Wiring the Reed Switches and Cautions to Insure Long Life



FLOW DETECTION SWITCHES

Two reed switches are incorporated into the water meter to detect the rotation of the 0.001 m3 per rotation dial. The reed switches can either be used individually, to communicate with two external devices, or can be used in parallel to provide two pulses per revolution of the dial.



REED SENSOR WORKING PRINCIPLE

The reed switch sensors contain hermetically sealed reed elements (mechanical contacts), which are open in their normal state. When the magnet on the needle moves close to the switch, a magnetic field is induced into the leads and forces the contacts to close.



CONNECTING TO THE REED SWITCH

In-rush protection must be provided when connecting a power supply to the reed switch.



Large in-rush surge currents and transients common to inductive loads (relays, coils, and solenoids) will severely limit switch life expectancy. The water meter's reed switches do not have built in surge protection. The user of the water meter must provide protection either by providing a load or by using surge suppression connectors.

REED SWITCH APPLICATION NOTES (ORD213 Standard)

Function: Normally Open Switching Voltage: 24 Volt DC or AC Maximum Switching Current: 0.1 Amp Maximum

WARNINGS

- Reed switches cannot be connected directly across the power supply without a series load.

- Failure to use a series load will damage the switch and possibly the power supply.

- Never test a switch with a filament light bulb. Severe in-rush currents will impair the switch or may cause a premature failure.

- Always keep the area around the dial switches free from potentially magnetic field carrying debris. The switches actuate using magnetic fields produced from the magnet on the dial. Any stray magnetism can result in unwanted switch actuation or change the switch activation point.

- Reed switches do not have built in surge suppression. When connecting the switch to an outside electrical device, always use surge suppression. Without this precaution large inductive spikes can severely limit switch life expectancy.

REED SWITCHES HAVE NO WARRANTY FOR LIFE EXPECTANCY