

Optical Encoded Register

Specifications

The OER is the state of the art register for the water meter industry.

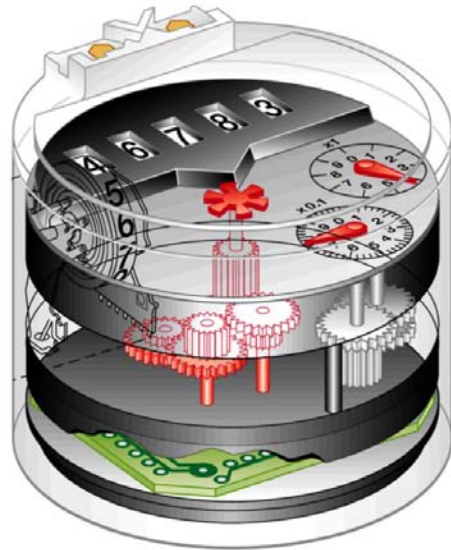
The OER is an absolute encoder utilizing fiber-optic technology for friction-free operation. Coupled with Metron-Farnier's Spectrum water meters, the OER offers the most reliable and accurate metering solution in the industry.

The OER comes in either a plastic housing for indoor applications or a copper/glass housing for outdoor & pit applications. The register is designed for long-term reliability in diverse environmental conditions.

The OER employs the defacto industry standard encoder protocol for compatibility across all touchpad and AMR applications.

The OER is magnetically-driven by the meter using an advanced coupling designed to minimize drag, shield interference and virtually eliminate slippage.

The OER is manufactured to operate exclusively with Metron-Farnier's line of premier Spectrum and Enduro water meters.



Materials

Indoor Version

Housing/Lens: PC Lexon 161
Sealing: Silicone 70 SH

Outdoor Version

Housing: Cu – ETP (refined copper)
Lens: Tempered Mineral Glass
Sealing: Silicone 70 SH

Environmental

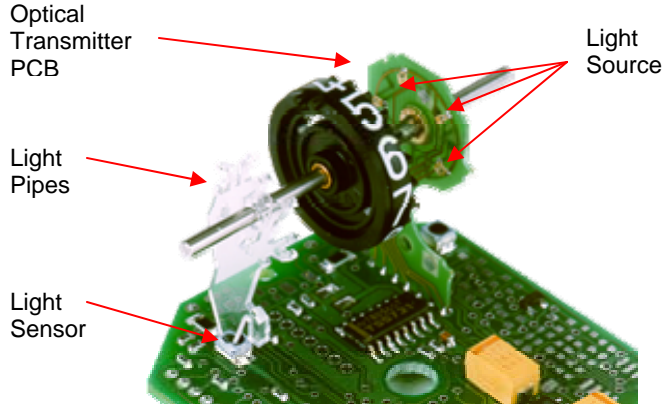
Indoor Version

Temperature: -4°F to +180°F
-20°C to +80°C
Humidity Range: 95% NC
Rating: IP67

Outdoor Version

Temperature: -4°F to +176°F
-20°C to +80°C
Humidity Range: 100% (waterproof)
Rating: IP68

Register Operation



The register utilizes a light transmitter and light-pipe to detect the various positions of the encoder wheels. This non-mechanical sensing technology offers many advantages, including extremely low drag on the measuring element and minimal chance of mechanical wear or failure.

Register Details

Units of Measure: U.S. Gallons, Ft3
ID's on register face

Number Dials: Five (5) Active
4, 5, 6 digit output

Dial Height: 3/16-inch
White on black

Power Source: External

Signal: Two-wire Touchpad
Three-wire for AMR
See OER Technical
Notes for more
information

Resolution: Refer to OER
Application Sheets for
more information

Cabling/Wiring

Type: 3-conductor
22 AWG

Strain Relief: L-Lock on housing

Wiring: Touchpad
Red / Black
(no polarity)

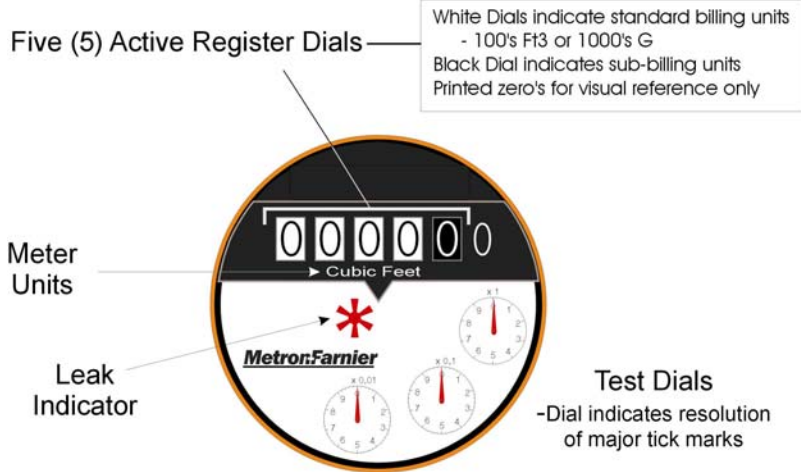
AMR
Red – Clk/Power
Green – Data
Black – Ground

