



## The Point™ Two-Wire RF Series Point Level Switch



### 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.

### Intelligent Electronics Save Time and Money

- UNIQUE! - NO calibration or setpoint adjustments.
- UNIQUE! - Ignores changes in dielectric or conductivity.
- Automatically recognizes and ignores coatings to prevent false alarms.

### 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

- 8mA (Alarm), 16mA (Normal)  
or
- 8mA (Normal), 16mA (Alarm)

### 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.

### Remote or Integral Electronics

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



# Point Level Measurement

## The Point™

### Specifications

**Technology:**

RF Admittance

**Calibration:**

None

**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)

**Storage Temperature:**

-40 to 85°C (-40 to 185°F)

**Indicators:**

LEDs: Green Power, Red Alarm

**Time Delay:**

0-60 seconds, forward or reverse-acting

**Supply Voltage:**

13-30 VDC

**Power Consumption:**

2 watts maximum

**Output:**

8mA (Alarm), 16mA (Normal)

or

8mA (Normal), 16mA (Alarm)

**Housing:**

Powder-Coated aluminum with two cable entries.

**Cable Entry:**

M20 x 1.5 or 3/4-inch NPT

**Ingress Protection:**

IP66 NEMA 4X

**Approvals:****Integral**

Explosion Proof for Class I, Division 1, Groups 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, and D; Suitable for Class II, III, Division 2, Groups F and G hazardous (classified) locations Outdoor Type 4, 4X, IP66 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

**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, and D; Suitable for Class II, III, Division 2, Groups F and G hazardous (classified) locations Outdoor Type 4, 4X, IP66 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 Sensors**

[Ex ia IIC]:

Class I, Div 1, Groups B, C, D; Class II, Groups E, F, G; Class III Explosion proof with integral intrinsically safe output sensing element, CI, I Div. 1, Groups A, B, C, D; CI, II, Groups E, F, G; CI, III, Per Control Drawing 420-0004-219-CD.

T5 at Ta = 70°C. Encl. Type 4X. Control Drawing 420-0004-219-CD

**Remote Sensors**

[Ex ia IIC]:

Class I, Div 1, Groups A, B, C, D; Class II, Groups E, F, G; Class III; Explosion proof with integral intrinsically safe output sensing element, CI, I Div. 1, Groups A, B, C, D; CI, II, Groups E, F, G; CI, III, to remove sensing element Per Control Drawing 420-0004-219-CD.

T5 at Ta = 70°C. Encl. Type 4X. Control Drawing 420-0004-219-CD

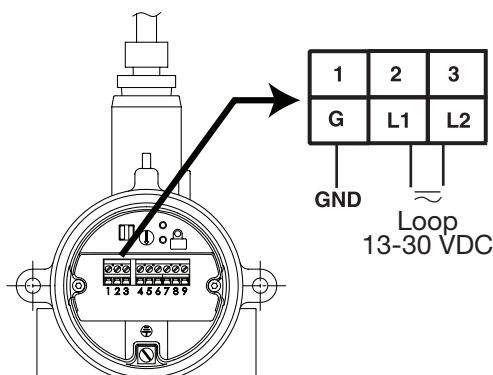


II 1 GD EEx ia IIC T5, T90°C  
NEMKO

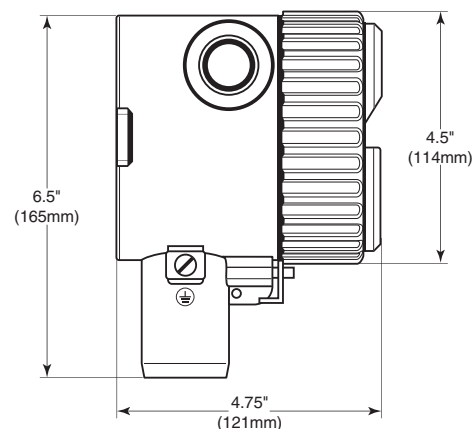


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### Wiring



### Dimensions



# Point Level Measurement

## The Point™

Model Numbering (continued on next page)

### Technology

**P** RF Admittance

### Measurement Type

<b>N</b> No Calibration, 2pF Preload	<b>V</b> No Calibration, 10pF Fixed Preload
<b>H</b> No Calibration, 0.5pF Preload, with High Sensitivity	<b>P</b> No Calibration, 0.5pF Fixed Preload (High Sensitivity)
<b>L</b> No Calibration, 2pF Fixed Preload	<b>M</b> Manual Calibration
<b>T</b> No Calibration, 10pF Preload	<b>G</b> Manual Calibration (High Sensitivity)

*NOTE: All Calibration modes are built into the standard unit. Modes can be changed in the field as required (See Instruction Manual)*

