RVP-FI

Designed for use on diaphragm meters with front-mounting indexes and rotary meters.

General Information

The RVP-FI uses a normally open (form “A”) reed switch to supply accurate pulse outputs directly from the index drive for a wide range of diaphragm meters. The pulsor’s magnetic reed switch provides a dry-contact closure that protects the integrity of the electrical circuit. The output of the switch is available through an integral, 12-foot cable. The cable includes access to a loop for floating tamper detection circuits as well as a connection to the common when needed for tamper detection. Rigorous life and environmental testing has been performed on the RVP-FI to ensure dependable performance.

Applications

The RVP-FI is intended for low-voltage/low-current applications such as:
- Transmitting data to AMR/AMI devices
- Sending data to remote counters
- Logging flow data
- Operating flow control loops

Compatibility

The RVP-FI can be installed on:
- Diaphragm meters manufactured by Elster American Meter that use front-mounting indexes. This includes but is not limited to AL-175, AT-210, AT-250, AM-250, AC-250, AL-425 and AC-630 meters.
- ANSI class 250 and 400 diaphragm meters manufactured by Invensys/Equimeter/Rockwell and Actaris/Schlumberger/Sprague.
- All rotary meters manufactured by Elster American Meter

Installation

The RVP-FI mounts to the meter by utilizing the four screw holes typically used to install the index box. Instead of being attached directly to the meter, the index and index box are mounted to the pulsor.

The RVP-FI is driven by a wriggler that engages with the meter’s index drive. The wriggler is compatible with 1ft³, 2ft³ and 0.05m³ drives.

RVP-FI Specifications

- One Form A, SPST-NO Switch
- One pulse per revolution of index drive
- Operating time: 0.3 milliseconds
- Bounce time: 0.3 milliseconds
- Initial contact resistance: 100Ω
- Maximum switching voltage: 24 VAC, 24 VDC
- Maximum switching current: 100 mA
- Power source: external
- Operating temp. -40°C to +70°C

Note: Also verify the operating range of the meter which might have a tighter operating range.

Ordering Information

The RVP-FI can either be installed on new meters in the factory or purchased as a kit for retrofitting. Each kit includes mounting hardware, security seals and a 12-foot cable. The kits do not include an index.

RVP-FI Pulser Schematic
## General Information
The RVP-VI uses a normally open (form "A") reed switch to supply accurate pulse outputs directly from the index for a wide range of meters. The pulser’s magnetic reed switch provides a dry-contact closure that protects the integrity of the electrical circuit. As a backup feature, a spare reed switch is included on the PCB to increase overall reliability. The output of the switch is available through an integral, 10-foot cable. Rigorous life and environmental testing has been performed on the RVP-VI to insure dependable performance.

### Applications
The RVP-VI is intended for low-voltage/low-current applications such as:
- Transmitting data to AMR/AMI devices
- Sending data to remote counters
- Logging flow data
- Operating flow control loops

### Compatibility
The RVP-VI can be installed on meters manufactured by Elster American Meter that use vertical-mounting indexes. This includes AL-800, AL-1000, AL-1400, AL-2300, AL-5000 and all turbine meters.

### Options
- Available with or without an index. A brass or plastic index can be used with kits that do not include an index. Only plastic indexes are offered in pre-assembled kits.
- Detachable cable. An optional connector is available that allows the 10-foot cable to be disconnected from the index box.
- 10 ft³ per pulse for 5 ft³ indexes. Pulses with 5 ft³ indexes can either be configured to send a signal every 5 ft³ or every 10 ft³. All other RVP-VI assemblies send one pulse per revolution of the index proving hand.

### RVP-VI Specifications
- One Form A, SPST-NO Switch
- Operating time: 0.6 milliseconds
- Release time: 0.2 milliseconds
- Initial Contact resistance: 100Ω
- Maximum switching voltage: 24 VDC
- Maximum switching current: 100 mA
- Power source: external
- Operating temp. -40°C to +125°C

Note: Also verify the operating range of the meter which might have a tighter operating range.

### Ordering Information
The RVP-VI can either be installed on new meters in the factory or purchased as a kit for retrofitting. Each kit includes an index box, index box gasket, PCB, 10-foot cable, mounting hardware, security seals and 3 cable connectors. The kits may include an index.

#### RVP-VI w/ Connector
- 52981K111 5298K085 52934G001 5 ft³, 5 Circle Pointer 10 ft³
- 52981K120 5298K094 52934G001 5 ft³, 5 Digit Odometer 5 ft³
- 52981K121 5298K095 52934G002 5 ft³, 5 Digit Odometer, Temp. Comp. 10 ft³
- 52981K122 5298K096 52934G002 5 ft³, 5 Digit Odometer, Temp. Comp. 5 ft³
- 52981K123 5298K097 52934G001 10 ft³, 5 Circle Pointer 10 ft³
- 52981K124 5298K098 52934G002 10 ft³, 5 Circle Pointer, Temp. Comp. 10 ft³
- 52981K125 5298K099 52934G002 10 ft³, 5 Digit Odometer 10 ft³
- 52981K126 5298K100 52210G011 10 ft³, 6 Digit Odometer, Temp. Comp. 10 ft³
- 52981K127 5298K101 52230G001 10 ft³, 6 Digit Odometer 10 ft³
- 52981K128 5298K102 52230G002 10 ft³, 6 Digit Odometer, Temp. Comp. 10 ft³
- 52981K130 5298K104 52970G001 100 ft³, 6 Circle Pointer 100 ft³
- 52981K131 5298K105 52211G002 100 ft³, 6 Digit Odometer 100 ft³
- 52981K142 5298K141 52211G002 100 ft³, 6 Digit Odometer, Temp. Comp. 100 ft³
- 52981K135 5298K109 52971G001 1,000 ft³, 6 Circle Pointer 1000 ft³
- 52981K136 5298K110 52212G002 1,000 ft³, 6 Digit Odometer, Temp. Comp. 1000 ft³
- 52981K129 5298K103 52170G002 0.1 m³, 6 Digit Odometer 0.1 m³
- 52981K133 5298K107 52171G002 1.0 m³, 6 Digit Odometer 1.0 m³
- 52981K134 5298K108 52178G002 10 m³, 6 Digit Odometer 10 m³
- 52981K139 5298K137 None1 None
- 52981K140 5298K138 None2 None

* Includes TC Label
1 Includes 1 magnet per board - Pulse output will equal (twice) the drive rate.
2 Includes 2 magnets per board - Pulse output will equal the drive rate.

### Remote Volume Pulsers (RVP)
03 Elster Meter Services
About Elster Group

A world leader in advanced metering infrastructure, integrated metering, and utilization solutions to the gas, electricity and water industries. Elster’s metering and system solutions reflect over 170 years of knowledge and experience in measuring precious resources and energy.

Elster provides solutions and advanced technologies to help utilities more easily, efficiently and reliably obtain and use advanced metering intelligence to improve customer service, enhance operational efficiency, and increase revenues. Elster’s AMI solutions enable utilities to cost-effectively generate, deliver, manage, and conserve the life-essential resources of gas, electricity, and water.

Elster has a staff of over 7,500 serving customers globally in North America, Central America, South America, Europe, Asia, Africa and the Middle East.

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