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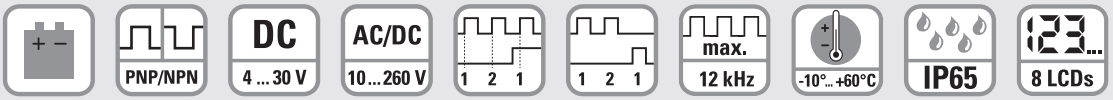
LCD pulse counters | With count direction DC or difference counter AC+DC (battery) | Codix 131

The Codix 131 is a simple battery powered pulse counter with difference or count direction input, 8-digit LCD display, optional backlighting, for NPN, PNP and high voltage applications.



Battery powered | Input type | Pulse voltage | Count with direction (DIR) | Differencial count (up.dn) | Max. count frequency | Temperature range | High protection level | LCD display

Powerful

- High quality LCD display with 8 mm high figures.
- Count direction, adding and subtracting via count direction or difference input.
- Battery life approx. 8 years.
- Optional display backlighting.
- Count frequency max. 12 kHz.
- High protection level IP65.

Simple

- Screw terminals, RM 5 mm.
- Reset key can be enabled via “Reset Enable“ input.
- For positive and negative counting edges, depending on version.
- High voltage version for 10 … 260 V AC/DC voltage pulses.
- Large 8-digit LCD display with 8 mm high figures.

Order code 6.131 . 012 . 8 X X (a) (b)

(a) *Backlighting*
5 = without [1]
6 = with

(b) *Input type: Cnt.Dir [2] / UP.DN [3] – count direction or differential counting*

Input type	*INP A*				*INP B*			
0 [1] = Cnt.Dir [2] / UP.DN [3]	0 ... 0.7 V DC	count	NPN	7 kHz	0 ... 0.7 V DC	count / direction	NPN	7 Hz
1 [1] = Cnt.Dir [2] / UP.DN [3]	4 ... 30 V DC	count	PNP	12 kHz	4 ... 30 V DC	count / direction	PNP	12 Hz
3 = UP.DN [3]	10 ... 260 V AC/DC	count	AC/DC	30 Hz	10 ... 260 V AC/DC	count	AC/DC	30 Hz

Delivery specification
- Pulse counter
- Mounting clip
- Front bezel for screw mounting (T008181) 56 x 40 mm [2.20 x 1.57“], panel cut-out 50 x 25 mm [1.97 x 0.98“]
- Front bezel for clip mounting (T008180) 53 x 28 mm [2.09 x 1.10“], panel cut-out 50 x 25 mm [1.97 x 0.98“]
- Gasket
- Instruction manual, multilingual

1) Stock types.
2) Counting input with counting direction input.
3) One adding and one subtracting counting input (differential mode).

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Accessories	Dimensions in mm [inch]	Order no.
Adapter front bezel, 72 x 36 [2.83 x 1.42]	for cut-out 68 x 33 [2.68 x 1.30] to cut-out 45 x 22.2 [1.77 x 0.87], for counters 48 x 24 [1.89 x 0.94], as set — black and silver anodised	**162704 Set**
Adapter front bezel, 48 x 48 [1.89 x 1.89]	for cut-out 45 x 45 [1.77 x 1.77] to cut-out 45 x 22.2 [1.77 x 0.87], with clip mounting for counters 48 x 24 [1.89 x 0.94] — black	**T008883**
Adapter front bezel, 60 x 50 [2.36 x 1.97]	for cut-out 54 x 29 [2.13 x 1.14 to cut-out 45 x 22.2 [1.77 x 0.87], for screw mounting and gasket for counters 48 x 24 [1.89 x 0.94] — black	**N003001**
Transparent cover, lockable, IP65	for cut-out 54 x 29 [2.13 x 1.14], for screw mounting to front bezel F1B or adapter front bezel N003001, for counters with cut-out 50 x 25 [1.97 x 0.98] or 45 x 22.2 [1.77 x 0.87]	**N003002**
Sealing cover type K1, IP65	suitable for front bezel 60 x 50 [2.36 x 1.97], for screw mounting of electromech. counters and via adapter front bezel N003001 for counters 48 x 24 [1.89 x 0.94]	**G008301**
Mounting frame with cut-out 50 x 25 [2.36 x 1.97] via separate adapter also for 45 x 22.2 [1.77 x 0.87]	for snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 53 x 28 [2.09 x 1.10] and via separate adapter (T008180) for counters 48 x 24 [1.89 x 0.94] — chromated	**G300004**

Suitable gaskets, other accessories and installation examples for optional accessories can be found in chapter accessories or in the accessories section under: www.kuebler.com/accessories.

Technical data

General technical data

Display	LCD, 8 digits, 8 mm [0.32"] high
Backlighting	external electrical source 24 V DC ±20 %, 50 mA
Modes	counting direction (count and direction input) or differential counting
Display range	-9999999 ... 99999999, with overflow display
Reset	manual and electrical
Working temperature	-10°C ... +55°C [+14°F ... +131°F] (non-condensing)
Operating temperature	-10°C ... +60°C [+14°F ... +140°F] (non-condensing)
Storage temperature	-20°C ... +70°C [-4°F ... +158°F]
Altitude	up to 2000 m [6562']

Electrical characteristics

Power supply		internal lithium battery approx. 8 years at 20°C [68°F]
EMC standards		EN 55011 class B, EN 61000-6-2, EN 61000-6-3
Device safety	designed to	EN 61010 part 1
	protection class	2
	application area	pollution level 2
UL approval		file E128604

