Read-o-Matic®

Remote Meter Reading for Gas Meters

Technical Brief

DESCRIPTION

Badger Meter Read-o-Matic provides an economical, time-proven method of obtaining remote readings from gas meters that are installed in basements, on rooftops or in other hard-to-reach locations. Without relocating meters, gas utilities can eliminate access problems, estimated billings and inconvenience for meter-readers and customers.

Mounted on an exterior building wall, the Read-o-Matic remote register is connected by wire to the generator on the meter. Gas flowing through the meter provides all the energy needed to operate the generator and the outdoor register.

Read-o-Matic was the original outdoor register for water meters, and the idea was so well accepted that Badger developed a Read-o-Matic specially for all hard case gas meters. Badger Read-o-Matic is helping thousands of utilities to save time, money, and manpower with meter-reading.

Although most applications are for residential sites, Read-o-Matic is available with a direct-reading index and different generators for meters with capacities from 75 cfh to 10,000 cfh.

OPERATION

A self-contained generator is mounted on the gas meter and connected to the Read-o-Matic outdoor index by low-cost, two-conductor wire. The flow of gas starts the system operating by producing a rotary motion of the meter drive dog. This motion is transferred to a spring-biased, six-pole magnet in the generator by means of a reduction gear train and an escape gear.

When the escape gear is released, the biasing springs return the magnet to its original position. This action produces a pulse signal of short duration in coils located near the magnet.

The pulse (approximately 8 volts) is transmitted over the wire to a solenoid in the outdoor register. One pulse is sent for every 100 or 1,000 cubic feet of gas, depending on the meter size. The Read-o-Matic register advances one digit for every pulse received.



FEATURES

- · Evaluated to be instrinsically safe for gas applications.
- · Approved by many Public Service Commissions
- · No additional complex accessories required to read meter
- Pulse generator design for future compatibility with AMR
- Pulse generator is capable of sending signhal to a remote register at a distance of 5,000 ft.
- Tamperproof screws for generator and remote register.
- Self-powered, no batteries or external current source required.
- No measureable reflected torque load on gas meter.
- Over thirty-five years of reliable sercie history behind the Reado-Matic.
- · Outside register protected against the effects of ultraviolet rays.
- Costs considerably less than relocating indoor meter outside.
- · Closed system with no switches or contact points for reliability.
- Original index retained on gas meter. Outdoor register can be synchronized with gas meter index.



BENEFITS

YIELD

PAYBACK

Eliminates lockouts.

Improves efficiency - 3 to 5 times improvement

Eliminates the need to estimate billings. handling/answering customer complaints

Eliminates the risk of in-house accidents.

Improves customer relations; fewer meter reader interruptions.

Requires no additional equipment to operate.

Over 35 years of reliable service history, 5 million units in service.

Design compatible with future technologies changes to accommodate AMR.

Eliminates cost of callbacks.

Reduces manpower needs.

More timely accurate billing and cash flow; eliminates cost of

Fewer work related accidents; fewer workmen compensation claims.

Reduces manpower needed to handle customer complaints.

Lowest cost remote system to purchase, maintain and operate.

Value engineered to be the most durable, reliable, cost effective remote system.

Eliminates replacement and installation costs to upagrade system to AMR.



Model 570 direct-reading index (pictured left) is available with four or five number wheels and offers two dial options: single window for meter serial number, or double window for apartment and serial numbers.

Generator for large-size gas meters with capacities between 750 and 10,000 cfh. Installed on top of meter along with original. (not pictured)

Badger's Read-o-Matic has been designed to fit the following list of hard case and rotary gas meters:

- American
- Lancaster
- Rockwell
- Romet
- Roots
- Sprague
- Superior

TYPICAL METER-READING PROBLEMS

- · No more risk of in-house accidents.
- No groping to find meter.
- · No waiting, no delays.

READ-O-MATIC SYSTEM EASY TO INSTALL

Installation of a Badger Read-o-Matic involves only a simple, two-wire connection between the remote register and the generator. The outdoor register can be located up to 625 feet away from the gas meter using 19-gauge wire, and even farther with heavier-gauge wire. To install a residential-type Red-o-Matic, follow these five simple steps:

- 1. Remove original index from gas meter.
- 2. Remove cover and housing from Read-o-Matic generator.
- Mount generator, adapters when needed, and original index onto meter. Connect wires to generator terminals.
- 4. Install generator housing and cover onto generator.
- Run wire to outdoor register and connect to register terminals. Mount remote register on wall to complete installation.



Please see our website at www.badgermeter.com for specific contacts. Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding bid obligation exists.



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