatings to prevent false alarms.
- Universal power supply automatically detects & adjusts to input power source
- Standard & High Sensitivity Electronics, Field Selectable

Application

- Detects the presence of plugged material in chutes

Economical Without Sacrifice

- Retains superior performance.
- Less maintenance than other technologies; no moving parts to hang up or wear out.

Output

- DPDT relay dry contacts at 5A, 120VAC.

Remote Electronics

- Unlike many technologies, electronics can be remote mounted to a convenient or safe location

Eliminate Costly Plugged Chutes with Drexelbrook Sensors!

Downtime is expensive and so is the clean up of process spills.

Reliable detection of plugged chutes will keep your plant running smoothly and virtually eliminate spills that occur because of plugged conditions.

Drexelbrook's Flush-Mounted Sensors

reliably detect presence or absence of material flowing through chutes. If process material stops flowing due to a plugged condition, the system will alarm, allowing further action to occur (alerting an operator, shutting down a conveyor belt, etc.). This permits the operator to prevent a problem before it happens.

Rugged sensor design

makes these systems ideal for coal (pulverizer and transfer chutes), wood chips, ores, powders, etc. Since they are flush mounted through a chute wall, nothing protrudes into the chute to interfere with or to obstruct material flow.

Dust coating and/or wall build up will not affect the measurement.

Drexelbrooks Cote-Shield circuitry "Sees" through any coating condition and eliminates false plugged chute signals.

Curved and flat sensors are available.

Chutes vary in size and shape. We have a sensor design to fit your chute.

Point Level Measurement



Point Level Measurement

The Point™

Specifications

Technology:

RF Admittance.

Calibration:

None (for most applications).

Modes Of Operation:

High and Low Level.

Repeatability:

2 mm (0.08 inch) conductive liquids.

Response Time:

Less than one second.

Ambient Electronic Temperature:

-40 to 70°C (-40 to 158°F) FM, CSA

Storage Temperature:

-40 to 85°C (-40 to 185°F).

Indicators:

LEDs: Green Power, Red Relay 1.

Time Delay:

0-60 seconds, forward or reverse-acting.

Supply Voltage:

19-250 VAC

18-200 VDC

Auto-detecting without jumpers.

Power Consumption:

2 watts maximum.

Relay Contacts:

DPDT dry contacts at 5A, 120Vac.

Maximum Contact Load:

5A/30 VDC

5A/250 VAC **Maximum Switching Capacity:**

2000 VA/150 Watt.

Minimum Contact Load (DC):

100 mA/12 VDC

0 -200 mA / 12 VDC (Optional)

Housing:

Powder-Coated aluminum with two cable entries.

Cable Entry:

M20 x 1.5

¾-inch NPT

Ingress Protection:

IP66 NEMA 4X

Approvals:**Remote Sensors**

Explosion-proof for Class I, Division 1, Groups A, B, C, and D; Dust-Ignition proof for Class II, III, Division 1, Groups E, F, and G; Non-incendiary for Class I, Division 2, Groups A, B, C, & D; Suitable for Class II, III, Groups F & G hazardous outdoor Type 4X, IP66 (classified) locations with Intrinsically Safe connections to Class I, II, III, Division 1, Groups A, B, C, D, E, F, and G hazardous (classified) locations in accordance with Control Drawing 420-0004-181-CD.

Integral:

[Same, but Group A does not apply.]

**Remote Sensors**

Class I, Groups A, B, C, D; Class II, Groups E, F, G; Class III; Type 4, 4X, IP66; T5 for Ta = 70o C Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F, G; Class III; Type 4, 4X, IP66; T5 for Ta = 70o C



II 1/2 GD EEx d[ia] IIC T2..T5,
Ta = -30°C to +70°C

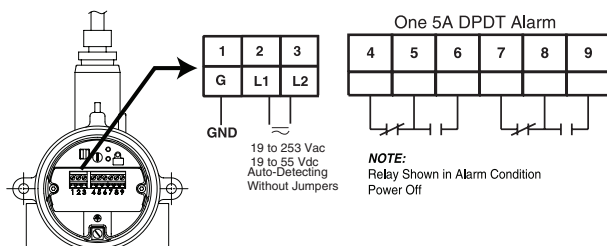
SAA (For Remote Electronics)