Mechanical characteristics

Housing	dark grey RAL 7021
Protection	IP65 (front side)
Weight	approx. 50 g [1.76 oz]

Counting inputs

Counting input of the DC-versions (max. 30 V DC)

fast counting input		max. 12 kHz (PNP), 7 kHz (NPN)
switching level NPN	LOW	0 ... 0.7 V DC
	HIGH	3 ... 30 V DC
switching level PNP	LOW	0 ... 0.7 V DC
	HIGH	4 ... 30 V DC

Counting input of the high voltage versions (10 ... 260 V DC/AC)

A subtracting	optocoupler input	max. 30 Hz
B adding	min. pulse time	16 ms
switching level	LOW	0 ... 2 V AC/DC
	HIGH	10 ... 260 V AC/DC

Counting direction switching (only DC-version)

mode		count direction / difference
contact input		open collector NPN (switching at 0 V DC)
switching level – NPN	LOW	0 ... 0.7 V DC
	HIGH	3 ... 5 V DC

Reset input (only DC and high voltage)

minimum pulse time	DC	50 ms
	high voltage	16 ms
contact input DC – NPN	LOW	0 ... 0.7 V DC
	HIGH	3 ... 30 V DC

Electrical reset key locking (only DC and high voltage)

contact input		open collector NPN (switching at 0 V DC)
switching level – NPN	LOW	0 ... 0.7 V DC
	HIGH	3 ... 5 V DC

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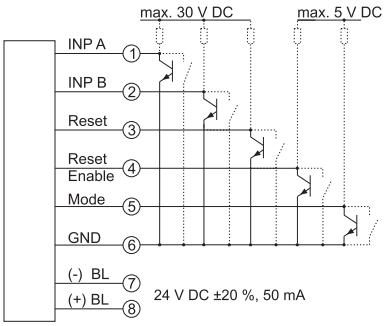
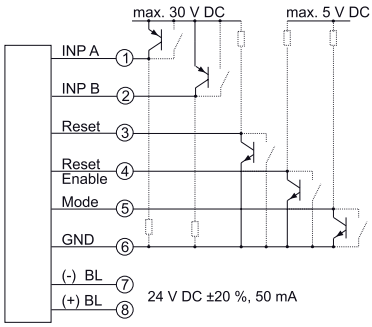
Terminal assignment

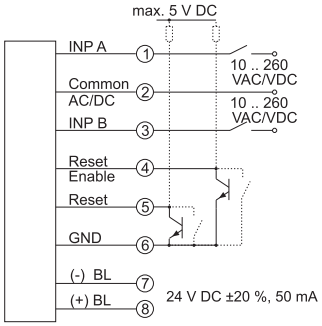
DC type: 6.131.012.8x0



DC type: 6.131.012.8x1



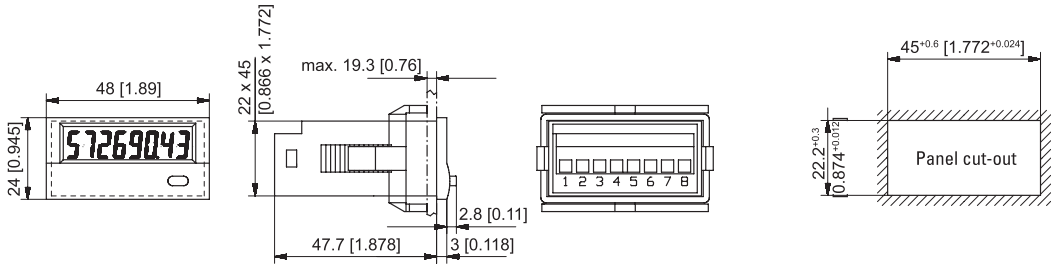
AC type: 6.131.012.8x3



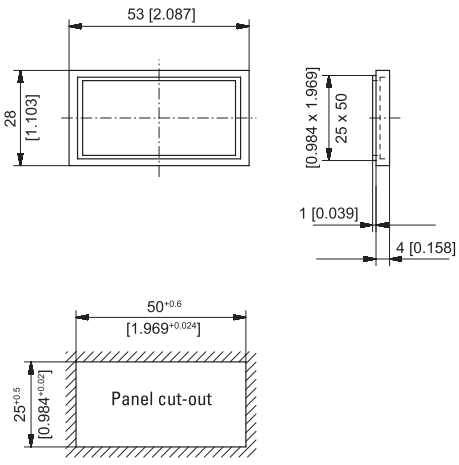
BL = backlighting

Dimensions

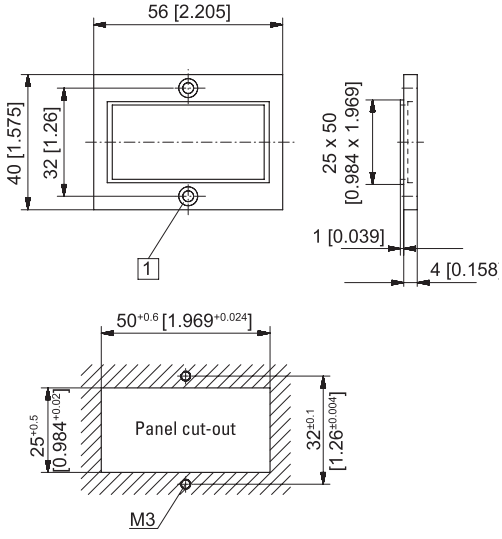
Dimensions in mm [inch]



Front bezel for clip mounting (included in delivery)



Front bezel for screw mounting (included in delivery)



1 Countersinking Af3, DIN 74

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