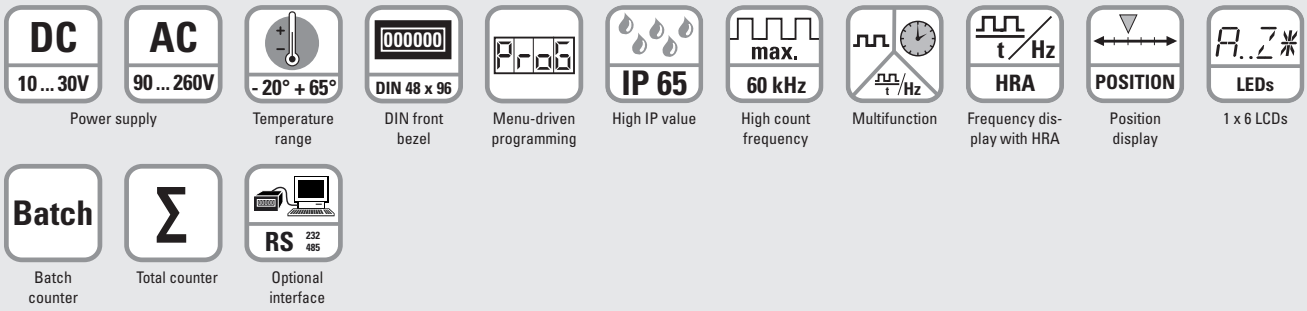
LED Preset Counters | 2 Presets | Codix 560

pending

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.

New: now available also with RS 232/485 interface and MODUBS and CR/LF protocol



Power supply | Temperature range | DIN front bezel | Menu-driven programming | High IP value | High count frequency | Multifunction | Frequency display with HRA | Position display | 1 x 6 LCDs

Batch counter | Total counter | Optional interface

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
- Multi-range power supply for AC or DC
- Readable or configurable via RS 232/485 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)

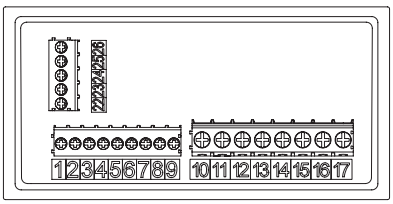
(a) *Supply voltage*
0 = 90 ... 260 V AC [1)]
3 = 10 ... 30 V DC [1)]

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

(c) *Interface (optional)*
0 = None
5 = RS 232 (MODBUS or CR/LF)
7 = RS 485 (MODBUS or CR/LF)

Delivery specification
- Preset counter
- Mounting clip
- Instruction manual

Connections



RS 232 (optional)

22	GND	25	–
23	RXD	26	–
24	TXD		

RS 485 (optional)

22	–	25	–
23	DO	26	–
24	DI		

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 supply voltage AC: 24 V DC/80 mA DC: U_B connected through
9	Shared connection for signal and control inputs GND (0 VDC)

Version with relay/optocoupler

10	Relay contact C.2	Output 1
11	Relay contact N.O.2	
12	Relay contact N.C.2	
13	Relay contact C.1	Output 2
14	Relay contact N.O.1	
15	Relay contact N.C.1	
16	AC: 90..260 V AC N~ DC: 10..30 V DC	Supply voltage
17	AC: 90..260 V AC L~ DC: GND (0 V DC)	

[1)] *Stock types*

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Generalechnical data

Display		6-digit, 14 segment LED Display, 14 mm [0.551"] high
Operating temperature		-20°C ... +65°C
Storage temperature		-25°C ... +75°C
Relative humidity	at +40°C	r.F. 93%, non-condensing
Altitude		up to 2000 m

Electrical characteristics

Sensor supply voltage	AC	90 ... 260 V AC 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, for details, see instruction manual
Input modes	Input modes:	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 x100%)
	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 supply voltage	AC supply	24 V DC± 15%, 80 mA
	DC supply	max. 50 mA, external supply voltage is connected through
EMV	Emitted interference	EN55011 Class B
	Immunity to interference	EN 61000-6-2
Device safety	designed to	EN61010 part 1
	Protection Class	2
	Application area	Pollution level 2

Mechanical Data

Protection		IP65 (from the front)
Weight	AC version	approx. 180 g

Inputs

Count inputs			A and B
Polarity of the inputs			programmable for all inputs in common, NPN/PNP
Input resistance			5 kΩ
Count frequency			max. 5 kHz (details see manual) can be damped to 30 Hz (mechanical contacts)
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

