

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.



Hour meters / Timers

Battery powered	Timer	Input type	Pulse voltage 4 ... 30 V	Pulse voltage 10 ... 260 V	Temperature range - 10° + 60°	High protection level IP65	DIN front bezel DIN 48 x 24	LCD display 8 LCDs	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 ¹⁾
- 6 = with

b Input type: measurement of short times

Input type	INP A		INP B	
0 = adding ¹⁾	-		0 ... 0.7 V DC	NPN
1 = adding ¹⁾	-		4 ... 30 V DC	PNP
3 = adding ¹⁾	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

1) Stock types

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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], with 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 [0.31"] 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]
Altitude	up to 2000 m

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 Protection class Application area EN 61010 part 1 2 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]

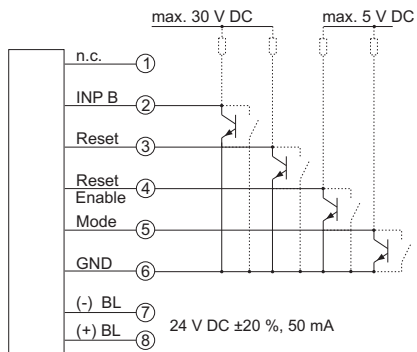
Count input		
A. Timer inputs DC versions (max. 30 V DC) INP B		
Timer input	NPN or PNP	depending on the type (see table)
Switching level	NPN	LOW: 0 ... 0.7 V DC HIGH: 3 ... 30 V DC
	PNP	LOW: 0 ... 0.7 V DC HIGH: 4 ... 30 V DC
Counting start	NPN	for LOW signal at the timer input
	PNP	for HIGH signal 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	NPN	open collector (switching at 0 V) 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

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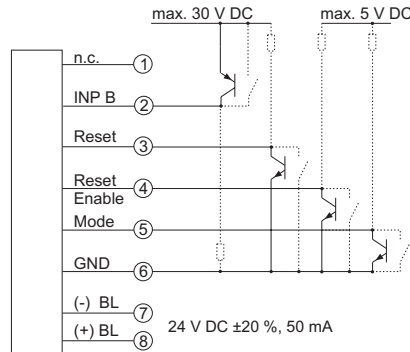
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Terminal assignment

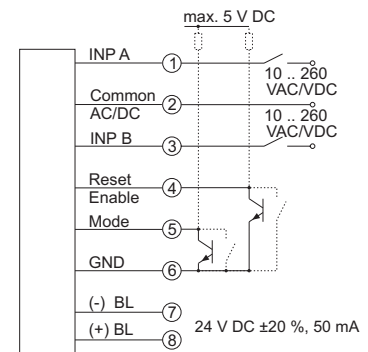
DC type: 6.135.012.8x0



DC type: 6.135.012.8x1



AC type: 6.135.012.8x3



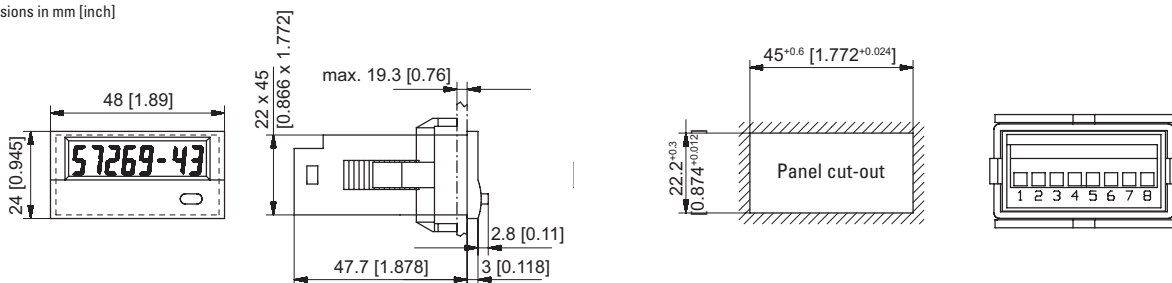
BL = backlighting

Display and time ranges

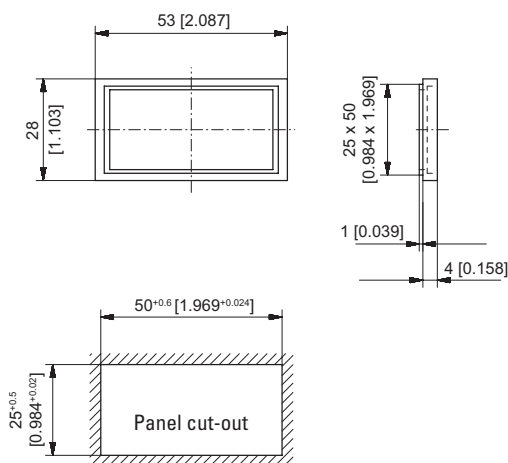
time range	display
9999h 59m 59s	
9999999.9 s	

Dimensions

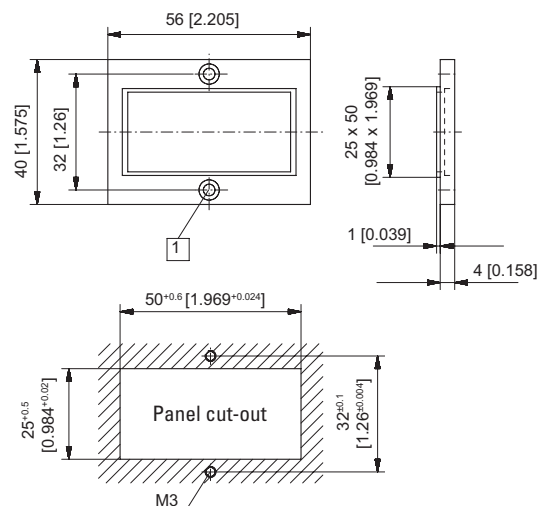
Dimensions in mm [inch]



Front bezel for clip mounting (included in delivery)



Front bezel for screw mounting (included in delivery)



1 Countersinking Af3, DIN 74