GEFRAN

556

QUARTZ TIMER / COUNTER / FREQUENCY METER

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 ≤ 1Vdc, 3mA; 10Vdc < ON < 50Vdc

OUTPUTS

Relay
With rating 5A/250Vac at cosφ = 1
(3,5A at cosφ = 0,4)
Spark suppression on the NO contact.

POWER SUPPLY
110/220Vac ±10%
120/240Vac ±10%
24/48Vac ±10%
24Vdc ±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 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.
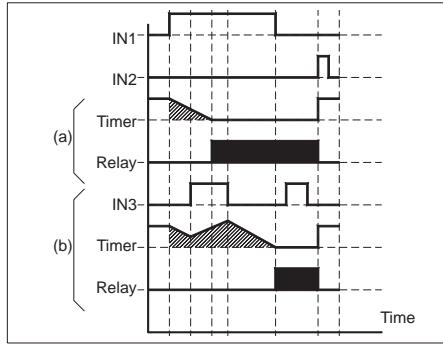In all other cases (counter or frequency meter) the function of the output is unchanged.
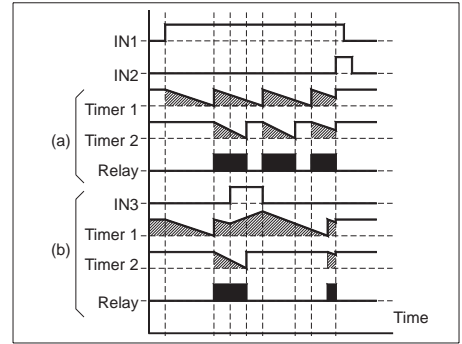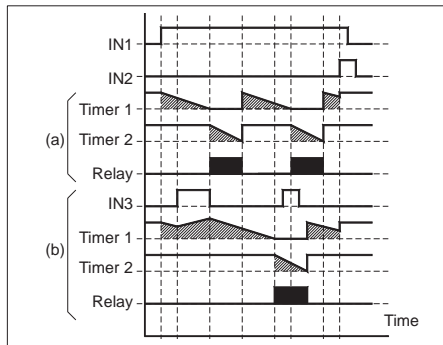Used as a Timer or a Counter, the maximum intervention time is 1msec., non-repetitive.

WEIGHT

240g

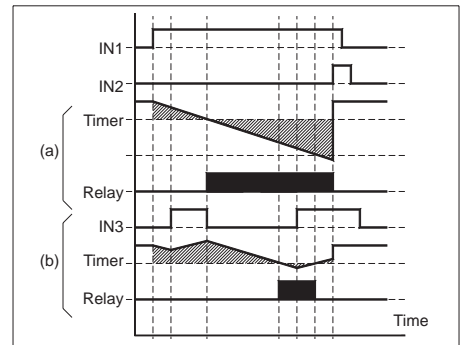**U1 Function Single (non-cycle) timer with reset** *(Standard)*

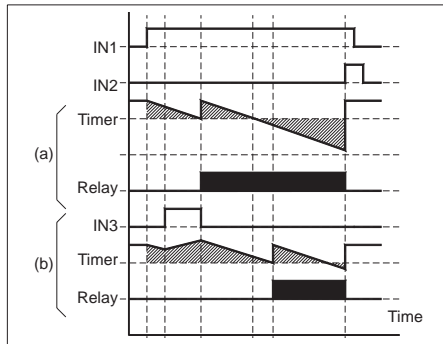**U2 Function Monostable cycle timer with reset**

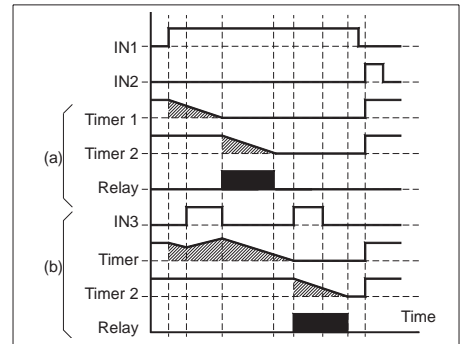**U3 Function Cycle timer with timed reset**

U4 Function Timer with Memory of Output 1
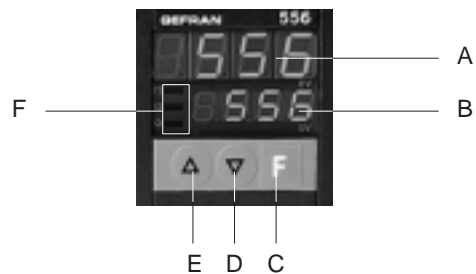
U5 Function Timer with Memory of Output 2

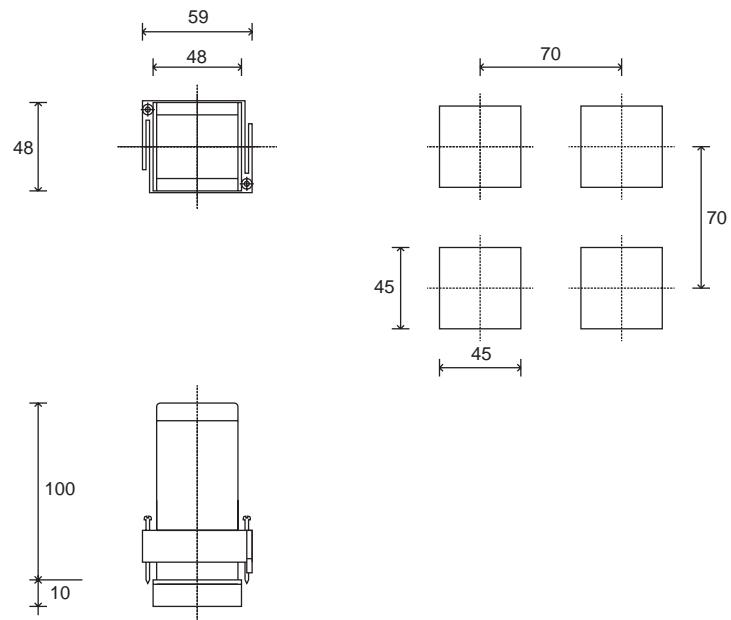**U6 Function Timer monostable timer with reset**

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
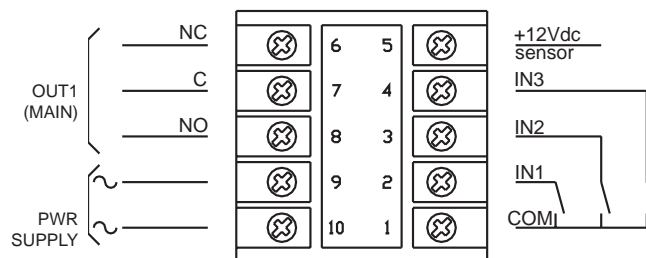**F** - Input/Output indication, green LED OUT, red LED I1 and LED I2

IP54 faceplate protection

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

NC	6 5	+12Vdc sensor
OUT1 (MAIN) — C	7 4	IN3
NO	8 3	IN2
PWR SUPPLY	9 2	IN1
	10 1	COM

⚠ Apply user's manual warnings for a correct installation

ORDER CODE

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

INPUT CONFIGURATION	
IN1 5KHz 1KHz 100Hz	**0** **1** **2**
IN2 5KHz 1KHz 100Hz	**0** **1** **2**
IN3 5KHz 1KHz 100Hz	**0** **1** **2**

Please, contact GEFRAN 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