

Hour meters / timers, electronic

LCD hour meters	Max. time range 9999 h 59 min 59 sec or 9999999.9 sec	Codix 135
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The Codix 135 is a simple battery-powered hour meter for PNP, NPN and high-voltage applications.

Its 8-digit LCD display with optional backlighting can display various time ranges.



Battery powered	Timer	Input type	Pulse voltage	Pulse voltage	Temperature range	High protection level	DIN front bezel	LCD display	Lockable reset

Powerful

- High quality LCD display with 8 mm high figures - optional display backlighting.
- Time range up to 9999999.9 seconds or 9999h99m99s programmable via control input.
- Battery lifetime 8 years.
- High voltage versions for 10 ... 260 V AC/DC voltage pulses, thus to be connected directly via contactors, relays and motors.
- Very high accuracy: 100 ppm.

Simple

- Screw terminals, RM 5 mm.
- Reset key lockable via the input 'Reset Enable'.
- According to version for PNP, NPN switching level or high voltage version for 10 ... 260 V AC/DC switching voltage.
- Accumulated time is always readable thanks to battery powering.
- High protection level IP65.

Order code

6.135 . 012 . 8XX
a b

a Backlighting

- 5 = without
- 6 = with

Stock types

6.135.012.851
6.135.012.853

b Input type: measurement of short times

Input type	INP A	INP B
0 = adding	—	0 ... 0.7 V DC NPN
1 = adding	—	4 ... 30 V DC PNP
3 = adding	10 ... 260 V AC/DC	AC/DC 10 ... 260 V AC/DC AC/DC

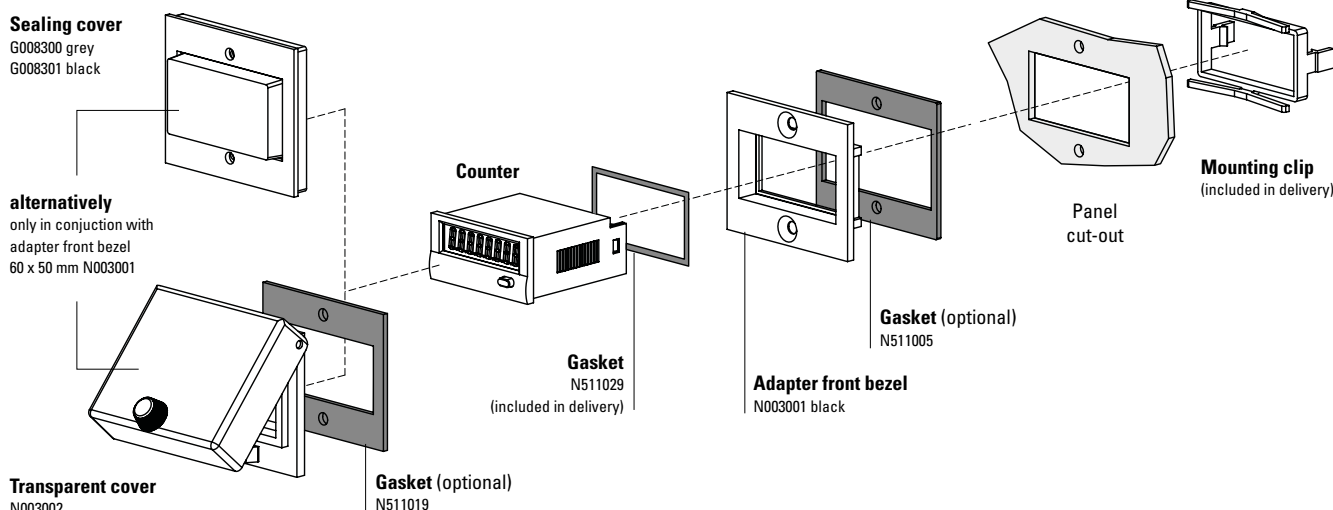
Delivery specification

- Timer
- 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

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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 [0.31"] high
Backlighting	external electrical source 24 V DC $\pm 20\%$, 50 mA
Counting direction	adding
Display range	see next page
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 Application area
	EN 61010 part 1 2 pollution level 2

Mechanical characteristics

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

Count input

A. Timer inputs DC versions (max. 30 V DC) INP B		
Timer input	NPN or PNP	depending on the type (see table)
Switching level	NPN	LOW: 0 ... 0.7 V DC HIGH: 3 ... 30 V DC
	PNP	LOW: 0 ... 0.7 V DC HIGH: 4 ... 30 V DC
Counting start	NPN	for LOW signal at the timer input
	PNP	for HIGH signal at the timer input
B. Timer inputs high voltage versions (10 ... 260 V DC/V AC) INP A		
Timer input		optocoupler input
Min. pulse time		16 ms
Switching level		LOW: 0 ... 2 V DC/V AC HIGH: 10 ... 260 V DC/V AC
Counting start		for HIGH signal at the timer input
C. Time range change (Mode)		
Contact input		open collector (switching at 0 V)
	NPN	LOW 0 ... 0.7 V DC HIGH 3 ... 5 V DC
Time range		depending on the circuit (s. order inform.)
D. Reset input for DC and high voltage		
Min. pulse time	DC	50 ms
	High voltage	16 ms
Contact input DC	NPN	LOW 0 ... 0.7 V DC HIGH 3 ... 30 V DC
High voltage input		10 ... 260 V AC/DC
E. Reset locking input (for DC and AC)		
Electrical reset key locking		
Input not active		reset key locked
Contact input		open collector NPN (switching at 0 V)
Switching level	NPN	LOW 0 ... 0.7 V DC HIGH 3 ... 5 V DC

