

# Hour meters / timers, electronic

**LCD hour meters**

**Adding counter / service timer, 99999.99 h (DC)**

**Codix 141 / 143**



The Codix 141 / 143 is a simple externally powered hour meter with 7-digit LCD display for PNP, NPN input signals, optionally factory-programmable.

**Codix 141: Standard timer**

**Codix 143: Service timer**



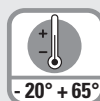
Power supply



Input type



Timer



Temperature range



High protection level



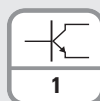
DIN front bezel



LCD display



Lockable reset



Transistor output (143)

## Functional

- Direct display of the total time.
- Pressing the key displays the preset service value and its pre-signal.
- Preset value output as a text on the display and on the transistor output.
- Pre-signal for the service intervals as a text on the display.
- Manual or electrical reset of the display or of the service intervals.
- Fast PNP or damped NPN control via separate inputs.

## User-friendly

- Power supply 10 ... 30 V DC.
- Values stored in EEPROM.
- Fixed pre-programmed service intervals, e.g.: service at 5000.00 h (service), pre-signal at 4900.00 h (pre-service), blinking text message on the display (service or pre-service).
- Multifunction reset key, lockable via a separate input.
- Can also be reset to its delivery condition.
- Factory programmable.

**Order code**  
**Standard timer**

6.141 . 012 . 300

*Stock types:*  
6.141.012.300

**Order code**  
**Service timer**

6.143 . 011 . 300 . XXXX . XX  
a b

*Stock types:*  
6.143.011.300.005K.00

**a** Option 2 <sup>1)</sup>  
005K = Service range 5000.00 h

**b** Option 1 <sup>1)</sup>  
00 = Pre-warning at 100.00 before the preset service value  
Display shows text PrESErV with pre-warning and text SErVICE with preset service value

*Delivery specification Codix 141 and 143*

- Counter
- Mounting clip
- Gasket
- Instruction manual, multilingual

1) Options 1 and 2 can be individually programmed at the factory according to customer's requirements. Please note: The min. order quantity for custom versions is 10 pcs. with an extra charge, or 200+ pcs. with no extra charge.

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Accessories	Dimensions in mm [inch]		Order no.
<b>Adapter front bezel, 53 x 28 [2.09 x 1.10]</b>	For cut-out 50 x 25 [1.97 x 0.98] 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]	anthracite	<b>T008180</b>
<b>Adapter front bezel, 56 x 40 [2.20 x 1.57]</b>	For cut-out 50 x 25 [1.97 x 0.98] to cut-out 45 x 22.2 [1.77 x 0.87], with screw mounting for counters 48 x 24 [1.89 x 0.94]	anthracite	<b>T008181</b>
<b>Adapter front bezel, 72 x 36 [2.83 x 1.42]</b>	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	<b>162704 Set</b>
<b>Adapter front bezel, 48 x 48 [1.89 x 1.89]</b>	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	<b>T008883</b>
<b>Adapter front bezel, 60 x 50 [2.36 x 1.97]</b>	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	<b>N003001</b>
<b>Transparent cover, lockable, IP65</b>	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]		<b>N003002</b>
<b>Sealing cover type K1, IP65</b>	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]		<b>G008301</b>
<b>Mounting frame</b> 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	<b>G300004</b>

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](http://www.kuebler.com/accessories).

## Technical data

General technical data	
<b>Display</b>	LCD, 7 digits, 8 mm [0.31"] high
<b>Undervoltage</b>	display for $U_B < 8$ V: PO-FAIL and data backup
<b>Counting range</b>	0 ... 99999.99 h decimal point 0.00
<b>Data backup</b>	EEPROM
<b>Operating temperature</b>	-20°C ... +65°C [-4°F ... +149°F] (non-condensing)
<b>Storage temperature</b>	-25°C ... +75°C [-13°F ... +167°F]

Mechanical characteristics	
<b>Housing</b>	front panel mount, DIN 43700 48 x 24 mm [1.89 x 0.94"] dark grey Ral 7021
<b>Connections</b>	8-pole screw terminals, pitch 5.08 mm [2.00"]
<b>Cleaning</b>	the front side should be cleaned using only a soft cloth moistened with water
<b>Weight</b>	40 g [1.41 oz]
<b>Protection</b>	IP65 (front side) IP20 (rear side)
<b>Vibration resistance</b> acc. to EN 60068-2-6	10 ... 55 Hz / 1 mm [0.04"] / 30 min
<b>Shock resistance</b> acc. to EN 60068-2-27	100 G: 2 ms 10 G: 6 ms

## Electrical characteristics

<b>Power supply</b>	10 ... 30 V DC, max. 25 mA
<b>Start delay</b>	500 ms
<b>EMC standards</b>	EN 55011 class B, EN 61000-6-2, EN 61000-6-3 EN 61326-1

## Inputs

<b>Input A</b>	static PNP input
<b>Input B</b>	static NPN input
<b>Reset key enable input</b>	static NPN input
<b>Reset</b>	edge-triggered NPN input (min. 20 ms)
<b>Input resistance</b>	10 kOhm
<b>Switching level</b>	LOW 0 ... 2 V DC HIGH 3.5 ... 30 V DC
<b>Switching threshold</b>	approx. 2.7 V DC

## Additional data for Codix 143 (service timer)

<b>Output</b>	NPN transistor output, open collector
<b>Output voltage</b>	max. 30 V DC
<b>Output current</b>	max. 50 mA

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## LCD hour meters

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### Display and inquiry mode service timer

If the reset key is not released by means of the activation input of pin 6, pressing the key makes the following functions available to the user.

Press 1x: The text "SErViCE" is displayed

Press 2x: The following service value is displayed

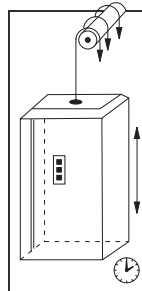
Press 3x: The text „PrESErV" is displayed

Press 4x: The following preservice value is displayed

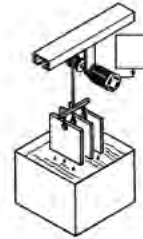
Press 5x: The current value is displayed

For the service timers, the values counted remain stored, the service values are incremented by the stored preset value when resetting. E.g. service value 5000.00 h, counter count when resetting 5100.00 h, new service value 10100.00 h.

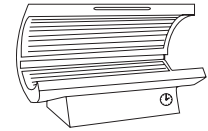
### Applications



Operating time and service interval



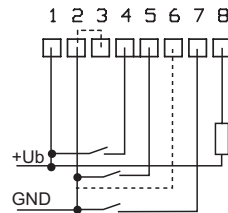
Total time and service interval



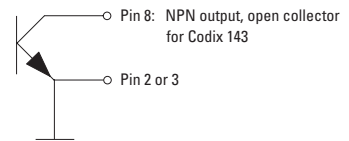
Service interval and total time of the UV lamps

### Terminal assignment

PIN	Description	Standard timer	Service timer
Power supply			
1	+U <sub>B</sub>	10 ... 30 V DC	10 ... 30 V DC
2	0 V DC, GND	GND	GND
Inputs			
3	0 V DC, GND	GND	GND
4	Fast counting input	INP PNP	INP PNP
5	Slow counting input	INP NPN	INP NPN
6	Reset enable input	RESET MANUAL ENABLE	RESET MANUAL ENABLE
7	Reset input	RESET	RESET
Output			
8	NPN output	n.c.	OUT



Output 8 is only used with Codix 143 as a NPN output



### Dimensions

Dimensions in mm [inch]

