red lion

MODEL PAXLC - PAX LITE COUNTER

- AVAILABLE IN 6 OR 8-DIGIT VERSIONS
- 6-DIGIT, 0.56" (14.2 mm) / 8-DIGIT, 0.4" (10.1 mm) HIGH LED DISPLAYS
- ACCEPTS INPUT COUNT RATES UP TO 25 KHZ
- BI-DIRECTIONAL COUNTING
- REMOTE RESET CAPABILTY
- DISPLAY STORE
- COUNT INHIBIT
- PROGRAMMABLE SCALE FACTOR
- NEMA 4X/IP65 SEALED FRONT BEZEL

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IND. CONT. EQ.
51EB

CE

GENERAL DESCRIPTION

The PAX Lite Counter, Model PAXLC, is a versatile totalizing counter that can be adapted to a wide variety of counting, measuring, and positioning readout applications.

The unit features a programmable scale factor, front panel and remote reset, store, inhibit, and a count rate of 25 KHz, while offering an economical solution to any totalizing need.

The PAXLC accepts digital inputs from a variety of sources including switch contacts, NPN-OC and TTL outputs, as well as most standard Red Lion sensors. The input can be scaled to display any desired unit of measure by simply using the programmable scale factor. The meter can accept bi-directional and uni-directional signals.

The meter is programmed through the front panel buttons and the use of DIP switches. The Down Arrow Key will also function as a front panel display reset. Once the front panel programming is complete, the buttons can be disabled by a DIP switch setting.

The meter has been specifically designed for harsh industrial environments. With a NEMA 4X/IP65 sealed bezel and extensive testing to meet CE requirements, the meter provides a tough yet reliable application solution.

SAFETY SUMMARY

All safety related regulations, local codes and instructions that appear in the literature or on equipment must be observed to ensure personal safety and to prevent damage to either the instrument or equipment connected to it. If equipment is used in a manner not specified by the manufacturer, the protection provided by the equipment may be impaired.
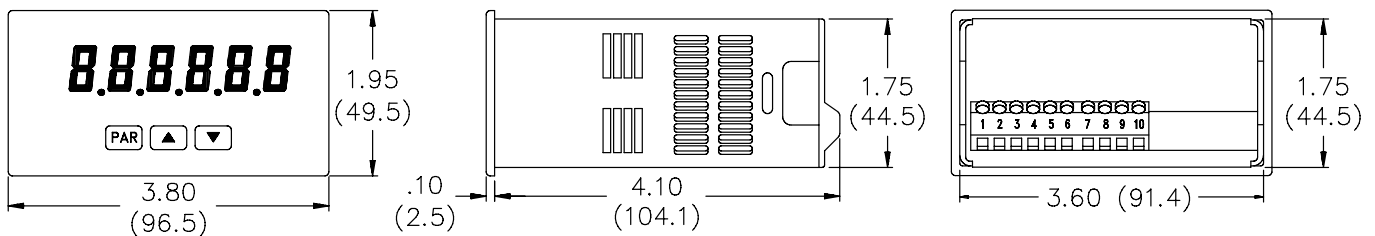
⚠ **CAUTION: Risk of Danger.**
Read complete instructions prior to installation and operation of the unit.

⚠ **CAUTION:** Risk of electric shock.

DIMENSIONS In inches (mm)

Note: Recommended minimum clearance (behind the panel) for mounting clip installation is 2.1" (53.4) H x 5" (127) W.
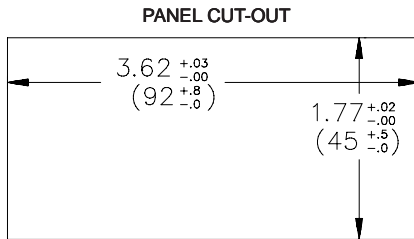
1.95 (49.5)
3.80 (96.5)
.10 (2.5)
4.10 (104.1)
1.75 (44.5)
3.60 (91.4)
1.75 (44.5)

