**Industrial Model R10**

**Rate Indicator/Totalizer**

### Power:
- **Internal Battery**: 3V Lithium
- **Life Expectancy**: 5 Years

### Physical:
- **Dimensions**: See Reverse
- **Weight**: 2.2 Ounces
- **Case Material**: Cycolac X-17
- **Display Size**: 0.43" High
- **Front Panel Rating**: NEMA 4X with Provided Gasket
- **Operating Temp**: 32°F - 131°F
- **Operating Humidity**: 60% Non-condensing
- **Max Rec Wire Length**: 25 Ft.

### Totalizer:
- **Type**: Up-counting
- **Digits**: 8
- **Scaler Range**: 0.0001-100.0000
- **Decimal Point**: 5 Positions (Programmable)

### Rate Indicator:
- **Type**: 1/\text{tau}
- **Digits**: 4 (5 with Fixed Zero)
- **Scaler Range**: 0.001-9999
- **Decimal Point**: 5 Positions (Programmable)
- **Accuracy**: ±0.2%
- **Zero Time\(^*\)**: 10 Seconds

### Input B (low speed):
- **Type**: Contact Closure
- **Speed**: 0-100 Hz
- **Low State**: 0-0.4 VDC for Min 10 ms
- **High State**: 2.0-28 VDC for Min 40 ms

### Input A (high speed):
- **Type**: Solid State Sourcing/Sinking
- **Speed**: 0-10 kHz
- **Low State**: 0-0.4 VDC for Min 80 ms
- **High State**: 2.0-28 VDC for Min 20 ms

\(^*\)If the R10 does not receive a pulse within 10 seconds, the rate display will show zero.

**Description.** The model R10 is an economical up-counting totalizer and a 1/\text{tau} ratemeter. The ratemeter/totalizer has an 8 digit LCD display with 0.43" tall characters. Separately programmable count/rate scalers and decimal points allow for display of rate and count in various engineering units.

The R10 will show either flow rate or total by pressing the T/R mode select button on the front face of the unit. Other features include programmable reset enable/disable, remote reset, field replaceable 5 year battery, and high or low speed inputs.

The low speed input is suited to contact closures such as reed switches or AMCO’s "Type B" pulser on the C700 water meter. The high-speed input may be used with solid state, current sourcing pulser such as AMCO’s SF pulser (C700) and HRP (T3000). Wiring diagram examples are shown on the reverse page. Full size wiring diagrams detailing the connection of the R10 to AMCO’s cold/hot water or oil meters are available from AMCO Water Metering Systems Inc.

One of the unique features of the R10 is the frequency capability of the low speed input. Similar ratemeters/totalizers have low speed input frequencies of 40 Hz or less, but the low speed input on the R10 will accept contacts at up to 100 Hz. Another notable benefit is the power assist feature that extends the battery life when a sourcing signal is applied to the high speed input (terminal 3).
Sample Wiring Diagrams:

| R10 Rate Meter |  
|---------------|---
| Clear         | Red |
| Black         |     |
| 5 E / N       | GRND 1 |
| 6             | IN B 2 |
| 7             | IN A 3 |
| 8             | RST 4 |

R10 Rate Meter

All AMCO Reed switch pulser are not polarity sensitive. Install rate meter up to 25 feet from Reynolds.

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