

## **CODIX**news 130 ... 136



- LCD display counter **CODIX**130/131/132/133
- LCD hour meter **CODIX**134/135
- LCD frequency meter / tachometer **CODIX**136



**LCD Display counter CODIX130/131/132/133**



- Low-price and high efficiency
- Large 8-digit LCD display, height of the figures 8 mm
- Optional backlighting
- Various counting modes like up /down, differential and phase discriminator counting, also with pulse doubling for connection with incremental encoders
- High voltage input for 10 ... 260 V AC/DC voltage pulses
- Unified Codix design, suiting the extensive **Codix** family
- IP65
- Screw terminals, RM 5 mm
- Lifetime of the battery approximately 8 years
- Locking of the reset key
- Operating temperature -10 ... +60 °C
- All versions for positive or negative counting edge
- Filter function for bounce-free counting with mechanical contacts.

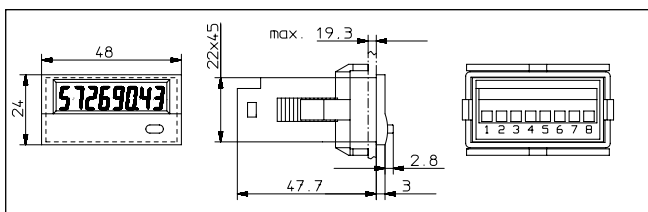
**Technical data**

Power supply:	non-replaceable lithium battery (lifetime approximately 8 years at 20°C)
Backlighting:	external electrical source 24 V DC +/-20 %, 50 mA
Display:	LCD, 8 decades, height of the figures 8 mm
Mode:	a. adding or subtracting (selectable) b. counting direction c. differential counting d. phase discriminator
Display range:	-9999999 ... 99999999, with overflow display
Reset:	manual and electrical
Counting inputs:	
A. Counting input of the DC-versions (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 ... 0,7 V, High: 3 ... 30 V DC PNP: Low: 0 ... 0,7 V, High: 4 ... 30 V DC
B. Counting input of the high voltage versions (10 ... 260 V DC/V AC)	
Counting input:	Optocoupler input, max. 30 Hz
Min. pulse time:	16 ms
Switching level:	Low: 0 ... 2 V DC/V AC, High: 10 ... 260 V DC/V 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 ... 0,7 V, High: 3 ... 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 ... 0,7 V, High: 3 ... 30 V DC
High voltage input:	10 ... 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 ... 0,7 V, High: 3 ... 5 V DC
Interference emissions:	EN 55011 Class B, EN 61000-6-2 EN 61012 Section 1 (only AC versions)
Housing :	dark grey RAL 7021
Operating temperature:	-10 ... +55 °C
Ambient temperature:	-10 ... +60 °C
Storage temperature:	-20 ... +70 °C
Protection:	IP 65 front
Weight:	approximately 50 g

\* and high voltage 131 and 132

**Dimensions:**



**Scope of delivery:**

Digital display, panel mounting clip, bezel for screw mounting, panel cut out 50 x 25 mm, bezel for clip mounting, panel cut out 50 x 25 mm seal, operating instructions.

