



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 ¾-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, Cl. I Div. 1, Groups A, B, C, D; Cl. II, Groups E, F, G; Cl. 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]:

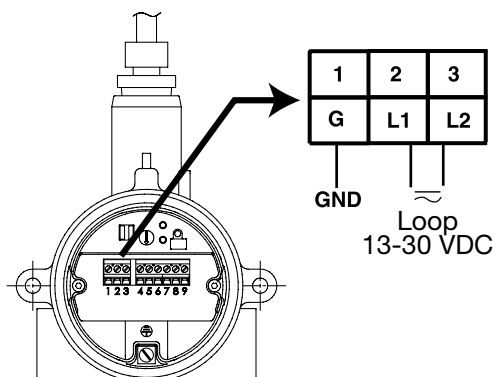
Class I, Div 1, Groups A, B, C, D; Class II, Groups E, F, G; Class III; Explosion proof with integral intrinsically safe output sensing element, Cl. I Div. 1, Groups A, B, C, D; Cl. II, Groups E, F, G; Cl. III, to remove sensing element Per Control Drawing 420-0004-219-CD.

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

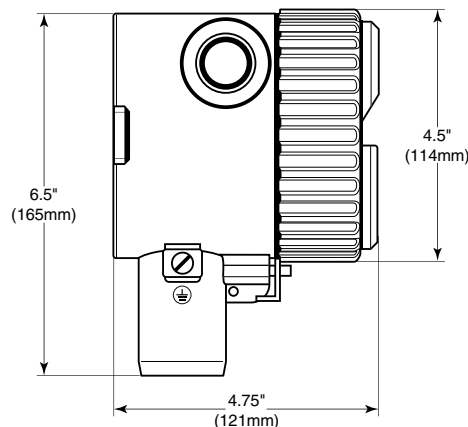
II 1 GD EEx ia IIC T5, T90° C
NEMKO

0344

Wiring



Dimensions



Point Level Measurement

The Point™

Model Numbering (continued on next page)

Technology

P RF Admittance

Measurement Type

N No Calibration, Point Level

H No Calibration, Point Level, High Sensitivity

Input

T Two-Wire Power Supply 13-30 VDC

Output

0 8-16 mA Output

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

0 Integral

1 Remote, no cable

2 Remote with 3m (10 feet) cable

3 Remote with 7.6m (25 feet) cable

4 Remote with 10.6m (35 feet) cable

5 Remote with 15.2m (50 feet) cable

6 Remote with 23m (75 feet) cable

Sensing Element

Application

00 General purpose

01 Floating roof with cable attachment

02 General purpose, longer insertion lengths with cable attachment and 316SS bottom weight

03 Proximity

04 General purpose, high temperature and pressure

06 General purpose with FDA approved materials of construction

07 General purpose Granular materials

09 General purpose Granular materials with FDA approved materials of construction

10 Corrosive liquids (2)(4)(9)

11 General purpose, higher pressure TFE compatibility required

12 Corrosive material, higher pressure Hastelloy C

13 Sanitary (3)

14 General Purpose, low pressure

15 Heavy duty, agitated tanks or material with high bulk density (1)

17 Sanitary (3) lowpressure

18 Corrosive material, higher pressure with waterlike viscosity (4)

20 Miniature Pilot Plant Sensor (1)(7)

Sensing Element

700-1202-001 remote

700-1202-021 integral

700-1202-012 remote

700-1202-022 integral

700-1202-014 remote

700-1202-024 integral

700-1202-018 remote

700-1202-028 integral

700-1202-041 remote

700-1202-042 integral

700-1202-031 remote

700-1202-032 integral

700-1202-010 remote

700-1202-020 integral

700-1202-033 remote

700-1202-034 integral

700-0001-018

700-0201-005

700-0201-005

700-0201-036

700-0202-002

700-0202-043

700-0202-036

700-0001-022

700-0209-002

Pressure/Temperature

13.8 bar @ 232°C (200 PSI @ 450°F)

13.8 bar @ 177°C (200 PSI @ 350°F)

13.8 bar @ 177°C (200 PSI @ 350°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

69 bar @ 121°C (1000 PSI @ 250°F)

