

## LED Timers – Codix 543

For use as a timer, hour meter or short-time meter

- Pulse width measurement (operating time)
- Time interval measurement (start/stop)



Power supply  
AC/DC



Front bezel  
dimensions



Wide temper-  
ature range



High IP  
protection  
rating



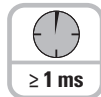
Plug-in screw  
terminal



Menu-driven  
programming



Timer/ Hour  
Meter



Resolution

### Powerful

- **High accuracy**  
Thanks to quartz time base
- **Robust housing**  
IP 65 protection
- **LED display**  
Very bright, 14 mm high
- **Time base can be set individually**  
Hours, minutes or seconds – can be set even more precisely thanks to the max. 3 decimal places. Smallest attainable resolution: milliseconds
- **Fast start-up time**  
Detects incoming pulses just 16 ms after being switched on → so no pulses are lost with a simultaneous motor start-up



### User-friendly

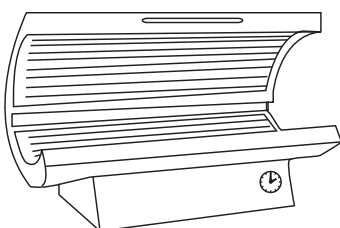
- **Big keys**  
Pressing either of the keys switches between displays  
Can also be operated when using gloves
- **Easy to programme**  
Easy menu-driven programming and operation  
Possibility to enter the programming mode during operation, with authentication query

### Universal

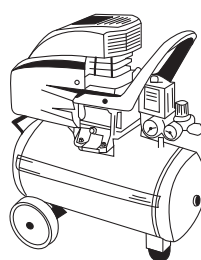
- **Individually programmable start/stop function**  
By means of 2 start/stop inputs, up to 4 different measuring principles can be achieved, e.g. active or passive pulse width measurement, time interval measurement with one input or with separate inputs
- **Manual or electrical reset**  
Tamper-proof, due to lockable reset function
- **User-programmable setpoint**  
Start time at which the time counting should begin
- **AC or DC power supply**  
With sensor power supply
- **Inputs**  
As an alternative to the HTL inputs, devices with a 4 ... 30 V DC input level are available, for use as parallel displays for PLCs
- **Optional output**  
1 Hz clock pulse for active time measurement

### Applications for time and hour meters, short-time meters

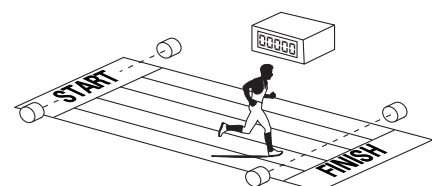
- Time measurements such as hours run recording on all machines and plant, e.g. compressors, solariums, special lights and lamps.
- Accessories, OEM equipment or retro-fitting to production machine
- Measurement of short times on processes and procedures, time recording (stop-watch function) at sporting 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

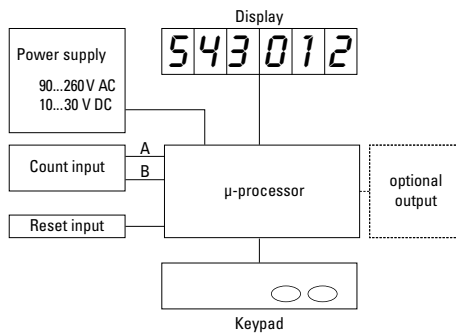
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### Technical data:

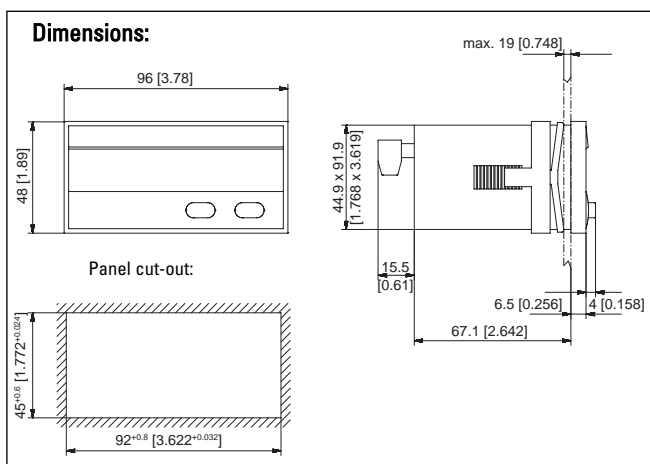
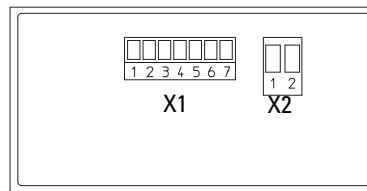
Supply voltage:	10 ... 30 V DC, with reverse polarity protection 90 ... 260 V AC
Current consumption:	max. 50 mA, 6 VA
Display:	6-digit red 7-segment LED display; 14 mm [0.551"] high
Data backup:	EEPROM
Housing:	dimension 96 x 48 mm [3.78 x 1.89"] according to DIN 43 700; RAL 7021, grey
Polarity of Inputs:	programmable, npn or pnp for all inputs
Input resistance:	approx. 5 kΩ
Resolution:	0.001 s
Reset time:	5 ms
Input switching level (standard version):	DC-version: low: 0 ... 0.2 [0 ... 0.008"] x U <sub>B</sub> [V DC] high: 0.6 [0.024"] x U <sub>B</sub> ... 30 V DC AC-version: low 0 ... 4 V DC high 12 ... 30 V DC

Input switching level	low 0 ... 2 V DC
4 ... 30 V DV version:	high 4 ... 30 V DC
Voltage supply for sensors:	24 V DC ±15 %/100 mA at AC version
Power consumption (Optocoupler)	max. 30 V, 10 mA
Ambient temperature:	-20 ... +65 °C [-4 ... 149 °F] non-condensing
Storage temperature:	-25 ... +70 °C [-13 ... 158 °F]
Altitude	up to 2000 m
Accuracy:	< 50 ppm
EMC:	Immunity to interference: EN55011 class B Emitted interference EN61000-6-2
Device safety:	design to: EN61010 Part 1 protection Class: 2 application area: Soiling Level 2
Protection:	IP 65 front side
Weight:	approx. 150 g [5.291 oz]

### Block diagram:



### Connections:



### Connection: X2

Pin	AC-version	DC-version
1	90 ... 260 V AC	0 V DC (GND)
2	90 ... 260 V AC	10 ... 30 V DC

### Connection: X1

Pin	AC-Version	DC-Version
1	Optocoupler output Emitter	
2	Optocoupler output Collector	
3	INP C (Frequency)	
4	INP B (Count)	
5	INP A (Count)	
6	GNDout	n.c.
7	+24 Vout	n.c.

### Order code:

**6.543.01X.XX0**

Output  
1 = Optocoupler output  
2 = No output\*

Input switch level  
0 = Standard\*  
A = 4 ... 30 V DC level

Power supply  
0 = 90 ... 260 V AC\*  
3 = 10 ... 30 V DC

\* standard stock model

### Delivery specification:

Digital display  
Mounting clip  
Gaskets  
Multilingual operating instructions

### Replacement parts:

7-pin screw terminal RM 3,81 1 ... 7: N100387  
2-pin screw terminal RM 5,08 1 ... 2: N100133