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

RoHS



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

- Supply voltage 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)

a *Option 1* [1]
Divisor
(if divisor is 1 then omit last 4 digits from code)
0002 ... 4095

Further options on request [1]
- Multiplier
- Decimal point
- Other options

Delivery specification
- Counter
- Mounting clip
- Gaskets
- Instruction manual, multilingual

Stock types
6.140.012.300 [2]

Order code Service counter

6.142 . 011 . 300 . XXXX (a) . XX (b) . XXXX (c)

a *Option 3* [1]
Service preset
005K [2] = 5000

b *Option 2* [1]
Pre-warning, display text, *further options*
00 [2] = Pre-warning at 100 before the preset service value. Display shows text PrESErV with pre-warning and text SErViCE with preset service value.

c *Option 1* [1]
Divisor
(if divisor is 1 then omit last 4 digits from code)
0002 ... 4095

Further options on request [1]
- Multiplier
- Decimal point
- Other options

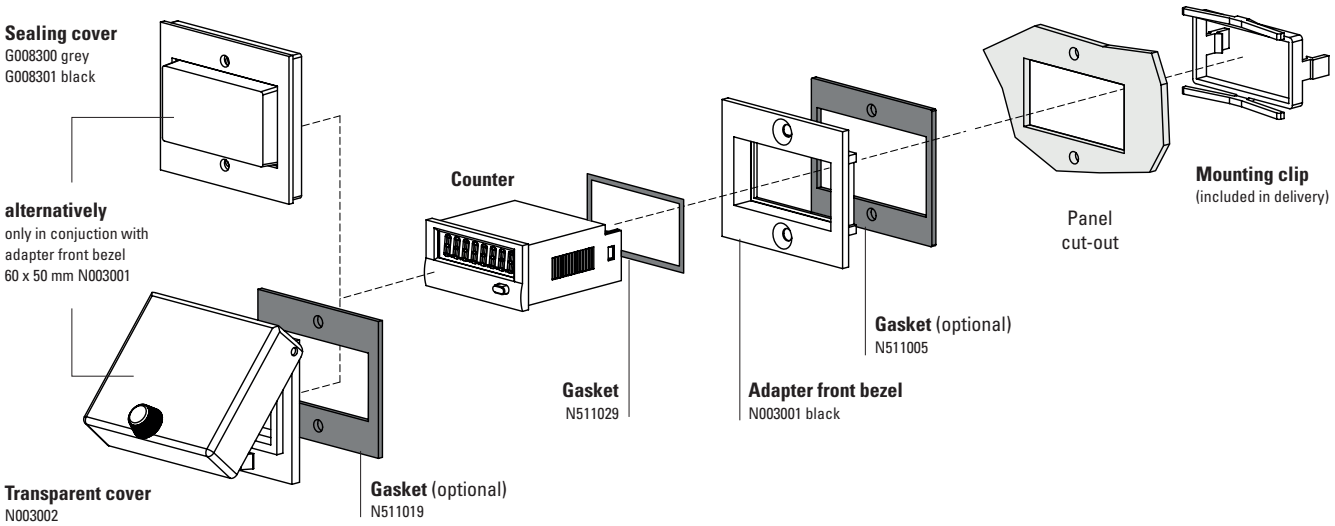
Delivery specification
- Counter
- Mounting clip
- Gaskets
- Instruction manual, multilingual

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.
2) Standard variant without additional charge.

