

# 912-MC

## High Speed, LED Electronic Counter

### Features

- CSA Approved
- Counts Pulse Inputs Up To 10 kHz
- NEMA 4X / IP65 Front Panel
- 1/8 DIN Cutout
- Add & Subtract Capabilities



### Applications:

This totalizing counter is perfect for high speed counting applications where a 6 digit total count is required.

### Specifications:

**Display:** 6 digits, .55" high LED

### Input Power:

- 110VAC ±15% or 12 to 15VDC
- 220VAC ±15% or 12 to 15VDC.
- 24VAC ±15% or 12 to 15VDC.

**Current:** Max. 250mA DC or 6.5 VA at rated AC voltage.

**Sealing:** Front panel sealed to NEMA 4X/IP65 specifications.

**Excitation Voltage:** (AC powered units only) + 12VDC @ 50mA unregulated -10% + 50%.

**Memory:** EEPROM Stores data for 10 years if power lost.

### Input Types:

#### Standard: INPUT 3

This input is ideal for flowmeters that produce a DC pulse output. User can select high or low speed modes for debounce filtering. NOTE: For sinking driver inputs (NPN), use an external pull up resistor (2.2kΩ to 10kΩ) between pin 7 (+12VDC) and inputs used (pin 5 and/or 6).

#### Up/Down Control: INPUT 5

Count inputs on A, direction control input on B. When input B is "high" (4-30VDC), the count inputs on A will count up. If Input B is low (open or <1 VDC), the count inputs on A will count down.

#### Quadrature: INPUT 9

Accepts pulses 90° out of phase for bidirectional counting. May be used with quadrature encoders. NOTE: The unit will only show rate of one direction (when A precedes B).

**NOTE:** All inputs can be ordered with mag. input (30 mV) option (see "How To Order").

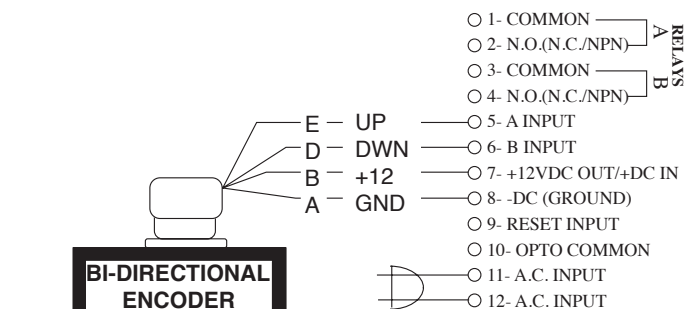
**Reset:** Rear terminal, 4-30 VDC negative edge triggered.

**Approvals:** CSA File# LR91109-7, CE Approved

### 912-MC Series (912-MCHA3)

This unit is a dual input, bi-directional totalizer only. This unit does not have presets, outputs or scaling available. Each pulse received on input A or input B equals one count. The 912-MC has separate up and down inputs. Pulses on pin 5 (input A) will count up (add); pulses on pin 6 (input B) will count down (subtract), even if the pulses occur simultaneously. Low and high count speed debounce filtering is factory set, output relays are not supplied with this unit. The 912-MC series is perfect for applications where a low cost, bi-directional totalizer is needed.

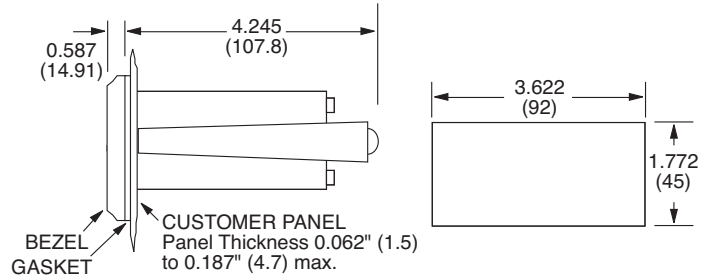
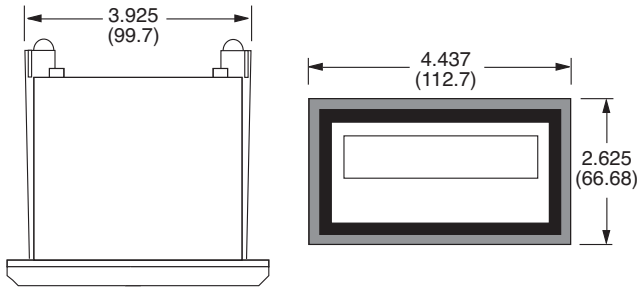
### TYPICAL WIRING:



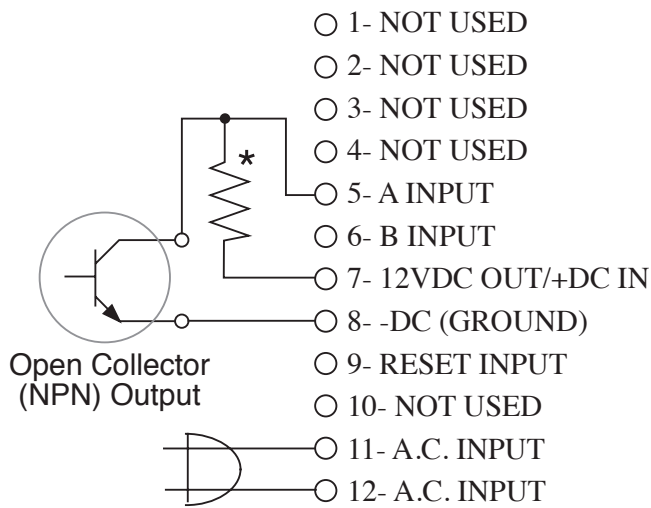
Sold Separately

NOTE: Relay outputs are not supplied with 912-MC series.

**Dimensions:**



**Open Collector Wiring:**



\*Pull-up resistor required for open collector (NPN) outputs. Use resistor values from 2.2kΩ to 10kΩ.

NOTE: Relay outputs are not supplied on 912-MC series

**HOW TO ORDER**

<b>EXAMPLE:</b>	<b>912-MC</b>	<b>H</b>	<b>A</b>	<b>3</b>	<b>1</b>
<b>Series</b>	912-MC = 912-MC Counter				
<b>Input Speed</b>	L = Low speed input debounce filter 40Hz max. H = High speed input (0 to 9.99 KHz)				
<b>Operating Voltage</b>	A = 110 VAC ± 15% or 12 to 15 VDC B = 220 VAC ± 15% or 12 to 15 VDC C = 24 VAC ± 15% or 12 to 15 VDC				
<b>Count Input</b>	3 = Standard, 4-30 VDC simultaneous inputs. 3M = Mag. Input, Input A only, 30mV input (Input B, 4-30V) 3MB = Mag. Input, Inputs A & B, 30mV input 5 = 4-30 V pulses on Input A, 4-30 V Direction Control input on Input B. 5M = 30 mV pulses on Input A, 4-30 V Direction Control input on Input B 9 = Quadrature, accepts 4-30 V pulses 9MB = Quadrature, accepts 30 mV pulses (A & B)				
<b>Options</b>	1= RS232 Communications 2= RS422 Communications				