Easy-Installation
One-piece unit is easily installed through a single 3/4-inch, probe dependent vessel opening. Calibration is quick and simple.

Z-tron IV™ Point Level Switch, a reliable low-cost, on/off level switch

The low-cost, Drexelbrook Z-tron IV level switch is unaffected by sticky coatings and impervious to corrosive liquids. The all-electronic design means no moving parts to wear, break or fail. Based on field-proven RF technology, the Z-tron IV is a simple and reliable on/off level switch.

The compact one-piece unit is inserted through a standard 3/4-inch, probe dependent, NPT opening into the vessel so that the sensing element is positioned at the desired high or low level. (Other connection types and sizes are also available.) When the material level reaches a predetermined point on the sensing element, it causes a change in status at the electronic unit, resulting in actuation of the DPDT relay. The relay can be used to operate alarms, annunciators, valves, or other control or indication devices.

Drexelbrook's Exclusive Cote-Shield™
Cote-Shield enables the Z-tron IV to ignore dust pileups, coatings, and sticky buildups on the sensing element.

Economical
Effective, low-cost material level detection in a wide variety of applications, and a desirable alternative to electromechanical level switches. No expendable parts to buy and stock. No expensive, extra-cost options.

Maintenance-Free
Unlike paddle wheels, vibrating tines or other mechanical instruments, there are no components to jam, break or wear out. No need for routine maintenance, cleaning or replacing of worn parts.

Reliable Operation
Cote-Shield™ circuitry allows the Z-tron IV to ignore coatings or build up on the sensing element. There are no false signals from dust or tunneling.
Z-tron IV™ Z02X-Series

Relay Wiring

High Level Fail Safe

Low Level Fail Safe
Z-tron IV™ Z02X-Series

Integral Mounting Dimensions

DIMENSIONS ARE IN INCHES (mm)
Remote Mounting Dimensions

Dimensions are in inches (mm)
## Technology

**Z-tron IV RF Admittance Level Measurement System**

### Input Power

<table>
<thead>
<tr>
<th>Model</th>
<th>Power Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>24 VDC</td>
</tr>
<tr>
<td>115</td>
<td>115 VAC, Field Selectable</td>
</tr>
<tr>
<td>230</td>
<td>230 VAC, Field Selectable</td>
</tr>
</tbody>
</table>

### Electronics

<table>
<thead>
<tr>
<th>Model</th>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Internal (No Cable)</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>Remote w/ 25 Ft Cable</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Remote w/ 50 Ft Cable</td>
<td>8</td>
</tr>
<tr>
<td>3</td>
<td>Remote w/ 75 Ft Cable</td>
<td>9</td>
</tr>
<tr>
<td>4</td>
<td>Remote w/ 100 Ft Cable</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>Remote w/ 150 Ft Cable</td>
<td>B</td>
</tr>
<tr>
<td>6</td>
<td>Remote w/ 100 Ft Hi Temp Cable</td>
<td>C</td>
</tr>
<tr>
<td>7</td>
<td>Remote w/ 150 Ft Hi Temp Cable</td>
<td>D</td>
</tr>
<tr>
<td>8</td>
<td>Remote w/ 200 Ft Hi Temp Comp Cable</td>
<td>E</td>
</tr>
<tr>
<td>9</td>
<td>Remote w/ 200 Ft Hi Temp Comp Cable</td>
<td>F</td>
</tr>
<tr>
<td>10</td>
<td>Remote w/ 250 Ft Hi Temp Comp Cable</td>
<td>G</td>
</tr>
<tr>
<td>11</td>
<td>Remote w/ 300 Ft Hi Temp Comp Cable</td>
<td>H</td>
</tr>
</tbody>
</table>