Electronics Ex d[ia] IIC T5 DIP A21

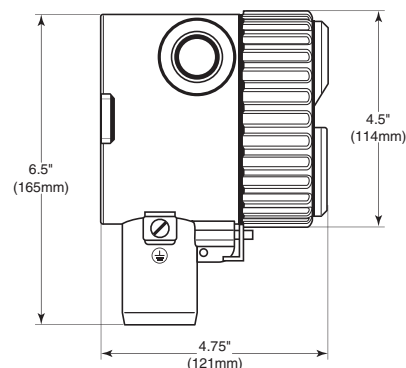
Ta = -100°C

Sensing Element Ex ia IIC T6

Wiring



Dimensions



Point Level Measurement

The Point™

Model Numbering

| | | | |
|---|--|--|---|
| ● Technology | | | |
| P | RF Admittance | | |
| ● Measurement Type | | | |
| M | Manual Set Point, Point Level | | |
| G | Manual Set Point, Point Level, High Sensitivity | | |
| ● Input | | | |
| L | Universal Power Supply 21-100 VDC, 85-250 VAC, 0-400 Hz | | |
| ● Output | | | |
| 1 | One DPDT Relay, dry contacts, 5A, 120VAC (Min 100 mA / 12 VDC) | | |
| 2 | One DPDT Relay, gold plated contacts (Max 200 mA / 12 VDC) | | |
| ● Housing | | | |
| 0 | No Approvals, NEMA 4X/IP66, M20 x 1.5 conduit entries | | |
| 1 | No Approvals, NEMA 4X/IP66 ¾" NPT conduit entries | | |
| 2 | CENELEC/ATEX | | |
| 3 | FM Approved | | |
| 4 | CSA Approved | | |
| ● Electronics | | | |
| 1 | Remote, no cable | 8 | Rmt. w/ (50 ft.) Tri-Ax Cable |
| 2 | Rmt. w/ 3 m (10 ft.) G.P. cable | 9 | Rmt. w/ (75 ft.) Tri-Ax Cable |
| 3 | Rmt. w/ 7.6 m (25 ft.) G.P. cable | A | Rmt. w/ (10 ft.) Hi-Temp. Cable |
| 4 | Rmt. w/ 10.6 m (35 ft.) G.P. cable | B | Rmt. w/ (25 ft.) 1st 10ft Hi-Temp. Cbl. |
| 5 | Rmt. w/ 15.2 m (50 ft.) G.P. cable | C | Rmt. w/ (35 ft.) 1st 10ft Hi-Temp. Cbl. |
| 6 | Rmt. w/ 23 m (75 ft.) G.P. cable | D | Rmt. w/ (50 ft.) 1st 10ft Hi-Temp. Cbl. |
| 7 | Rmt. w/ (25 ft.) Tri-Ax Cable | E | Rmt. w/ (75 ft.) 1st 10ft Hi-Temp. Cbl. |
| | | F | Rmt. w/ (5 ft.) G.P. Cable |
| | | G | Rmt. w/ (5 ft.) Tri-Ax Cable |
| | | H | Rmt. w/ (10 ft.) Tri-Ax Cable |
| | | J | Rmt. w/ (35 ft.) Tri-Ax Cable |
| | | K | Rmt. w/ (5 ft.) Hi-Temp. Cable |
| ● Sensing Element | | | |
| Plugged Chute Detection | | (1) Available with remote electronics only | (2) Use P00X mounting option |
| Application | Sensing Element | Pressure/Temperature | Wetted Parts |
| 50 Flush Mount Sensor 305mm ² (12 inches ²) heavy duty | 700-0207-001 | 0.1 bar @ 82°C (1 PSI @ 180°F) | 304 SS and Polyurethane |
| 51 Flush Mount Sensor 305mm ² (12 inches ²) higher temperature | 700-0207-002 | 0.1 bar @ 149°C (1 PSI @ 300°F) | 304 SS and TFE |
| 52 Flush Mount Sensor 305mm ² (12 inches ²) with curved radius 153, 229, 305 mm (6, 9, or 12 inches) | 700-0207-003 | 0.1 bar @ 82°C (1 PSI @ 180°F) | 304 SS and Neoprene |
| 53 Flush Mount Sensor 305mm ² (12 inches ²) extra heavy duty | 700-0207-004 | 0.1 bar @ 82°C (1 PSI @ 180°F) | 410 SS and UHMW Polyethylene |
| 55 Flush Mount Sensor 203mm ² (8 inches ²) heavy duty | 700-0207-006 | 0.1 bar @ 82°C (1 PSI @ 180°F) | 304 SS and Polyurethane |
| ZZ Sensing Element Not Listed | | | |
| ● Mounting Type | | | |
| P00X | IL/CSL factory set for Plugged Chute | | |

| | | | | | | |
|---|---|--|--|--|--|------|
| P | L | | | | | P00X |
|---|---|--|--|--|--|------|

Point Level Measurement

Other Great Solutions By: **DREXELBROOK**®

IntelliPoint RF™ Series

Two-Wire Point Level Switch



The Point™

Two-Wire RF Series Point Level Switch



TF-100™ Series

Vibrating Tuning Fork



Clear Line™

In-Line Fluid Detector



U.S.A. Sales: 800-553-9092 • 24-Hour Service: 800-527-6297 • International Support: 215-674-1234 • Fax: 215-674-2731

AMETEK®
DREXELBROOK

205 Keith Valley Road
Horsham PA 19044 U.S.A.
E-mail-drexelbrook.info@ametek.com
Web-www.drexelbrook.com

AMETEK Nihon Drexelbrook
2 Chome • 12-7 Minami Gyotoku
Ichikawa City • Chiba 27201 Japan
Phone: 81-473-56-6513
Fax: 81-473-56-6535
E-mail: nd@nihon-drexelbrook.co.jp

AMETEK Singapore Pte. Ltd.
10 Ang Mo Kio Street 65
#05-12 Techpoint • 569059 Singapore
Phone: 65-6484-2388
Fax: 65-6481-6588
E-mail: aspl@ametek.com.sg

AMETEK Precision Instruments Europe
Rudolf-Diesel-Strasse 16
D-40670 Meerbusch Germany
Phone: 49-2159-9136-0
Fax: 49-2159-9136-39
Web: www.ametek.de