



METRIS[®] RD

Remote Disconnect Meter with 100G Datalogging ERT[®] Module

Amidst increasing demand, tightened supplies, and continued economic strain, today's natural gas providers are faced with mounting challenges—yet expected to operate more and more efficiently and to drive down costs whenever possible. Our innovative 100G Datalogging Remote Disconnect Gas ERT module helps streamline operations, improve customer service, and enhance the revenue stream.

This integrated solution combines Itron's reliable METRIS residential gas meter with two-way communications capabilities in the 100G Datalogging gas ERT module, enabling remote disconnect functionality. With a shut-off valve incorporated into the meter, the METRIS RD meter allows utilities to disconnect gas service efficiently at critical times. Using a handheld computer, a meter reader or field service representative issues a command to disconnect service.

FEATURES AND BENEFITS

Remote disconnect plays a pivotal role in streamlined and cost-effective operations for a variety of reasons:

Enhanced Safety

Being able to disconnect* service remotely, field workers don't have to deal with aggressive animals or confrontational customers in their day-to-day activities. Once proper notification has been given, service shut-off can occur without incident.

Efficient Non-Payment Shut-Off

Historically, gas utilities have had to accept that a certain number of accounts would not have service disconnected due to backlogged workload and seasonal shut-off constraints. But with remote disconnect** capability, a single field worker can disconnect multiple sites in a day as part of routine activity. As a result, uncollectable accounts are disabled and lost revenue is decreased.

Streamlined Move-Out Operations

In areas with high transient rates, rolling a truck and sending a field worker to a meter each time a move-out occurs is costly and time-intensive. With this solution, workers can efficiently gather a final reading and disconnect service at the same time.

Entry to Limited-Access Sites

In difficult to access sites indoors, behind fences or gates, disconnect activities can be accomplished without

the need for direct access to the meter. In apartment complexes without individual valves for each unit, service is disconnected at the meter itself with this solution, providing utilities with greater control of their resources.

Simplified Installation

The METRIS RD meter is sold and shipped as a complete package, assembled at Itron's factory. Meter installation for this solution is the same as any other—no special training necessary. And because everything is assembled at the factory and shipped in regular packaging, there is no external indication to curious customers that a shut-off valve is contained within the meter.

*This technology allows for the remote disconnection of service only. Remotely connecting service is not enabled. Follow your standard company procedures to connect service.

**The shut-off valve in the METRIS RD is not intended to be a long-term or permanent disconnection option. To continue working properly, the closed valve must be actuated every three years. For long-term service disconnections, follow standard company procedures.



METRIS Remote Disconnect Meter with 100G Datalogging Gas ERT Module

SPECIFICATIONS

Functional Specifications

- » Power source:
 - ERT module (reading/datalogging functions): "A" cell lithium thionylchloride battery
 - Stepper motor (disconnect valve functions): "A" cell lithium manganese dioxide battery
- » Tamper detection:
 - ERT module: mercury-free tilt tamper and magnetic tamper
- » Operating environment:
 - 100G Datalogging ERT modules and METRIS meters can be installed indoors or outdoors above grade
- » Product identification:
 - ERT module: Numeric and bar-coded module type and serial number
 - Meter: Embossed aluminum manufacturer badge with serial number standard, customer badge optional

Approved Remote Actuation Devices

- » The remote disconnect valve can be operated using an FC300 with SRead or FC200SR handheld computer with Endpoint-Link® or Endpoint-Link® Pro version 5.5 or higher or with Field Deployment Manager (FDM) version 1.1 or higher. The disconnect operation can be performed from up to 500 feet away, with a clear line of sight, using approved handheld devices (FC200SR models must be equipped with long-range radio, FC2-0005-004 or FC2-0006-004)

Note: Older versions of SR radio are optimized for short-range performance only and appropriate for valve actuation at the meter.