### Input

**T** Two Wire Power Supply 13 to 30 Vdc

### Output

**0** 8-16 mA

### 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 pending - not available
- 3** FM Approved
- 4** CSA Approval pending - not available

### Electronics

<b>0</b> Integral	<b>7</b> Rmt. w/ (25 ft.) Tri-Ax Cable	<b>E</b> Rmt. w/ (75 ft.) 1st 10ft Hi-Temp. Cbl.
<b>1</b> Remote, no cable	<b>8</b> Rmt. w/ (50 ft.) Tri-Ax Cable	<b>F</b> Rmt. w/ (5 ft.) G.P. Cable
<b>2</b> Rmt. w/ 3 m (10 ft.) G.P. Cable	<b>9</b> Rmt. w/ (75 ft.) Tri-Ax Cable	<b>G</b> Rmt. w/ (5 ft.) Tri-Ax Cable
<b>3</b> Rmt. w/ 7.6 m (25 ft.) G.P. Cable	<b>A</b> Rmt. w/ (10 ft.) Hi-Temp. Cable	<b>H</b> Rmt. w/ (10 ft.) Tri-Ax Cable
<b>4</b> Rmt. w/ 10.6 m (35 ft.) G.P. Cable	<b>B</b> Rmt. w/ (25 ft.) 1st 10ft Hi-Temp. Cbl.	<b>J</b> Rmt. w/ (35 ft.) Tri-Ax Cable
<b>5</b> Rmt. w/ 15.2 m (50 ft.) G.P. Cable	<b>C</b> Rmt. w/ (35 ft.) 1st 10ft Hi-Temp. Cbl.	<b>K</b> Rmt. w/ (5 ft.) Hi-Temp. Cable
<b>6</b> Rmt. w/ 23 m (75 ft.) G.P. Cable	<b>D</b> Rmt. w/ (50 ft.) 1st 10ft Hi-Temp. Cbl.	

### Sensing Element

	<b>Application</b>	<b>Sensing Element</b>	<b>Pressure/Temperature</b>	<b>Wetted Parts</b>
<b>00</b>	General purpose	700-1202-001 remote 700-1202-021 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and PEEK
<b>01</b>	Floating roof with cable attachment and brass bottom weight	700-1202-012 remote 700-1202-022 integral	13.8 bar @ 177°C (200 PSI @ 350°F)	316SS, Brass, and PEEK
<b>02</b>	General purpose, longer insertion lengths with cable attachment and 316SS bottom weight	700-1202-014 remote 700-1202-024 integral	13.8 bar @ 177°C (200 PSI @ 350°F)	316SS and PEEK
<b>03</b>	Proximity	700-1202-018 remote 700-1202-028 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and PEEK with 76 mm (3) 316SS proximity plate
<b>04</b>	General purpose, high temperature and pressure	700-1202-041 remote 700-1202-042 integral	69 bar @ 121°C (1000 PSI @ 250°F) 20.7 bar @ 232°C (300 PSI @ 450°F)	316SS and PEEK
<b>06</b>	General purpose with FDA approved materials of construction	700-1202-031 remote 700-1202-031 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and FDA grade PEEK
<b>07</b>	General purpose Granular materials	700-1202-010 remote 700-1202-020 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and PEEK with 7/8 inch dia. 316SS collar
<b>09</b>	General purpose Granular materials with FDA approved materials of construction	700-1202-033 remote 700-1202-034 integral	13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and FDA grade PEEK with 7/8 inch dia. 316SS collar
<b>10</b>	Corrosive liquids (2)(4)(9)	700-0001-018	3.4 bar @ 149°C (50 PSI @ 300°F)	PFA
<b>11</b>	General purpose, higher pressure TFE compatibility required	700-0201-005	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and TFE
<b>12</b>	Corrosive material, higher pressure	700-0201-005 Hastelloy C	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	Hastelloy C and TFE
<b>13</b>	Sanitary (3)	700-0201-036	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316/316L SS and TFE
<b>14</b>	General Purpose, low pressure	700-0202-002	3.4 bar @ 149°C (50 PSI @ 300°F) 1.4 bar @ 232°C (20 PSI @ 450°F)	316SS and TFE
<b>15</b>	Heavy duty, agitated tanks or material with high bulk density (1)	700-0202-043	69 bar @ 38°C (1000 PSI @ 100°F) 13.8 bar @ 232°C (200 PSI @ 450°F)	316SS and TFE
<b>17</b>	Sanitary (3) lowpressure	700-0202-036	3.4 bar @ 149°C (50 PSI @ 300°F) 1.4 bar @ 232°C (20 PSI @ 450°F)	316SS and TFE

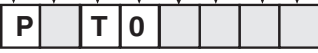
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# Point Level Measurement

