

Application Note

Application Note: 070706

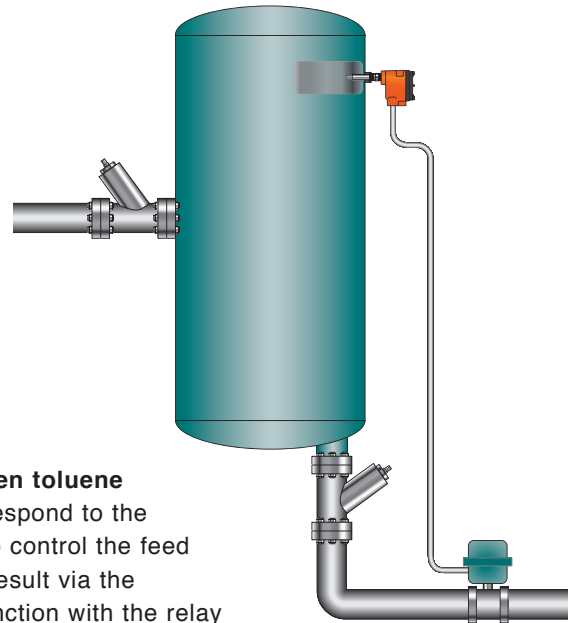
KAYDEN
I N S T R U M E N T S

High-Level Detection in a Holding Tank

Application: Detect and React to High Level in a Chemical Holding Tank.

Product: Kayden CLASSIC 800 Series Thermal Dispersion Flow, Level, Interface & Temperature Switch & Transmitter

- Notes:**
1. This diagram shows the Kayden switch mounted horizontally via a threadolet in the side of the tank. A flanged connection, or top mount installation may also be used as long as the probe is correctly sized to extend to the high-level point in the tank.
 2. This same application may be used for a low-level alarm function.
 3. For applications where the ambient temperature exceeds +167°F (+75°C) and / or physical access is limited a remote electronics configuration may be used.



Description:

The Kayden switch is used to detect the high level in a hydrogen toluene holding tank to prevent overflows. The Kayden switch is set to respond to the tank level and either energize or de-energize the relay contact(s) to control the feed or drain valve. The Kayden switch may also accomplish the same result via the 4-20mA analog output, or the 4-20mA output may be used in conjunction with the relay contact(s) to provide a back up alarm function.

Problem:

Finding a level switch that operates with high repeatability, is easy to install, and does not require constant maintenance and / or adjustment.

- Mechanical switches such as paddles or floats fail due to coating corrosion.
- Electronic instruments such as capacitance probes, ultrasonic, and radar level controllers are bothered by vapors, bubbles, coating, require constant attention, are more expensive, and are often difficult to install.
- Other thermal switches feature either analog or hybrid designs and do not provide full temperature compensation, allow for variable response without losing sensitivity, and have limited diagnostic functions.

Solution:

Kayden probes are all-welded, pressure tested, and not affected by coating, vibration, or the di-electric properties of the material. The electronics are easily adjusted without tools via the Display Panel keypad or remotely via the free RCM Software. Features include:

- Response time (the range, heater power, and set point(s) may be incrementally adjusted).
- 4-20mA analog output is available (CLASSIC 800 Series only).
- Relays may be wired NO or NC and set to energize above or below set point.
- Continuous, automatic self-diagnostics with redundant FAULT alarms.
- Visit www.kayden.com for more information and detailed specifications.

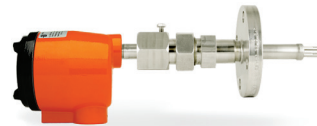
Applicable CLASSIC™ 800 Models



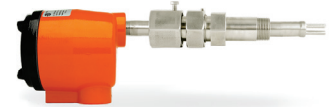
CLASSIC™ 810



CLASSIC™ 812



CLASSIC™ 814



CLASSIC™ 816



CLASSIC™ 828



CLASSIC™ 830



CLASSIC™ 832

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For more information about the CLASSIC Series or any of Kayden's other products, please visit kayden.com