20.7 bar @ 232°C (300 PSI @ 450°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

3.4 bar @ 149°C (50 PSI @ 300°F)

69 bar @ 38°C (1000 PSI @ 100°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

69 bar @ 38°C (1000 PSI @ 100°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

3.4 bar @ 149°C (50 PSI @ 300°F)

1.4 bar @ 232°C (20 PSI @ 450°F)

69 bar @ 38°C (1000 PSI @ 100°F)

13.8 bar @ 232°C (200 PSI @ 450°F)

3.4 bar @ 149°C (50 PSI @ 300°F)

1.4 bar @ 232°C (20 PSI @ 450°F)

69 bar @ 38°C (1000 PSI @ 100°F)

34.5 bar @ 149°C (500 PSI @ 300°F)

6.9 bar @ 121°C (100 PSI @ 250°F)

0 bar @ 232°C (0 PSI @ 450°F)

Wetted Parts

316SS and PEEK

316SS, Brass, and PEEK

316SS and PEEK

316SS and PEEK with 76 mm (3)

316SS and PEEK

316SS and FDA grade PEEK

316SS and PEEK with 7/8 inch dia. 316SS collar

316SS and FDA grade PEEK with 7/8 inch dia. 316SS collar

PFA

316SS and TFE

Hastelloy C and TFE

316/316L SS and TFE

316SS and TFE

316SS and TFE

316SS and TFE

316SS and TFE

TFE

316 SS and TFE

(Continued on Next Page)

Point Level Measurement

Model Numbering (continued from previous page)

(Continued from Previous Page)

Sensing Element		Fly Ash Precipitators, Baghouse, and Economizers (1) (6)			
	Application	Sensing Element	Pressure/Temperature	Wetted Parts	
	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)	
Plugged Chute Detection (1) (5)					
	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	
Mounting Type (See separate Mounting Chart for first three digits)					
	IL		CSL		
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")	A1BX	IL/CSL factory set for Fly Ash	
xxxF	457 mm (18")	254 mm (10")	xxxZ	Other	
xxxG	457 mm (18")	0 mm (0")			



- Notes:** (1) Available with remote electronics only (6) Use A1B mounting option
 (2) Use A1P mounting option (7) Use A8B mounting option (¼-inch NPT)
 (3) Choose only sanitary mounting options (8) Choose from flange mounting only
 (4) Available with 0-inch CSL only (9) FM approved with remote electronics only
 (5) Use P00X mounting option

Not all mounting options available with all sensing elements

NPT Threads

A1B ¾" NPT	316SS
A1C ¾" NPT	Hastelloy C
A1P ¾" NPT	PFA

A2B 1" NPT	316SS
A2C 1" NPT	Hastelloy C

Sanitary TriClamps

C2B 1" TriClamp	316SS	C4B 2" TriClamp	316SS
C3B 1½" TriClamp	316SS		

DIN Flanges

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

ANSI Flanges

DA1 1" 150#	RF 316/316L SS	DA2 1" 150#	RF CS
DB1 1½" 150#	RF 316/316L SS	DB2 1½" 150#	RF CS
DC1 2" 150#	RF 316/316L SS	DC2 2" 150#	RF CS
DD1 2½" 150#	RF 316/316L SS	DD2 2½" 150#	RF CS
DE1 1" 300#	RF 316/316L SS	DE2 1" 300#	RF CS
DF1 1½" 300#	RF 316/316L SS	DF2 1½" 300#	RF CS
DG1 2" 300#	RF 316/316L SS	DG2 2" 300#	RF CS
DH1 2½" 300#	RF 316/316L SS	DH2 2½" 300#	RF CS
DI1 3" 150#	RF 316/316L SS	DI2 3" 150#	RF CS
DJ1 3" 300#	RF 316/316L SS	DJ2 3" 300#	RF CS
DK1 4" 150#	RF 316/316L SS	DK2 4" 150#	RF CS
DL1 4" 300#	RF 316/316L SS	DL2 4" 300#	RF CS
DM1 6" 150#	RF 316/316L SS	DM2 6" 150#	RF CS
DN1 6" 300#	RF 316/316L SS	DN2 6" 300#	RF CS

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