The Point™
RF Series Point Level Switch

Intelligent Electronics Save Time and Money
• UNIQUE! - NO calibration or setpoint adjustments, for most applications.
• UNIQUE! - Ignores changes in dielectric or conductivity.
• Automatically recognizes and ignores coatings to prevent false alarms.
• Universal power supply automatically detects & adjusts to input power source.

Diverse Applications
• Detects the absence or presence of liquids, slurries, and granulars.
• Capable of high pressures and temperatures.

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 or Integral Electronics
• Unlike many technologies, electronics can be remote mounted to a convenient or safe location

One of the Drexelbrook RF Point Level Switches You Won’t Have to Calibrate

Simply install ThePoint Series into the tank and apply power...that’s it! Unlike other RF or capacitance systems that require calibration via setpoint potentiometers, jumpers, magnets, or pushbuttons, ThePoint Series reliably detects the absence or presence of material without any adjustments.

ThePoint Series software continuously monitors the application for changes in composition, dielectric or conductivity, and maintains a repeatable trip point on the probe. Other RF and capacitance systems require calibration adjustments when the process material is changed. Since ThePoint Series recognizes changes in material, it is ideal for non-dedicated tanks that are used for a wide variety of products.

Lower Cost of Ownership
In addition to lower initial investment, ThePoint continues to save with little or no maintenance compared with other technologies. Further, the sensor can be lengthened or shortened in the field, saving need for additional purchases.

Universal Power Supply
ThePoint electronics use a universal power supply module that can be powered from a 19 to 250 Vac or 18 to 200 Vdc supply without moving jumpers.
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: 4 watts maximum.
Relay Contacts: DPDT dry contacts at 5A, 120Vac.
Maximum Contact Load: 5A/30 VDC
5A/250 VAC
Minimum Contact Load (DC): 100 mA/12 VDC
Housing: Powder-Coated aluminum with two cable entries.
Cable Entry: M20 x 1.5
¾-inch NPT

Ingress Protection:
IP66 NEMA 4X
Approvals:
Remote
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.]
Integral Sensors
Class I, Groups 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
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 (Pending)

Wiring

Dimensions
The Point™

Model Numbering (continued on next page)

- **Technology**
  - P RF Admittance

- **Measurement Type**
  - N No Calibration, 2 pF Preload
  - H No Calibration, 0.5 pF Preload, with High Sensitivity
  - L No Calibration, 2 pF Fixed Preload
  - T No Calibration, 10 pF Preload
  - V No Calibration, 10 pF Fixed Preload
  - P No Calibration, 0.5 pF Fixed Preload (High Sensitivity)
  - M Manual Calibration
  - G Manual Calibration (High Sensitivity)

- **Input**
  - L Universal Power Supply 19-250 VAC, 18-200 VDC

- **Output**
  - 1 One DPDT Relay, dry contact, 5A, 120VAC (Min 100 mA / 12 VDC)

- **Housing**
  - 0 No Approvals, NEMA 4X/IP66 3/4" NPT conduit entries
  - 1 No Approvals, NEMA 4X/IP66, M20 x 1.5 conduit entries
  - 2 FM Approved
  - 3 CSA Approval

- **Electronics**
  - 0 Integral
  - 1 Remote, no cable
  - 2 Remote with 3 m (10 feet) cable
  - 3 Remote with 7.6 m (25 feet) cable
  - 4 Remote with 10.6 m (35 feet) cable
  - 5 Remote with 15.2 m (50 feet) cable
  - 6 Remote with 23 m (75 feet) cable

<table>
<thead>
<tr>
<th>Sensing Element</th>
<th>Pressure/Temperature</th>
<th>Wetted Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>00 General purpose</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and PEEK</td>
</tr>
<tr>
<td>01 Floating roof with cable attachment and brass bottom weight</td>
<td>13.8 bar @ 177˚C (200 PSI @ 350˚F)</td>
<td>316SS and PEEK</td>
</tr>
<tr>
<td>02 General purpose, longer insertion lengths with cable attachment and 316SS bottom weight</td>
<td>13.8 bar @ 177˚C (200 PSI @ 350˚F)</td>
<td>316SS and PEEK</td>
</tr>
<tr>
<td>03 Proximity</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and PEEK with 76 mm (3) 316SS proximity plate</td>
</tr>
<tr>
<td>04 General purpose, high temperature and pressure</td>
<td>13.8 bar @ 232˚C (200 PSI @ 350˚F)</td>
<td>316SS and PEEK</td>
</tr>
<tr>
<td>06 General purpose with FDA approved materials of construction</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and FDA grade PEEK</td>
</tr>
<tr>
<td>07 General purpose Granular materials</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and FDA grade PEEK with 7/8 inch dia. 316SS collar</td>
</tr>
<tr>
<td>09 General purpose Granular materials with FDA approved materials of construction</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and FDA grade PEEK with 7/8 inch dia. 316SS collar</td>
</tr>
<tr>
<td>10 Corrosive liquids (2)(4)(9)</td>
<td>3.4 bar @ 149˚C (50 PSI @ 300˚F)</td>
<td>PFA</td>
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<tr>
<td>11 General purpose, higher pressure TFE compatibility required</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316SS and TFE</td>
</tr>
<tr>
<td>12 Corrosive material, higher pressure</td>
<td>69 bar @ 38˚C (1000 PSI @ 100˚F)</td>
<td>316SS and TFE</td>
</tr>
<tr>
<td>13 Sanitary (3)</td>
<td>13.8 bar @ 232˚C (200 PSI @ 450˚F)</td>
<td>316/316L SS and TFE</td>
</tr>
<tr>
<td>14 General Purpose, low pressure</td>
<td>3.4 bar @ 149˚C (50 PSI @ 300˚F)</td>
<td>316SS and TFE</td>
</tr>
<tr>
<td>15 Heavy duty, agitated tanks or material with high bulk density (1)</td>
<td>69 bar @ 38˚C (1000 PSI @ 100˚F)</td>
<td>316SS and TFE</td>
</tr>
</tbody>
</table>
The Point™

