勝 特 力 材 料 886-3-5753170
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

Kübler

LED multifunction display | **Multifunction – pulse, frequency, time (AC+DC)** | **Codix 544**

The Codix 544 is a voltage-powered multifunction counter with 3 functions in one device:

pulse, position, frequency and speed display, timer and short time meter for fast and slow count pulses.

With 6-digit LED display for NPN, PNP input signals.

Power supply | Temperature range | High protection level | Plug-in screw terminal | Menu-driven programming | Pulse counter/ Totaliser | Position display | Frequency meter/ tachometer | Timer | Frequency meter HRA

Powerful

- Fast count and frequency input – input frequency max. 60 kHz
- Robust housing – IP65 protected
- Very bright LED display, 14 mm high, 6 digits
- Very accurate precise frequency measurement principle (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.
- Short start-up time – detects input pulses just 16 msec after being switched on => no pulses are lost with a simultaneous motor start-up

User-friendly and universal

- Large keys – can also be operated when wearing gloves
- Programming:
  - Simple uniform menu-driven programming and operation
  - Possible to enter the programming also during operation with a confirmation prompt
- Individually programmable scaling:
  multiplication and division factor (0.0001…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 count input for detecting count direction, difference or adding mode, quadrature with x1, x2 or x4 evaluation
- Frequency measurement: display in 1/min or 1/sec
- Time counting: pulse width or time interval measurement in hours, minutes or seconds, as well as real-time display
- AC or DC power supply
- Inputs: as an alternative to the HTL inputs, devices are available with a 5 V DC input level, for use as parallel displays to PLCs
- Optional output: zero signal for position and count, zero speed monitoring, 1 Hz clock pulse for active time measurement

Order code

6.544	.	01	X (a)	.	X (b)	X (c)	0

(a) *Output*
1 = optocoupler [1)]
2 = no output [1)]

(b) *Power supply*
0 = 100 ... 240 V AC, ± 10% [1)]
3 = 10 ... 30 V DC

(c) *Input switching level*
0 = Standard (HTL) [1)]
A = 4 ... 30 V DC

Delivery specification
– Digital display
– Mounting clip
– Gasket
– 2 plug-in screw terminals
– Instruction manual, multilingual

Replacement parts
7 pin screw terminal RM 3.81 1 ... 7: N100387
2 pin screw terminal RM 5.08 1 ... 2: N100133

1) Stock types

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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 [3.74 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.

Technical data

General technical data

Display	6 digit, red 7 segment LED display; 14 mm [0.55“] high
Data backup	EEPROM
Operating temperature	-20°C ... +60°C [-4°F ... +140°F] (non-condensing)
Storage temperature	-25°C ... +70°C [-13°F ... +158°F]
Altitude	up to 2000 m [6562’]

Electrical characteristics

Power supply		10...30 V DC galvanically isolated with integrated reverse polarity protection 100 ... 240 V AC, ± 10%
Current consumption		max. 50 mA, 6 VA
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

Mechanical characteristics

Housing	front panel mount 96 x 48 mm [3.74 x 1.89“] acc. to DIN 43700; RAL 7021, dark grey
Protection	IP65 (front side)
Weight	approx. 150 g [5.29 oz]

Inputs

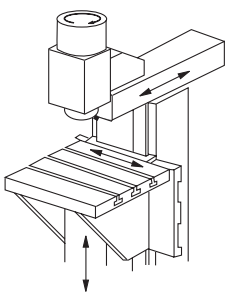
Polarity of inputs		programmable, NPN or PNP for all inputs
Input resistance		approx. 5 kΩ
Counting frequency [1]		max. 60 kHz, can be damped to 30 Hz
	for position display	max. 25 kHz
Display range	timer	0.001 s ... 999999 h
	frequency meter	1/min or 1/sec
Minimum pulse duration of the reset input		5 ms
Input switching level standard version (HTL)		
DC power supply	LOW	0 ... 0.2 x U_B [V DC]
	HIGH	0.6 x U_B ... 30 V DC
AC-power supply	LOW	0 ... 4 V DC
	HIGH	12 ... 30 V DC
Input switching level at 4 ... 30 V DC	LOW	0 ... 2 V DC
	HIGH	4 ... 30 V DC
Accuracy	tachometer	< 0.1 %
	timer	< 50 ppm

