

Pulse counters, electronic

LCD pulse counters Adding counter / service counter (DC) Codix 140 / 142



The Codix 140 / 142 is a simple voltage powered pulse counter for fast and slow count pulses, with 7-digit LCD display for NPN / PNP input signals.
Optional: can be factory pre-programmed.

Codix 140: Standard counter
Codix 142: Service counter



Pulse counters

DC 10 ... 30V	PNP/NPN	max. 8 kHz	-20° + 65°	IP65	000000 DIN 48 x 24	123... 7 LCDs	12345 00000 Lockable reset	1 Transistor output (142)
Power supply	Input type	Max. count frequency	Temperature range	High protection level	DIN front bezel	LCD display	Lockable reset	Transistor output (142)

Functional

- Direct display of the total number of pulses.
- Key press displays preset service value and its pre-signal.
- Preset value output as display text and transistor output.
- Pre-signal for the service intervals as display text.
- 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 imp (service)
Pre-signal at 4900 imp (pre-service)
Blinking text message on the display (service or pre-service).
- Multifunction reset key can be enabled via "Reset Enable" input.
- Reset to delivery condition possible.
- Can be factory pre-programmed.

Order code Standard counter	6.140 . 012 . 300 . XXXX
a Option 1 ¹⁾ , divisor (If divisor is 1 then omit last 4 digits from code) 0002 ... 4095	Stock types 6.140.012.300
	Delivery specification · Counter · Mounting clip · Gaskets · Instruction manual, multilingual

Order code Service counter	6.142 . 011 . 300 . XXXX . XX . XXXX
a Option 3 ¹⁾ , service preset 005K = 5000	c Option 1 ¹⁾ , divisor (If divisor is 1 then omit last 4 digits from code) 0002 ... 4095
b Option 2 ¹⁾ , pre-warning 00 = Pre-warning at 100 before the preset service value, PRESErV and SErVICE	Delivery specification · Counter · Mounting clip · Gaskets · Instruction manual, multilingual

1) The option 1 - 3 can be programmed according to customer needs.
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.
Adapter front bezel, 53 x 28 [2.09 x 1.10]	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	T008180
Adapter front bezel, 56 x 40 [2.20 x 1.57]	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	T008181
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, other accessories and installation examples for optional accessories can be found in chapter accessories or in the accessories section under: www.kuebler.com/accessories.

Technical data

General technical data	
Display	LCD, 7 digits, 8 mm [0.32"] high
Counting range	0 ... 9999999, no decimal point
Data backup	EEPROM
Operating temperature	-20°C ... +65°C [-4°F ... +149°F] (non-condensing)
Storage temperature	-25°C ... +75°C [-13°F ... +167°F]

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

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

Inputs	
Counting input A	fast input, PNP switching (max. 8 kHz)
Counting input B	slow input, NPN switching (mechanical contact, max. 48 Hz)
Reset key enable input	static NPN input
Reset	edge-triggered NPN input (min. 20 ms)
Input resistance	10 kOhm
Switching level	LOW 0 ... 2 V DC HIGH 3.5 ... 30 V DC
Switching threshold	approx. 2.7 V DC
Scaling	1 ... 4095 (factory-set)

Additional data for Codix 142 (service counter)	
Output	NPN transistor output, open collector
Output voltage	max. 30 V DC
Output current	max. 50 mA

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Display and inquiry mode - service counter

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 1 x: The text "SERVICE" is displayed

Press 2 x: The following Service value is displayed

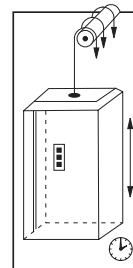
Press 3 x: The text "PrESErV" is displayed

Press 4 x: The following pre-service value is displayed

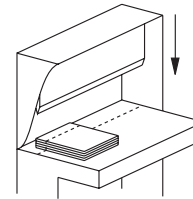
Press 5 x: The current value is displayed

For the service counters, the values counted remain stored, the service values are incremented by the stored preset value when resetting. E.g. service value 5000 pulses, counter count when resetting 5100 pulses, new service value 10100.

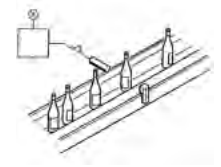
Applications



Ride counting and service intervals



Number of cuts and knife replacement

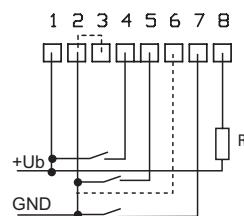


Total quantity and service interval

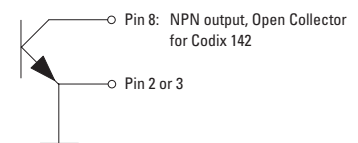
Pulse counters

Terminal assignment

PIN	Description	Standard counter	Service counter
Power supply			
1	+U _B	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 used only with Codix 142 as a NPN output



Dimensions

Dimensions in mm [inch]

