## MODEL CUB4LP - LOOP POWERED PROCESS INDICATOR
MODEL CUB4CL - CURRENT LOOP INDICATOR

- DUAL RANGE, 4 to 20 mA OR 10 to 50 mA
- 3½-DIGIT, 0.6" (15.2 mm) HIGH DIGITS
- POSITIVE IMAGE TRANSFLECTIVE LCD WITH RED BACKLIGHT OR POSITIVE IMAGE REFLECTIVE LCD (CUB4LP)
- POSITIVE IMAGE TRANSFLECTIVE LCD WITH RED BACKLIGHT OR NEGATIVE IMAGE TRANSMISSIVE WITH RED OR YELLOW/GREEN BACKLIGHT (CUB4CL)
- SPAN AND OFFSET CAPABILITY
- NEGATIVE AND OVERRANGE INDICATION
- SELECTABLE DECIMAL POINT POSITION
- FITS DIN STANDARD CUT-OUT 2.68" (68 mm) X 1.30" (33 mm)

LISTED 3S60 C UL TELEMETERING EQUIPMENT

FOR USE IN HAZARDOUS LOCATIONS:
Class I, Division 2, Groups A, B, C, and D
Class II, Division 2, Groups F and G
Class III, Division 2

CE EMC COMPLIANT

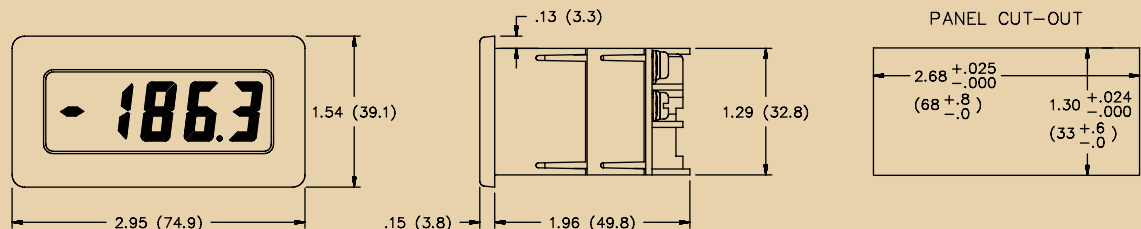NEMA 4X / IP65
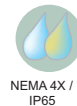
Product Features

The CUB4LP and CUB4CL are additions to the CUB4 product line. The CUB4LP uses a 4 to 20 mA or a 10 to 50 mA input signal as operating power. The input signal is also used to power the backlighting on the CUB4LP40 unit. The CUB4CL uses a 4 to 20 mA or a 10 to 50 mA input signal to power the unit. An external power supply is used to power the CUB4CL backlighting to provide a brighter, more consistent display and a lower compliance voltage.

The units have a 3½-digit LCD display with 0.6" (15.2 mm) high digits and a DIP switch selectable decimal point. The CUB4LP display is available in positive image reflective (dark digits, reflective background) or positive image transflective (dark digits, illuminated background) with red backlighting. The CUB4CL display is available in positive image transflective (dark digits, illuminated background) with red or yellow/green backlighting or negative image transmissive (illuminated digits, dark background) with red or yellow/green backlighting.

The ability to scale the display allows indication in any desired unit of measurement such as temperature, pressure, humidity, fluid flow, etc. The unit is calibrated at the factory with 0.0 displayed @ 4 mA input and 100.0 displayed @ 20 mA input.

The units are contained in a lightweight, high impact plastic case with a clear viewing window. When properly installed, the sealed front panel meets NEMA 4X/IP65 specifications for wash-down and dusty environments.

DIMENSIONS "In inches (mm)"

PANEL CUT-OUT

1.54 (39.1)
2.95 (74.9)
.13 (3.3)
1.29 (32.8)
.15 (3.8)
1.96 (49.8)

2.68 +.025 / -.000
(68 +.8 / -.0)
1.30 +.024 / -.000
(33 +.6 / -.0)

