



Badger Meter

Recordall®

Transmitter Register (RTR®)

INTRODUCTION

Product Inspection and Unpacking

Upon opening the shipping container, visually inspect the product and applicable accessories for any physical damage such as scratches, loose or broken parts, or any other sign of damage that may have occurred during shipment.

NOTE: If damage is found, request an inspection by the carrier's agent within 48 hours of delivery and file a claim with the carrier. A claim for equipment damage in transit is the sole responsibility of the purchaser.

PRODUCT OVERVIEW

Description

Recordall Transmitter Registers from Badger Meter communicate through a patented piezo-electric, solid-state switch to provide digital output. It features a non-proprietary protocol and very low power requirements. The RTR with glass lens is available factory pre-wired to Badger Meter AMR/AMI products, or may be spliced to other devices following the instructions. The RTR is permanently sealed to eliminate the intrusion of moisture, dirt, or other contaminants, and is suitable for installation in all environments, including meter pits subject to continuous submergence.

Compatibility

The RTR is designed for use with all current Badger Meter Recordall® Disc, Turbo Series, Compound Series, Combo Series and Fire Service meters and assemblies. Each RTR is clearly identified on the face of the dial with an assembly number, unit of measure and meter model. The RTR provides connectivity with Badger Meter ORION® fixed network, migratable and classic AMR/AMI endpoints, GALAXY® AMR/AMI endpoints, and other AMR/AMI technology solutions approved by Badger Meter.



CONNECTING A RTR TO AN ENDPOINT

CAUTION

THE RTR SHOULD ONLY BE CONNECTED TO A PRODUCT APPROVED BY BADGER METER. CONNECTION TO AN UNAPPROVED PRODUCT WILL VOID THE RTR WARRANTY.

Badger Meter RTRs have a factory installed three-conductor cable (brown) for connection to the endpoint. If the wire is cut or broken and requires a field splice after the initial installation, connect like-color wires to maintain proper installation. Badger Meter wiring standards use the black wire as the negative (-) conductor and the red as the positive (+) conductor.

Before proceeding with the installation, be certain that the meter type and size correspond, and that the proper encoder configuration has been supplied for the application.

Splicing Considerations

Splice connections made in pit environments require a pit field splice kit (62084-001), which can be ordered separately. See the [Field Splice Kit Installation Instructions](#) available on our website.

ORION endpoints shipped factory pre-wired to a Badger Meter RTR require no splicing. All you do is mount the RTR to the meter and tighten the seal screw.

Wire Connections

The RTR is available factory pre-wired to Badger Meter AMR/AMI products. The RTR is permanently sealed to eliminate the intrusion of moisture, dirt, or other contaminants, and is suitable for installation in all environments, including meter pits subject to continuous submergence.

The RTR is also available with potted, pre-sized wire harness available for connection to endpoints in the field. Standardized lead lengths are 3, 10, 25, and 75 feet.

In-line Connector

An in-line connector is an optional feature that allows connectivity to AMR/AMI devices without the need for a field splice kit.

TESTING

After all connections are complete, test the entire installation including the RTR, the wiring and the endpoint for proper operation in accordance with the instructions supplied with the endpoint.

INSTALLING THE RTR

Bayonet Mount

The bayonet mount positions the encoder in any of four orientations for visual reading convenience. The RTR can be removed from the meter without disrupting water service.

Install the RTR on the water meter and secure it using the tamper-proof screw provided.

SPECIFICATIONS

Transmitter/Register	Straight reading, permanently sealed, magnetic drive
Unit of Measure	U.S. gallons, cubic feet, cubic meters, clearly identified on register face
Number Wheels	Six with 3/16" high numerals font type
Test Circle	360° circle with ten major increments with ten divisions each
Weight	9 ounces
Humidity	0...100% condensing
Temperature	-40...49° C (-40...120° F)
Signal Characteristics	Open Drain (FET)
Visual Resolution	1/100th of Test Circle
Electronic Resolution	1/10th of Test Circle
Typical Signal Duration	15...75 ms @ 25° C (77° F) 8...75 ms over operating temperature range at 67 µA
On State Resistance	7.5 Ohms @ 25° C (77° F)
Power Source	External
Maximum Switching	30V DC @ 1 mA @ 25° C (77° F)

Making Water Visible®

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Legacy Document Number: RTR-I-05-EN 62935-002