Pulse counters, electronic

LED pulse counters 2 counters with separate scaling (DC) Codix 52T


The Codix 52T is a voltage powered dual pulse counter with a common input and separate scaling, for fast and slow count pulses, with 6-digit LED display for NPN, PNP input signals and display switching between $A$ and $B$.


## Powerful

- Fast count input - input frequency max. 60 kHz .
- Robust housing - IP65 protected.
- Very bright LED display, 8 mm high.
- Single channel dual totalizer
- programmable for positive (PNP) or OV (NPN) switching input pulses.
- fast count inputs 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.
- Individually programmable scaling for both counters multiplication and division factor (0.0001...99.9999), to display corresponding units in, for example, litres, length or packaging size.
- Simple display switching between counters 1 and 2.
- DC power supply.
- As an alternative to the HTL units, models are also available with a fixed signal level threshold $>4 \mathrm{~V}$ DC for use with TTL signals.
- Reset manual or electrical, programmable separately for both counters (the reset can also be locked out).

| Order code | 6.52 T | 012 | $3 \begin{aligned} & 3 \times \\ & \\ & \text { a }\end{aligned}$ |
| :---: | :---: | :---: | :---: |
| a Input switching level 0 = Standard (HTL) <br> A = Fixed level LOW 0... 2 VDC HIGH 4 ... 30 V DC | Delivery specification <br> - Counter <br> - Mounting clip <br> - Front bezel for screw mounting (TOO8181) $56 \times 40 \mathrm{~mm}[2.20 \times 1.57$ "], panel cut-out $50 \times 25 \mathrm{~mm}[1.97 \times 0.98$ "] <br> - Front bezel for clip mounting (TOO8180) $53 \times 28 \mathrm{~mm}\left[2.09 \times 1.10^{\prime \prime}\right]$, panel cut-out $50 \times 25 \mathrm{~mm}\left[1.97 \times 0.98^{\prime \prime}\right]$ <br> - Gasket <br> - Instruction manual, multilingual |  |  |

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| :---: | :---: | :---: |
| Accessories | Dimensions in mm [inch] | Order no. |
| Adapter front bezel, $72 \times 36$ [2.83 x 1.42] | for cut-out $68 \times 33$ [ $2.68 \times 1.30$ ] to cut-out $45 \times 22.2$ [ $1.77 \times 0.87$ ], for counters $48 \times 24$ [ $1.89 \times 0.94$ ], as set black and silver anodised | 162704 Set |
| Adapter front bezel, $48 \times 48$ [ $1.89 \times 1.89]$ | for cut-out $45 \times 45$ [ $1.77 \times 1.77$ ] to cut-out $45 \times 22.2$ [1.77 $\times 0.87$ ], with clip mounting for counters $48 \times 24$ [1.89 $\times 0.94$ ] | T008883 |
| Adapter front bezel, $60 \times 50$ [2.36 x 1.97] | for cut-out $54 \times 29$ [ $2.13 \times 1.14]$ to cut-out $45 \times 22.2$ [ $1.77 \times 0.87]$, with screw mounting and gasket for counters $48 \times 24$ [1.89 $\times 0.94$ ] | N003001 |
| Transparent cover, lockable, IP65 | for cut-out $54 \times 29$ [ $2.13 \times 1.14]$, for screw mounting to front bezel F1B or adapter front bezel N003001, <br> for counters with cut-out $50 \times 25[1.97 \times 0.98]$ or $45 \times 22.2[1.77 \times 0.87]$ | N003002 |
| Sealing cover type K1, IP65 | suitable for front bezel $60 \times 50$ [ $2.36 \times 1.97$ ], for screw mounting of electromech. counters and via adapter front bezel N003001 for counters $48 \times 24[1.89 \times 0.94]$ | G008301 |
| Mounting frame <br> with cut-out $50 \times 25$ [ $2.36 \times 1.97$ ] <br> via separate adapter also for $45 \times 22.2$ [1.77 $\times 0.87$ ] | for snap-on mounting on 35 [1.38] top-hat DIN rail, <br> for counters $53 \times 28$ [ $2.09 \times 1.10$ ] <br> and via separate adapter (T008180) for counters $48 \times 24[1.89 \times 0.94] \quad$ 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 |  | Electrical characteristics |  |
| Display | 6 digits, red 7 segment <br> LED display; 8 mm [0.32"] high | Power supply | 10 ... 30 VDC , with integrated reverse polarity protection |
| Data backup | EEPROM | Current consumption | max. 40 mA |
| $\begin{array}{ll} \text { Operating temperature } \begin{aligned} & 10 \ldots 26 \mathrm{~V} \mathrm{DC} \\ & >26 \ldots 30 \mathrm{VDC} \end{aligned} \end{array}$ | $\begin{aligned} & -20^{\circ} \mathrm{C} \ldots+65^{\circ} \mathrm{C}\left[-4^{\circ} \mathrm{F} \ldots+149^{\circ} \mathrm{F}\right] \\ & -20^{\circ} \mathrm{C} \ldots+55^{\circ} \mathrm{C}\left[-4^{\circ} \mathrm{F} \ldots+131^{\circ} \mathrm{F}\right] \\ & \text { (non-condensing) } \end{aligned}$ | EMC standards | EN 55011 class B, EN 61000-6-2, EN 61000-6-3, EN 61326-1 |
| Storage temperature | $-25^{\circ} \mathrm{C} \ldots+70^{\circ} \mathrm{C}\left[-13^{\circ} \mathrm{F} \ldots+158^{\circ} \mathrm{F}\right]$ | UL approval | file E128604 |
| Inputs |  | Mechanical characteristics |  |
| Polarity of inputs | programmable, NPN or PNP for all inputs | Housing | front panel mount $48 \times 24 \mathrm{~mm}$ [1.89 x 0.94"] acc. to DIN 43700; |
| Input resistance | approx. $5 \mathrm{k} \Omega$ |  | RAL 7021, dark grey |
| Counting frequency | max. 60 kHz , can be damped to 30 Hz | Protection | IP65 (front side) |
| Minimum pulse duration of the reset input | 5 ms | Weight | approx. 50 g [1.76 oz] |
|  |  | Vibration resistance acc. to EN 60068-2-6 | $10 \ldots 55 \mathrm{~Hz} / 1 \mathrm{~mm}[0.04 \times] / 30 \mathrm{~min}$ |
| Input switching level (HTL) |  | Shock resistance acc. to EN 60068-2-27 | $100 \mathrm{G}: 2 \mathrm{~ms}$ |
| LOW <br> HIGH | $\begin{aligned} & 0 \ldots 0.2 \times U_{B} \text { (V DC) } \\ & 0.6 \times U_{B} \ldots 30 \mathrm{~V} D C \end{aligned}$ |  | $10 \mathrm{G}: 6 \mathrm{~ms}$ |
| Input switching level at $4 . . .30 \mathrm{~V}$ DC |  |  |  |
| LOW <br> HIGH | $\begin{aligned} & 0 . . .2 \mathrm{~V} \text { DC } \\ & 4 \ldots . .30 \mathrm{VDC} \end{aligned}$ |  |  |

## Application examples for the dual totalizer

- Logging of piece count and overall total
- Totalizing of flow volumes, quantities and other scalable media
- 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

Total piece count as well as packing units

ndividual and total quantity from 2 work-shifts

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Codix 52T

## Block diagram



## Dimensions

Dimensions in mm [inch]


## Front bezel for clip mounting (included in delivery)



## Terminal assignment



Front bezel for screw mounting (included in delivery)



1 Countersinking Af3, DIN 74

