

130K-133K

Battery Powered Counters with LCD Display

Features

- Low price and high efficiency
- Large (8 mm) 8-digit LCD display,
- Optional backlighting
- Various counting modes: up /down, differential, quadrature and pulse doubling
- High voltage input for 10 to 260 V AC/DC voltage pulses
- NEMA4/IP65 Front Panel
- Screw terminals, RM 5 mm
- Lifetime of the battery approximately 8 years
- Locking of the reset key
- Operating temperature -10 to $+60$ °C



- All versions for positive or negative counting edge
- Debounce filter function for counting with mechanical contacts.

Technical data

- Power supply:** non-replaceable lithium battery (lifetime approximately 8 years at 20°C)
- Backlighting:** external electrical source 24 V DC \pm 20%, 50 mA
- Display:** LCD, 8 decades, 8 mm high characters
- Mode:**
- adding or subtracting (selectable)
 - counting direction
 - differential counting
 - phase discriminator
- Display range:** -9999999 to 99999999 , with overflow display
- Reset:** manual and electrical
- Counting inputs:**
- A. Standard DC Input** (max. 30 V DC)
- Slow counting input:** max. 30 Hz NPN
- Fast counting input:** max. 12 kHz (PNP), 7 kHz (NPN)
- Switching level:**
- NPN: Low: 0 to 0.7 V, High: 3 to 30 V DC
- PNP: Low: 0 to 0.7 V, High: 4 to 30 V DC
- B. High Voltage Input** (10 to 260 V DC/AC)
- Counting input:** Optocoupler input, max. 30 Hz
- Min. pulse time:** 16 ms
- Switching level:** Low: 0 to 2 V DC/AC, High: 10 to 260 V DC/AC
- C. Counting direction switching** (only DC-version)
- Mode :** see order table
- Contact input:**
- Open Collector NPN (switching at 0 V DC)
- Switching level:**
- NPN: Low: 0 to 0.7 V, High: 3 to 5 V DC

D. Reset Input

 (only DC and high voltage)**Minimum pulse time:**

DC: 50 ms, high voltage: 16 ms

Contact input DC*:

NPN: Low: 0 to 0.7 V, High: 3 to 30 V DC

High voltage input: 10 to 260 V DC/V AC

E. Electrical reset key locking

 (for DC and AC)**Contact input:**

Open Collector NPN (switching at 0 V)

Switching level:

NPN: Low: 0 to 0.7 V, High: 3 to 5 V DC

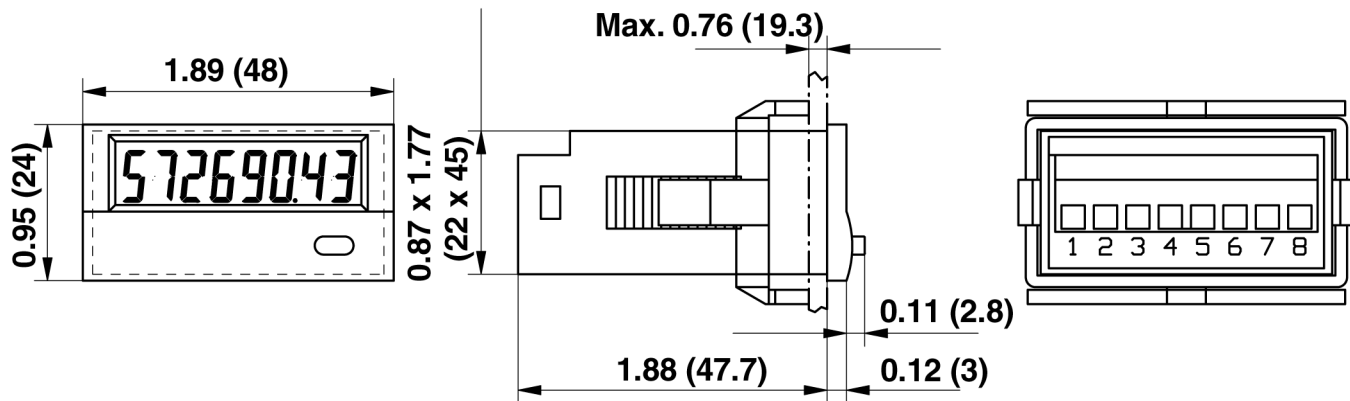
Interference emissions:

EN 55011 Class B, EN 61000-6-2 EN 61010 Section 1 (only AC versions)

Housing: dark grey RAL 7021**Operating temperature:** -10 to $+55$ °C**Ambient temperature:** -10 to $+60$ °C**Storage temperature:** -20 to $+70$ °C**Protection:** NEMA4/IP65 front**Weight:** approximately 50 g

* and high voltage on 131K and 132K

Dimensions:



Order Table

Type	Input type	Counting inputs							
		INP A				INP B			
130K.012.8x0	Count ¹⁾	0 ... 0,7 V DC	count	NPN	7 kHz	0 ... 0,7 V DC	count	NPN	30 Hz
130K.012.8x2		4 ... 30 V DC	count	PNP	12 kHz	0 ... 0,7 V DC	count	NPN	
130K.012.8x3		10 ... 260 V AC/DC	count	AC/DC	30 Hz	10 ... 260 V AC/DC	reset	AC/DC	—
131K.012.8x0	Cnt.Dir ²⁾ /Up.Dn ³⁾	0 ... 0,7 V DC	count	NPN	7 kHz	0 ... 0,7 V DC	count/direction	NPN	7 kHz
131K.012.8x1		4 ... 30 V DC	count	PNP	12 kHz	4 ... 30 V DC	count/direction	PNP	12 kHz
131K.012.8x3	Up.Dn ³⁾	10 ... 260 V AC/DC	count	AC/DC	30 Hz	10 ... 260 V AC/DC	count	AC/DC	30 Hz
132K.012.8x3	Cnt.Dir ²⁾	10 ... 260 V AC/DC	direction	AC/DC	30 Hz	10 ... 260 V AC/DC	count	AC/DC	30 Hz
133K.012.8x0	Quad ⁴⁾ /Quad ²⁾⁵⁾	0 ... 0,7 V DC	channel A	NPN	3 kHz	0 ... 0,7 V DC	channel B	NPN	3 kHz
133K.012.8x1		4 ... 30 V DC	channel A	PNP	6 kHz	4 ... 30 V DC	channel B	PNP	6 kHz

X: 5 = no backlight
 X: 6 = with backlight add \$18.00

1): one-channel, adding or subtracting counting
 2): counting input with counting direction input
 3): one adding and one subtracting counting input (differential mode)

4): Phase discriminator for incremental encoders with single processing
 5): Phase discriminator for incremental encoders with double processing

Accessories

NEMA4 wall mount enclosures available see NEMA-32 & LCN4X
 Explosion proof enclosure available see XHV
 32DINRAIL - DIN Rail Mounting Frame
 DR-4 - 4" DIN Rail

RoHS Compliant