



With its automatic help texts, clearly and legibly displayed on 14 LED segments, the Codix 560 preset counter takes the user effortlessly through the programming. The large user-friendly front keys can be operated even when wearing gloves.

The 14 mm high LED display ensures easy reading even from a long distance and in poor lighting conditions.

New: now available also with RS232/485 interface and MODBUS and CR/LF protocol



| | | | | | | | | | | |
|---|---|---|---------------------------------------|--------------------------------|--------------------------------------|--|------------------------------|---|-------------------------|--------------------------------|
| DC 10 ... 30V Power supply | AC 100 ... 240V Power supply | Temperature range -20° + 65° | DIN front bezel DIN 96 x 48 | Menu-driven programming | High protection level IP65 | High count frequency max. 65 kHz | Multifunction t/Hz | Frequency display with HRA t/Hz | POSITION display | 14 segment LED A..Z* |
| Batch counter | Total counter | Optional interface RS 232 485 | | | | | | | | |

Multifunction

- Counter, tachometer, timer and position display in one device
- Can be used as preset counter, batch counter or total counter
- 2 relays (change-over)
- Many different count modes
- Scalable display
- Set value, step or tracking preset
- Multi-range power supply for AC or DC
- Readable or configurable via RS232/485 interface via MODBUS or CR/LF protocol
- Allows direct connection of a large display or printer

User-friendly

- Automatic help texts, displayed in German and English
- 14-segment LED for improved text representation
- Status display of the presets
- 3 predefined parameters
- Tracking presets eliminate the need for reprogramming of the pre-signal
- Minimum installation depth
- 4-stage RESET modes
- 3-stage keypad locking
- Suitable for installation in mosaic systems

Order Code

6.560 . 010 . XXX
a b c

a Power supply

0 = 100 ... 240 V AC, ±10%¹⁾
3 = 10 ... 30 V DC¹⁾

b Input trigger levels

0 = Standard level (HTL)¹⁾
A = 4...30 V DC level

c Interface (optional)

0 = None
5 = RS232 (MODBUS or CR/LF)
7 = RS485 (MODBUS or CR/LF)

Delivery specification

- Preset counter
- Mounting clip
- Instruction manual

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 [3.78 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.

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 Http://www.100y.com.tw

¹⁾ Stock types

Preset counters, electronic

LED preset counters **Multifunction – pulse, frequency, time – 60 kHz, 2 presets (AC+DC)** **Codix 560**

Technical data

| General technical data | |
|------------------------|---|
| Display | 6-digit red 14 segment LED display, 14 mm [0.55] high |
| Operating temperature | -20°C ... +65°C [-4°F ... +149°F] (non-condensing) |
| Storage temperature | -25°C ... +75°C [-13°F ... +167°F] |
| Relative humidity | at +40°C [+104°F] RH 93% (non-condensing) |
| Altitude | up to 2000 m [6562'] |

| Electrical characteristics | |
|--------------------------------------|--|
| Power supply | AC 100 ... 240 V AC, ± 10% max. 11 VA, 50/60 Hz DC 10 ... 30 V, max. 5.5 W |
| External fuse protection | 230 V AC T 0.1 A 10 ... 30 V DC T 0.25 A |
| Data retention | > 10 years, EEPROM |
| Response time of the frequency meter | 100 / 600 ms (details s. instruction manual) |
| Input modes | Pulse counters: Count direction (cnt.dir), Difference (up.dn), Addition A+B (up.up), phase discriminator x1, x2, x4 (quad, quad x2, quad x4), Ratio (A/B), Ratio in % ((A-B)/A x 100%) Frequency meter: A, A-B, A+B quad, A/B, (A-B)/A x 100% Timer: 4 start modes: FrErun, Auto, InpA.InpB., InpB.InpB. |
| Sensor power supply | AC supply 24 V DC ± 15%, 80 mA DC supply max. 80 mA, external power supply is connected through |
| EMC | Emitted interference EN 55011 class B Immunity to interference EN 61000-6-2 |
| Device safety | Designed to EN 61010 part 1 Protection class 2 Application area Pollution level 2 |
| UL approval | File No.: E128604 |

