Pulse counters, electronic

LED pulse counters	2 counters with separate inputs and separate scaling (DC)	Codix 52C

The Codix 52C is a voltage powered dual pulse counter with separate inputs and separate scaling, for fast and slow count pulses, with 6-digit LED display for NPN, PNP input signals and display switching between A, B, A-B, A+B, A/B, (A-B)/A [%].

DC 10 ... 30 V	DIN 48x24	-20°... +65°C	IP65	ProG		max. 25 kHz	PNP/NPN
Supply voltage	DIN front bezel	Temperature range	High protection level	Menu-driven programming	Operation with gloves	Pulse counter/ Totalizer	Input type

Powerful

- Single channel dual totalizer with 2 separate inputs
  - programmable for positive (PNP) or 0V (NPN) switching input pulses
  - fast count inputs with an input frequency of max. 25 kHz. Can be damped to 30 Hz for mechanical contacts.
- Robust housing – IP65 protected.
- Very bright LED display, 8 mm high.
- 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.
- Individually programmable scaling for inputs A and B multiplication and division factor (0.0001...99.9999), to display corresponding units in, for example, litres, length or packaging size.
- Simple display switching from A to B or A+B, A-B, A/B, (A-B)/A [%].
- DC supply voltage.
- As an alternative to the HTL units, models are also available with a fixed signal level threshold >4 ... 30 V DC for use with TTL signals.
- Reset manual or electrical, programmable separately for both counters (the reset can also be locked out).

Order code

6.52C	.	012	.	3	X	0

(a)

a Input switching level
0 = Standard (HTL)
A = 4 ... 30 V DC
    LOW 0 ... 2 V DC
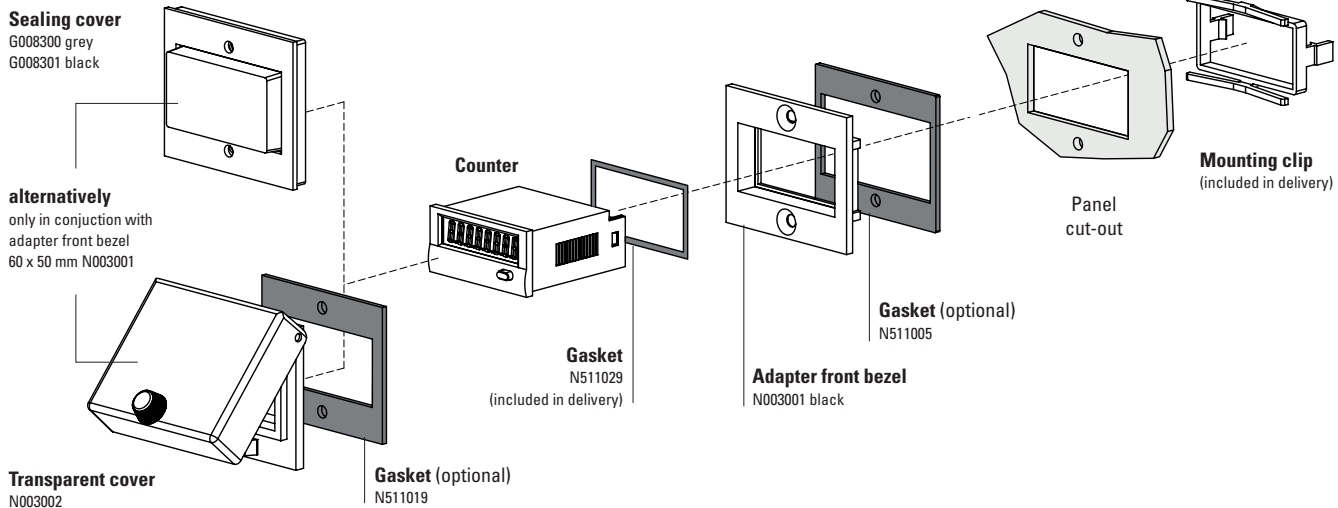   HIGH 4 ... 30 V DC

