

Pulse counters, electronic

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	Pulse voltage	Count with direction (DIR)	Differential count (up,dn)	Max. count frequency	Temperature range	High protection level	LCD display
		4 ... 30 V	10 ... 260 V	1 2 1	1 2 1	12 kHz	-10°... +60°C	IP65	8 LCDs

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 . 8XX**

a Backlighting
5 = without
6 = with

b Input type: Cnt.Dir¹⁾ / UP.DN²⁾ – count direction or differential counting

Input type	INP A				INP B			
0 = Cnt.Dir ¹⁾ / UP.DN ²⁾	0 ... 0.7 V DC	count	NPN	7 kHz	0 ... 0.7 V DC	count / direction	NPN	7 kHz
1 = Cnt.Dir ¹⁾ / UP.DN ²⁾	4 ... 30 V DC	count	PNP	12 kHz	4 ... 30 V DC	count / direction	PNP	12 kHz
3 = UP.DN ²⁾	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

Stock types

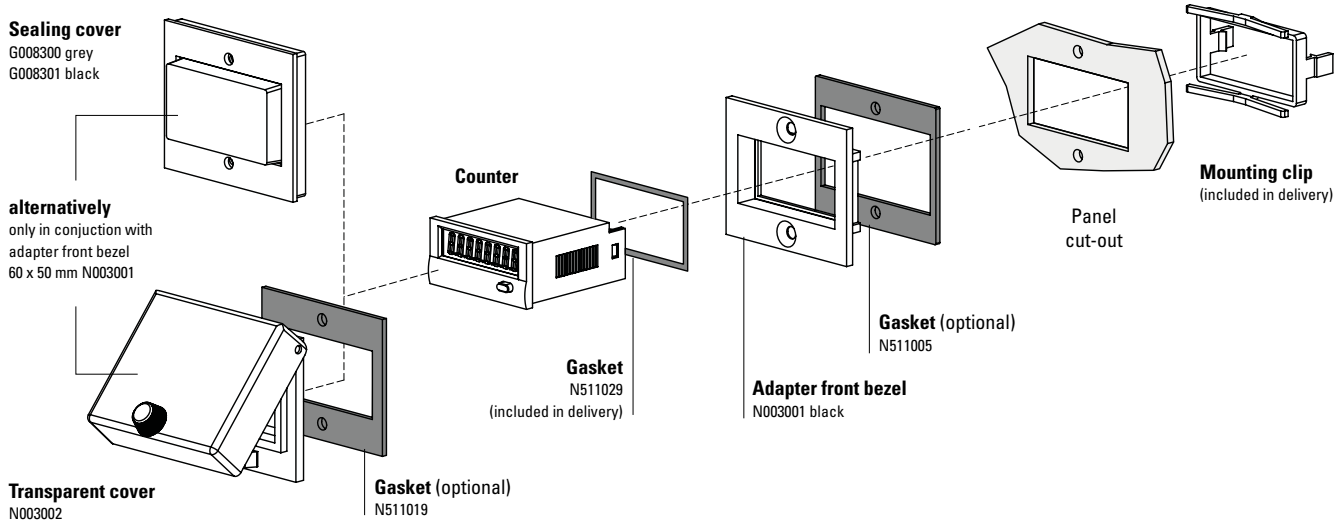
6.131.012.850
6.131.012.851

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

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Accessories / Mounting examples



		Type / size	Description		Order no.	suitable gasket
Adapter front bezel		53 x 28 mm [2.09 x 1.10"]	for cut-out 50 x 25 mm [1.97 x 0.98"] to cut-out 45 x 22.2 mm [1.77 x 0.94"]	black anthracite	T008165 T008180	N511015
		56 x 40 mm [2.20 x 1.57"]	for cut-out 50 x 25 mm [1.97 x 0.98"] to cut-out 45 x 22.2 mm [1.77 x 0.94"] screw mounting	black anthracite	T008161 T008181	N511045
		72 x 36 mm [2.83 x 1.42"]	for cut-out 68 x 33 mm [2.68 x 1.30"] to cut-out 45 x 22.2 mm [1.77 x 0.94"]	black and silver anodised as set	162704Set	–
		60 x 50 mm [2.36 x 1.97"]	for cut-out 54 x 29 mm [2.13 x 1.14"] to cut-out 45 x 22.2 mm [1.77 x 0.94"] screw mounting	black	N003001	N511005
		48 x 48 mm [1.89 x 1.89"]	for cut-out 45 x 45 mm [1.77 x 1.77"] to cut-out 45 x 22.2 mm [1.77 x 0.94"]	black	T008883	–
Sealing cover IP65		K1	only in conjunction with adapter front bezel 60 x 50 mm N003001	transparent / grey transparent / black	G008300 G008301	–
Transparent cover IP65		1 Dv (mounted on bezel)	cover lockable, for cut-out 54 x 29 mm [2.13 x 1.14"], only in conjunction with adapter front bezel 60 x 50 mm N003001	transparent / black	N003002	N511019
Gasket counter			48 x 24 mm (for installation in adapter front bezel) 49 x 25 mm		N511029 N511034	
Mounting frame		cut-out 50 x 25 mm [1.97 x 0.98"]	via adapter T008180 for snap-on mounting on 35 mm [1.38"] top-hat DIN rail	chromated	G300004	–
Enclosure blind		48 x 24 mm [1.89 x 0.94"]	for cut-out 45 x 22.2 mm [1.77 x 0.94"] and cut-out 50 x 25 mm [1.97 x 0.98"]	anthracite	G003836	–

incl. in delivery

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Technical data

General technical data	
Display	LCD, 8 digits, 8 mm [0.32"] high
Backlighting	external electrical source 24 V DC $\pm 20\%$, 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]
Relative humidity	< 85 % (non-condensing)
Altitude	up to 2000 m [6562']

