

Features

APPLICATIONS: The Hersey® Model ER™ Register is available on Hersey meters for remote and automatic meter reading systems. The ER Register provides an accurate reading for hard-to-access residential, commercial and industrial meter installations. With minimal cost and labor, the ER register can be retrofitted to virtually any Hersey meter already in service.

The Hersey Model ER register utilizes a four-pole magnetic sweep hand to generate the switch closures of the Model ER sensors and Itron® reed switch assembly.

This switch closure output is designed for use with many types of Automatic Meter Reading devices, and it provides excellent flexibility for the user by allowing easy migration from one reading technology to another. Switch closures are recorded by a remote visual read counter, touch pad, radio module, telephone MIU and SCADA RTUs / PLCs.

The AMR System selected for use with the ER register will increase the efficiency and accuracy of the meter reading process.

CONFORMANCE TO STANDARDS: Complies with AWWA Standard C707 for Encoded Remote Reading Systems (when used with any of the Hersey AMR Systems).

CONSTRUCTION: These registers are sealed to eliminate dirt and/or moisture infiltration and lens fogging. The register has a straight reading odometer-type display, and 360° test circle with center sweep hand. A tamper-proof locking feature is provided to resist tampering with the register. A special molded register lens allows the sensors to be attached to the register by tamper screws, without penetrating the lens.

OPERATION: The register operates in the same manner as a standard Hersey register with no additional functions to perform. By mounting an Model ER or Itron® reed switch assembly onto the lens of the register, the electronic sensor is placed close to the turning magnetic sweep hand. Solid-state electronic switch closures are generated by the rotation of the magnetic sweep hand past the sensor.

Model ER Sensors: These are solid-state sensors that utilize a Wiegand wire to electronically generate switch closures when alternate magnetic poles of the register sweep hand pass near the wire. There is no bounce in the output signal and the sensor does not trigger again until it senses the next opposite pole of the magnet. No moving parts are required in the sensor. These sensors are factory wired and potted and are completely moisture-proof. They are designed for use in indoor or outdoor conditions, including use in pit-set applications that may include high humidity or continuous submersion.

Itron® reed switch assembly: The reed switch consists of two opposing magnetic reed contacts that overlap, but do not touch one another. Within the optimum actuation distance, the magnetic field from the register sweep hand overcomes the spring tension of the overlapping contacts closing the contacts. When the reed contacts touch, an electrical current is allowed to flow closing the circuit.



(Typical Register Shown)

Materials and Specifications

- **MODEL** ER Register
ER-2 Sensor
Itron® Reed Switch Assembly
- **STANDARDS** Complies with AWWA Standard C707
for Encoded Remote Reading Systems
(when used with the Hersey AMR System)
- **REGISTER TYPE** Electronic encoding with
visual readout
- **TEMPERATURE RANGE** 33F to 120F
(Protect Meter from Freezing)
- **CABLE** 19 AWG 3-strand wire

