

## ***WXCL Series Explosion-Proof UltraSwitch™***

### **Introduction:**

The WXCL Series UltraSwitch™ is a globally certified explosion-proof/flame-proof position indicator. The WXCL features *Quick-Set™* cams for easy, tool-free adjustment of sensing position. The UltraDome™ visual indicator provides for clear position viewing, while a lower assembly profile can be achieved with a flat-top enclosure. Many switch options can be installed to meet specific application needs. Each integral switch is pre-wired to a multi-point terminal block. A minimum of two spare terminals are provided for external accessories to eliminate costly junction boxes. The enclosure includes two 3/4" N.P.T. conduit entries for easy wiring access.



### **Applications:**

The WXCL enclosure is designed to provide accurate and reliable hazardous location position signaling. Many switch options are available to meet your electrical specifications. This watertight position indicator will mount to any rack and pinion, scotch yoke, vane or other rotary actuator type.

The WXCL may be installed on any actuator conforming to the NAMUR standard for accessory mounting bolt pattern and pinion height without a coupler. This reduces deadband and is less expensive. Flowserve also offers a full line of mounting hardware for non-NAMUR actuators.

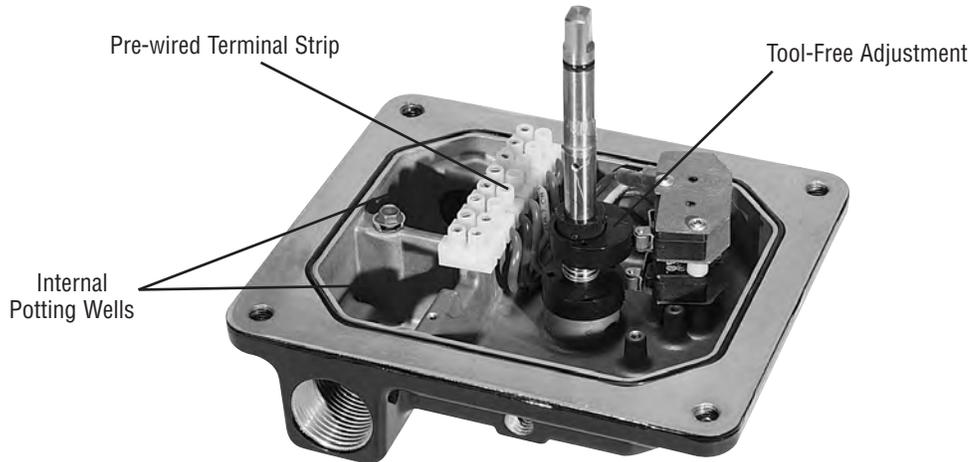
Durable aluminum construction and corrosion-resistant materials/coatings provide protection against the toughest applications in all process industries including:

1. Chemical and Petrochemical
2. Power
3. Food and Beverage
4. Pharmaceutical
5. Municipal and Wastewater Treatment

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**Features:**

1. **Quick-Set Cams.** Tool free adjustment of switch trip point is accomplished simply by pushing or pulling the cam and rotating it to the new position. Cams are spring-loaded and splined to maintain switch setting in any installed position. They are fully adjustable through 360° in 4° increments.
2. **Corrosion Resistant Materials.** All exposed parts are either stainless steel or aluminum treated with dichromate undercoat and polyester powder top coat to permit use in corrosive environments.
3. **Captive Cover Screws** permit calibration without potential for losing screws.
4. Optional **UltraDome Visual Position Indicator** provides adjustable, high-contrast, full-angle viewing of valve position.
5. Numbered, pre-wired multi-point **Terminal Strip** for easy hookup. Two spare terminals are provided with every switch to accommodate additional field devices, such as solenoid valves, to eliminate the cost of any additional junction boxes.
6. Each UltraSwitch™ enclosure includes a **Detailed Wiring Diagram** permanently attached inside the cover.
7. **Internal Grounding Screw** for ground wire hookup.
8. **Internal Potting Wells.** Within the housing at the conduit entries are two potting wells available for factory-sealed leads. Designed to U.L. and CSA specifications, they eliminate the need for costly conduit seals.
9. **Globally certified** (UL/CSA/ATEX) explosion-proof and flame-proof enclosures suitable for use throughout the world.

