

LED timers **h, min, sec or hh.mm.ss (DC)** **Codix 523**



The Codix 523 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.



Hour meters /
Timers

DC 10 ... 30 V Power supply	000000 DIN 48 x 24 DIN front bezel	-20° + 65° Temperature range	IP65 High protection level	Prog Menu-driven programming	Timer	≥ 1 ms Resolution
--	---	--	--------------------------------------	--	--------------	-----------------------------

Powerful

- High accuracy thanks to quartz time base
- Robust housing – IP65 protected
- Very bright LED display, 8 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 (can also be operated wearing gloves)
- Programming
 - simple uniform menu-driven programming and operation
 - 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
- 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 in case of active time measurement

Order code **6.523 . 01 X . 3 X 0**

a Output 1 = Optocoupler 2 = No output ¹⁾	b Input switch level 0 = Standard (HTL) ¹⁾ A = 4 ... 30 V DC	Delivery specification – Timer – Mounting clip – Gasket – Instruction manual, multilingual	– 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"]
---	--	---	---

1) Stock types

Hour meters / timers, electronic

LED timers	h, min, sec or hh.mm.ss (DC)	Codix 523
------------	------------------------------	-----------

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 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.

Technical data

General technical data	
Display	6 digits, red 7 segment LED display; 8 mm [0.32"] high
Data backup	EEPROM
Operating temperature	10 ... 26 V DC -20°C ... +65°C [-4°F ... +149°F] > 26 ... 30 V DC -20°C ... +55°C [-4°F ... +131°F] (non-condensing)
Storage temperature	-25°C ... +70°C [-13°F ... +158°F]

Electrical characteristics	
Power supply	10 ... 30 V DC, with integrated reverse polarity protection
Current consumption	max. 45 mA
EMC	Emitted interference EN 55011 class B Immunity to interference EN 61000-6-2

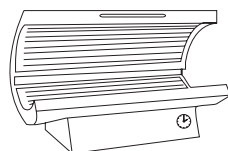
Mechanical characteristics	
Housing	front panel mount 48x24 mm [1.89 x 0.94"] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 50 g [1.76 oz]

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)	LOW 0 ... 0.2 x U _B [V DC] HIGH 0.6 x U _B ... 30 V DC
Input switching level at 4 ... 30 V DC	LOW 0 ... 2 V DC HIGH 4 ... 30 V DC
Accuracy	<50 ppm

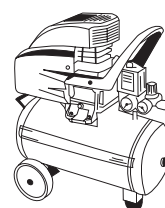
Outputs (optional)	
Output power optocoupler	max. 30 V, 10 mA

Applications for time and hour meters, short-time meters

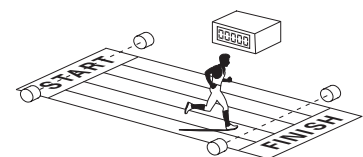
- Time measurements such as hours run recording on all machines and plant, e.g. compressors, solariums, special lights and lamps
- Accessories, OEM equipment or retrofitting to production machine
- Measurement of short times on processes and procedures, time recording (stopwatch function) at sporting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



Hours run of UV lamps



Operating hours

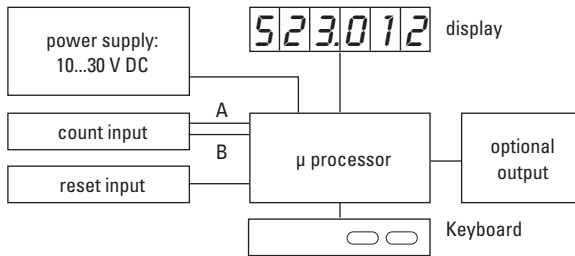


Short time measurement > 1 ms

Hour meters / timers, electronic

LED timers	h, min, sec or hh.mm.ss (DC)	Codix 523
-------------------	-------------------------------------	------------------

Block diagram

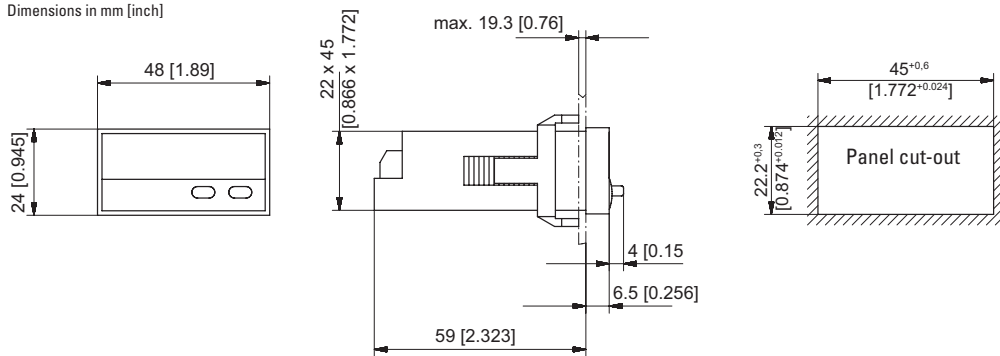


Terminal assignment

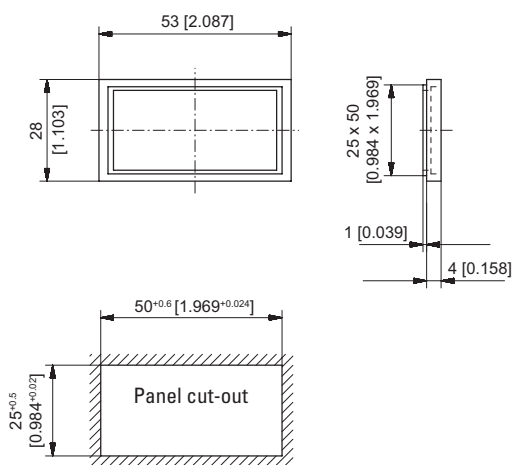
without optocoupler		with optocoupler (NPN)	
PIN		PIN	
1	10 ... 30 V DC	1	10 ... 30 V DC
2	0 V GND	2	0 V GND
3	INP A	3	INP A
4	INP B	4	INP B
5	reset	5	reset
		6	emitter
		7	collector

Dimensions

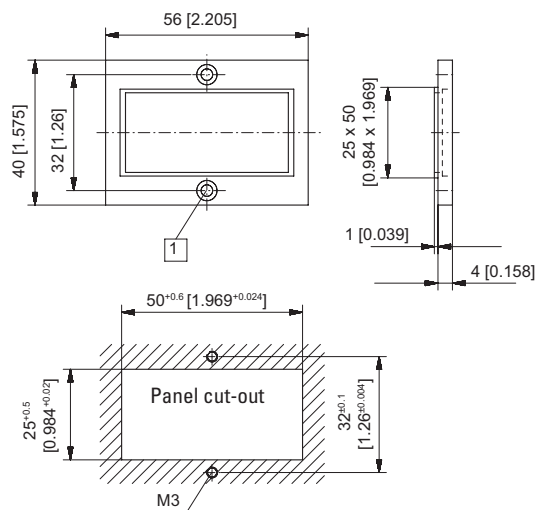
Dimensions in mm [inch]



Front bezel for clip mounting (included in delivery)



Front bezel for screw mounting (included in delivery)



1 Countersinking Af3, DIN 74