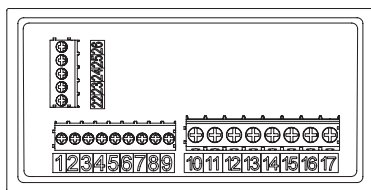
| Mechanical data | |
|-----------------|-------------------------|
| Protection | IP65 (from the front) |
| Weight | approx. 180 g [6.35 oz] |

| Inputs | |
|----------------------------------|---|
| Count inputs | A and B |
| Polarity of the inputs | programmable for all inputs in common, NPN/PNP |
| Input resistance | 5 kΩ |
| Count frequency | Pulse counters max. 55 kHz Tachometers max. 65 kHz can be damped to 30 Hz (mechanical contacts) (details s. instruction manual) |
| Control / Reset input | MPI 1 and MPI 2, Lock, Gate, Reset |
| Min pulse duration of the inputs | 10 ms / 1 ms |
| Switching levels with AC supply | HTL-level: LOW: 0 ... 4 V DC HIGH: 12 ... 30 V DC 4 ... 30 V DC: LOW: 0 ... 2 V DC HIGH: 3.5 ... 30 V DC |
| Switching levels with DC supply | HTL-level: LOW: 0 ... 0.2 x UB HIGH: 0.6 x UB ... 30 V DC 4 ... 30 V DC: LOW: 0 ... 2 V DC HIGH: 3.5 ... 30 V DC |
| Pulse shape | variable, Schmitt-Trigger characteristics |

| Outputs | |
|---|---|
| Switching voltage | max. 250 V AC / 150 V DC |
| Switching current | max. 3 A AC / DC min. 30 mA DC |
| Switching capacity | max. 750 VA / 90 W |
| Output 1 + 2 | Mech. service life (switching cycles) 2 x 10 ⁷ N° of switching cycles at 3 A / 250 V AC 5 x 10 ⁴ N° of switching cycles at 3 A / 30 V DC 5 x 10 ⁴ Relay with changeover contact |
| Reaction time of the outputs (pulse / time) | 13 ms (details s. instruction manual) |

| Optional interface MODBUS and CR/LF | |
|-------------------------------------|---|
| Count frequency | max. 45 kHz (details s. instruction manual) |
| Interface | RS232, RS485 |
| Baud rate | 9600 |
| Device address | 1 ... 99, programmable |

Terminal assignment



| Pin | RS232 (optional) | Pin | RS485 (optional) |
|-----|------------------|-----|------------------|
| 22 | GND | 22 | – |
| 23 | RXD | 23 | DO |
| 24 | TXD | 24 | DI |
| 25 | – | 25 | – |
| 26 | – | 26 | – |

| Pin | Signal and control inputs |
|-----|--|
| 1 | INP A (Signal input A) |
| 2 | INP B (Signal input B) |
| 3 | RESET (Reset input) |
| 4 | LOCK (Keypad lock) |
| 5 | GATE (Gate input) |
| 6 | MPI 1 (User input 1) |
| 7 | MPI 2 (User input 2) |
| 8 | Sensor power supply AC: 24 V DC/80 mA DC: U _B connected through |
| 9 | Shared connection for signal and control inputs GND (0 VDC) |

| Pin | Version with relay/optocoupler | |
|-----|---|--------------|
| 10 | Relay contact C.2 | Output 2 |
| 11 | Relay contact N.O.2 | |
| 12 | Relay contact N.C.2 | Output 1 |
| 13 | Relay contact C.1 | |
| 14 | Relay contact N.O.1 | Power supply |
| 15 | Relay contact N.C.1 | |
| 16 | AC: 100 ... 240 V AC, ± 10%, N~ DC: 10 ... 30 V DC | |
| 17 | AC: 100 ... 240 V AC, ± 10%, L~ DC: GND (0 V DC) | |

