



### Main applications

- Timer
- Double timer
- Cycle timer
- Up/down counter
- Cycle counter
- Revolution counter
- Frequency meter

### Main features

- Input from mechanical contact, 2/3-wires proximity switch or AC voltage
- Timer, counter, frequency meter configurable
- Six time scales, 1msec resolution
- Five counter prescalers
- Quartz timer
- Double display
- Count back-up on EEprom at power off

### GENERAL

The model 556 is configurable for many different functions and is designed for reliability in industrial environments.

The double display and minimum size make it the ideal choice for every requirement for a timer, counter or frequency meter.

The display can be expressed in the engineering units of the count effected using one of the five prescaler ranges.

As a timer, it has six scale ranges from hundredths of a second to hours and minutes.

### TECHNICAL DATA

#### INPUTS

Isolated 1500V (with reference to logic output, for Vac power supply only).

The unit has three inputs enabling the following functions:

Counter input, Timer / Counter reset, Up / Down or Start / Stop, Hold.

Maximum frequency with 50% duty cycle:

- type 2 inputs: fmax = 100Hz
- type 1 inputs: fmax = 1KHz
- type 0 inputs: fmax = 5KHz

Types of input:

**Mechanical contact:** from a voltage free in open/closed configuration

**Proximity switch:** 2/3-wires NPN

#### Logic:

OFF  $\leq$  1Vdc, 3mA; 10Vdc < ON < 50Vdc

#### OUTPUTS

##### Relay

With rating 5A/250Vac at  $\cos\phi = 1$   
(3,5A at  $\cos\phi = 0,4$ )

Spark suppression on the NO contact.

##### POWER SUPPLY

110/220Vac  $\pm 10\%$

120/240Vac  $\pm 10\%$

24/48Vac  $\pm 10\%$

24Vdc  $\pm 10\%$

50/60Hz; 5VA max.

##### TRANSMITTER SUPPLY

12Vdc, 30mA

##### AMBIENT CONDITION

**Working temperature range:** 0...50°C

**Storage temperature range:** -20...70°C

**Humidity:** 20...85%Ur non condensing

##### FUNCTIONALITY

#### Timer

The timer can count up or count down according to the software setting.

When the unit is used as a timer, the inputs have the following functions:

IN1: Start/Stop input

IN2: Reset input

IN3: Hold or Up/Down input

The action of the output following an intervention is configurable.

#### Counter

The counter may also be configured to Count Up or Count Down according to the software setting.

The following Clock prescaler factors may be entered (:2, :10, :100, x2).

The displayed / entered value can be expressed in engineering units of whatever is being measured.

The conversion from a number to engineering units is obtained by entering suitable constants for the entries MOL and DIV which will be used respectively to multiply and divide the number of pulses counted.

When the unit is used as a counter, the inputs have the following functions:

IN1: Clock input (fmax. 5KHz)

IN2: Reset input

IN3: Hold or Up/Down input

The action of the output is configurable.

#### Frequency meter

Used as a frequency meter, the input functions are:

IN1: Clock input

IN2: Reset of the Peak or Valley functions

IN3: Hold input.

Used as a frequency meter, the value can be displayed in engineering units using the factors MOL and DIV.

**DESCRIPTION OF THE OUTPUT FUNCTIONS**

The following are examples of the different possible output functions: configured as a timer with countdown and input IN3 with HOLD (a) or UP/DOWN (b) functions.

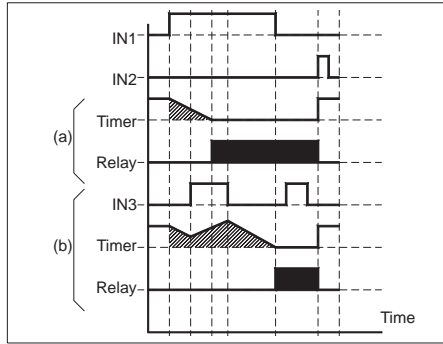
In all other cases (counter or frequency meter) the function of the output is unchanged.

Used as a Timer or a Counter, the maximum intervention time is 1msec., non-repetitive.

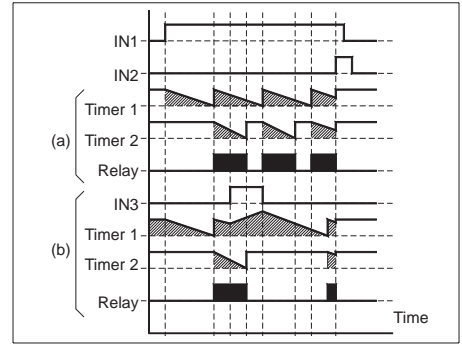
**WEIGHT**

240g

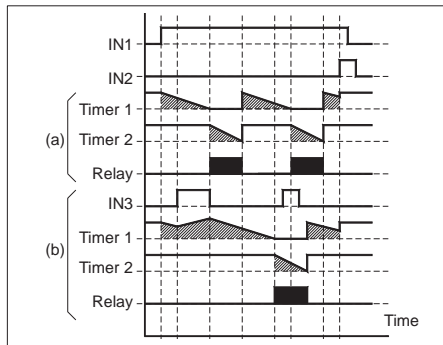
**U1 Function Single (non-cycle) timer with reset (Standard)**



