

Rate and Total Display

# Oval Gear Flowmeter Registers

## Oval Gear Flowmeter Registers

*Industrial Terminal Enclosure*

### Description

**ILR700 Series Registers** complete the Oval Gear Meter by providing rate and total displays, output scaling, selectable unit of measure and a programmable K-factor in non-volatile memory. The electronic register modules contain a microprocessor board, powered by a lithium battery, with a life expectancy of 4 to 5 years. The register goes into sleep mode, while in a no-flow condition, to preserve battery life. A six-digit liquid crystal display, accurate to three decimal places, indicates the exact amount of fluid that has passed through the meter. Both rate and total are displayed simultaneously, along with a low battery indicator.

The **ILR700 Series** can be programmed to batch in pints, quarts, liters or gallons and will totalize in liters or gallons. The Oval Gear calibration K-factor and unit of measure are programmed during factory test. The units can be easily programmed in the field using the total and rate buttons on the face of the register. The module design can be orientated in-line or perpendicular to the piping.



**ILR741**

Industrial Terminal Enclosure



**ILR740**

Blind Reed Switch Output



**ILR700**

Battery Powered



**ILR710**

Pulse Output

**ILR730**

4-20 mA Output

**ILR720**

Pulse Output, Bi-directional, External Reset

### Benefits

- Easy to read display—dual read-out for rate and total
- Simple to program in the field
- Calibration factor saved in non-volatile memory
- Register can be mounted in-line or perpendicular to flow
- Rugged and shock-resistant construction
- Long-life, field replaceable, top-load battery
- Low battery warning indicator
- Interchangeable total and rate display position
- Configurable display
- Visible units of measure

### Features

- Large digital LCD display—7 segments
- Signal input totalizer reset—5 digits
- Scalable meter pulse input
- Non-resettable lifetime totalizer, in gallons or liters—5 digits
- Factory calibrated (custom calibrations optional)
- Programmable from front of register
- Select totalizer units in pulses per liter or gallons
- Select batch total display in pints, quarts, gallons or liters
- Bi-directional flow measurement

### Application

The ILR700 Series Register mounts on top of the Oval Gear Flowmeter and senses the magnets embedded in the gears, which activate the reed switches. The reed switches send pulses to the microprocessor in the register, changing the LED display segments.



FM78587  
AS9100 Rev. B and  
ISO 9001:2008

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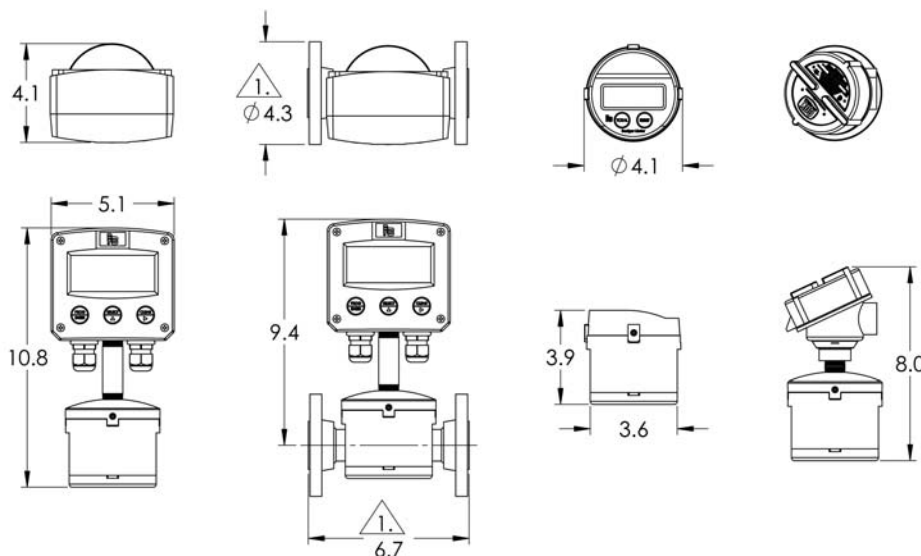
## Specifications

**Display:** Dual LCD readouts, 12mm and 7mm high—7 segments

**Program:** Operating function setting and programming are provided using the TOTAL and RESET buttons

Register Model	Register Functions	Register Model	Register Functions
<b>ILR700 Standard Register</b>	<ul style="list-style-type: none"> <li>Improved resolution due to quadrature signals on the reed switch input</li> <li>Register can be mounted in-line or perpendicular to flow</li> <li>Flow rate or totalizer display selectable in the programming menu (top 6 digits with floating decimal point)</li> <li>Selectable unit of measure</li> <li>Selectable reset or non-reset totalizer (bottom 5 digits)</li> <li>3.0 to 3.6 VDC lithium battery 2/3AA</li> </ul>	<b>ILR730 Dual-pulse Output</b>	<ul style="list-style-type: none"> <li>Scaled analog 4-20 mA output, representing the flow rate of the meter, 3-wire</li> <li>Minimum and maximum values can be set for analog output</li> </ul>
		<b>ILR740 Dual-pulse Output</b>	<ul style="list-style-type: none"> <li>Reed switch output only</li> </ul>
		<b>ILR741 Dual-pulse Output</b>	<ul style="list-style-type: none"> <li>Reed switch output only, SST adapter and terminal board</li> </ul>
<b>NOTE: The ILR710, 720 &amp; 730 contain all of the standard features offered in the ILR700 and require 6–24 VDC external supply</b>			
<b>ILR710 Single-pulse Output</b>	<ul style="list-style-type: none"> <li>Scaled pulse output 0–100 mS</li> <li>Ability to set pulse width output 0–100 mS</li> </ul>		
<b>ILR720 Dual-pulse Output</b>	<ul style="list-style-type: none"> <li>Quadrature pulse output—can be used externally to detect direction of flow</li> <li>Totalizer can be reset by a low pulse on the external reset input</li> </ul>		

## Dimensions with Registers



Please contact our application engineers for assistance with special configurations and to find out more about our batch controllers. Visit our website at [www.coxflow.com](http://www.coxflow.com).

**NOTE:**  
Dimension is based upon 1" Class 150 B16.5 flange. O.D. of flange will vary with meter size and flange class.  
All dimensions are in inches.

*Representative*



A Division of  
**Badger Meter**

**Call COX Flow Measurement for application assistance and proper system configuration.**

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