Display counter electronic

Kübler

Position and Frequency display *CODIX* 54P

separate inputs for frequency and position

AC/DC									
10 ... 260V	**DIN 48 x 96**	**-20° +65°**	**IP 65**		**ProG**	**max. 60 kHz**	**POSITION**	**1/sec 1/min**	**t/Hz HRA**
Power supply AC/DC	Front bezel dimensions	Wide temperature range	High IP protection rating	Plug-in screw terminal	Menu-driven programming	Pulse counter/ Totaliser	Position display	Frequency meter/ Tachometer	Frequency meter HRA
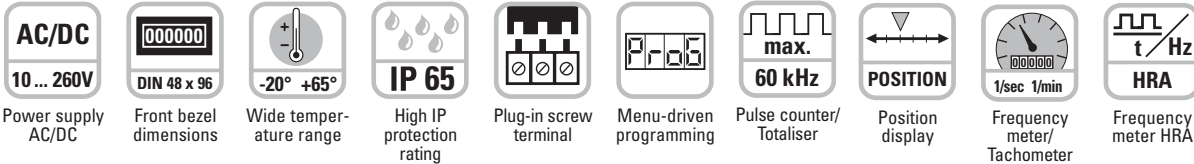
Powerful

- **Fast count input**
  Input frequency max. 60 kHz

- **Robust housing**
  IP 65 protection

- **LED display**
  Very bright, 14 mm high

- **HRA – High Rate Accuracy System**
  Frequencies up to 38 Hz are calculated using time-interval (period duration) measurement.
  Frequencies > 38 Hz are calculated using a special time base (gate time) measurement. A very high accuracy of > 0.1% is achieved, even with very short gate times. The resulting measurement is available after a max. of 50 ms.

- **Fast start-up time**
  Detects incoming pulses just 16 ms after being switched on – so no pulses are lost with a simultaneous motor start-up

RoHS ✓   c**®**us

User-friendly

- **Big keys**
  Can also be operated when using gloves

- **Easy to programme**
  Easy menu-driven programming and operation
  Possibility to enter the programming mode during operation, with authentication query

 Pressing the right key switches between displays

Universal

- **Individually programmable scaling**
  Multiplication and division factor (0.0001 to 99.9999), to display corresponding engineering units, e.g. position in 1/10 mm and speed in RPM.

- **Separate factors and inputs for frequency- and pulse counting**

- **4 different count input modes for the position display**
  2-channel input for detecting count direction, difference or adding mode, quadrature x1, x2 or x4. 1 separate input for rotary speed and speed, display in 1/min or 1/sec

- **AC or DC power supply**
  With sensor power supply

- **Inputs**
  As an alternative to the HTL inputs, devices with a 5 VDC input trigger level are available, for use as parallel displays for PLCs

Applications for Frequency and Position Display/ Totaliser

Position and rotary speed applications, e.g.

- OEM equipment or retrofitting to drilling machines
- OEM equipment on flow measuring plant, e.g. total flow and current flow

- Total piece count and pieces per minute, where the pulse counting occurs in the add/subtract mode, in order to deduct reject parts

- Production data acquisition: total piece count and production speed, or absolute distance traversed and current speed
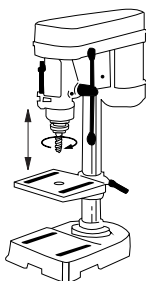
Rotary speed and drilling depth
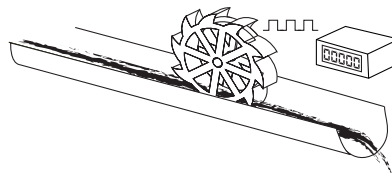
Flow rate and total volume
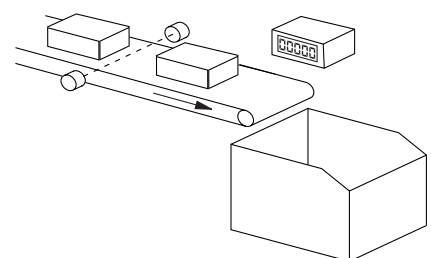
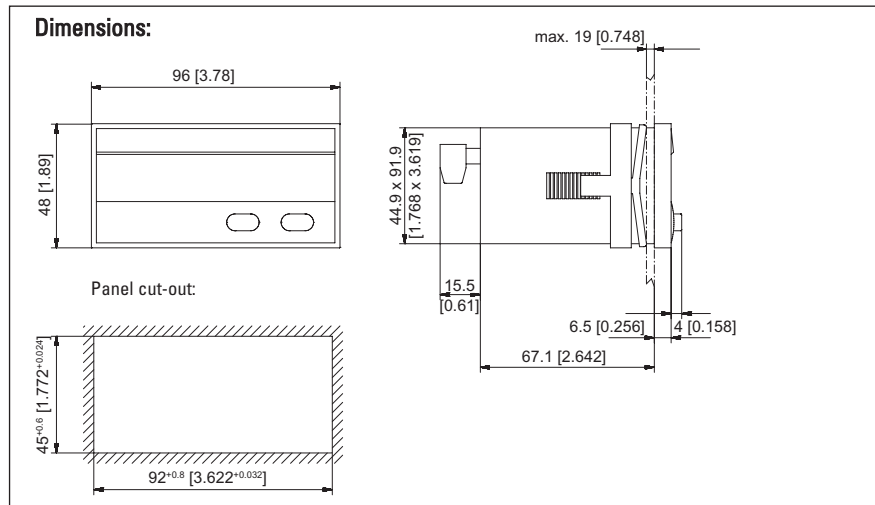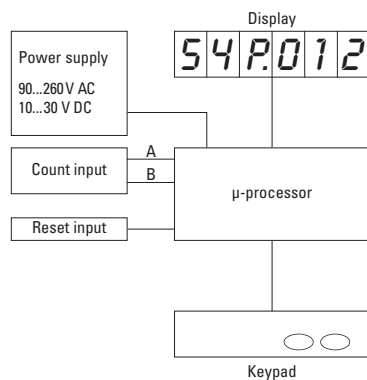
Piece count on conveyor and production speed