MODEL CUB4LP - LOOP POWERED PROCESS INDICATOR
MODEL CUB4CL - CURRENT LOOP INDICATOR

General Specifications

1. **DISPLAY**: 3½-digit (-1999 to 1999), 0.6" (15.2 mm) high digits. The CUB4LP is available with a positive image reflective LCD or a red backlit positive image transflective LCD. The intensity of the backlighting will vary with the input signal.
   The CUB4CL is available with a positive image transflective LCD with red or yellow/green backlighting or a negative image transmissive with red or yellow/green backlight.
   A minus sign is displayed when the indicator is adjusted for a negative offset.
   Overrange: Overrange is indicated by a "1" in the most significant digit and the blanking of the three least significant digits.
2. **EXTERNAL BACKLIGHT POWER**: (CUB4CL only)
   9 - 28 VDC, @35 mA typ., 50 mA max. Must use the MLPS or a Class 2 (NEC) or SELV rated power supply. Above 26 VDC, derate the operating temperature to 50°C.
3. **DECIMAL POINTS**: Three DIP switch selectable, decimal point positions allow the display to be read in tenths, hundredths or thousandths.
4. **CONSTRUCTION**: High impact plastic case with clear viewing window. (Panel gasket and mounting clips included.) This unit is rated for NEMA 4X/IP65 indoor use. Installation Category II, Pollution Degree 2

5. **CERTIFICATIONS AND COMPLIANCES**:
   SAFETY
   EN 61010-1, IEC 1010-1
   UL File #E184589
   LISTED by Und. Lab. Inc. to U.S. and Canadian safety standards, for use in Hazardous Locations:
   Class I, Division 2, Groups A, B, C, and D
   Class II, Division 2, Groups F and G
   Class III, Division 2
   ELECTROMAGNETIC COMPATIBILITY
   Immunity to EN 50082-2
   Emissions to EN 50081-2
6. **ENVIRONMENTAL CONDITIONS**:
   Operating Temperature: 0° to 60°C
   (Derate backlight voltage to 26 VDC above 50°C.)
   Storage Temperature: -40° to 80°C
   Operating and Storage Humidity: 85% max. relative humidity (non-condensing) from 0°C to 60°C.
   Altitude: Up to 2000 meters
7. **WEIGHT**: 3.3 oz. (93.5 g)

Input Specifications

1. **MAXIMUM VOLTAGE DROP**:
   3.2 VDC for CUB4LP00
   4.0 VDC for CUB4LP40
   3.2 VDC for CUB4CL all models
2. **EQUIVALENT RESISTANCE**:
   CUB4LP00: 800 Ω max. @ 4 mA; 160 Ω max. @ 20 mA
   320 Ω max. @ 10 mA; 65 Ω max. @ 50 mA
   CUB4LP40: 1000 Ω max. @ 4 mA; 200 Ω max. @ 20 mA
   400 Ω max. @ 10 mA; 80 Ω max. @ 50 mA
   CUB4CL (all models): 800 Ω max. @ 4 mA; 160 Ω max. @ 20 mA
   320 Ω max. @ 10 mA; 65 Ω max. @ 50 mA
3. **MAXIMUM ALLOWABLE INPUT CURRENT**: 100 mA

4. **SCALING RANGE**:
   Span: Two potentiometers provide a coarse and fine span adjustment. Span range = 0 to 2000.
   Offset: Two potentiometers provide a coarse and fine zero offset adjustment. Offset range = -1999 to 1999.
5. **LINEARITY**: (@ 23°C, Less than 85% RH) ±(0.1% + 1 digit).
6. **READING RATE**: 2.5 per second, nominal.
7. **RESPONSE TIME**: 1.5 seconds to settle for a step change.
8. **NORMAL MODE REJECTION**: 60 dB 50/60 Hz
9. **TEMPERATURE EFFECTS**:
   Span Temperature Coefficient: 100 PPM/°C
   Offset Temperature Coefficient: 0.2 digits/°C

Ordering Information

MODEL NO.	DESCRIPTION	PART NUMBERS
CUB4LP	Reflective LCD Loop Powered Process Indicator	CUB4LP00
	Red Backlit LCD Loop Powered Process Indicator Positive Image Transflective LCD	*CUB4LP40
CUB4CL	Yel/Grn Backlit LCD External Powered Process Indicator Negative Image Transmissive LCD	CUB4CL10
	Red Backlit LCD External Powered Process Indicator Negative Image Transmissive LCD	CUB4CL20
	Yel/Grn Backlit LCD External Powered Process Indicator Positive Image Transflective LCD	CUB4CL30
	Red Backlit LCD External Powered Process Indicator Positive Image Transflective LCD	CUB4CL40
MLPS	Micro Line/Sensor Power Supply (Non-hazardous use only)	MLPS0000
*Backlight intensity will vary depending on signal level.		