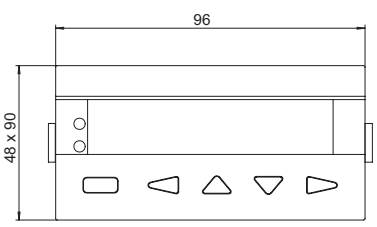
Otputs

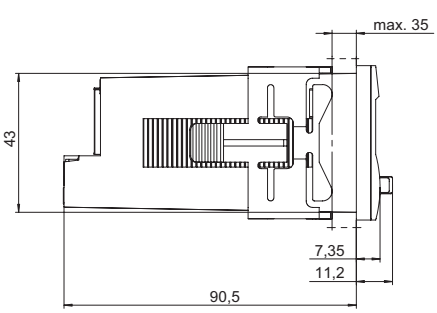
Switching voltage	max. 250 V AC / 150 V DC
Switching current	max. 3 A AC / DC min. 30 mA DC
Switching capacity	max. 750 VA / 90 W
Output 1 + 2	
Mech. service life (switching cycles)	2×10^7
N° of switching cycles at 3 A / 250 V AC	5×10^4
N° of switching cycles at 3 A / 30 V DC	5×10^4
Relay with changeover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

Optional Interface MODBUS and CR/LF

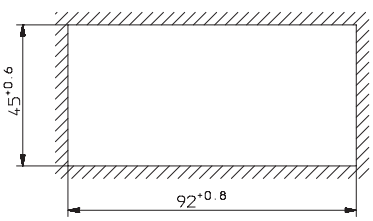
Count frequency	max. 45 kHz Details s. instruction manual
Interface	RS 232, RS 485
Baud rate	9600
Device address	1 ... 99, programmable

Dimensions





Panel cut out



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Pulse counter

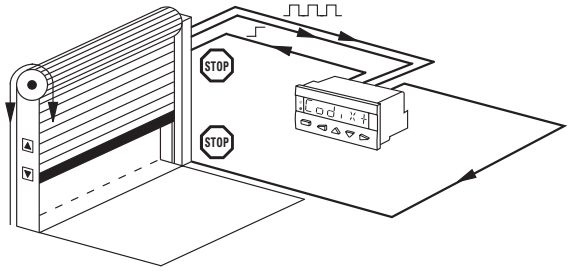
Functions / Count modes

- 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 x 100%
- Batch counting
- Totaliser (Overall total)
- Multiplication and division factor (up to 99,9999)
- Set value
- Step or tracking preset