Model ER for MCT II Meters 1992-2003

Electronic Encoder Register

Dimensions

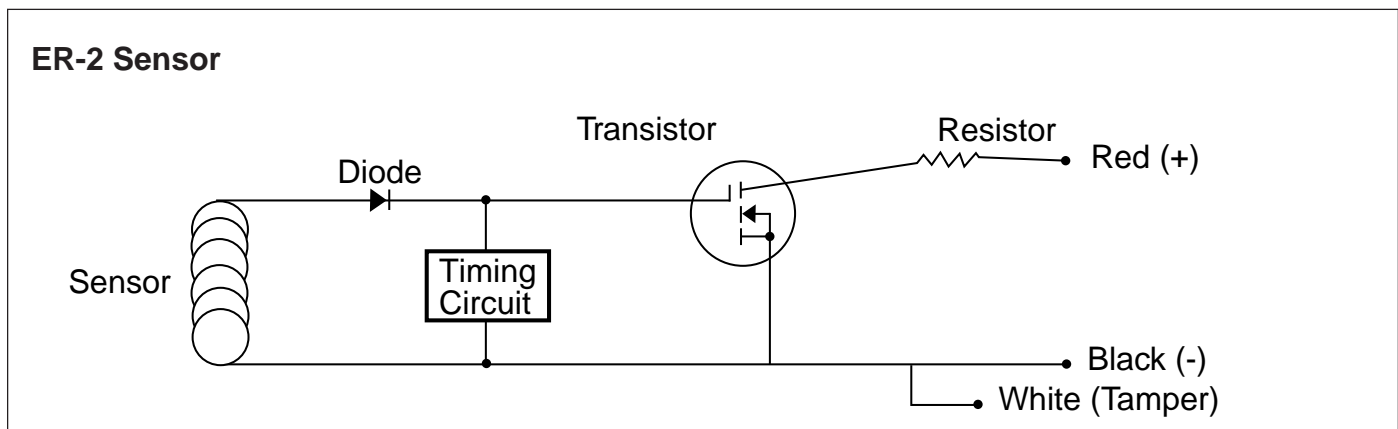
Model	Wire Length
ER-2 Sensor	15'
Itron® Reed Switch Assembly	5'

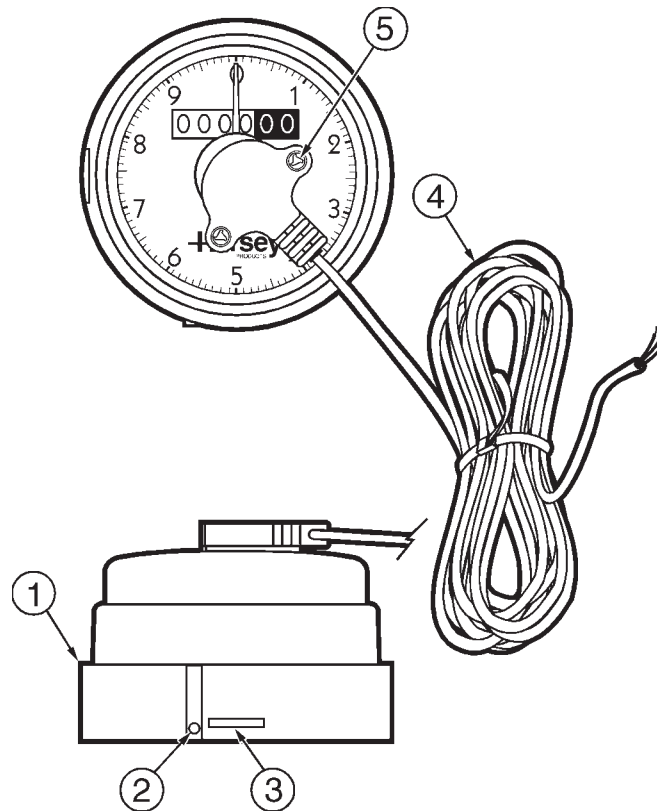
Sensor Applications and Technical Specifications

Model	Product	Average Switch Closure at 73F (23C)
ER-2 Sensor*	Ramar® Radio Module, Inovonics® Radio Module and SCADA RTUs/PLU	250 milliseconds
Itron® Reed Switch Assembly**	Itron® ERT® Modules only	

*Two switch closures per register sweep-hand revolution

**Four switch closures per register sweep-hand revolution





Ref. No.	Description	Part No.
1	Register Housing Base	C5805 (only for 400/500 series)
2	Register Locking Pin (Plastic)	A12658 (only for 400/500 series)
3	Register Housing Insert	C5770 (only for 400/500 series)
4	ER-2 Sensor with 15' of wire ER-2 Sensor with 15' of wire & 2 Tri-wing Screws	B81044 B81044PO
4	Itron® Reed Switch with 5' of wire – for Pit ERT® Itron® Reed Switch with 20' of wire – for Pit ERT® Itron® Reed Switch for Wall ERT® only available as package with ERT®	SUB-0031-006 SUB-0031-005
5	Tri-wing Screw	AS7281
*	Tri-wing Tool (screwdriver style, less bit)	ERTOOL
*	Tri-wing Tool Bit	ERTOOLBIT
*	ER Tool Kit (includes screwdriver & bit)	ERTOOLKIT

* Not shown.