Panel cut out:  
22,2<sup>+0,3</sup> x 45<sup>+0,6</sup> mm

**Order information**

Type	Input type	Counting inputs							
		INP A				INP B			
6.130.012.8x0	Count <sup>1)</sup>	0 ... 0,7 V DC	count	NPN	7 kHz	0 ... 0,7 V DC	count	NPN	30 Hz
6.130.012.8x2		4 ... 30 V DC	count	PNP	12 kHz	0 ... 0,7 V DC	count	NPN	
6.130.012.8x3		10 ... 260 V AC/DC	count	AC/DC	30 Hz	10 ... 260 V AC/DC	reset	AC/DC	-
6.131.012.8x0	Cnt.Dir <sup>2)</sup> /Up.Dn <sup>3)</sup>	0 ... 0,7 V DC	count	NPN	7 kHz	0 ... 0,7 V DC	count/direction	NPN	7 kHz
6.131.012.8x1		4 ... 30 V DC	count	PNP	12 kHz	4 ... 30 V DC	count/direction	PNP	12 kHz
6.131.012.8x3	Up.Dn <sup>3)</sup>	10 ... 260 V AC/DC	count	AC/DC	30 Hz	10 ... 260 V AC/DC	count	AC/DC	30 Hz
6.132.012.8x3	Cnt.Dir <sup>2)</sup>	10 ... 260 V AC/DC	direction	AC/DC	30 Hz	10 ... 260 V AC/DC	count	AC/DC	30 Hz
6.133.012.8x0	Quad <sup>4)</sup> /Quad2 <sup>5)</sup>	0 ... 0,7 V DC	channel A	NPN	3 kHz	0 ... 0,7 V DC	channel B	NPN	3 kHz
6.133.012.8x1		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 available as from september 2002

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

**LCD hour meter *CODIX*134/135**



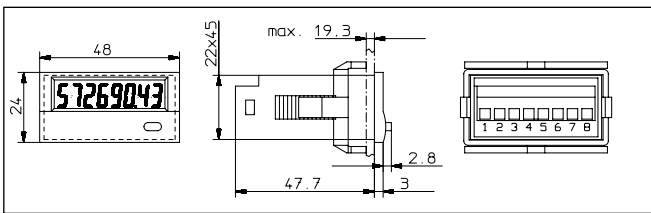
- Low-price and high efficiency
- Large 8-digit LCD display, height of the figures 8 mm
- Optional backlighting
- Different time ranges from 0.1 second to 100,000 hours
- 0.1 second synchronization makes it suitable for very short activation times
- High voltage versions for 10 ... 260 V AC/DC voltage pulses, can be connected directly via contactors, relays and motors
- Very high accuracy: 100 ppm
- Protection IP65
- Unified Codix design, suiting the extensive *Codix* family
- Screw terminals, RM 5 mm
- Lifetime of the battery approximately 8 years
- Operating temperature -10 ... +60 °C
- Locking of the reset key
- Accumulated time always readable thanks to battery\*powered LCD display.

**Technical data**

Power supply:	non-replaceable lithium battery: (lifetime approximately 8 years at 20°C)
Backlighting:	external electrical source 24 V DC +/-20 %, 50 mA
Display:	LCD, 8 decades, height of the figures 8 mm
Counting direction:	adding
Display range:	-9999999 ... 99999999, with overflow display
Reset :	manual and electrical
<b>A. Counting inputs DC versions: (max. 30 V DC)</b>	
Timer input	NPN or PNP depending on the type (see table)
Switching level:	NPN: Low: 0 ... 0,7 V, High: 3 ... 30 V DC PNP: Low: 0 ... 0,7 V, High: 4 ... 30 V DC
Counting start:	NPN: for low signal at the timer input PNP: for high signal at the timer input
<b>B. Counting inputs high voltage version (10 ... 260 V DC/V AC)</b>	
Timer input:	Optocoupler input, max. 30 Hz
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.

<b>C. Time range change (Mode)</b>	
Contact input:	Open Collector (switching at 0 V) NPN: Low: 0 ... 0,7 V, High: 3 ... 5 V DC
Time range:	depending on the circuit (see order information)
<b>D. Reset Input (only DC and high voltage)</b>	
Minimum pulse time:	DC: 50 ms, high voltage: 16 ms
Contact input DC*:	NPN: Low: 0 ... 0,7 V, High: 3 ... 30 V DC
High voltage input:	10 ... 260 V DC/V AC
<b>E. Reset locking input (for DC and AC)</b>	
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, High: 3 ... 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 ... +55 °C
Ambient temperature:	-10 ... +60 °C
Storage temperature:	-20 ... +70 °C
Protection:	IP 65 front
Weight:	approximately 50 g

**Dimensions:**



**Scope of delivery:**

Digital display, panel mounting clip, bezel for screw mounting, panel cut out 50 x 25 mm, bezel for clip mounting, panel cut out 50 x 25 mm seal, operating instructions.

