

LED Pulse Counters – Codix 521

4 count modes:

- Count with direction
- Count difference
- Count sum of 2 inputs
- Phase discriminator (quadrature) x1, x2 and x4



Power supply
DC



Front bezel
dimensions



Wide temper-
ature range



High IP
protection
rating



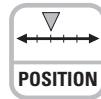
Menu-driven
programming



Operation
with gloves



Input type



Position
display

Powerful

- **Fast count input**
Input frequency max. 60 kHz
- **Robust housing**
IP 65 protection
- **LED display**
Very bright, 8 mm high
- **Position, difference, adding or detection of count direction**
Programmable for positive (PNP) or negative (NPN) switching input pulses
Fast count input with an input frequency of max. 60 kHz, can be damped to 30 Hz for mechanical contacts
- **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



User-friendly

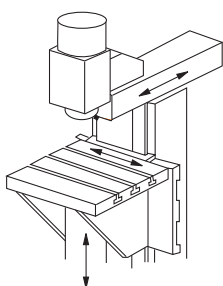
- **Big keys**
Can also be operated when using gloves
- **Easy to programme**
Easy menu-driven programming and operation
Possibility to enter the programming mode during operation, with authentication query

Universal

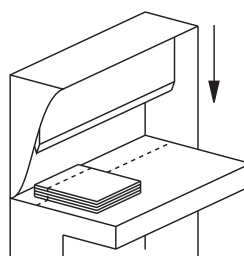
- **Individually programmable scaling**
Multiplication and division factor (0.0001 to 99.9999), to display corresponding engineering units, e.g. position in 1/10 mm and speed in RPM
- **4 different count input modes**
2-channel input for detecting count direction, difference or adding mode, quadrature x1, x2 or x4
- **Programmable setpoint**
- **DC power supply**
- **Inputs**
As an alternative to the HTL inputs, devices with a 4 ... 30 V DC input level are available, for use as parallel displays for PLCs.
- **Optional output**
As zero signal

Applications for Position Displays and Totalisers

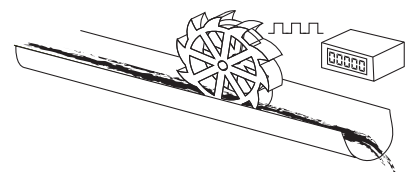
- Positioning tasks on processing machines, such as sawing machines, milling machines, bending and folding machines, etc.
- Production data acquisition by means of piece counting (using difference or adding)
- Totalizing flow, quantity and other scalable media
- Counting tasks such as quantity and piece counting
- Accessories, OEM equipment or retrofitting to production machines
- Piece counting on die cutters, presses, extruders, woodworking machines, drilling machines, pick-and-place machines, guillotines, special-purpose vehicles etc.