Approvals

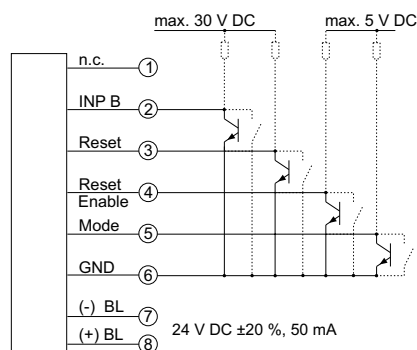
UL compliant in accordance with	File no. E128604
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU

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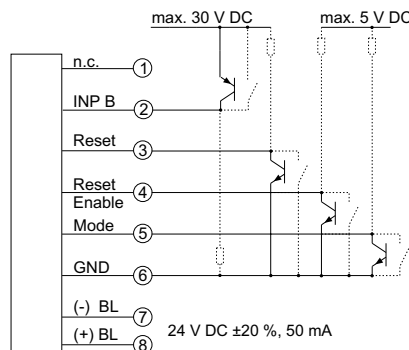
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Terminal assignment

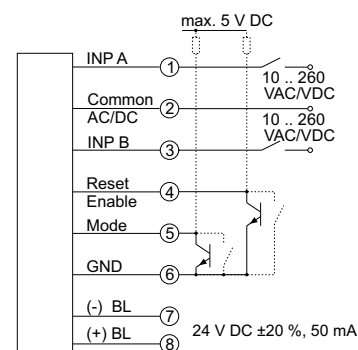
DC type: 6.135.012.8x0



DC type: 6.135.012.8x1



AC type: 6.135.012.8x3



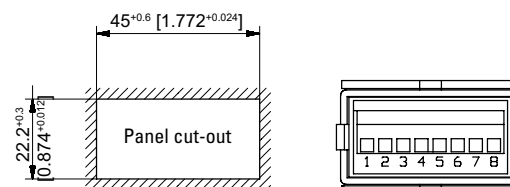
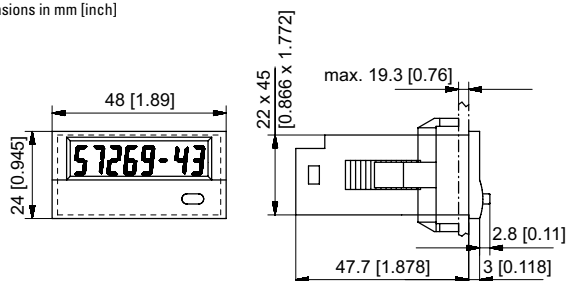
BL = backlighting

Display and time ranges

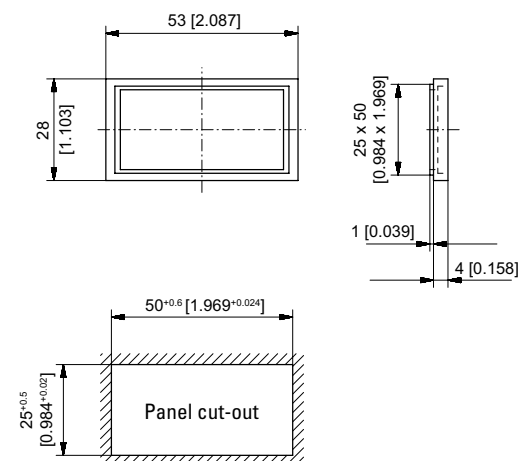
time range	display
9999h 59m 59s	9999.59.59
9999999.9 s	9999999.9

Dimensions

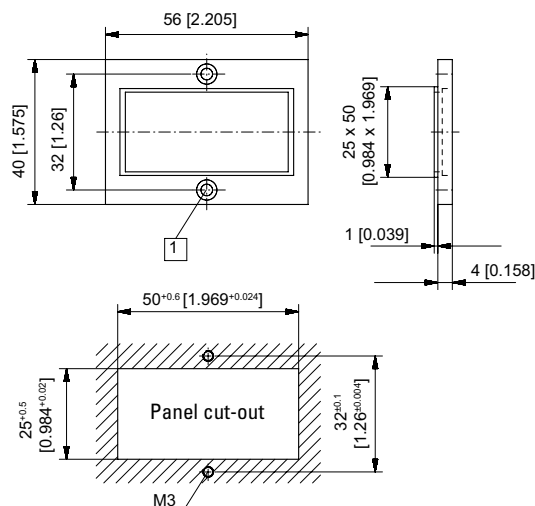
Dimensions in mm [inch]



Front bezel for clip mounting (included in delivery)



Front bezel for screw mounting (included in delivery)



□ Countersinking Af3, DIN 74