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Technical data:

Supply voltage:	10 ... 30 V DC, with reverse polarity protection 90 ... 260 V AC		AC-version: Low 0 ... 4 V DC High 12 ... 30 V DC
Current consumption:	max. 50 mA, 6 VA	Input switching level (5 V version):	Low 0 ... 2 V DC High 4 ... 30 V DC
Display:	6-digit 7-segment red LED display; 14 mm [0.551"] high	Accuracy:	<0.1 % (Frequency display/Rate meter)
Data backup:	EEPROM	Voltage supply for sensors:	24 V DC ±15 %/100 mA at AC version
Housing:	Dimension 96 x 48 mm [3.78 x 1.89"] according to DIN 43 700; RAL 7021, grey	Ambient temperature:	–20 ... +65 °C [–4 ... 149 °F] non-condensing
Polarity of Inputs:	programmable, npn or pnp for all inputs	Storage temperature:	–25 ... +70 °C [–13 ... 158 °F]
Input resistance:	approx. 5 kΩ	EMC:	according to EC EMC directive 89/36/EWG
Counting frequency*:	30 kHz, can be damped to 30 Hz depending on operating mode	Emitted interference:	EN 61 000-6-4/EN 55 011 class B
Reset time:	5 ms	Immunity to interference:	EN 61 000-6-2
Input switching level (standard version)	DC-version: Low: 0 ... 0.2 [0 ... 0.008"] x U_B [V DC] High: 0.6 [0.024"] x U_B ... 30 V DC	Protection:	IP65 from front
		Weight:	approx. 150 g [5.291 oz]

*for further specifications please refer to the manual

Block diagram:

Power supply
90...260 V AC
10...30 V DC

Display

Count input — A / B

µ-processor

Reset input

Keypad

Dimensions:

96 [3.78]
48 [1.89]

max. 19 [0.748]
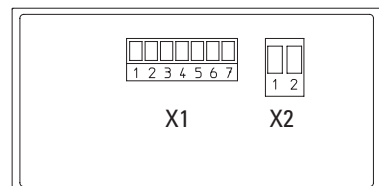44.9 x 91.9 [1.768 x 3.619]
15.5 [0.61]
6.5 [0.256]   4 [0.158]
67.1 [2.642]

Panel cut-out:

45⁺⁰·⁶ [1.772⁺⁰·⁰²⁴]
92⁺⁰·⁸ [3.622⁺⁰·⁰³²]

Connections:

1 2 3 4 5 6 7   1 2
X1   X2
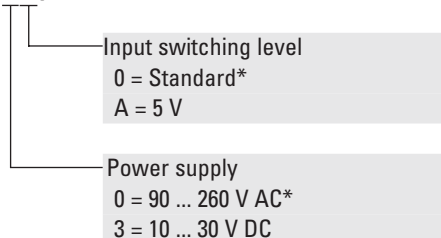
Connection: X2

Pin	AC-version	DC-version
1	90 ... 260 V AC	0 V DC (GND)
2	90 ... 260 V AC	10 ... 30 V DC

Connection: X1

Pin	AC-Version	DC-Version
1	n.c.	
2	n.c.	
3	INP C (Frequency)	
4	INP B (Count)	
5	INP A (Count)	
6	GNDout	n.c.
7	+24 Vout	n.c.

Delivery specification:
Digital display
Mounting clip
Seal
Multilingual operating instructions

Order code:

6.54P.012.XX0

Input switching level
0 = Standard*
A = 5 V

Power supply
0 = 90 ... 260 V AC*
3 = 10 ... 30 V DC

* standard stock model

Display counters