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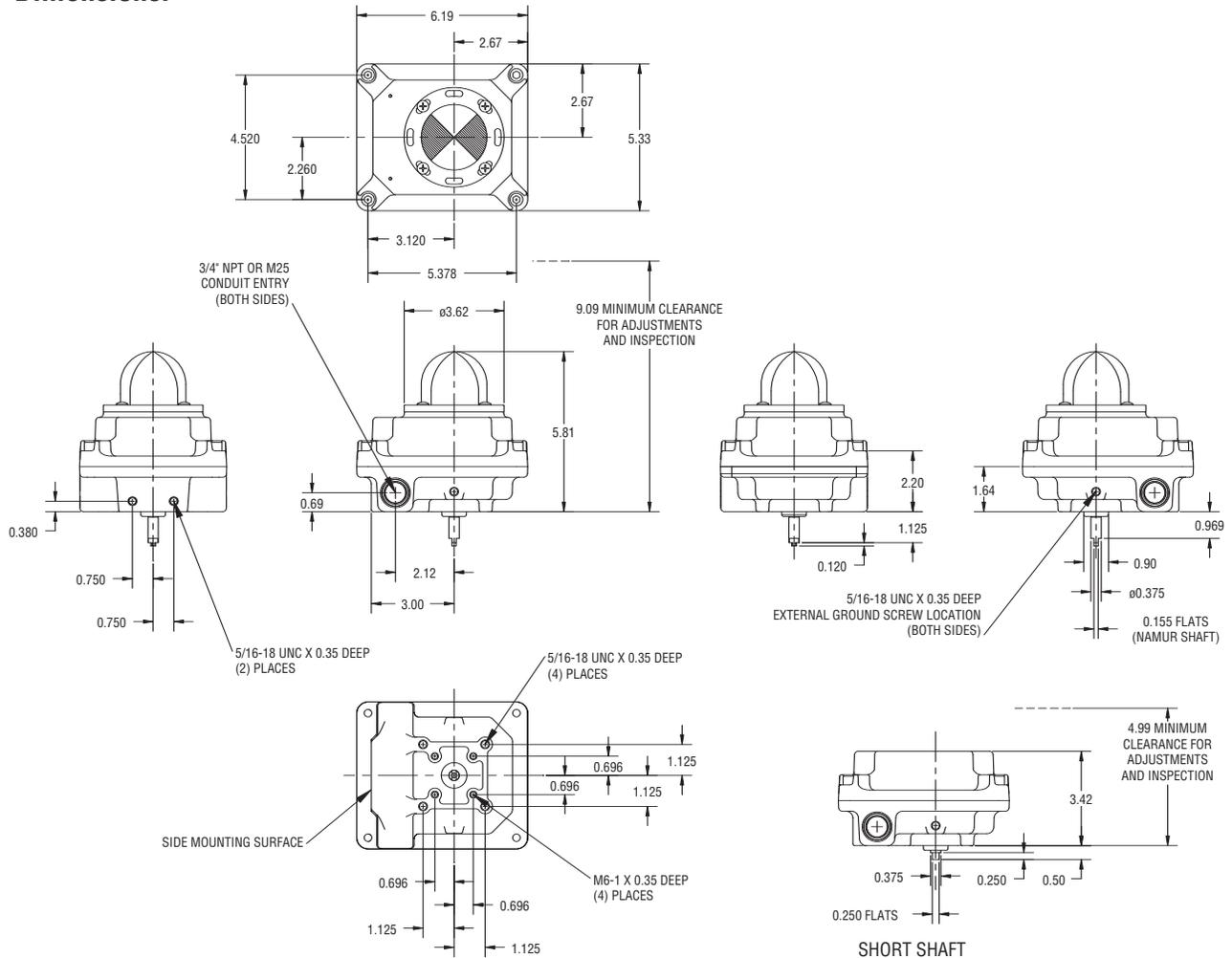
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### Materials of Construction:

Part	Materials
Housing/Cover	Aluminum w/Dichromate & Powdercoat
Shaft	Stainless Steel
Cams/Splines	Nylon
UltraDome and Rotor	Polycarbonate
Terminal Block	Nylon - Buchanan TBS Series
Internal Brackets	Stainless Steel or Plated Steel
All Internal Fasteners	Stainless Steel or Plated Steel
All External Fasteners	Stainless Steel

### Dimensions:



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**Principles of Operation:**

The WXCL Series UltraSwitch™ is designed for use with any industrial rotary actuator in hazardous locations. It indicates open and closed valve positions by completing electrical circuits to remote locations. The WXCL series may include an analog feedback device to indicate continuous position for modulating packages. Local visual indication is accomplished with the UltraDome Rotary Indicator.

