LED timers | h, min, sec or hh.mm.ss (AC+DC) | Codix 543

The Codix 543 is an externally powered timer, hour meter or short-time meter with 4 start input types and individually adjustable time base.

The 6-digit LED display shows the NPN, PNP input signals used for pulse width or time interval measurement.

Power supply | DIN front bezel | Temperature range | High protection level | Plug-in screw terminal | Menu-driven programming | Timer | Resolution

Powerful

- High accuracy thanks to quartz time base.
- Robust housing – IP65 protection.
- Very bright LED display 14 mm high.
- Time base can be set individually
  - hours, minutes or seconds, the decimal point allows setting it even more accurately, up to max. 3 decimal places.
  - smallest achievable resolution: milliseconds.
  - time base hours (minutes and seconds as real-time display).
- Short start-up time – detects incoming pulses already 16 ms after having been switched on => no loss of pulses in case of a simultaneous motor start.
- Individually adjustable Start/Stop function
  2 Start/Stop inputs allow achieving 4 different measuring principles such as, for example, active or passive pulse width measurement, time interval measurement with one single input or with separate inputs.

User-friendly and universal

- Large keys – pressing either of the keys switches between displays (utilisable même avec des gants).
- Programming
  - Simple and unified programming and operation thanks to menu-driven programming.
  - possibility to enter the programming mode also during operation with an authentication query.
- Manual or electrical reset
  Tamper-proof thanks to lockable reset function.
- Freely programmable setpoint
  Start time at which time counting begins.
- AC or DC power supply with sensor power supply.
- As an alternative to the HTL inputs, devices with a 5 V DC input level are available, for use as parallel displays for PLCs.
- Optional output: 1 Hz clock pulse in case of active time measurement.

Order code

6.543 . 01 X(a) . X(b) X(c) 0

a *Output*
1 = Optocoupler
2 = No output [1]

b *Power supply*
0 = 100 ... 240 V AC, ±10 % [1]
3 = 10 ... 30 V DC [1]

c *Input switch level*
0 = Standard (HTL) [1]
A = 4 ... 30 V DC

Delivery specification
· Digital display
· Mounting clip
· Gasket
· 2 screw terminals
· Instruction manual, multilingual

Replacement parts
7 pin screw terminal RM 3.81 1 ... 7: N100387
2 pin screw terminal RM 5.08 1 ... 2: N100133

Accessories	Dimensions in mm [inch]		Order no.
Mounting frame with cut-out 92 x 45 [3.62 x 1.77]	for snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 96 x 48 [3.74 x 1.89]	grey	**G300005**

Suitable gaskets as well as further accessories can be found in the accessories section or in the accessories area of our website at: www.kuebler.com/accessories.

1) Stock types

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Technical data

General technical data

Display	6 digit, red 7 segment LED display; 14 mm [0.55"] high
Data backup	EEPROM
Operating temperature	-20°C ... +60°C [-4°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		10 ... 30 V DC, with reverse polarity protection 100 ... 240 V AC, ±10 %
Current consumption		max. 50 mA, 6 VA
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

Mechanical characteristics

Housing	front panel mount 96 x 48 mm [3.74 x 1.89"] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 150 g [5.29 oz]

Inputs

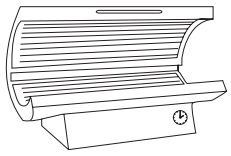
Polarity of inputs		programmable, NPN or PNP for all inputs
Input resistance		approx. 5 kΩ
Resolution		up to 0.001 s
Minimum pulse duration of the reset input		5 ms
Input switching level standard version (HTL)		
DC power supply	LOW	0 ... 0.2 x U_B [V DC]
	HIGH	0.6 x U_B ... 30 V DC
AC power supply	LOW	0 ... 4 V DC
	HIGH	12 ... 30 V DC
Input switching level at 4 ... 30 V DC	LOW	0 ... 2 V DC
	HIGH	4 ... 30 V DC
Accuracy		< 50 ppm

Outputs

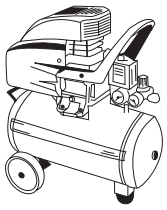
Sensors power sully (AC version)	24 V DC ±15 %/100 mA
Output power optocoupler	max. 30 V DC, 10 mA

Applications for time and hour meters, short-time meters

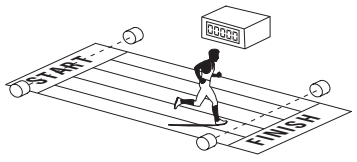
- Time measurements such as hours run recording on all machines and plant, e.g. compressors, solariums, special lights and lamps
- Accessories, OEM equipment or retrofitting to production machine
- Measurement of short times on processes and procedures, time recording (stopwatch function) at sporting events
- Hours run recording for motor vehicles and time monitoring for rally vehicles



Hours run of UV lamps

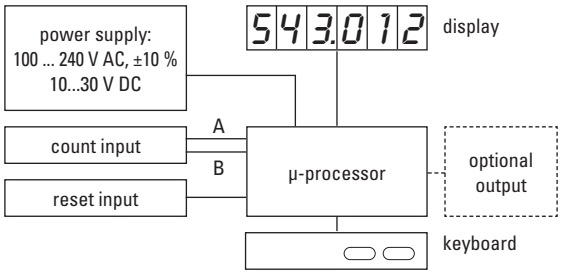


Operating hours



Short time measurement > 1 ms

Block diagram



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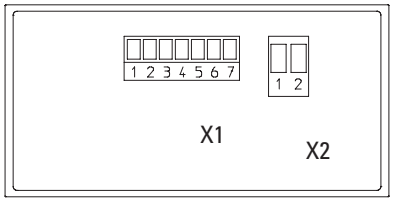
Terminal assignment



Connection X1

PIN	AC version	DC version
1	Optocoupler output	emitter
2	Optocoupler output	collector
3	Reset	
4	INP B	
5	INP A	
6	GND out	n.c.
7	+24 V out	n.c.

Connection X2

PIN	AC version	DC version
1	100 ... 240 V AC, ±10 %	0 V DC (GND)
2	100 ... 240 V AC, ±10 %	10 ... 30 V DC

Dimensions

Dimensions in mm [inch]