Preset counters, electronic

LED preset counters

Multifunction – pulse, frequency, time – 60 kHz, 2 presets (AC+DC)

Codix 560

Pulse counter

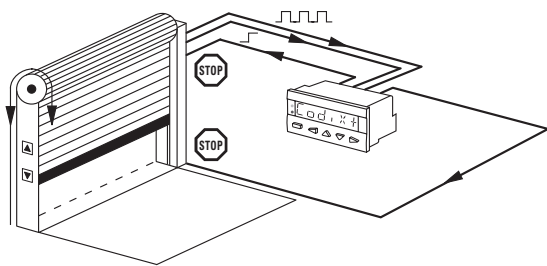
Functions / count modes

- Count with direction mode
- Difference mode
- Quadrature mode quad / quad2 / quad4
- Add, Sub, automatic reset
- 2-input adding mode A+B
- Ratio measurement A/B
- Multi-range power supply for AC or DC
- Percentage difference measurement $(A-B)/A \times 100\%$
- Batch counting
- Totaliser (Overall total)
- Multiplication and division factor (up to 99.9999)
- Set value
- Step or tracking preset

Application examples

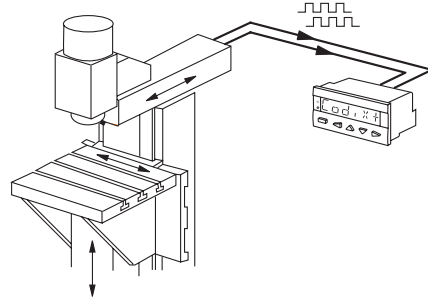
CountDir + Add

Roller shutter door with automatic shut-off



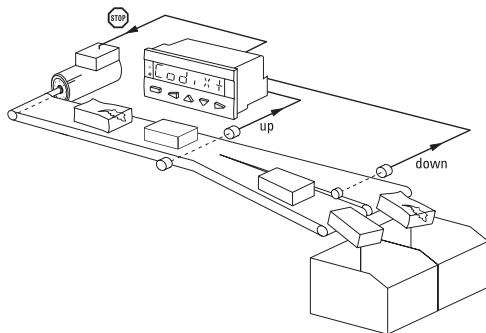
Quad + Add

Running direction and position on milling machines, Limit switch monitoring



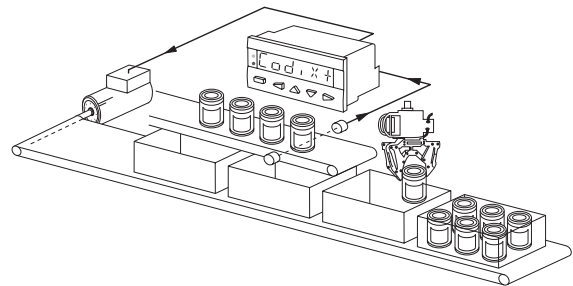
UpDown + Add

Automatic subtraction of faulty or reject parts from the total piece count



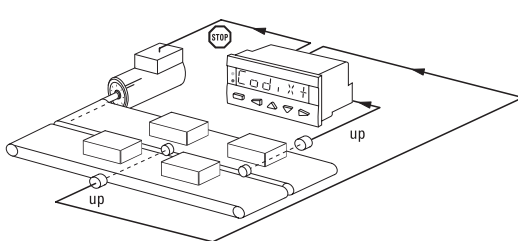
CountDir + Batch

Logging of piece numbers and packing units plus control of replenishment of packing cartons



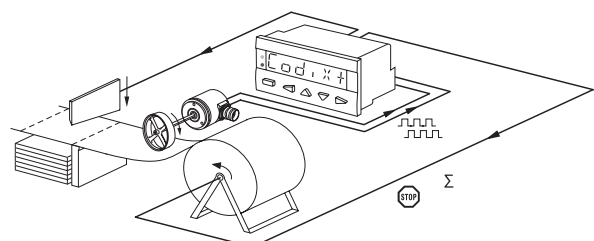
UpUp + Add

Adding up of two parallel or staggered production lines



Quad + Add tot

Cut-to-length with overall total count and control of the machine



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Frequency meter (tachometer)