Delivery specification
- Counter
- Mounting clip
- Front bezel for screw mounting (T008181) 56 x 40 mm [2.20 x 1.57"], panel cut-out 50 x 25 mm [1.97 x 0.98"]
- Front bezel for clip mounting (T008180) 53 x 28 mm [2.09 x 1.10"], panel cut-out 50 x 25 mm [1.97 x 0.98"]
- Gasket
- Instruction manual, multilingual

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Accessories / Mounting examples

Sealing cover
G008300 grey
G008301 black

alternatively
only in conjuction with
adapter front bezel
60 x 50 mm N003001

Transparent cover
N003002

Counter

Gasket
N511029
(included in delivery)

Gasket (optional)
N511019

Gasket (optional)
N511005

Adapter front bezel
N003001 black

Panel cut-out

Mounting clip
(included in delivery)

		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	–

incl. in delivery

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Technical data

General technical data

Display		6 digits, red 7 segment LED display; 8 mm [0.32"] high
Data backup		EEPROM
Operating temperature	10 ... 26 V DC	-20 °C ... +65 °C [-4 °F ... +149 °F]
	> 26 ... 30 V DC	-20 °C ... +55 °C [-4 °F ... +131 °F] (non-condensing)
Storage temperature		-25 °C ... +70 °C [-13 °F ... +158 °F]

Electrical characteristics

Supply voltage	10 ... 30 V DC, with reverse polarity protection
Current consumption	max. 40 mA

Mechanical characteristics

Housing	front panel mount 48 x 24 mm [1.89 x 0.94"] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 50 g [1.76 oz]
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

|		
Polarity of inputs		programmable, NPN or PNP for all inputs
Input resistance		approx. 5 kΩ
Counting frequency		max. 25 kHz, can be damped to 30 Hz
Minimum pulse duration of the reset input		5 ms
Input switching level standard version (HTL)		
	LOW	$0 ... 0.2 \times U_B$ (V DC)
	HIGH	$0.6 \times U_B ... 30$ V DC
Input switching level at 4 ... 30 V DC		
	LOW	0 ... 2 V DC
	HIGH	4 ... 30 V DC

Approvals

UL compliant in accordance with	File no. E128604
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

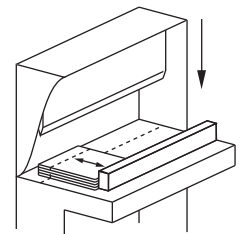## Application examples for the dual totalizer with separate inputs

- Logging of piece count and overall total
- Totalizing of flow volumes, quantities and other scalable
- Counting tasks, such as quantities and piece counting
- Accessories, OEM or retrofit equipment for production machinery
- Piece counting on die-cutters, presses, extruders, wood-processing machines, drilling machines, pick-and-place machines, guillotines, special vehicles
- Measurement of two different values in just one device: e.g. with 2 inputs both the piece count and the number of packages can be counted
- Recording of the total results from 2 work-shifts
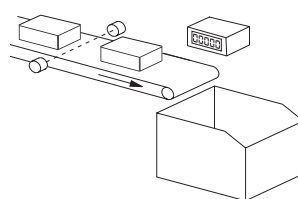
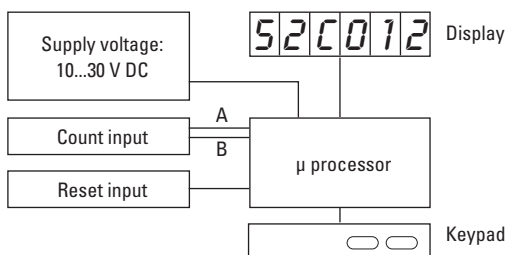Total piece count as well as packing units
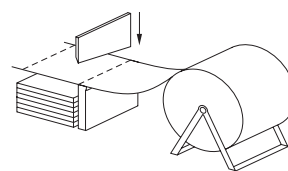
Individual and total quantities

