The dual inductive, 2-wire AC/DC Series VPS Valve Position Sensor maintains VDI/VDE 3845 dimensions so positioners can be easily mounted on top of the sensor and target. The Model VPS2411 Sensor and Model P1 Target mount easily and directly to actuators with ISO NAMUR topworks (see picture below). Fully adjustable target in 2° increments, the sensor has two independent LED’s and bright flow line indicator that provide local visual indication. All electrical connections are made with the Model VIP82 4-pin quick disconnect cable (6” in length) for ease in installation. Solid state components are fully embedded in an epoxy resin to prevent condensation build-up and to protect against vibration and shock. The rugged PBTP housing provides excellent corrosion resistance and moisture protection.

Model VPS2411, Model P1, and Model VIP82 mounted on a valve actuator with a positioner mounted on top.

The Series DT Detector Position Sensors are reliable, magnetically actuated, SS, completely interchangeable with competitive units. AC or DC for user friendly operation. They have no moving parts, eliminate costly seal fittings and offer enhanced reliability by eliminating arcing. Unintentional actuation by metals is not a problem. The sensor consists of a durable hermetically sealed reed switch potted in a SS housing and a separate 316 SS magnetic actuator bolt. As the actuator moves within the sensing range of the sensor, the magnet in the actuator changes the state of reed switch contacts inside the sensor. This either opens or closes a circuit depending on wiring configuration. Sensing distance is 0.1˝ (2.54 mm) for the standard actuator. Greater sensitivity of a larger magnetic actuator increases the sensing distance to 0.5˝ (12.7 mm). The detector is excellent for hazardous and corrosive environments, solid state and intrinsically safe applications. A detector may be mounted in any position. For installation in hazardous locations, be sure to check local and national electrical codes. The detector is designed to NEMA 1, 3, 4, 4X, 7, 9, 12 and 13.

APPLICATIONS
The detector is used for control element position monitoring and indication with devices such as linear valves – actuators & cylinders – rotary valves – dampers.

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Sensing Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DT1060</td>
<td>Detector and standard actuator</td>
<td>0.1˝ (2.54 mm)</td>
</tr>
<tr>
<td>DT1160</td>
<td>Detector and high strength actuator</td>
<td>0.5˝ (12.7 mm)</td>
</tr>
</tbody>
</table>

SPECIFICATIONS
Temperature Limits: -13 to 176°F (-25 to 80°C)
Power Requirements: 20 to 140 VAC (50/60 Hz), 10 to 200 VDC.
Switch Type: Dual NO
Electrical Rating: 200 mA.
Minimum Load Current: 5 mA.
Leakage Current: 0.8 mA.
Voltage Drop: 5.0 V.
Repeatability: 0.01 mm.
Hysteresis: 3 to 15% of sensing range.
Switching Frequency: 25 Hz
Housing Material: Polybutylene terephthalate.
Mounting Holes: NAMUR mounting - 3.15˝ x 1.18˝ (80 x 30 mm) or 5.118˝ x 1.18˝ (130 x 30 mm).
Electrical Connection: 4-pin quick disconnect.

Model VPS2411, Valve Position Sensor
Model P1, Valve Position Target
Model VIP82, Quick Disconnect Cable

The Series DT Detector Position Sensors are reliable, magnetically actuated, SS, completely interchangeable with competitive units. AC or DC for user friendly operation. They have no moving parts, eliminate costly seal fittings and offer enhanced reliability by eliminating arcing. Unintentional actuation by metals is not a problem. The sensor consists of a durable hermetically sealed reed switch potted in a SS housing and a separate 316 SS magnetic actuator bolt. As the actuator moves within the sensing range of the sensor, the magnet in the actuator changes the state of reed switch contacts inside the sensor. This either opens or closes a circuit depending on wiring configuration. Sensing distance is 0.1˝ (2.54 mm) for the standard actuator. Greater sensitivity of a larger magnetic actuator increases the sensing distance to 0.5˝ (12.7 mm). The detector is excellent for hazardous and corrosive environments, solid state and intrinsically safe applications. A detector may be mounted in any position. For installation in hazardous locations, be sure to check local and national electrical codes. The detector is designed to NEMA 1, 3, 4, 4X, 6, 7, 9, 12 and 13.

APPLICATIONS
The detector is used for control element position monitoring and indication with devices such as linear valves – actuators & cylinders – rotary valves – dampers.

Initial Contact Resistance: 0.50 Ω (max).
Repeatability: 0.005” (0.1 cm).
Hysteresis: 0.030” (0.8 cm).
Electrical Connection: Factory sealed leads with 18” min, 4 conductor, PVC insulated, 18 AWG – green/red/black/white (ground/NC/N/C/NO/common).
Housing: 316 SS.
Potting: Epoxy resin.
Conduit: 1/2-14” female NPT.
Weight: 3.02 lb (145 g); 4.05 lb (204 g) with actuator.
Agency Approvals: CSA, cUL, UL.

SUGGESTED SPECIFICATION
Position sensor shall be magnetically operated Proximity Detector model (DT1060) (DT1160). Sensing distance shall be (0.1”) (0.5”). The sensor shall be SPDT, Form C, hermetically sealed and rated 3 amps 125 VAC, 3 amps 30 VDC, and shall include a SS actuator with internal magnet. The 316 SS housing shall be designed to NEMA 4, 4X, 7, 9, UL & CSA certified Class I, Groups A, B, C & D; Class II, Groups E, F, & G; Divs. 1 & 2 requirements and have a 1/2” NPT conduit entrance.