Electrical characteristics	
Supply voltage	internal lithium battery approx. 8 years at 20 °C [68 °F]
Device safety	designed to protection class 2 application area pollution level 2

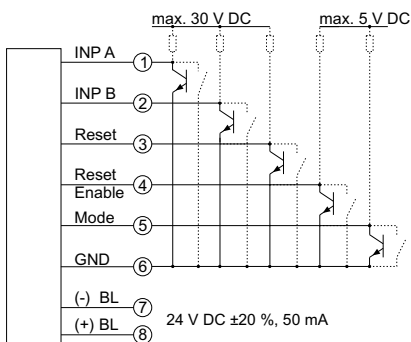
Mechanical characteristics	
Housing	dark grey RAL 7021
Protection	IP65 (front side)
Weight	approx. 50 g [1.76 oz]

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

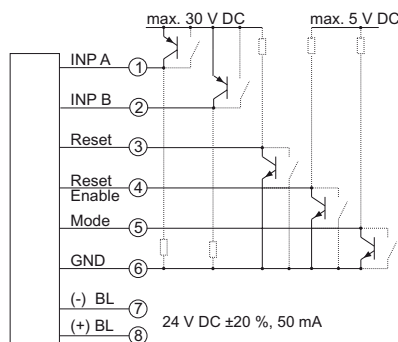
Approvals	
UL compliant in accordance with	File no. E128604
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU

Terminal assignment

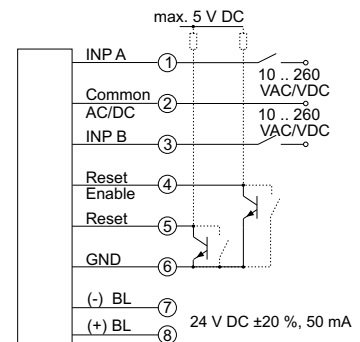
DC type: 6.131.012.8x0



DC type: 6.131.012.8x1



AC type: 6.131.012.8x3



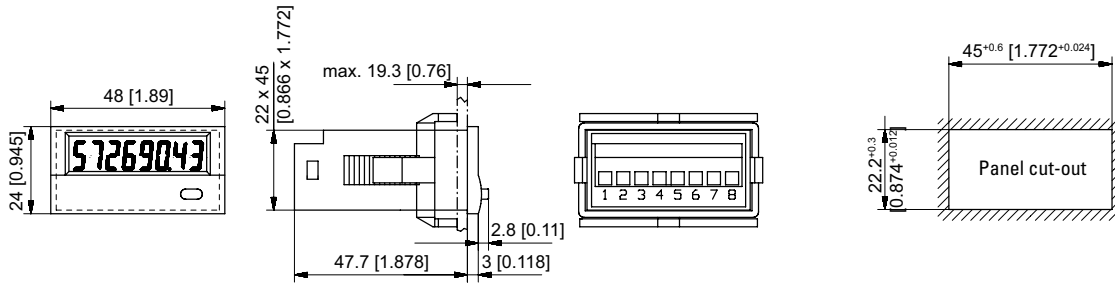
BL = backlighting

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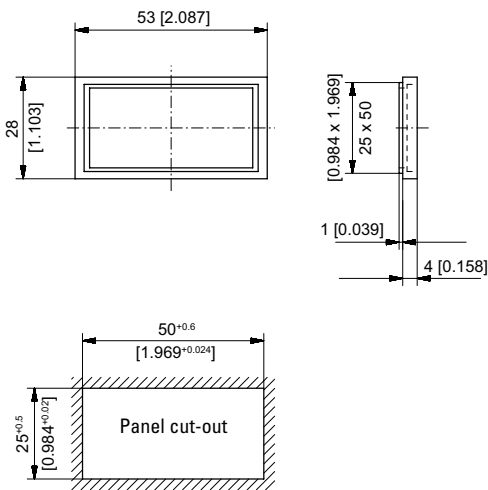
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Dimensions

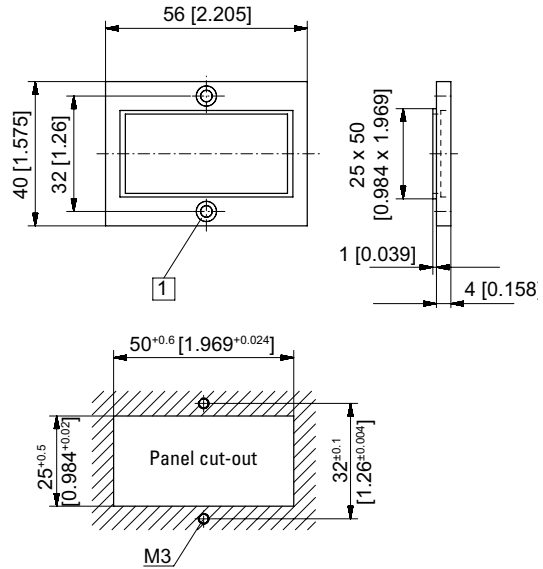
Dimensions in mm [inch]



Front bezel for clip mounting (included in delivery)



Front bezel for screw mounting (included in delivery)



1 Countersinking Af3, DIN 74