Individual and total quantity from 2 work-shifts

Block diagram

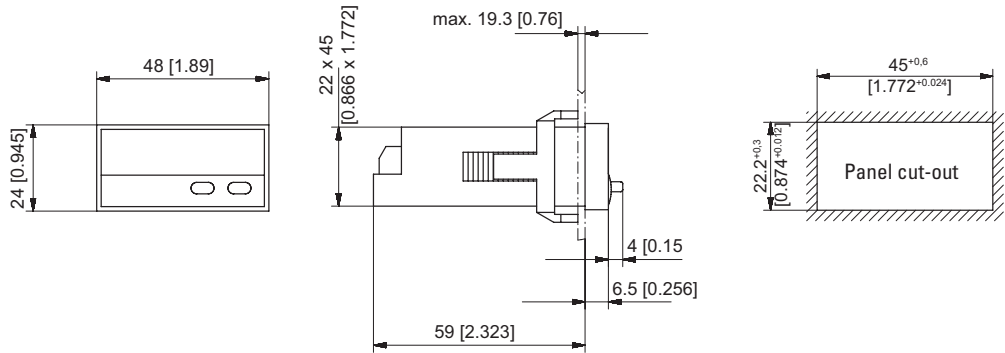Supply voltage: 10...30 V DC

52C012 Display

Count input

A
B

μ processor

Reset input

Keypad

Terminal assignment

1	2	3	4	5

PIN	
1	10 ... 30 V DC
2	0 V GND
3	INP A
4	INP B
5	Reset

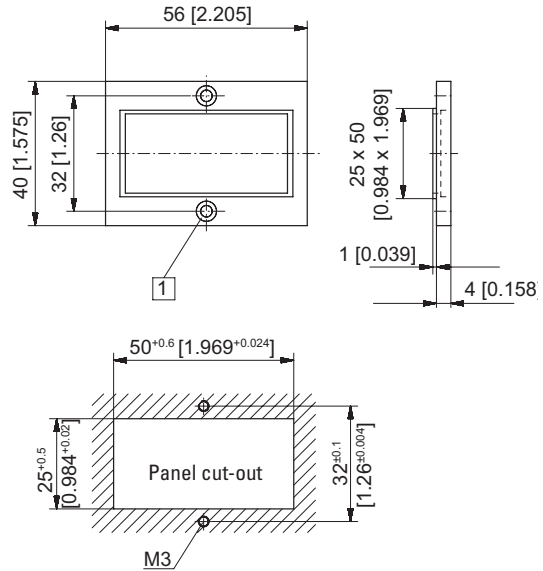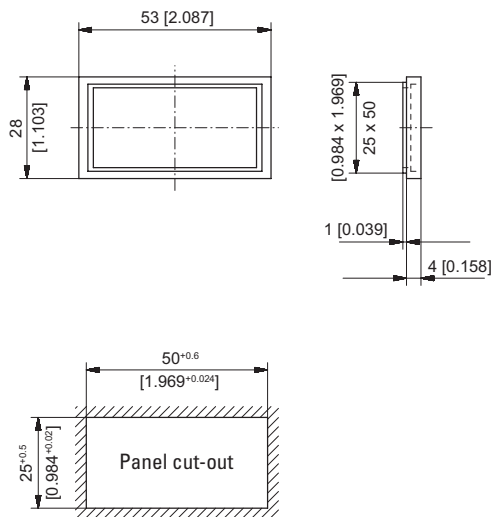| LED pulse counters	2 counters with separate inputs and separate scaling (DC)	Codix 52C

Dimensions

Dimensions in mm [inch]

Front bezel for clip mounting (included in delivery)

Front bezel for screw mounting (included in delivery)

1 Countersinking Af3, DIN 74