Outputs

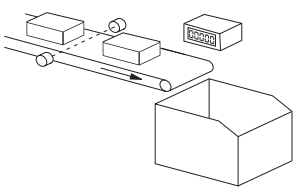
Sensor power supply (AC version)	24 V DC ±15 %/100 mA
Optocoupler output	max. 30 V, 10 mA

Applications for multifunction display

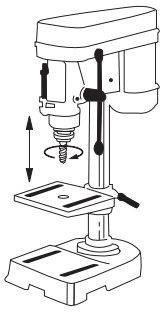
- Counting tasks such as quantity and piece counting, measuring and recording of speed and of operating and processing times
- Piece counting or tool-life measurement on die cutters, presses, extruders, woodworking machines, drilling machines,pick-and-place machines, guillotines, special-purpose vehicles etc.
- 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), or measurement of production times or production speeds
- Totalizing flow, quantity and other scaleable media, or display of current flow rates.



Position or rotary speed on milling machine



Piece count on conveyor or production speed



Drilling machine head, speed or drilling depth

1) Details see manual

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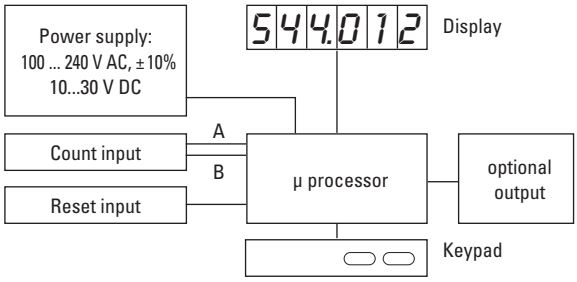
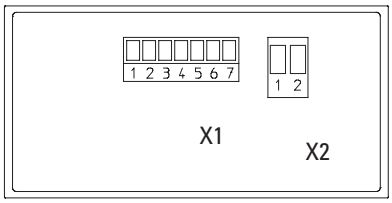
Block diagram



Terminal assignment



Connection X1

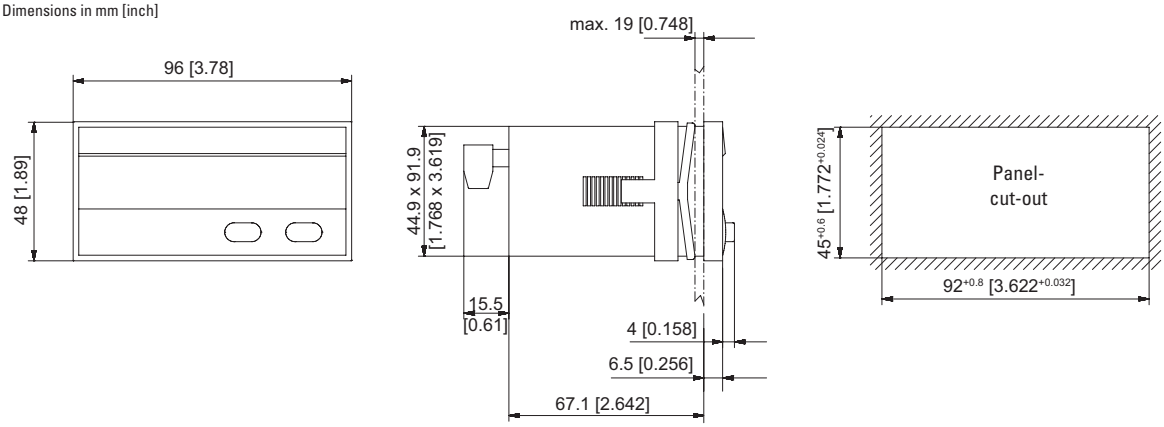
PIN	AC version	DC version
1	Optocoupler output	Emitter
2	Optocoupler output	Collector
3	Reset / Set	
4	INP B	
5	INP A	
6	GND out	n.c.
7	+24 V out	n.c.

Connection X2

PIN	AC version	DC version
1	100 ... 240 V AC, ±10%	0 V DC (GND)
2	100 ... 240 V AC, ±10%	10 ... 30 V DC

Dimensions

Dimensions in mm [inch]



Multifunction devices