

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:
a. adding or subtracting (selectable)
b. counting direction
c. differential counting
d. phase discriminator

Display range: -9999999 to 9999999 , 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:

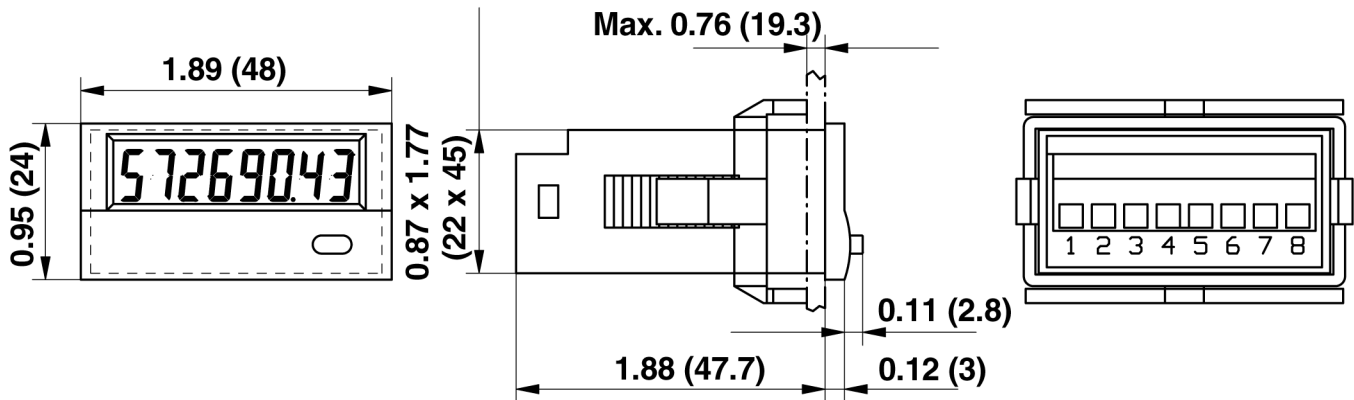
-20 to $+70$ °C

Protection: NEMA4/IP65 front

Weight: approximately 50 g

* and high voltage on Codix131 and Codix132

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 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

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:

N7 - Explosion proof housing (see accessories section)

E200 - Outdoor Enclosure (see accessories section)