

## Universal with dual functions **CODIX 54U**

**4 dual functions in one device**  
 > solves all applications where 2 different values must be displayed simultaneously.

- Counter with 2 totalizing ranges
- Totaliser and time counter
- Totaliser and frequency counter
- Timer with 2 time ranges

Power supply AC/DC	Front bezel dimensions	Wide temperature range	High IP protection rating	Plug-in screw terminal	Menu-driven programming	Pulse counter/Totaliser	Frequency meter/Tachometer	Timer/Hour Meter	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



### User-friendly

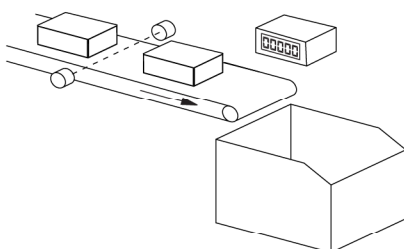
- **Big keys**  
Can also be operated when using gloves
- **Easy to programme**  
Easy menu-driven programming and operation  
Possibility to enter the programming mode during operation, with authentication query  
Pressing the right key switches between displays

### 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 for frequency- and pulse counting**
- **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
- **Timer specials**  
Timer or hours-run meter with various Start Stop measurements, time range settings in hours, minutes or seconds, with decimal point. Resolutions up to 1/1000 can be programmed

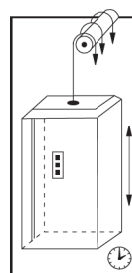
### Applications for dual functions

- **Pulse and frequency (speed)**  
e.g. production data acquisition: total piece count and speed on OEM equipment, flow rate measuring systems – total flow and current flow
- **2 pulse counters**  
Measurement of batch and total piece count or of daily production count and total count values

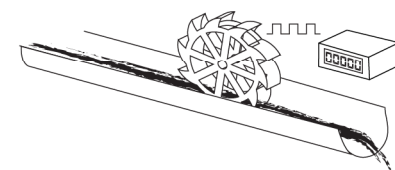


Piece count on conveyor and production speed

- **Pulse and time (Maintenance counter)**  
Used in the lift industry as trip counters and hours-run meters and on production machines for piece and time counting, flow and time measurement, materials handling time and quantities



Trip counter and hours-run



Flow rate and total volume

## Universal with dual functions **CODIX 54U**

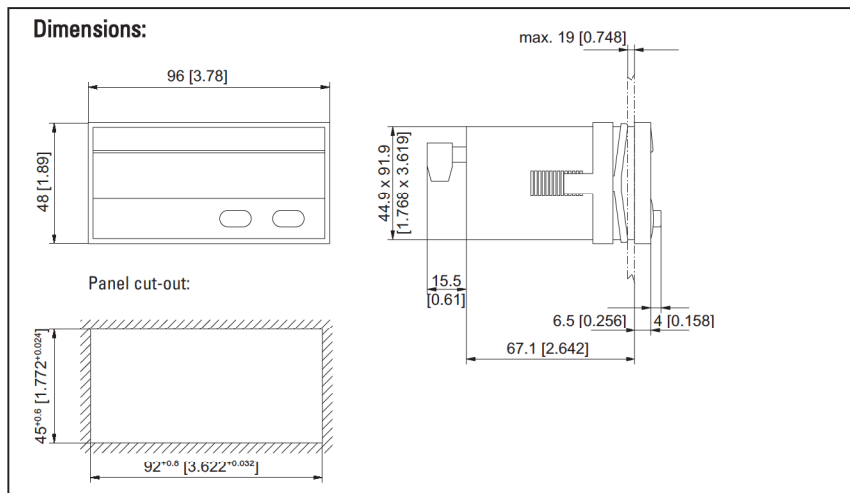
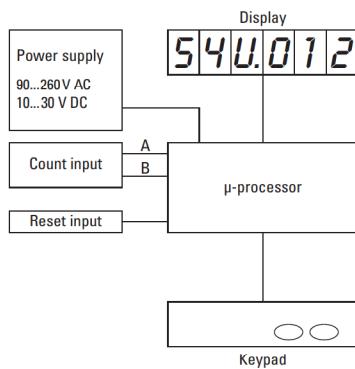
### Technical data:

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*:	60 kHz, can be damped to 30 Hz depending on operating mode
Display range:	0.001 s ... 999999 h
Reset time:	5 ms
Input switching level (standard version):	DC-version: Low: 0 ... 0.2 [0 ... 0.008"] x U <sub>B</sub> [V DC] High: 0.6 [0.024"] x U <sub>B</sub> ... 30 V DC

AC-version:	Low 0 ... 4 V DC High 12 ... 30 V DC
Input switching level (5 V version):	Low 0 ... 2 V DC High 4 ... 30 V DC
Voltage supply for sensors:	24 V DC ±15 %/100 mA at AC version
Accuracy:	<0.1 % (Frequency display/Rate meter) <50 ppm (Timer)
Ambient temperature:	-20 ... +65 °C [-4 ... 149 °F] non-condensing
Storage temperature:	-25 ... +70 °C [-13 ... 158 °F]
EMC:	according to EC EMC directive 89/36/EWG
Emitted interference:	EN 61000-6-4/EN 55011 class B
Immunity to interference:	EN 61000-6-2
Protection:	IP65 from front
Weight:	approx. 150 g [5.291 oz]

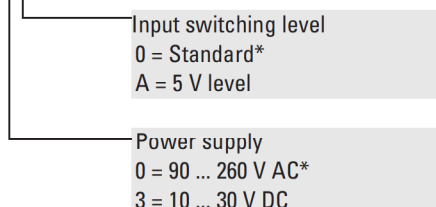
\*for further specifications please refer to the manual

### Block diagram:

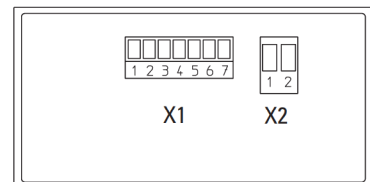


### Order code:

6.54U.012.XX0



### 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	n.c.	
2	n.c.	
3	Reset	
4	INP B	
5	INP A	
6	GNDout	n.c.
7	+24 Vout	n.c.

**Delivery specification:**  
Digital display  
Mounting clip

**Seal**  
Multilingual operating instructions