Application examples

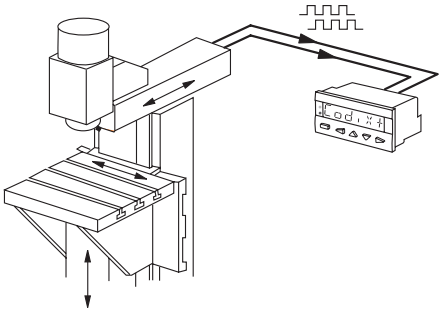
CountDir + Add

Roller shutter door with automatic shut-off



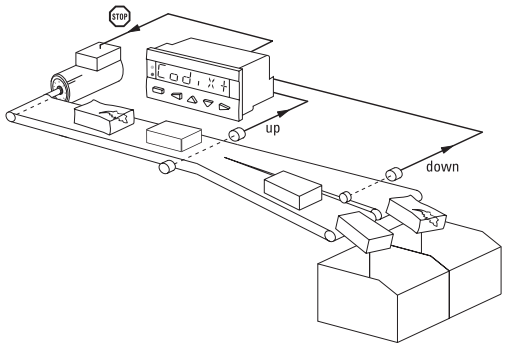
Quad + Add

Running direction and position on milling machines, Limit switch monitoring



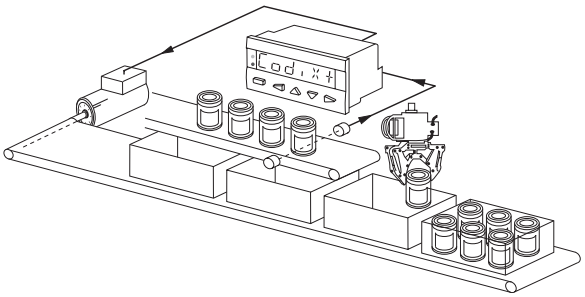
UpDown + Add

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



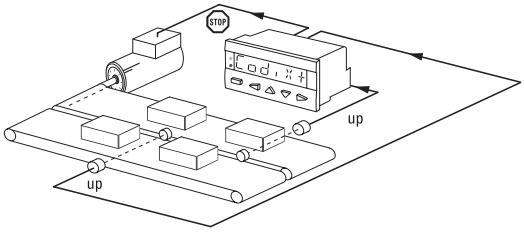
CountDir + Batch

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



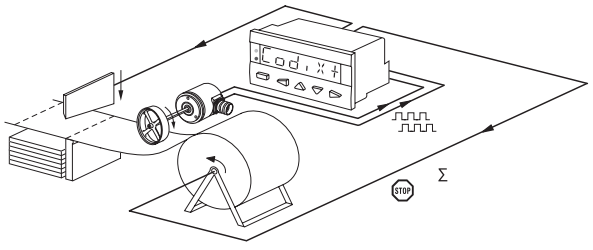
UpUp + Add

Adding up of two parallel or staggered production lines



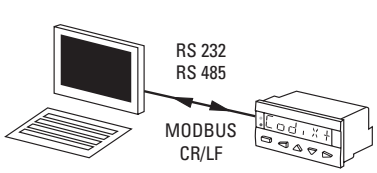
Quad + Add tot

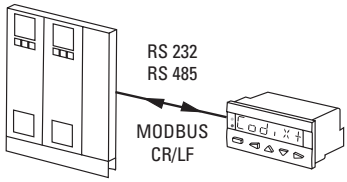
Cut-to-length with overall total count and control of the machine

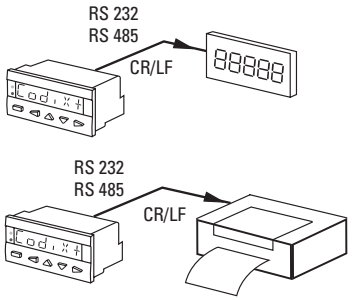


RS 232 / RS 485 interface (optional)

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







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Frequency meter (Tachometer)

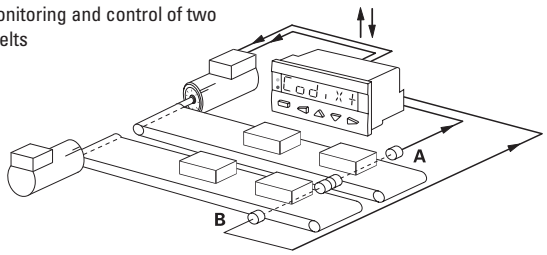
Functions / Count modes

- 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

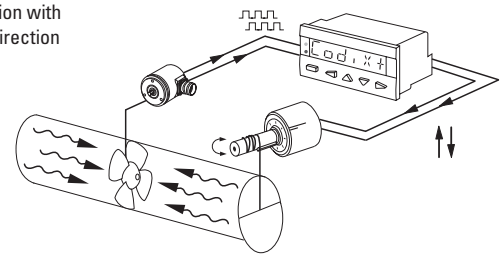
A – B

Synchro monitoring and control of two conveyor belts



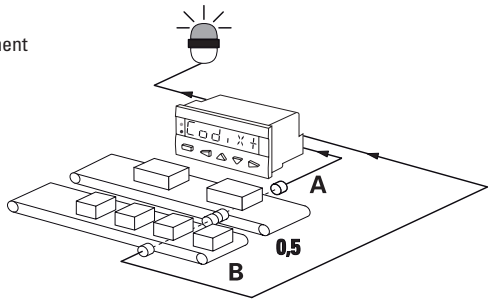
Quad

Speed regulation with indication of direction



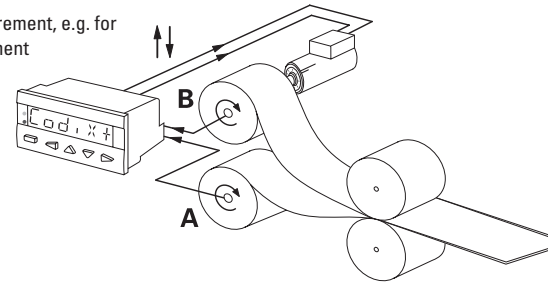
A/B

Ratio measurement



(A-B)/A [%]

Ratio measurement, e.g. for speed alignment



Time and Hours-run meter (Timer)

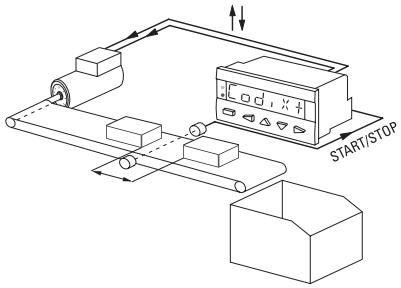
Functions / Count modes

- 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

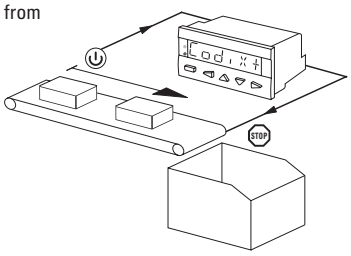
InpB. InpB

Interval measurement



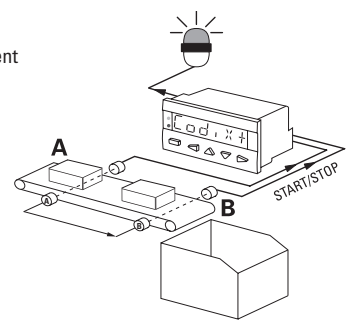
FrErun

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



InpA. InpB

Run-time measurement



Auto

Time-controlled production line