### OEM Code

**Series**

1. Standard
2. China

### Sensing Element

<table>
<thead>
<tr>
<th>Model</th>
<th>Press. &amp; Temp. Wetted Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>101</td>
<td>200 psi @ 450°F 316 SS and PEEK</td>
</tr>
<tr>
<td>103</td>
<td>200 psi @ 450°F 316 SS and PEEK</td>
</tr>
<tr>
<td>106</td>
<td>200 psi @ 450°F 316 SS and PEEK</td>
</tr>
<tr>
<td>301</td>
<td>1000 psi @ 250°F / 300 psi @ 450°F 316 SS and TFE</td>
</tr>
<tr>
<td>325</td>
<td>200 psi @ 450°F 316 SS and PEEK, FDA approved</td>
</tr>
<tr>
<td>327</td>
<td>50 psi @ 300°F / 20 psi @ 490°F 316 SS and TFE</td>
</tr>
<tr>
<td>701</td>
<td>50 psi @ 300°F PFA</td>
</tr>
<tr>
<td>753</td>
<td>200 psi @ 250°F 316 SS and PEEK</td>
</tr>
<tr>
<td>754</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
</tr>
<tr>
<td>755</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
</tr>
<tr>
<td>756</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
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<tr>
<td>757</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
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<tr>
<td>760</td>
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<td>761</td>
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<td>763</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
</tr>
<tr>
<td>764</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
</tr>
<tr>
<td>765</td>
<td>2 psi @ 500°F 316 SS and TFE</td>
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<tr>
<td>766</td>
<td>2 psi @ 500°F 316 SS and Alumina</td>
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<tr>
<td>767</td>
<td>2 psi @ 500°F 316 SS and Alumina</td>
</tr>
<tr>
<td>768</td>
<td>2 psi @ 500°F 316 SS and Alumina</td>
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<tr>
<td>769</td>
<td>2 psi @ 500°F 316 SS and Alumina</td>
</tr>
<tr>
<td>770</td>
<td>2 psi @ 500°F 316 SS and Alumina</td>
</tr>
</tbody>
</table>

- **Model Numbering**
- **Process Gland Wetted Parts (X)**
  - B 316/316L SS
  - P PFA (700-0001-018)
  - X* Many more options are available upon request (ASME/ANSI, DIN)

- **Process Connection (XX)**
  - 3/4” NPT
  - 1” NPT
  - 1” 150# RF Carbon Steel
  - 1” 150# RF 316/316L Stainless Steel
  - 1” 300# RF Carbon Steel
  - 1” 300# RF 316/316L Stainless Steel
  - 2” 150# RF Carbon Steel
  - 2” 150# RF 316/316L Stainless Steel
  - 2” 300# RF Carbon Steel
  - 2” 300# RF 316/316L Stainless Steel
  - 3” 150# RF Carbon Steel
  - 3” 150# RF 316/316L Stainless Steel
  - 3” 300# RF Carbon Steel
  - 3” 300# RF 316/316L Stainless Steel
  - 4” 150# RF Carbon Steel
  - 4” 150# RF 316/316L Stainless Steel
  - 4” 300# RF Carbon Steel
  - 4” 300# RF 316/316L Stainless Steel

- **Insertion Length in mm**

- **Cote-Shield Length in mm**

- **Inactive Length in mm**

- **Cable**
  - B 316/316L SS
  - X* Many more options are available upon request
Specifications

**Power Requirements:**
AC Units - Field Adjustable:
95-145 VAC, 50/60 Hz, 2 Watt
215-265 VAC, 50/60 Hz, 2 Watt
DC Units:
24 VDC Unit: 19-29 VDC input, 2 Watt

**Sensitivity:**
0.3pF or less

**Operating Point Range:**
0 - 80 pF (20 Turn Pot / 4 pF per Turn)
Extended range with external pad capacitor, Pad ratio 1:1

**Load Resistance:**
Center to Ground, 1500 Ohms
Center to Shield, 750 Ohms
Shield to Ground, 750 Ohms

**Failsafe:**
Field adjustable to either High-Level Fail-Safe (HLFS)
or
Low-Level Fail-Safe (LLFS)

**Output:**
DPDT relay closure

**Contact Rating:**
5A @ 120 Vac non-inductive
2A @ 230 Vac non-inductive

**Ambient Temperature:**
-40°F to 145°F (-40°C to 63°C)

**Temperature Effect:**
0.5pF/50°F

**Line Voltage Effect:**
0.2pF/20V @ 120 Vac

**Stability:**
0.15pF/6 mo. maximum shift

**Spark Protection:**
100 Amp

**Mounting: (Probe Dependant)**
¼-inch NPT (Typical)

**Housing:**
The standard housing meets the following classifications:

- **Nema 1**: General-Purpose
- **Nema 2**: Drip-Tight
- **Nema 3**: Weather-Resistant
- **Nema 4**: Waterproof
- **Nema 5**: Dust-Tight
- **Nema 12**: Industrial Use

If hazardous area approval is required, use the Drexelbrook PXL The Point™ instrument for point level control.

**Time Delay:**
0-60 seconds (3/4 Turn Pot) 270° Potentiometer

**Approvals**
FM / FMC 3810 General Purpose

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