**Hazardous Location Approvals:**

**Mechanical Switch Options**

Explosion-Proof (UL/CSA/ATEX)  
Class 1, Divisions 1 and 2, Groups C and D  
Class 2, Divisions 1 and 2, Groups E, F and G  
ATEX II 2 GD EEx d IIB T4-T6

 0518       II 2 GD EEx d IIB T4-T6

- 40°C ≤ Tamb ≤ +55°C, T6
- 40°C ≤ Tamb ≤ +70°C, T5
- 40°C ≤ Tamb ≤ +80°C, T4

**Proximity / Solid State Switch Options (except NJ)**

Explosion-Proof (UL/CSA/ATEX)  
Class 1, Division 1 and 2, Groups C and D  
Class 1, Division 2 only, Groups A, B, C and D  
Class 2, Divisions 1 and 2, Groups E, F and G  
ATEX II 2 GD EEx d IIB T4-T6

**How To Order Guide:**

Shaft Option	Indicator Option	No. Switches	Switch Type	Model
<b>D</b> - Double D Shaft (1/4" Flats) <b>N</b> - Namur Shaft	<b>I</b> - Flat Top (no indicator)  <b>U</b> - Red/Green (std) <b>C</b> - 90° 3-way <b>D</b> - 180° 3-way <b>E</b> - 180° 3-way Blocked Center <b>K</b> - Ektar Red/Green  <b>H</b> - Black/Gray/Yellow  <b>R</b> - Reverse (Red=Open, Green=Closed)	<b>0</b> - 0 Switch  <b>1</b> - 1 Switch <b>2</b> - 2 Switches <b>4</b> - 4 Switches	<b>00</b> - No Switches  <b>M1</b> - SPDT Mechanical <b>MG</b> - SPDT Gold Mechanical <b>MA</b> - 3-Position Control <b>M3</b> - DPDT Mechanical  <b>MD</b> - DA 3-Position Control w/Indication <b>MS</b> - SR 3-Position Control w/Indication <b>P4</b> - SPST Proximity  <b>P5</b> - SPDT Proximity <b>PE</b> - SPDT Sabre <b>PP</b> - SPDT Phazer <b>PT</b> - SPST BRS <b>N8</b> - P+F NJ2-V3-N <b>FZ</b> - AS-i Fieldbus	<b>WXCL</b> - (2) 3/4" NPT Conduit  <b>WXML</b> (2) M25 Conduit
<b>Certifications</b>		<b>Analog Output Options</b>		<b>Wiring Options</b>
<ul style="list-style-type: none"> <li>- <b>14</b> - General Purpose</li> <li>- <b>18</b> - UL/CSA/ATEX Explosion-Proof</li> <li>- <b>19</b> - ATEX Explosion-Proof</li> <li>- <b>M1</b> - Metal Nameplate UL/CSA/ATEX Explosion-Proof (Mechanical Switch)</li> <li>- <b>M2</b> - Metal Nameplate UL/CSA/ATEX Explosion-Proof (Proximity Switch)</li> <li>- <b>M3</b> - Metal Nameplate ATEX Explosion-Proof</li> </ul>		<ul style="list-style-type: none"> <li>- <b>0</b> - None (std)</li> <li>- <b>T</b> - 4-20 mA Transmitter</li> <li>- <b>D</b> - 180° 4-20 mA Transmitter</li> <li>- <b>A</b> - 0-1k Ohm Potentiometer</li> <li>- <b>B</b> - 0-5k Ohm Potentiometer</li> <li>- <b>C</b> - 0-10k Ohm Potentiometer</li> </ul>		<ul style="list-style-type: none"> <li><b>0</b> - None (std)</li> <li><b>H</b> - Heavy Duty Terminal Strip</li> </ul>
<b>Open Terminals (Minimum)</b>		<b>Special Options</b>		<b>Coating Options</b>
<ul style="list-style-type: none"> <li><b>2</b> - 2 open (std)</li> <li><b>4</b> - 4 open</li> <li><b>6</b> - 6 open</li> </ul>		<ul style="list-style-type: none"> <li><b>0</b> - None (std)</li> <li><b>P</b> - 180° Potentiometer Gearing</li> <li><b>V</b> - Viton O-rings</li> </ul>		<ul style="list-style-type: none"> <li><b>0</b> - Black Polyester Powdercoat (std)</li> <li><b>E</b> - White Epoxy</li> </ul>

*Example:* NWXCLU2M1-18-00200 = Worcester WXCL UltraSwitch, NAMUR Shaft, UltraDome indicator, (2) SPDT Mechanical switches, FM/CSA and ATEX certifications.