Programming Device

- » 100G Datalogging ERT modules can be programmed using any FC300 handheld computer with SRead technology or FC200SR handheld computer, running Endpoint-Link or Endpoint-Link Pro version 5.3 or higher, or Field Deployment Manager (FDM) version 1.1 or higher

Battery and Design Life

- » When programmed to mobile/handheld mode or fixed network mode, battery life for the ERT module is 20 years
- » When programmed to hard-to-read mobile/handheld mode, ERT module battery life is 15 years
- » The remote disconnect design provides for 40 complete open/close cycles for the 20 year life of the stepper motor or approximately two (2) open/close cycles per year for 20 years
- » All 100G Datalogging ERT modules are designed for a 20-year total life

Regulatory & Standards

- » Safety approvals:
 - ERT module: Intrinsically safe per UL Class I, Division 1, Groups C & D
 - METRIS RD: Intrinsically safe per UL Class I, Division 1, Group D, T3C
- » Gas valve is tested in accordance with performance criteria from ASME B16.44, Manually Operated Metallic Gas Valves for Use in Above-Ground Piping Systems Up to 5 PSI, sections 5.2 and 5.7
- » Meter is built and tested in accordance with ANSI B109.1

Operational

- » All 100G Datalogging ERT modules operate without the need for an FCC license
- » Transmit frequency: Spread spectrum 908 to 924 MHz ISM band
- » Program frequency: 908 MHz
- » Data integrity: Verified in every message
- » Device not intended for permanent shut-off
- » Valve should not be left in the closed position for more than three years

Physical

- » Remote disconnect electronics in the meter are encapsulated for protection against hazards and tampering
- » Material of construction on all 100G Datalogging ERT module housings is gray polycarbonate
- » ERT module gasket material is molded Santoprene™ and index cover material is clear polycarbonate
- » Valve assembly for disconnect is comprised of a silicone seal and an articulating stainless steel disc

SPECIFICATIONS

Meter Capacity	250 CFH Natural Gas @ .5 inch w.c. Differential 400 CFH Natural Gas @ 1.0 inch w.c. Differential
Hub Center-to-Center	6"
Hub Sizes	#1 Sprague Standard, 10 LT, 20 LT, 30 LT, 1-1/4"
Meter Type	(TC) Temperature Compensated (NTC) Non-Temperature Compensated
Units	Imperial (Cubic Feet - ft ³) Metric (Cubic Meters - m ³)
Index Drive	2 ft ³ /revolution 50 dm ³ /revolution
Proving / Test Dials	ft ³ - 1/2' and 2' Proving Dials m ³ - 10 dm ³ and 50 dm ³ Proving Dials
Tangent Crank	14 revolutions/ft ³ or .071 ft ³ /revolution
Indexes	4 Circle Dial (ft ³ - Standard Pressure, 2 PSIG) 4 Digit Direct Read (ft ³ - Standard Pressure) 5 Digit Direct Read (ft ³ or m ³ - Standard Pressure) Standard = 7 inches w.c. @ 14.73 PSIA base/ 14.4 PSIA atmospheric
Meter M.A.O.P.	5 PSIG
Valve M.A.O.P.	2 PSIG
Meter Operating Temperature Range	-30°F to +120°F -34°C to +49°C
Valve Operating Temperature Range	32°F to +104°F 0°C to +40°C
Valve Sealing Temperature Range	-40°F to +140°F -40°C to +60°C
ERT Operating Temperature Range	-40°F to +158°F -40°C to +70°C
Surface Treatment	ASA 49 Gray Polyester Powder Coat

DIMENSIONS

	Meters per Layer	Layers per Pallet	Meters per Pallet	Pallet Dimensions	Pallet Weight (lbs)
METRIS Remote Disconnect	20	3	60	48" x 46" x 39"	635
METRIS Remote Disconnect	20	4	80	48" x 46" x 52"	850
Weight of single METRIS RD with 100G Datalogging ERT				9.55 lbs	

All dimensions and weights provided are approximate

Dimensions	Inches	Millimeter
A	7.7	196
B	11.3	287
C	6	152
D	11	279
E	6	152
F	9.2	234
G	3.8	97

All dimensions and weights provided are approximate

Additional Information

- » For additional information, see the:
- METRIS 250 Residential Gas Meter specification sheet (publication 100973SP-01)
 - 100G Datalogging ERT Module specification sheet (publication 100941SP-05)
 - FC300 Handheld specification sheet (publication 100872SP-07)

- Field Deployment Manager Endpoint Tools Mobile Application Guide (TDC-0934***)
- Endpoint Link Programming Guide (TDC-0744***)
- Replacing the 100G Datalogging Endpoint on the METRIS Remote Disconnect Meter (TDC-0884***)

***Use most current publication revision

