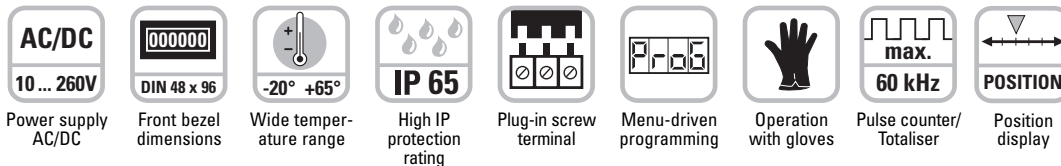


LED Pulse Counters – Codix 541

Position indicator or totaliser

4 count modes:

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



Powerful

- **Fast count input**
Input frequency max. 60 kHz
- **Robust housing**
IP 65 protection
- **LED display**
Very bright, 14 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

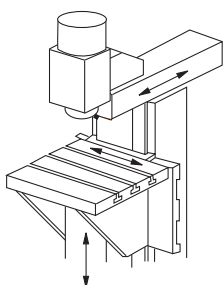
- **Big keys**
Can also be operated when using gloves
- **Easy to programme**
Easy menu-driven programming and operation
Possibility to enter the programming mode during operation, with authentication query

Universal

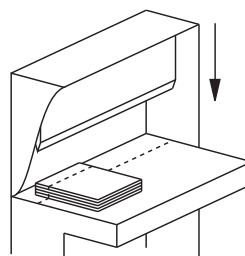
- **Individually programmable scaling**
Multiplication and division factor (0.0001 to 99.9999), to display corresponding engineering units, e.g. position in 1/10 mm and speed in RPM.
- **4 different count input modes**
2-channel input for detecting count direction, difference or adding mode, quadrature x1, x2 or x4
- **Programmable setpoint**
- **AC or DC power supply**
With sensor 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

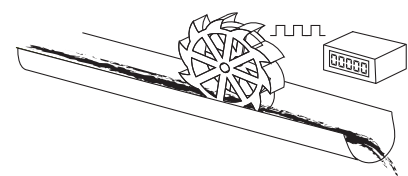
- Positioning tasks on processing machines, such as sawing machines, milling machines, bending and folding machines, etc.
- Production data acquisition by means of piece counting (using difference or adding)
- Totalizing flow, quantity and other scalable media
- Counting tasks such as quantity and piece 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

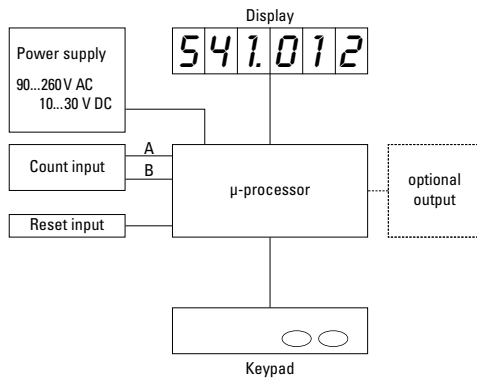
LED Pulse Counters – Codix 541

Technical data:

Supply voltage:	10 ... 30 V DC, with reverse polarity protection 90 ... 260 V AC
Current consumption:	max. 50 mA, 6 VA
Display:	6-digit 7-segment red LED display; 14 mm [0.551"] high
Data backup:	EEPROM
Housing:	dimension 96 x 48 mm [3.78 x 1.89"] 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*:	max. 60 kHz, can be damped to 30 Hz, depending on operating mode at position display max. 25 kHz
Reset time:	5 ms
Ambient temperature:	-20 ... +65 °C [-4 ... 149 °F] non-condensing
Storage temperature:	-25 ... +70 °C [-13 ... 158 °F]
Altitude:	up to 200 m

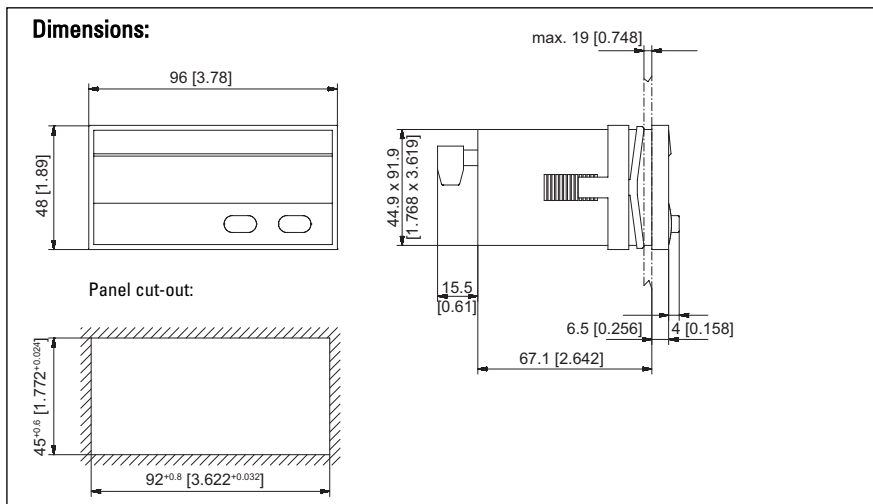
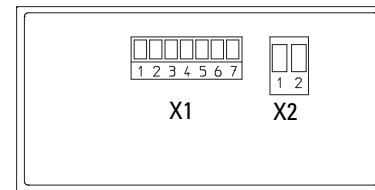
Input switching level (standard version):	DC-version	low: 0 ... 0.2 x U _B [V DC] high: 0.6 x U _B ... 30 V DC
	AC-version	low 0 ... 4 V DC high 12 ... 30 V DC
Input switching level 4 ... 30 V DC version:	low 0 ... 2 V DC	high 4 ... 30 V DC
	Voltage supply for sensors: 24 V DC ±15 %/100 mA for AC version	
Max power consumption	max. 30 V, 10 mA	
Optocouplers:	EMC: Emitted interference EN55011 Class B Immunity to interference: EN61000-6-2	
Device safety:	design to:	EN61010 Part 1
	protection	Class: 2
	application area:	Soiling Level 2
Protection:	IP 65 front side	
Weight:	approx. 150 g [5.291 oz]	

Block diagram:



*for further specifications please refer to the manual

Connections:



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	Optocoupler-output Emitter	
2	Optocoupler-output Collector	
3	Set	
4	INP B	
5	INP A	
6	GNDout	n.c.
7	+24 Vout	n.c.

Delivery specification:

Digital display	Multilingual operating instructions
Mounting clip	
Seal	

Order code:

6.541.01X.XX0

Output 1 = Optocoupler output 2 = No output	Input switching level 0 = Standard level* A = 4 ... 30 V DC level	Voltage supply 0 = 90 ... 260 V AC* 3 = 10 ... 30 V DC*
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* standard stock model

Replacement parts:

7-pin screw terminal	RM 3,81 1 ... 7: N100387
2-pin screw terminal	RM 5,08 1 ... 2: N100133