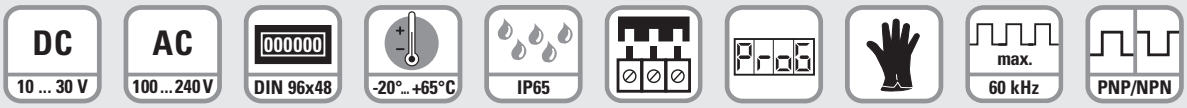
LED pulse counters | Adding (AC+DC) | Codix 540



The Codix 540 is a simple voltage powered pulse counter for fast and slow count pulses, with 6-digit LED display for NPN, PNP input signals.



Supply voltage | DIN front bezel | Temperature range | High protection level | Plug-in screw terminal | Menu-driven programming | Operation with gloves | Pulse counter/ Totalizer | Input type

Powerful

- Fast count input – input frequency max. 60 kHz
- Robust housing – IP65 protected
- Very bright LED display, 14 mm high
- Simple totalizing and quantity counter
  - single channel count input and reset input
  - programmable for positive (PNP) or OV (NPN) switching input pulses
  - fast count input with an input frequency of max. 60 kHz, can be damped to 30 Hz for mechanical contacts
- Short start-up time – detects input pulses just 16 msec after being switched on => no pulses are lost with a simultaneous motor start-up

User-friendly and universal

- Large keys – can also be operated when wearing gloves
- Simple uniform menu-driven programming and operation – possible to enter the programming also during operation with a confirmation prompt
- Programmable decimal point, can be set from 0.0 to 0.000
- Manual or electrical reset – tamper-proof due to lockable reset function
- AC or DC supply voltage with sensor supply voltage
- As an alternative to the HTL inputs, devices are available with a 4 ... 30 V DC input level, for use as parallel displays to PLCs

Order code

6.540	.	012	.	X (a)	X (b)	0

(a) *Supply voltage*
0 = 100 ... 240 V AC, ±10 % [1)]
3 = 10 ... 30 V DC [1)]

(b) *Input switching level*
0 = Standard (HTL) [1)]
A = 4 ... 30 V DC

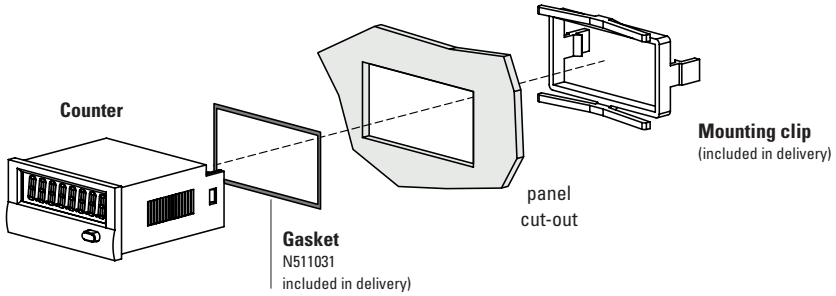
Delivery specification
- Digital display
- Mounting clip
- Gasket
- Instruction manual, multilingual
- 2 screw terminals

1) Stock types.

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Accessories / Mounting examples



		Type / size	Description		Order no.	
Gasket counter			96 x 49 mm [3.78 x 1.93"]		**N511031**	
Mounting frame		**cut-out 92 x 45 mm [3.62 x 1.77"]**	for snap-on mounting on 35 mm [1.38"] top-hat DIN rail	grey	**G300005**	–
Screw terminal (Replacement part)			1 ... 7, pitch 3.81 1 ... 2, pitch 5.08	7 pin 2 pin	**N100387** **N100133**	
					incl. in delivery	

Technical data

General technical data

Display	6 digit, red 7 segment LED display; 14 mm [0.55"] high
Data backup	EEPROM
Operating temperature	-20 °C ... +65 °C [-4 °F ... +149 °F] (non-condensing)
Storage temperature	-25 °C ... +70 °C [-13 °F ... +158 °F]
Relative humidity at +30 °C [+86 °F]	< 85 % (non-condensing)
Altitude	up to 2000 m [6562']

Electrical characteristics

Supply voltage		10 ... 30 V DC, with reverse polarity protection 100 ... 240 V AC, ±10 %
Current consumption		max. 50 mA, 8 VA
Device safety	designed to protection class application area	EN 61010 part 1 2 pollution level 2

Mechanical characteristics

Housing	front panel mount 96 x 48 mm [3.74 x 1.89"] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 150 g [5.29 oz]