© Fritz Kübler GmbH, subject to errors and changes. 03/2023

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

Accessories / Mounting examples



		Type / size	Description		Order no.	suitable gasket
Adapter front bezel		**53 x 28 mm [2.09 x 1.10“]**	for cut-out 50 x 25 mm [1.97 x 0.98“] to cut-out 45 x 22.2 mm [1.77 x 0.94“]	grey black anthracite	**T008164** **T008165** **T008180**	**N511015**
		**56 x 40 mm [2.20 x 1.57“]**	for cut-out 50 x 25 mm [1.97 x 0.98“] to cut-out 45 x 22.2 mm [1.77 x 0.94“] screw mounting	black anthracite	**T008161** **T008181**	**N511045**
		**72 x 36 mm [2.83 x 1.42“]**	for cut-out 68 x 33 mm [2.68 x 1.30“] to cut-out 45 x 22.2 mm [1.77 x 0.94“]	black and silver anodised as set	**162704Set**	–
		**60 x 50 mm [2.36 x 1.97“]**	for cut-out 54 x 29 mm [2.13 x 1.14“] to cut-out 45 x 22.2 mm [1.77 x 0.94“] screw mounting	black	**N003001**	**N511005**
		**48 x 48 mm [1.89 x 1.89“]**	for cut-out 45 x 45 mm [1.77 x 1.77“] to cut-out 45 x 22.2 mm [1.77 x 0.94“]	black	**T008883**	–
Sealing cover IP65		**K1**	only in conjuction with adapter front bezel 60 x 50 mm N003001	transparent / grey transparent / black	**G008300** **G008301**	–
Transparent cover IP65		**1 Dv** (mounted on bezel)	cover lockable, for cut-out 54 x 29 mm [2.13 x 1.14“], only in conjuction with adapter front bezel 60 x 50 mm N003001	transparent / black	**N003002**	**N511019**
Gasket counter			48 x 24 mm (for installation in adapter front bezel) 49 x 25 mm		**N511029** **N511034**	
Mounting frame		**cut-out 50 x 25 mm [1.97 x 0.98“]**	via adapter T008180 for snap-on mounting on 35 mm [1.38“] top-hat DIN rail	chromated	**G300004**	–
Enclosure blind		**48 x 24 mm [1.89 x 0.94“]**	for cut-out 45 x 22.2 mm [1.77 x 0.94“] and cut-out 50 x 25 mm [1.97 x 0.98“]	anthracite	**G003836**	–

im Lieferumfang

© Fritz Kübler GmbH, subject to errors and changes. 03/2023

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

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

Supply voltage	10 ... 30 V DC, max. 25 mA
Start delay	500 ms

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. 25 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 HIGH	0 ... 2 V DC 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

Approvals

CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
UKCA compliant in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032

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

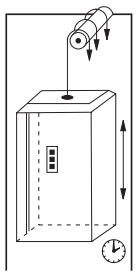
Press 3 x: The text “PrESErV“ is displayed

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

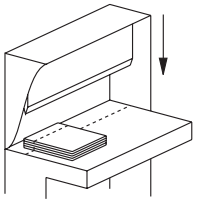
Press 5 x: The current value is displayed

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.

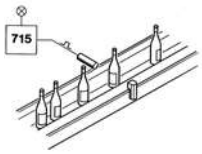
Applications



Ride counting and service intervals



Number of cuts and knife replacement



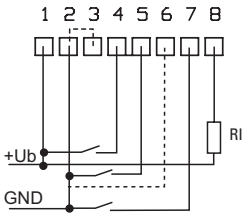
Total quantity and service interval

© Fritz Kübler GmbH, subject to errors and changes. 03/2023

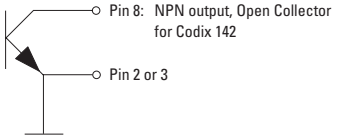
LCD pulse counters | Adding counter / service counter (DC) | Codix 140 / 142

Terminal assignment

PIN	Description	Standard counter	Service counter
Supply voltage			
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

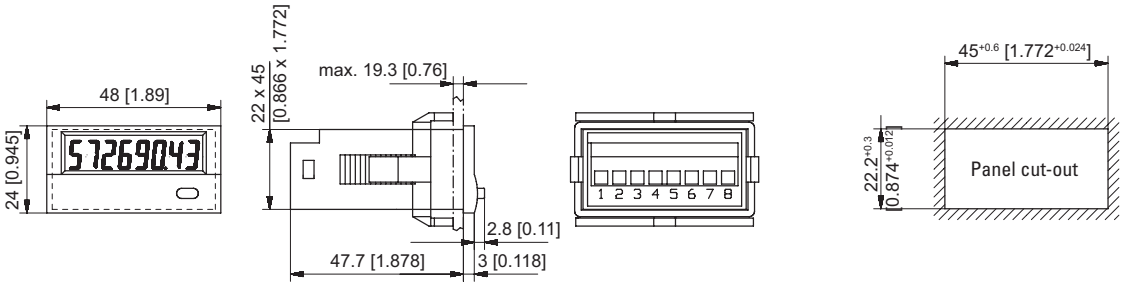


Output 8 is used only with Codix 142 as a NPN output



Dimensions

Dimensions in mm [inch]



© Fritz Kübler GmbH, subject to errors and changes. 03/2023