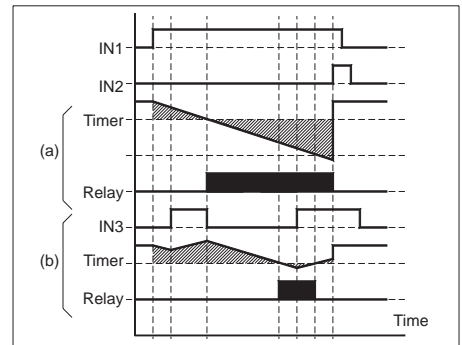
**U2 Function Monostable cycle timer with reset**



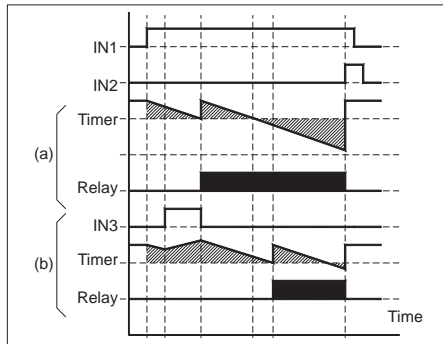
**U3 Function Cycle timer with timed reset**



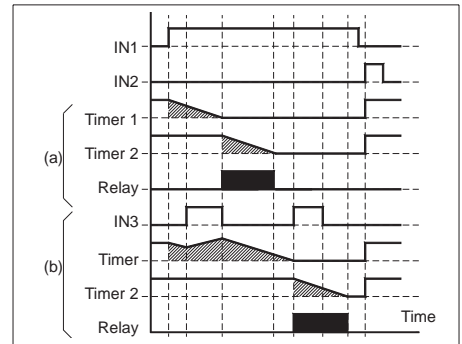
**U4 Function Timer with Memory of Output 1**



**U5 Function Timer with Memory of Output 2**

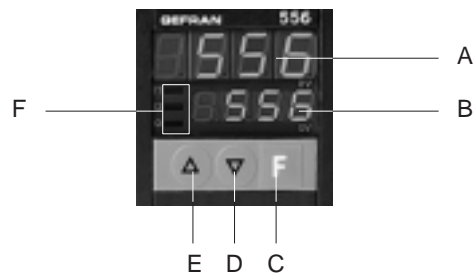


**U6 Function Timer monostable timer with reset**



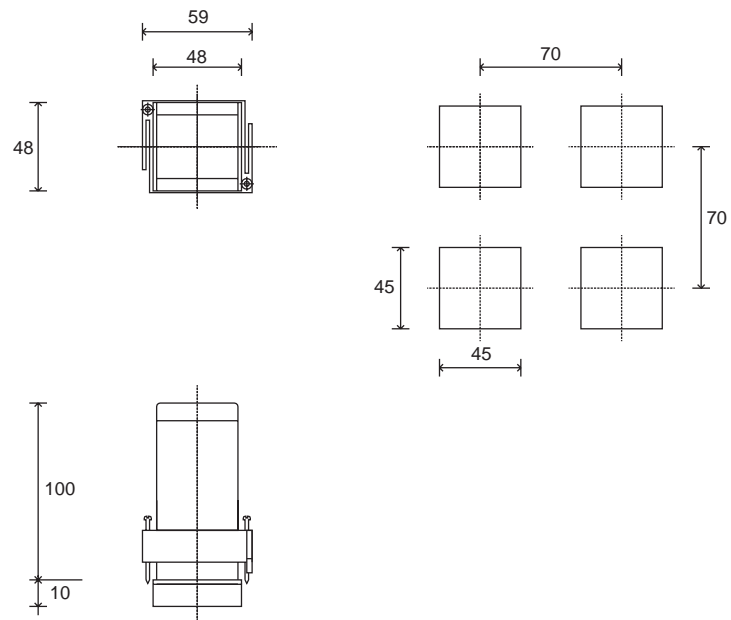
**FACEPLATE DESCRIPTION**

- A - Main display, green digits h. 10mm
- B - Secondary display, green digits h. 7mm
- C - Function key
- D - Lower key
- E - Raise key
- F - Input/Output indication, green LED OUT, red LED I1 and LED I2



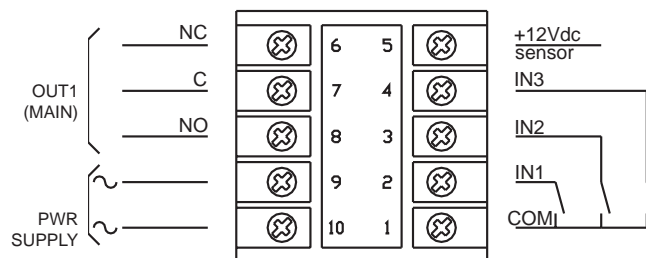
IP54 faceplate protection

## DIMENSIONS AND CUT-OUT



Dimensions: 48x48mm (1/16 DIN), depth 100mm

## CONNECTION DIAGRAM



Apply user's manual warnings for a correct installation

## ORDER CODE

556

POWER SUPPLY	
24Vdc	0
110Vac	1
220Vac	2
240Vac	3
24Vac	4
48Vac	5
120Vac	6

INPUT CONFIGURATION	
<b>IN1</b>	
5KHz	0
1KHz	1
100Hz	2
<b>IN2</b>	
5KHz	0
1KHz	1
100Hz	2
<b>IN3</b>	
5KHz	0
1KHz	1
100Hz	2

Please, contact GEFTRAN sales people for the codes availability.

GEFRAN spa reserves the right to make any kind of design or functional modification at any moment without prior notice



The instrument conforms to the European Directives 2004/108/CE and 2006/95/CE with reference to the generic standards: **EN 61000-6-2** (immunity in industrial environment) **EN 61000-6-3** (emission in residential environment) **EN 61010-1** (safety)