

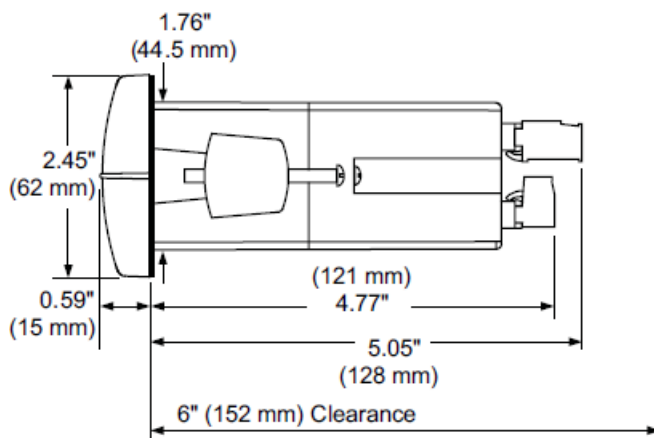
## Model 122 Indicator

### FEATURES

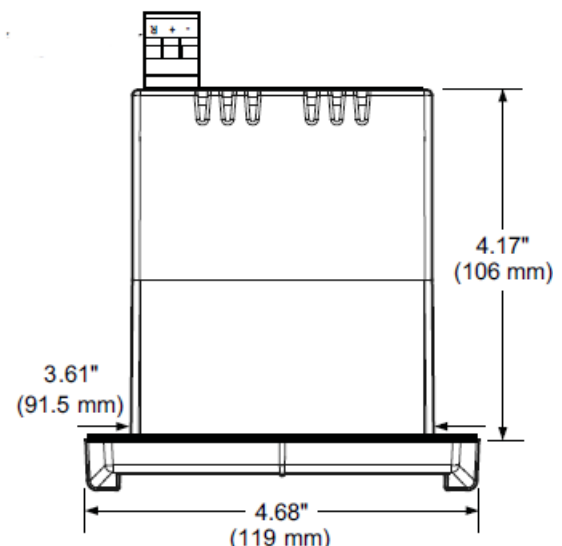
- Dual-line, super-bright 6-digit display, 0.60" & 0.46"
- 9 digit totalizer with overflow indication
- Isolated 4-20mA output programmable to flow rate, min/max, total or grand total
- Pulse input, single K-factor or linearization table
- Displays can be assigned to rate & total, min/max or alternating measurement and units
- Rate display smoothing is adjustable via the low gate setting
- Indicator can be scaled and programmed off-line
- RS-485 serial port with Modbus® RTU protocol
- Programmable display of any engineering units
- Multi-level security password(s) for programming and total
- Non Volatile memory maintains programming and total
- 110/220 Vac powered
- Onboard USB and MeterView® Pro Programming Software
- Front panel sealed to NEMA 4X rating
- UL rated and CE approved



### DIMENSIONS



Side View



Top View

# Model 122 Indicator

## GENERAL SPECIFICATIONS

Display: Upper display: 0.60" (15 mm) high. Lower display: 0.46" (12 mm) high. Both are 6 digit, red LEDs.

Display Assignment: The upper and lower displays may be assigned to rate, total, grand total, alternate (rate/total, rate/grand total, rate/units, total/units, and grand total/units), max/min, units (lower display only), or Modbus input.

Password: Three programmable passwords restrict modification of programmed settings and two prevent resetting the totals.

Non-Volatile Memory: All programmed settings are stored in non-volatile memory for a minimum of ten years if power is lost.

Power Options: 85-265 Vac 50/60 Hz, 90-265 Vdc 20 W max

Fuse: Required external fuse: UL Recognized, 5 A max, slow blow; up to 6 indicators may share one 5 A fuse.

Isolated Transmitter Power Supply: Terminals P+ & P-: 24 Vdc  $\pm 10\%$ . Rated @ 25mA max.

## Pulse Inputs

Inputs: Intended for 5 V TTL, square wave pulses

Minimum Input Frequency: 0.001 Hz - Minimum frequency is dependent on high gate setting.

Maximum Input Frequency: 30,000 Hz

Input Impedance: Pulse input: Greater than 300 k $\Omega$  @ 1 kHz.

Accuracy:  $\pm 0.03\%$  of calibrated span  $\pm 1$  count

Display Update Rate: Total: 10/sec, Rate: 10/sec to 1/1000 sec

Multi-Point Linearization: 2 to 32 points

K-Factor: Field programmable K-factor converts input pulses to rate in engineering units. May be programmed from 0.00001 to 999,999 pulses/unit.

Time Base: Second, minute, hour, or day

Low Gate (smoothing): 0.1-99.9 seconds

High Gate (rate meter time out): 2.0-999.9 seconds

## Rate/Totalizer

Decimal Point: Up to five decimal places or none: Total decimal point is independent of rate decimal point.

Total Reset: Via front panel button, through serial communications, or external contact closure on digital inputs (F4 Digital Input Contacts: 3.3 Vdc on contact. Connect normally open contacts across F4 to COM).

Total Reset Password: Total and grand total passwords may be entered to prevent resetting the total or grand total from the front panel.

Non-Resettable Total: The grand total can be permanently programmed as non-resettable by use of a password.

## Isolated 4-20 mA Transmitter Output

Output Source: Rate, total, grand total, max, min, manual control setting, or Modbus input

Scaling Range: 1.000 to 23.000 mA for any display range

Calibration: Factory calibrated: 4.000 to 20.000 = 4-20 mA output

Accuracy:  $\pm 0.1\%$  FS  $\pm 0.004$  mA

Temperature Drift: 0.4  $\mu$ A/ $^{\circ}$ C max from 0 to 65 $^{\circ}$ C ambient, 0.8  $\mu$ A/ $^{\circ}$ C max from -40 to 0 $^{\circ}$ C ambient

Isolated Transmitter Power Supply: Terminals I+ & R: 24 Vdc  $\pm 10\%$ . May be used to power the 4-20 mA output or other devices. Rated @ 40 mA max.

External Loop Power Supply: 35 Vdc maximum

Output Loop Resistance:

Power supply	Minimum	Maximum
24 Vdc	10 $\Omega$	700 $\Omega$
35 Vdc (external)	100 $\Omega$	1200 $\Omega$

## Serial Communications

Protocol: Modbus<sup>®</sup> RTU

Meter Address/Slave ID: 1 - 247

Baud Rate: 300 - 19,200 bps

Data: 8 bit (1 start bit, 1 or 2 stop bits)

Parity: Even, odd, or none with 1 or 2 stop bits

USB Programming Connection:

Compatibility: USB 2.0 Standard, Compliant

Connector Type: Micro-B receptacle

Cable: USB A Male to Micro-B Cable

Driver: Windows 98/SE, ME, 2000, Server 2003/2008, XP 32/64-Bit, Vista 32/64-Bit, Windows 7 32/64-Bit, Windows 10 32/64-Bit

Power: USB Port

## Environmental

Operating temperature range: -40 to 65 $^{\circ}$ C

Storage temperature range: -40 to 85 $^{\circ}$ C

Relative humidity: 0 to 90% non-condensing

Connections: Removable screw terminal blocks accept 12 to 22 AWG wire

Mounting: 1/8 DIN panel cutout required: 3.622" x 1.772" (92 mm x 45 mm). Two panel mounting bracket assemblies are provided.

Front Panel: NEMA 4X, IP65

Dimensions: 4.68" x 2.45" x 5.64" (119 mm x 62 mm x 143 mm) (W x H x D)

Weight: 9.5 oz (269 g)

UL File Number: UL & c-UL Listed. E160849; 508 Industrial Control Equipment.