Model ER for MCT II Meters 1992-2003

ER Register Options for MCTII and 8" MCT

Ref	Description	2" MCTII Mainline	2" MCTII Bypass	3" MCTII Mainline	3" MCTII Bypass	4" MCTII Mainline	4" MCTII Bypass
1	ER Register - no wire Gallons Cubic Feet	D355316 D355416	D355312 D355412	D355309 D355409	D356313 D356413	D353214 D353419	D353211 D353411
2	Register Housing Base (Plastic)	C5769	C5769	C5769	C5769	C5769	C5769
3	Register Housing Insert (Plastic)	C5770	C5770	C5770	C5770	C5770	C5770
4	Register Locking Pin (Bronze Plastic)	A126581	A126581	A126581	A126581	A126581	A126581
4	Register Locking Pin (Blue Color Plastic)	A12558	A12558	A12558	A12558	A12558	A12558
5	Calibrator Mounting Screws (4)	A13014	A13014	A13014	A13014	A13014	A13014
6	Calibrator Housing	C6523	C6523	C6523	C6523	C6523	C6523
7	Calibrator O-ring	19210	19210	19210	19210	19210	19210
8	Calibrator Holding Ring	19106	19106	19106	19106	19106	19106
9	Calibrator Gear Train	C6534XX***	C6534XX***	C6534XX***	C6534XX***	C6534XX***	C6534XX***
10	Calibrator Housing Kit (includes 5-8)	B7860	B7860	B7860	B7860	B7860	B7860
11	Itron Wall ERT 5' (not shown)	IWALLERT5B	IWALLERT5B	IWALLERT5B	IWALLERT5B	IWALLERT5B	IWALLERT5B
12	Itron Wall ERT 20' (not shown)	IWALLERT20B	IWALLERT20B	IWALLERT20B	IWALLERT20B	IWALLERT20B	IWALLERT20B
13	Itron Pit ERT 5' (not shown)	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB
14	Itron Pit ERT 20' (not shown)	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20

Ref	Description	6" MCTII Mainline	6" MCTII Bypass	8" MCT Mainline	8" MCT Bypass
1	ER Register - no wire Gallons Cubic Feet	D355306 D355406	D355315 D355415	** **	D3261G1 D3261G2
2	Register Housing Base (Plastic)	C5769	C5769	C5769	C5769
3	Register Housing Insert (Plastic)	C5770	C5770	C5770	C5770
4	Register Locking Pin (Bronze Plastic)	A126581	A126581	A126581	A126581
4	Register Locking Pin (Blue Color Plastic)	A12558	A12558	A12558	A12558
5	Calibrator Mounting Screws (4)	A13014	A13014	A13014	A13014
6	Calibrator Housing	C6523	C6523	C6523	C6523
7	Calibrator O-ring	19210	19210	19210	19210
8	Calibrator Holding Ring	19106	19106	19106	19106
9	Calibrator Gear Train	C6534XX***	C6534XX***	C6534XX***	C6534XX***
10	Calibrator Housing Kit (includes 5-8)	B7860	B7860	B7860	N/A
11	Itron Wall ERT 5' (not shown)	IWALLERT5B	IWALLERT5B	IWALLERT5B	IWALLERT5B
12	Itron Wall ERT 20' (not shown)	IWALLERT20B	IWALLERT20B	IWALLERT20B	IWALLERT20B
13	Itron Pit ERT 5' (not shown)	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB	IPITERT50ASMB
14	Itron Pit ERT 20' (not shown)	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20	IPITERTASMB20