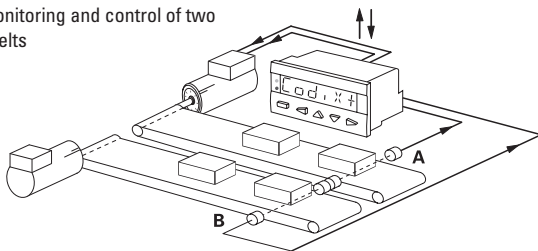
Functions / count modes

- A
- A – B
- A + B
- A / B
- (A – B) / A x 100% (percentage display)
- Quad (phase discriminator with recognition of direction)
- Averaging
- Start delay
- 2nd tacho input
- Gate input
- Multiplication and division factor (up to 99.9999)

Application examples

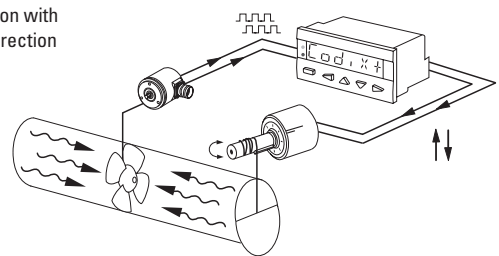
A – B

Synchro monitoring and control of two conveyor belts



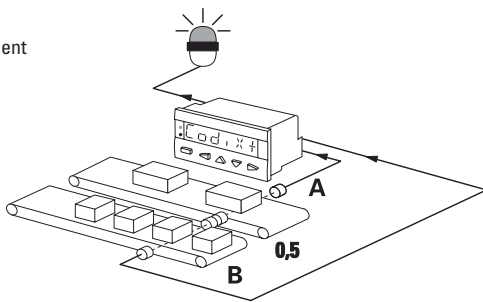
Quad

Speed regulation with indication of direction



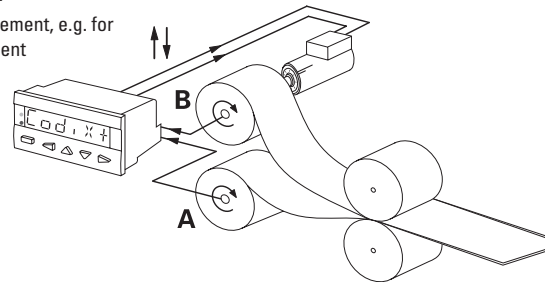
A/B

Ratio measurement



(A-B)/A [%]

Ratio measurement, e.g. for speed alignment



Time and hours-run meter (timer)

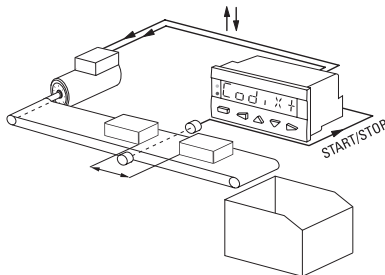
Functions / count modes

- FrErUn (control via gate input)
- Auto (start via reset, stop at preset)
- InpB.InpB (start with first edge at InpB., stop with second edge InpB.)
- InpA. InpB (start with InpA., stop with InpB.)
- Totaliser (overall total)
- Batch counting
- Set value
- Step or tracking preset

Application examples

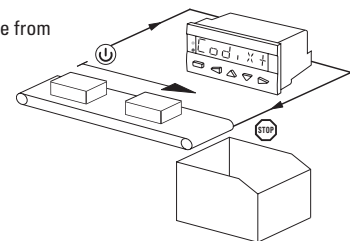
InpB. InpB

Interval measurement



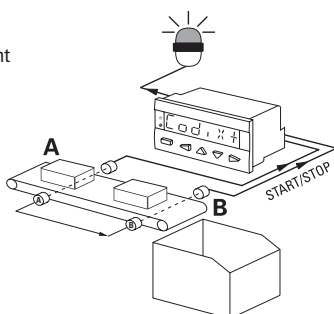
FrErUn

Measurement of overall time from switching on the conveyor belt till switching off