Position on milling machine



Position or quantity



Flow rate

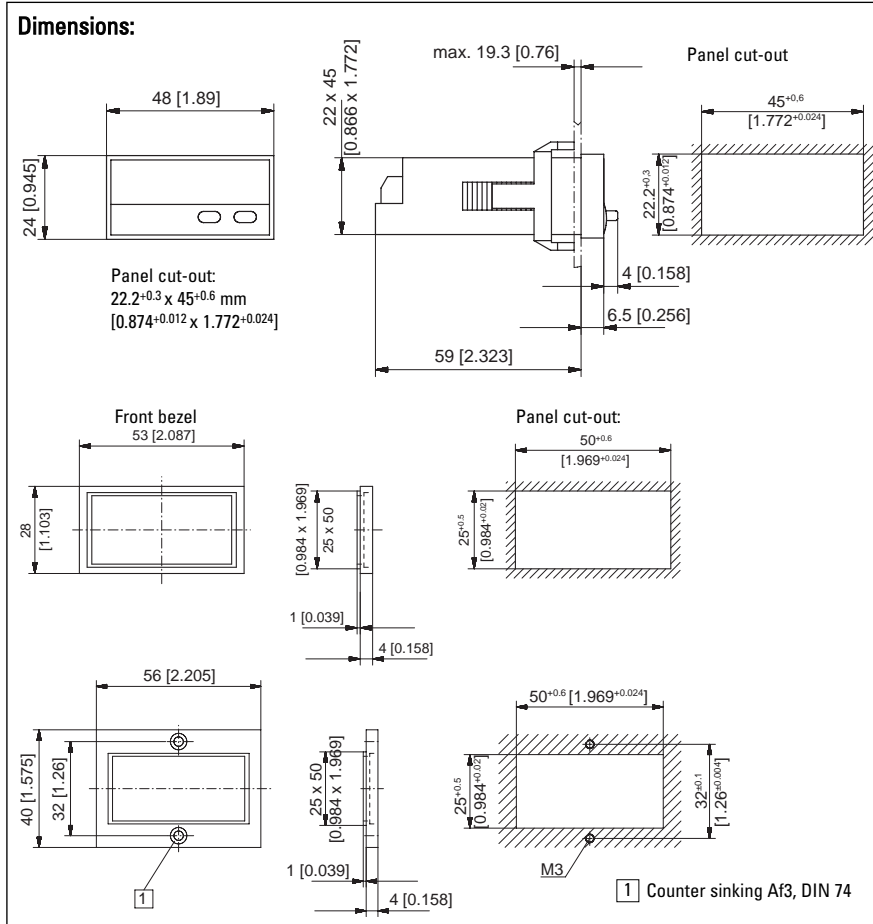
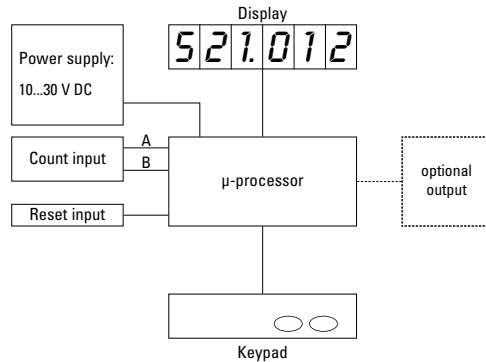
LED Pulse Counters – Codix 521

Technical data:

Supply voltage:	10 ... 30 V DC, with reverse polarity protection
Current consumption:	max. 55 mA
Display:	6 digit red 7-segment LED; 8 mm [0.315"] high
Data backup:	EEPROM
Housing:	dimension 48 x 24 mm [1.89 x 0.945"] according to DIN 43 700; RAL 7021, grey
Polarity of inputs:	programmable, npn or pnp for all inputs
Input resistance:	approx. 5 kΩ
Counting frequency:	60 kHz, can be damped to 30 Hz
Reset time:	5 ms

Level of inputs:	low:	0 ... 0.2 x U _B [V DC]
	high:	0.6 x U _B ... 30 V DC
Level of inputs:	low:	0 ... 2 V DC
4 ... 30 V DC version	high:	4 ... 30 V DC
Optocoupler output:	max. 30 V, 10 mA	
EMC:	Emitted interference EN55011 Class B Immunity to interference: EN61000-6-2	
Ambient temperature:	-20 ... +65 °C [4 ... 149 °F] at U _B = 10 ... 26 V DC -20 ... +55 °C [4 ... 131 °F] at U _B = >26 ... 30 V DC non-condensing	
Storage temperature:	-25 ... +70 °C [-13 ... 158 °F]	
Protection:	IP65 front side	
Weight:	approx. 50 g [1.764 oz]	

Block diagram:



Connections:

without optocoupler

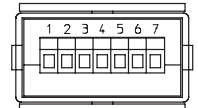
- 1 10 ... 30 V DC
- 2 0 V GND
- 3 INP A
- 4 INP B
- 5 Reset



Connections:

with optocoupler

- 1 10 ... 30 V DC
- 2 0 V GND
- 3 INP A
- 4 INP B
- 5 RESET
- 6 Emitter
- 7 Collector



Delivery specifications:

- 1 Digital display
- 1 Panel mounting clip
- 1 Bezel for screw mounting, panel cut out 50 x 25 mm [1.969 x 0.984"]
- 1 Bezel for clip mounting, panel cut out 50 x 25 mm [1.969 x 0.984"]
- 1 Seal
- 1 Multilingual operating instruction

Order code:

6.521.01X.3X0

- Input switch level
- 0 = Standard*
- A = 4 ... 30 V DC level
- Output
- 1 = Optocoupler
- 2 = No output*

* standard stock model