ORDERING INFORMATION

Meter Part Numbers

PAXL		0	0

C6 - 6 Digit Counter
C8 - 8 Digit Counter

PANEL CUT-OUT

$3.62 \, ^{+.03}_{-.00}$
$(92 \, ^{+.8}_{-.0})$

$1.77 \, ^{+.02}_{-.00}$
$(45 \, ^{+.5}_{-.0})$

GENERAL METER SPECIFICATIONS

1. **DISPLAY**: 6-digit, 0.56" (14.2 mm) or 8-digit, 0.4" (10.1 mm) 7-segment LED
   Display Range: 6-digit, -99999 to 999999 or 8-digit, -9999999 to 99999999
   Display Overflow indicated by flashing dot to the right of digit 1
   Decimal points are programmed by front panel keys
2. **POWER**:
   AC Power: 115/230 VAC, switch selectable. Allowable power line variation ±10%, 50/60 Hz, 6 VA.
     Isolation: 2300 Vrms for 1 min. to input and DC Out/In.
   DC Power: 10 to 16 VDC @ 0.1 A max.
3. **SENSOR POWER**: 9 to 17.5 VDC @ 100 mA max.
4. **KEYPAD**: 3 programming keys, the ▼ (Down Arrow) key can also function as the front panel reset button
5. **COUNT INPUT**: (DIP switch selectable)
   Accepts pulses from a variety of sources including switch contacts, NPN-OC and TTL Outputs, as well as most standard Red Lion sensors
   Logic State: Active Low
     Input trigger levels $V_{IL} = 1.5$ V max.; $V_{IH} = 3.75$ V min.
   Current Sinking: Internal 7.8 KΩ pull-up to +12 VDC, I max = 1.9 mA
   Current Sourcing: Internal 3.9 KΩ pull-down, 8 mA max. @ 30 VDC max.
   Filter: Damping capacitor provided for switch contact bounce. Limits input frequency to 50 Hz and input pulse widths to 10 msec. minimum.
6. **MAXIMUM COUNT RATE**: 25 KHz max.
7. **CONTROL INPUTS**:
   Count Up/Down Control, Remote Reset, Inhibit, and Store
   Max. Continuous Input: 30 VDC
   Isolation To Sensor Input Commons: Not isolated
   Logic State: Active Low, 22 KΩ pull-up to +12 V
     Active: $V_{IN} < 0.9$ VDC
     Inactive: $V_{IN} > 3.6$ VDC
   Response Time:
     Up/Down and Inhibit: 25 μsec max.
     Reset and Store: 10 msec. max.
8. **MEMORY**: Nonvolatile E^2PROM retains all programmable parameters and count values.
9. **ENVIRONMENTAL CONDITIONS**:
   Operating Temperature Range: 0 to 60°C
   Storage Temperature Range: -40 to 60°C
   Operating and Storage Humidity: 0 to 85% max. relative humidity non-condensing
   Altitude: Up to 2000 meters
10. **CERTIFICATIONS AND COMPLIANCES**:
    SAFETY
    UL Recognized Component, File # E179259, UL61010A-1, CSA C22.2 No. 1010-1
      Recognized to U.S. and Canadian requirements under the Component Recognition Program of Underwriters Laboratories, Inc.

UL Listed, File # E137808, UL508, CSA C22.2 No. 14-M95
  LISTED by Und. Lab. Inc. to U.S. and Canadian safety standards
  Type 4X Enclosure rating (Face only), UL50
IECEE CB Scheme Test Certificate # UL/8843/UL
  CB Scheme Test Report # 04ME11209-20041018
    Issued by Underwriters Laboratories, Inc.
  IEC 61010-1, EN 61010-1: Safety requirements for electrical equipment for measurement, control, and laboratory use, Part 1.
  IP65 Enclosure rating (Face only), IEC 529
  IP20 Enclosure rating (Rear of unit), IEC 529
ELECTROMAGNETIC COMPATIBILITY
Emissions and Immunity to EN 61326: Electrical Equipment for Measurement, Control and Laboratory use.

Immunity to Industrial Locations:

Electrostatic discharge	EN 61000-4-2	Criterion A 4 kV contact discharge 8 kV air discharge
Electromagnetic RF fields	EN 61000-4-3	Criterion A 10 V/m
Fast transients (burst)	EN 61000-4-4	Criterion A [2] 2 kV power 2 kV signal
Surge	EN 61000-4-5	Criterion A [2] 1 kV L-L, 2 kV L&N-E power 1 kV signal
RF conducted interference	EN 61000-4-6	Criterion A 3 V/rms
Power frequency magnetic fields	EN 61000-4-8	Criterion A 30 A/m
Voltage dip/interruptions	EN 61000-4-11	Criterion A 0.5 cycle

Emissions:

Emissions	EN 55011	Class B

Notes:
   1. Criterion A: Normal operation within specified limits.
   2. EMI filter placed on the DC power supply, when DC powered: Corcom #1VB3 or Schaffner #FN610-1/07 (RLC #LFIL0000).

11. **CONNECTIONS**: High compression cage-clamp terminal block
    Wire Strip Length: 0.3" (7.5 mm)
    Wire Gage: 30-14 AWG copper wire
    Torque: 4.5 inch-lbs (0.51 N-m) max.
12. **CONSTRUCTION**: This unit is rated for NEMA 4X/IP65 outdoor use. IP20 Touch safe. Installation Category II, Pollution Degree 2. One piece bezel/case. Flame resistant. Synthetic rubber keypad. Panel gasket and mounting clip included.
13. **WEIGHT**: 12 oz. (340 g)