Inputs

Polarity of inputs		programmable, NPN or PNP for all inputs
Input resistance		approx. 5 kΩ
Counting frequency [1]		max. 60 kHz, can be damped to 30 Hz
Minimum pulse duration of the reset input		5 ms
Input switching level standard version (HTL)		
DC supply voltage	LOW	0 ... 0.2 x U_B (V DC)
	HIGH	0.6 x U_B ... 30 V DC
AC supply voltage	LOW	0 ... 4 V DC
	HIGH	12 ... 30 V DC
Input switching level at 4 ... 30 V DC		
	LOW	0 ... 2 V DC
	HIGH	4 ... 30 V DC

Outputs

Voltage output for sensors (AC version)	24 V DC ±15 %/100 mA

Approvals

UL compliant in accordance with	File no. E128604
CE compliant in accordance with	
EMC Directive	2014/30/EU
RoHS Directive	2011/65/EU
Low Voltage Directive	2014/35/EU
UKCA compliant in accordance with	
EMC Regulations	S.I. 2016/1091
RoHS Regulations	S.I. 2012/3032
Low Voltage Regulations	S.I. 2016/1101

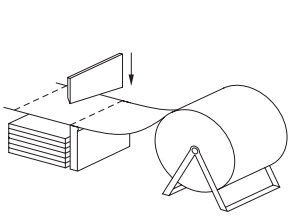
1) For further specifications please refer to the manual.

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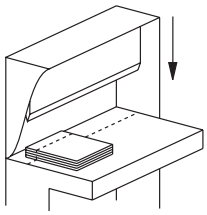
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Applications for pulse counters / totalizers

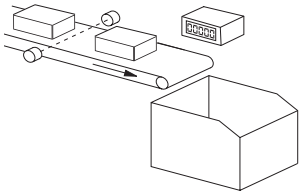
- Simple count tasks such as quantity and piece counting
- Accessories, OEM equipment or retrofitting to production machines
- Piece counting on die cutters, presses, extruders, woodworking machines, drilling machines, pick-and-place machines, guillotines, special-purpose vehicles etc.



Piece-counting

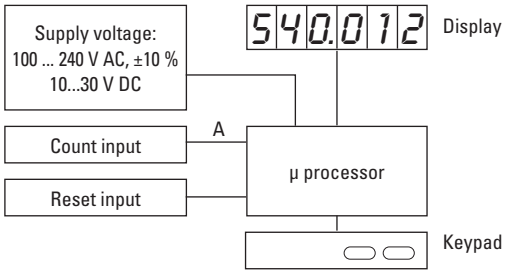


Number of cuts

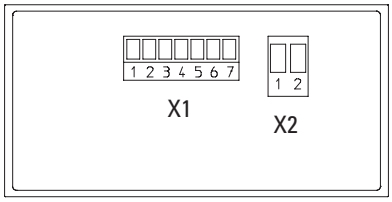


Piece-counting on conveyor

Block diagram



Terminal assignment



Connection X1

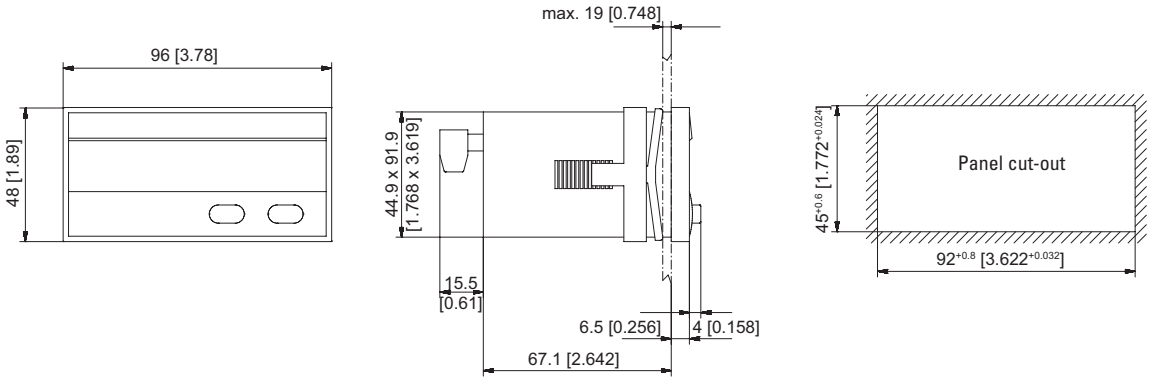
PIN	AC version	DC version
1	n.c	
2	n.c	
3	Reset	
4	n.c	
5	INP	
6	GND out	n.c.
7	+24 V DC out	n.c.

Connection X2

PIN	AC version	DC version
1	100 ... 240 V AC, ±10 %	0 V DC (GND)
2	100 ... 240 V AC, ±10 %	10 ... 30 V DC

Dimensions

Dimensions in mm [inch]



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