## Model Numbering (continued from previous page)

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	18	Corrosive material, higher pressure with waterlike viscosity (4)	700-0001-022	69 bar @ 38°C (1000 PSI @ 100°F) 34.5 bar @ 149°C (500 PSI @ 300°F)	TFE
	19	Interface Measurement	700-0002-023	69 bar @ 38°C (1000 PSI @ 100°F) 34.5 bar @ 149°C (500 PSI @ 300°F)	316 SS and 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
<b>Fly Ash Precipitators, Baghouse, and Economizers (1) (6)</b>					
		<b>Application</b>	<b>Sensing Element</b>	<b>Pressure/Temperature</b>	<b>Wetted Parts</b>
	31	No hopper Installation	700-0029-001	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)
	32	Hopper Installation up to 200mm (8 inches)	700-0029-002	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)
	33	Hopper Installation up to 250mm (10 inches)	700-0029-003	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)
	34	Hopper Installation up to 330mm (13 inches)	700-0029-004	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)
	35	Hopper Installation up to 400mm (16 inches)	700-0029-005	0.1 bar @ 260°C (2 PSI @ 500°F)	316SS and TFE (CS Inactive)
● <b>Mounting Type</b> (See separate Mounting Chart for first three digits)					
		<b>IL</b>	<b>CSL</b>	<b>IL</b>	<b>CSL</b>
	xxxA	152 mm (6")	51 mm (2")	xxxH	914 mm (36") 254 mm (10")
	xxxB	305 mm (12")	51 mm (2")	xxxJ	914 mm (36") 0 mm (0")
	xxxC	305 mm (12")	89 mm (3.5")	xxxK	1219 mm (48") 254 mm (10")
	xxxD	457 mm (18")	51 mm (2")	xxxL	1524 mm (60") 254 mm (10")
	xxxE	457 mm (18")	89 mm (3.5")	P00X	IL/CSL Other
	xxxF	457 mm (18")	254 mm (10")	A1BX	IL/CSL factory set for Fly Ash
	xxxG	457 mm (18")	0 mm (0")	xxxZ	Other



- 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 (6) Use A1B mounting option (7) Use A8B mounting option (1/4-inch NPT) (8) Choose from flange mounting only (9) FM approved with remote electronics only

**Not all mounting options available with all sensing elements**

NPT Threads			
A1B	3/4"	NPT	316SS
A1C	3/4"	NPT	Hastelloy C
A1P	3/4"	NPT	PFA
A2B	1"	NPT	316SS
A2C	1"	NPT	Hastelloy C

Sanitary TriClamps			
C2B	1"	TriClamp	316SS
C3B	1 1/2"	TriClamp	316SS
C4B	2"	TriClamp	316SS

DIN Flanges			
E01	25 mm	16 bar	RF 316/316L SS
EP1	25 mm	40 bar	RF 316/316L SS
EQ1	50 mm	16 bar	RF 316/316L SS
ER1	50 mm	40 bar	RF 316/316L SS
ES1	80 mm	16 bar	RF 316/316L SS
ET1	80 mm	40 bar	RF 316/316L SS
EU1	100 mm	16 bar	RF 316/316L SS
EV1	100 mm	40 bar	RF 316/316L SS
EW1	150 mm	16 bar	RF 316/316L SS
EX1	150 mm	40 bar	RF 316/316L SS
E02	25 mm	16 bar	RF CS
EP2	25 mm	40 bar	RF CS
EQ2	50 mm	16 bar	RF CS
ER2	50 mm	40 bar	RF CS
ES2	80 mm	16 bar	RF CS
ET2	80 mm	40 bar	RF CS
EU2	100 mm	16 bar	RF CS
EV2	100 mm	40 bar	RF CS
EW2	150 mm	16 bar	RF CS
EX2	150 mm	40 bar	RF CS

ANSI Flanges			
DA1	1"	150#	RF 316/316L SS
DB1	1 1/2"	150#	RF 316/316L SS
DC1	2"	150#	RF 316/316L SS
DD1	2 1/2"	150#	RF 316/316L SS
DE1	1"	300#	RF 316/316L SS
DF1	1 1/2"	300#	RF 316/316L SS
DG1	2"	300#	RF 316/316L SS
DH1	2 1/2"	300#	RF 316/316L SS
DI1	3"	150#	RF 316/316L SS
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 CS
DB2	1 1/2"	150#	RF CS
DC2	2"	150#	RF CS
DD2	2 1/2"	150#	RF CS
DE2	1"	300#	RF CS
DF2	1 1/2"	300#	RF CS
DG2	2"	300#	RF CS
DH2	2 1/2"	300#	RF CS
DI2	3"	150#	RF CS
DJ2	3"	300#	RF CS
DK2	4"	150#	RF CS
DL2	4"	300#	RF CS
DM2	6"	150#	RF CS
DN2	6"	300#	RF CS

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