Model Numbering

- Sensing Element (Continued)
  - 17 Sanitary (3) low pressure
    - 700-0202-036 3.4 bar @ 149°C (50 PSI @ 300°F)
    - 1.4 bar @ 232°C (20 PSI @ 450°F)
    - 316SS and TFE
  - 18 Corrosive material, higher pressure with water interface viscosity
    - 700-0001-022 69 bar @ 38°C (1000 PSI @ 100°F)
    - 34.5 bar @ 149°C (500 PSI @ 300°F)
    - TFE
  - 20 Miniature Pilot Plant Sensor (1) (7)
    - 700-0209-002 6.9 bar @ 121°C (100 PSI @ 250°F)
    - 0 bar @ 232°C (0 PSI @ 450°F)
    - 316 SS and TFE

- Fly Ash Precipitators, Baghouse, and Economizers (1) (6)
  - Fly Ash Precipitators
    - 1524 mm (60") 254 mm (10")
    - CSL IL
    - A1BX IL/CSL factory set for Fly Ash
  - 152 mm (6") 25 mm (1")
    - CSL IL
    - A1BX IL/CSL factory set for Fly Ash

- ANSI Flanges (cont.)
  - Model Numbering
    - E01 25 mm 16 bar RF Carbon Steel
    - EP1 25 mm 40 bar RF Carbon Steel
    - EQ1 50 mm 16 bar RF Carbon Steel
    - ER1 50 mm 40 bar RF Carbon Steel
    - ES1 80 mm 16 bar RF Carbon Steel
    - ET1 80 mm 40 bar RF Carbon Steel
    - EU1 100 mm 16 bar RF Carbon Steel
    - EV1 100 mm 40 bar RF Carbon Steel
    - EW1 150 mm 16 bar RF Carbon Steel
    - EX1 150 mm 40 bar RF Carbon Steel
    - DA1 1" 150# RF 316/316L SS
    - DB1 1½" 150# RF 316/316L SS
    - DC1 2" 150# RF 316/316L SS
    - DD1 2½" 150# RF 316/316L SS
    - DE1 3" 300# RF 316/316L SS
    - DF1 3½" 300# RF 316/316L SS
    - DG1 4" 300# RF 316/316L SS
    - DH1 4½" 300# RF 316/316L SS
    - DI1 5" 300# RF 316/316L SS
  - Wetted Parts
    - 316SS and TFE (CS inactive)
  - Mounting Type (See separate Mounting Chart for first three digits)
    - IL xxxA 152 mm (6") 51 mm (2") xxxH 914 mm (36") 254 mm (10")
    - IL xxxB 305 mm (12") 51 mm (2") xxxJ 914 mm (36") 0 mm (0")
    - CSL xxxC 305 mm (12") 89 mm (3.5") xxxK 1219 mm (47") 254 mm (10")
    - CSL xxxD 457 mm (18") 51 mm (2") xxxL 1524 mm (60") 254 mm (10")
    - CSL xxxE 457 mm (18") 89 mm (3.5") xxxM 254 mm (10")
    - CSL xxxF 457 mm (18") Other
    - CSL xxxG 457 mm (18") 0 mm (0")
  - Notes:
    - (1) Available with remote electronics only
    - (2) Use A1P mounting option
    - (3) Choose from sanitary mounting options only
    - (4) Available with 0-inch CSL only
    - (5) Use P00X mounting option
  - DIN Flanges (cont.)
    - NPT Threads
      - A1B ¼" NPT 316SS
      - A1C ⅜" NPT Hastelloy C
      - A1P ½" NPT PFA
      - A2B 1" NPT 316SS
      - A2C 1" NPT Hastelloy C
    - Sanitary TriClamps
      - C2B 1" TriClamp 316SS
      - C3B 1½" TriClamp 316SS
      - C4B 2" TriClamp 316SS
  - ANSI Flanges
    - DJ1 3" 300# RF 316/316L SS
    - DK1 4" 150# RF 316/316L SS
    - DL1 4" 300# RF 316/316L SS
    - DM1 6" 150# RF 316/316L SS
    - DN1 6" 300# RF 316/316L SS
    - DA2 1" 150# RF Carbon Steel
    - DB2 1½" 150# RF Carbon Steel
    - DC2 2" 150# RF Carbon Steel
    - DD2 2½" 150# RF Carbon Steel
    - DE2 3" 300# RF Carbon Steel
    - DF2 3½" 300# RF Carbon Steel
    - DG2 4" 300# RF Carbon Steel
    - DH2 4½" 300# RF Carbon Steel
    - DJ2 5" 300# RF Carbon Steel
    - DK2 6" 150# RF Carbon Steel
    - DL2 6" 300# RF Carbon Steel
    - DM2 8" 150# RF Carbon Steel
    - DN2 8" 300# RF Carbon Steel
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