Panel cut out:  
22,2<sup>+0,3</sup> x 45<sup>+0,6</sup> mm

**Order information:**

Type	Mode	Time range	Inputs			
			INP A		INP B	
6.134.012.8x0	Timer	99999h 59 m/ 99999.99 h	—		0 ... 0,7 V DC	NPN
6.134.012.8x1			—		4 ... 30 V DC	PNP
6.134.012.8x3			10 ... 260 V AC/DC	AC/DC	10 ... 260 V AC/DC	AC/DC
6.135.012.8x0	Timer	9999 h 59 m 59 s/ 9999999.9 s	—		0 ... 0,7 V DC	NPN
6.135.012.8x1			—		4 ... 30 V DC	PNP
6.135.012.8x3			10 ... 260 V AC/DC	AC/DC	10 ... 260 V AC/DC	AC/DC

X: 5 = no backlight  
X: 6 = with backlight available  
as from september 2002

**LCD frequency meter/tachometer *CODIX*136**

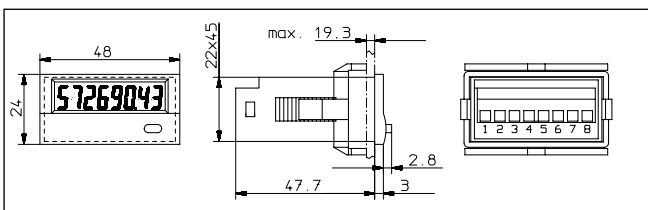


- Low-price and high efficiency.
- Large 8-digit LCD display, height of the figures 8 mm.
- Optional backlighting
- Input frequency range from 1 Hz ... 12 kHz
- Gate measuring method, gate time 1 second
- Accuracy 0,05%
- All versions for positive or negative counting edge.
- Unified Codix design, suiting the extensive *Codix* family.
- IP65
- Screw terminals, RM 5 mm
- Lifetime of the battery approximately 8 years
- Frequency measurement without external voltage supply, pulses acquisition also possible via dry contact, thus usable in all conditions
- Operating temperature -10 ... +60 °C

**Technical data:**

Power supply:	non-replaceable lithium battery: (lifetime approximately 8 years at 20°C)
Backlighting:	external electrical source 24 V DC +/-20 %, 50 mA
Display:	LCD, 8 decades, height of the figures 8 mm
Display range:	0 ... 99999999
Resolution:	1/sec (1 Hz)
Counting inputs:	
A. Counting input of the DC-versions (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 ... 0,7 V, High: 3 ... 30 V DC PNP: Low: 0 ... 0,7 V, High: 4 ... 30 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 ... +55 °C
Ambient temperature:	-10 ... +60 °C
Storage temperature:	-20 ... +70 °C
Protection:	IP 65 front
Weight:	approximately 50 g

**Dimensions:**



**Scope of delivery:**

Digital display, panel mounting clip, bezel for screw mounting, panel cut out 50 x 25 mm, bezel for clip mounting, panel cut out 50 x 25 mm seal, operating instructions.

Panel cut out:  
22,2<sup>+0,3</sup> x 45<sup>+0,6</sup> mm

**Order information**

Type	Mode	Counting inputs					
		INP A			INP B		
6.136.012.8x0	Tacho	0 ... 0,7 V DC	NPN	7 kHz	0 ... 0,07 V DC	NPN	30 Hz
6.136.012.8x1		4 ... 30 V DC	PNP	12 kHz	4 ... 30 V DC	PNP	

X: 5 = no backlight  
X: 6 = with backlight available  
as from september 2002