

Pulse counters, electronic

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.



| | | | | | | | | | |
|--------------------------|----------------------------|------------------------------|--|--------------------------------------|-------------------------------|--------------------------------|------------------------------|--|------------------------------|
| DC 10 ... 30 V | AC 100 ... 240 V | 000000 DIN 96 x 48 | -20° + 65° Temperature range | IP65 High protection level | Plug-in screw terminal | Menu-driven programming | Operation with gloves | max. 60 kHz Pulse counter/ Totalizer | PNP/NPN 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 power supply with sensor power supply
- 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 . XX0
a b

a Power supply

- 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

Replacement parts

- 7 pin screw terminal RM 3.81 1 ... 7: N100387
- 2 pin screw terminal RM 5.08 1 ... 2: N100133

| Accessories | Dimensions in mm [inch] | Order no. |
|---|---|---------------------|
| Mounting frame with cut-out 92 x 45 [3.62 x 1.77] | for snap-on mounting on 35 [1.38] top-hat DIN rail, for counters 96 x 48 [3.74 x 1.89] | grey G300005 |

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.

1) Stock types.

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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] |
| Altitude | up to 2000 m [6562'] |

| Electrical characteristics | |
|----------------------------|--|
| Power supply | 10 ... 30 VDC, with reverse polarity protection 100 ... 240 V AC, ±10 % |
| Current consumption | max. 50 mA, 6 VA |
| EMC standards | EN 55011 class B, EN 61000-6-2, EN 61000-6-3 |
| Device safety | designed to protection class application area EN 61010 part 1 2 pollution level 2 |
| UL approval | file E128604 |

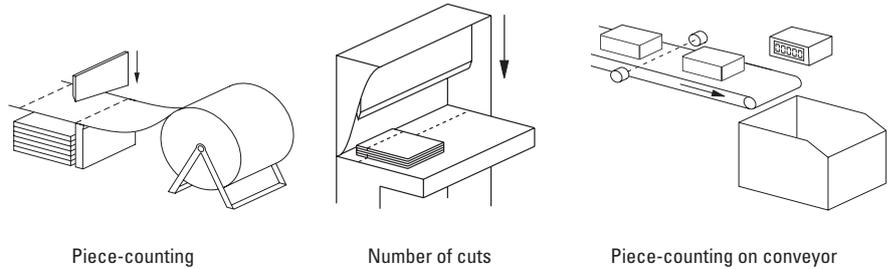
| Mechanical characteristics | |
|----------------------------|--|
| Housing | front panel mount 96 x 48 mm [3.74 x 1.89"] acc. to DIN 43700; RAL 7021, dark grey |
| Protection | IP65 (front side) |
| Weight | approx. 150 g [5.29 oz] |

| 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 power supply | LOW 0 ... 0.2 x U _B (V DC) HIGH 0.6 x U _B ... 30 V DC |
| AC power supply | 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 |

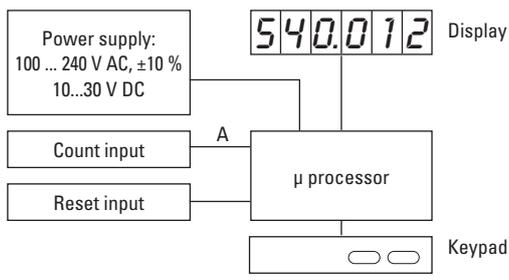
| Outputs | |
|---|----------------------|
| Voltage output for sensors (AC version) | 24 V DC ±15 %/100 mA |

Applications for pulse counters / totalizers

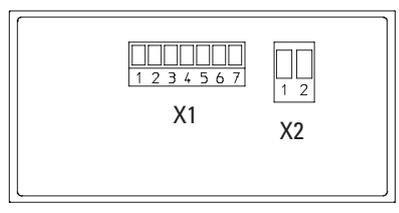
- Simple count tasks such as quantity and piece counting
- Accessories, OEM equipment or retrofitting to production machines
- Piece counting on die cutters, presses, extruders, woodworking machines, drilling machines, pick-and-place machines, guillotines, special-purpose vehicles etc.



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 % | 0VDC (GND) |
| 2 | 100 ... 240 V AC, ±10 % | 10 ... 30 V DC |

1) For further specifications please refer to the manual.

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Dimensions

Dimensions in mm [inch]