Tamper: Snap Housing is
tamper resistant
and tamper evident

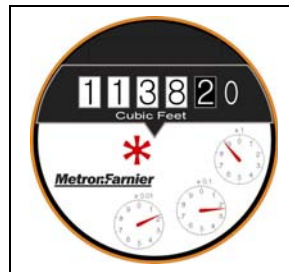
TECHNICAL DATASHEET



Register Measurement



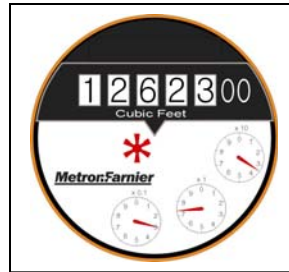
Residential USG



Residential Ft3



Commercial USG



Commercial Ft3



Enduro USG



Enduro Ft3

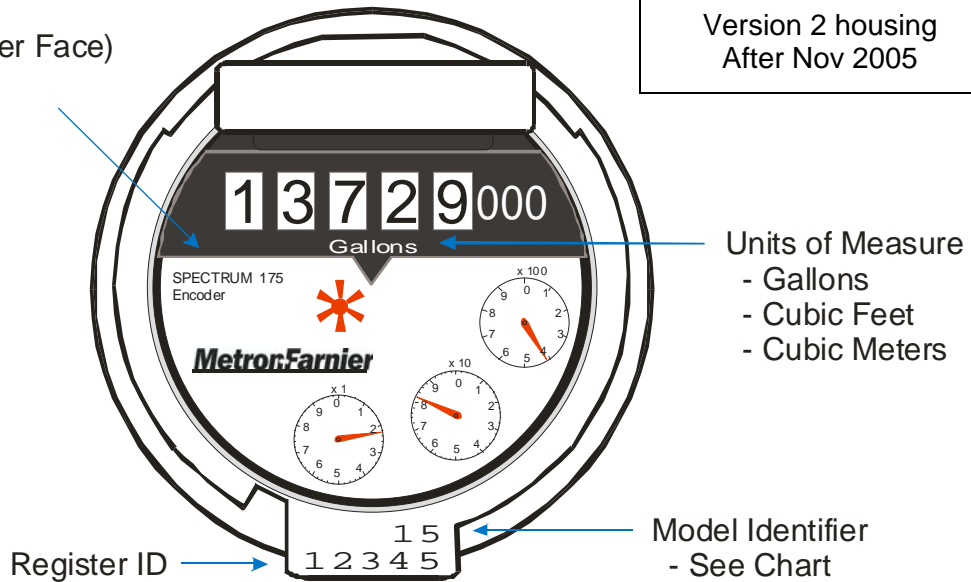
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Meter Identification

Model (Register Face)

Version 2 housing
After Nov 2005



Units of Measure
- Gallons
- Cubic Feet
- Cubic Meters

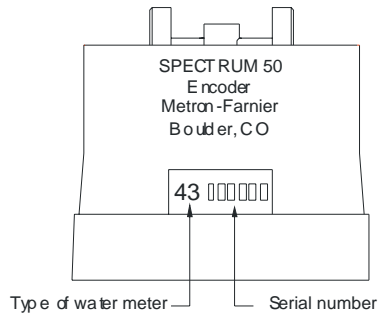
<u>Register ID</u>	<u>Model Identifier</u>
Unique sequential number	Unique sequential number
Numeric only	Numeric only
Up to 6 digits	9 = Spectrum 22
	11 = Spectrum 88
	13 = Spectrum 130
	15 = Spectrum 175
	17 = Spectrum 260
	19 = Spectrum 440
	21 = Enduro 2400
	23 = Enduro 2800
	27 = Enduro 1100
	31 = Enduro 2000

Electronic Output
Model Identifier + Register ID
example: 1712345

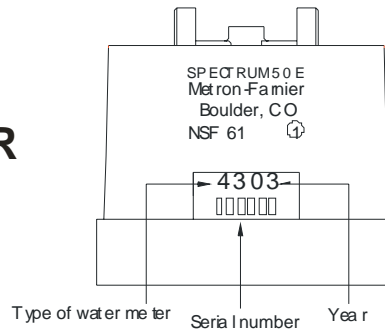
**TECHNICAL
DATASHEET**

Metron-Farnier
Advanced Single-Jet Technology

Version 1 housing
Prior to Nov 2005



OR



All serial number information is found on the Snap-Ring. This Snap-Ring is the plastic housing which attaches the register to the meter body.

M - Model

- 1 Spectrum 15
- 2 Spectrum 22
- 4 Spectrum 50
- 5 Spectrum 88
- 6 Spectrum 130
- 7 Spectrum 175
- 8 Spectrum 260
- 9 Spectrum 440
- A Enduro 660
- B Enduro 1100
- C Enduro 2000
- D Enduro 2400
- E Enduro 2800

U - Units

- 1 M³ - Cold Water
- 2 M³ - Hot Water
- 3 Ft³ - Cold Water**
- 4 Ft³ - Hot Water
- 5 USG - Cold Water**
- 6 USG - Hot Water



Sample