# RELAY SWITCHES ON THE ROSEMOUNT™ 4051S PRESSURE TRANSMITTER

Get more confidence, increase safety & enhance your asset monitoring with two integral relay switches.

## Built-In Asset Protection

The Rosemount 4051S Pressure Transmitter supports two integral high voltage, high current independent relay switches built right into the transmitter. The pressure switches provide enhanced asset protection and maintain system safety by preventing overpressure conditions. Due to their critical roles in your system, they need to provide consistent operation activating or deactivating the connected system as expected.

Because the switches are integrated into the transmitter, you can expect the same Rosemount pressure transmitter reliability and diagnostics, reducing failure and accuracy issues that can happen with stand-alone switches.

## Advantages

✓ Direct control of equipment (pumps, compressor, lights) directly from a pressure transmitter compared to using separate stand-alone switches

✓ Notification of switch status while maintaining continuous process readings

✓ Safety certified for use in SIS applications providing redundant SIS path to final control element

✓ Reduces failure and reliability issues that can happen with stand-alone switches

✓ Simple on/off control capability for applications without a PLC or DCS

✓ Enables a safety shut down or alarm (pump control, essential asset protection, tank pressure), for pressure measurements at which the switch is activated

✓ Control switch using any dynamic variable on the 4051S including pressure, flow rate, totalizer, level, volume and module temperature


*Pressure switches provide enhanced asset protection and maintain system safety, preventing overpressure conditions.*

The relay terminals are separate from the 4-20 mA terminals to ensure that there is no interruption to the process measurement.

**Relay Power**
21.5-60 VDC or 20-264 VAC 50/60 Hz

**Switching Voltage**
20-60 VDC or 20-250VAC 50/60 Hz

**Switching Current**
5A max resistive load

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## How Does it Work?

Depending on how the relay is wired, this will either break or connect the circuit to another unit to drive a desired action. Each of the two relays has a Normally Closed (NC) terminal, Normally Open (NO) terminal, and Common (COM) terminal.

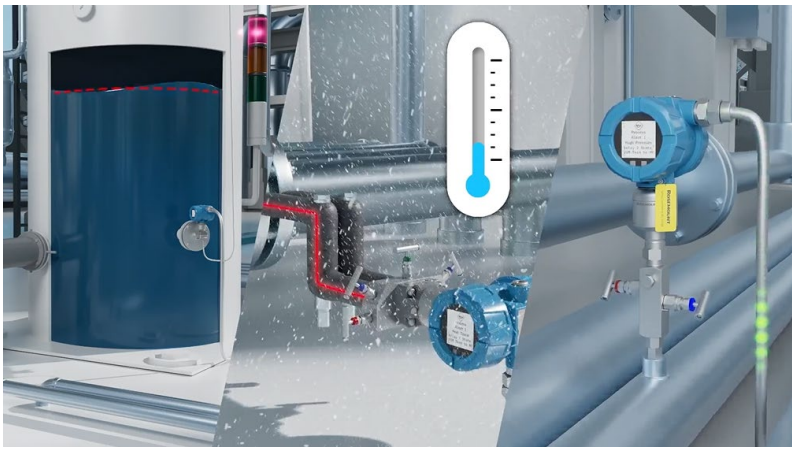
Each relay can be configured using the process alerts functionality within the transmitter. The process alerts and thus the relays can be set to activate based on user defined thresholds for any of the dynamic variables.


*Each relay switch consists of three terminals: Common Terminal (COM), Normally Closed Terminal (NC), and Normally Open Terminal (NO). The switch is always connected at COM and either NC or NO.*

## Applications

The Rosemount 4051S relay switch can be used in a wide variety of pressure, differential pressure flow, and differential pressure level applications including:

- Overfill prevention in tanks by controlling pumps or valves
- Controlling heat tracing based on the module temperature
- Maintaining pressure levels by activating a pump when the pressure changes



*Applications from left to right: Overfill prevention, controlling heat tracing and maintaining pressure levels.*

For more information, visit
**Emerson.com/Rosemount4051S**



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