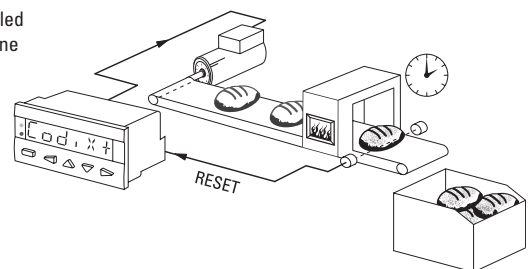
InpA. InpB

Run-time measurement



Auto

Time-controlled production line



Preset counters, electronic

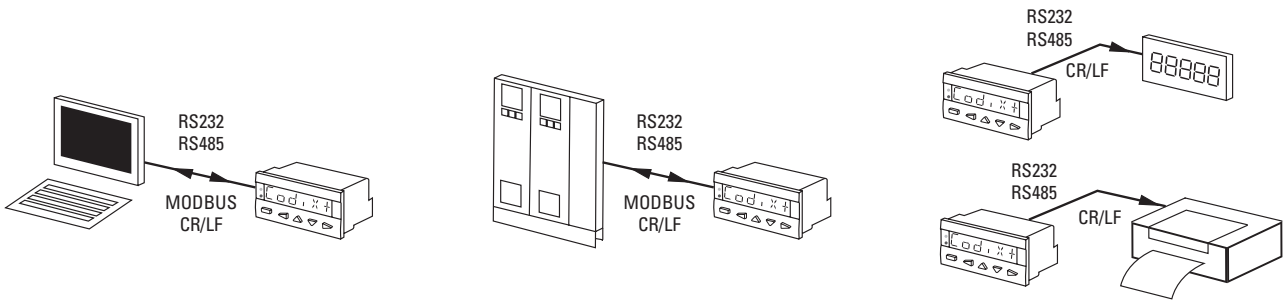
LED preset counters

Multifunction – pulse, frequency, time – 60 kHz, 2 presets (AC+DC)

Codix 560

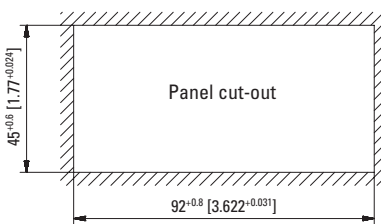
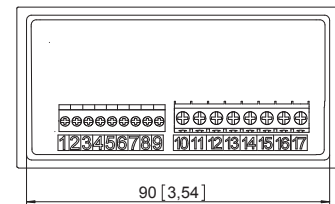
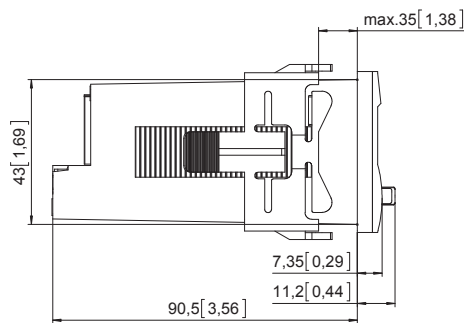
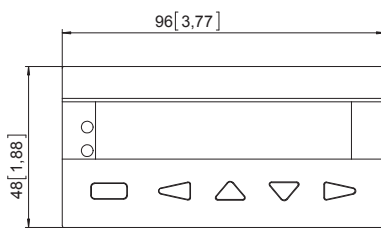
RS232 / RS485 interface (optional)

For connecting the counter to a PC, a PLC, a large display or a printer – for reading-out data or configuring the device.



Dimensions

Dimensions in mm [inch]



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