

WITH MEMORY, 4 TIMING FUNCTIONS, 4 FIXED/CONFIGURABLE CONTROL INPUTS



- Non-volatile memory
- 9 user selectable ranges
- 10 milliseconds to 9999 hours
- 4 user selectable relay functions
- Incrementing / decrementing display
- 4 control inputs
- Fixed/Configurable control inputs
- $\pm 0.01\%$  quartz crystal accuracy
- Supply voltage : 85 ~ 265 V AC OR 24 V DC

## SPECIFICATIONS All specifications at ambient of 25 °C, unless specified otherwise

<b>Range</b>	See Table 1	<b>Control input 3</b>	Refer Table 3 (For order code 2233-02)
<b>Resolution</b>	See Table 1	<b>Control input 4</b>	Refer Table 3 (For order code 2233-02)
<b>Accuracy</b>	$\pm 0.01\%$ of reading $\pm 0.2$ second	<b>Units</b>	Seconds / Minutes / Hours
<b>Timing start delay (after application of power)</b>	0.05 Sec (max)	<b>Resolution</b>	0.01, 0.1, 1
<b>OUTPUTS</b>		<b>Functions</b>	a) ON delay b) OFF delay c) Cyclic C1(Relay ON at power ON) d) Cyclic C2(Relay OFF at power ON) (See Fig 1, 2)
<b>No. of relays</b>	1	<b>Direction</b>	Up (incrementing) Down (decrementing)
<b>Relay contacts</b>	1 x NO-C-NC + 1 x NO-C	<b>Reset lock (For front key reset)</b>	ON, OFF
<b>Relay contact rating</b>	5A / 230V AC, resistive	<b>Program lock</b>	ON, OFF
<b>Functions</b>	See Fig.1, 2	<b>OTHER</b>	
<b>Mutual isolation between Input/Output/Supply</b>	1500 V AC / 1 Minute	<b>Keyboard</b>	Tactile, 3 keys
<b>CONTROL INPUTS</b>		<b>Enclosure construction</b>	Plug-in (circuit removable without affecting terminal wiring)
<b>No. of control inputs</b>	4	<b>Dimensions (in mm)</b>	72(H) x 72(W) x 100(D)
<b>Control input function configuration</b>	a) Fixed b) User configurable See Table 2, 3	<b>Mounting</b>	Panel mount
<b>Control input functions</b>		<b>Panel cutout</b>	68 x 68 mm
<b>Assignment of control input functions to control inputs</b>	a) Fixed : See Table 2 b) User configurable : i) Any control function can be assigned to any control input ii) One control function can be assigned to any one control input only (See Table 3)	<b>Operating ambient temperature</b>	0~50 °C
<b>Front panel reset</b>	Will have the same function as reset function selected for control input		
<b>POWER SUPPLY</b>			
<b>Supply voltage</b>	85~265 V AC OR 24 V DC		
<b>INDICATION</b>			
<b>Display</b>	4 digit, 7 segment 0.52" (13.2 mm) red LED display		
<b>MEMORY</b>	Non volatile, indefinite retention (for elapsed time)		
<b>PROGRAMMABLE PARAMETERS</b>			
<b>SP1</b>	0.01 to 9999		
<b>SP2*</b>	0.01 to 9999		
<b>Timer Start (After timer start)</b>	Power ON, Control input 1(Start)		
<b>Control input 1</b>	Refer Table 3 (For order code 2233-02)		
<b>Control input 2</b>	Refer Table 3 (For order code 2233-02)		

TABLE 1 - RANGE SELECTION

UNIT	RANGE	RESOLUTION
s	99.99 s	0.01 s
s	999.9 s	0.1 s
s	9999 s	1 s
m	99 m 59 s	1 s
m	999.9 m	0.1 m
m	9999 m	1 m
h	99 h 59 m	1 m
h	999.9 h	0.1 h
h	9999 h	1 h

\* Available only when C1 OR C2 function selected.

## OPERATING MODES

t1 = Setpoint1, t2 = Setpoint2

RELAY ON   
  RELAY OFF   
  SUPPLY ON   
  START PULSE

### POWER ON START

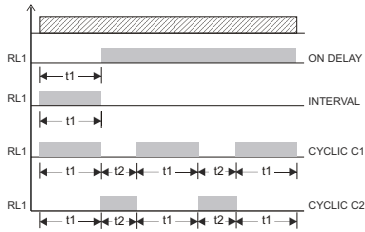


FIG 1

### START PULSE

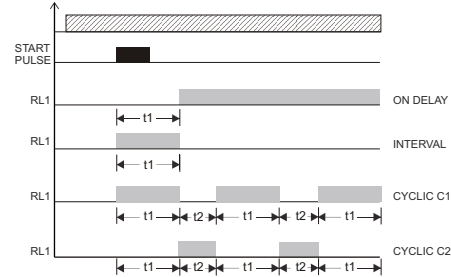


FIG 2

TABLE 2 - FIXED CONTROL INPUTS (ORDER CODE : 2233-01)

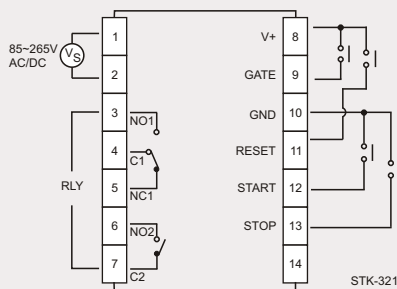
CONTROL INPUT FUNCTION	DESCRIPTION	CONTROL INPUT FUNCTION	DESCRIPTION
1	Start	3	Gate
2	Reset	4	Stop
	Start the timer		Freeze the time count as long as input is applied & relay maintain status.
	Timer is reset as long as input is present, timer starts when input is removed.		Stop the timer & relay turn OFF.

TABLE 3 - CONFIGURABLE CONTROL INPUTS (ORDER CODE : 2233-02)

CONTROL INPUT FUNCTION	DESCRIPTION	CONTROL INPUT FUNCTION	DESCRIPTION
1	Start	6	Gate2
2	Reset1	7	Gate3
3	Reset2	8	Stop1
4	Reset3	9	Stop2
5	Gate1	10	Stop3
	Start the timer		Freeze the timer as long as input is present & relay turn ON.
	Timer is reset as long as input is present, timer starts when input is removed.		Freeze the timer as long as input is present & relay turn OFF.
	Pulse reset, reset the timer & start immediate.		Stop the timer & relay maintain status.
	Reset the timer, start pulse is require to start the timer.		Stop the timer & relay turn ON.
	Freeze the time count as long as input is present & relay maintain status.		Stop the timer & relay turn OFF.

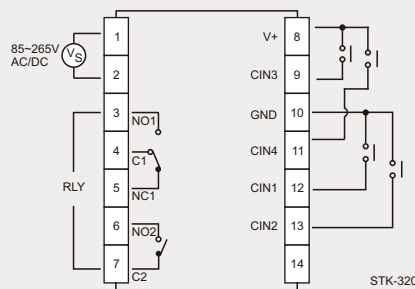
## CONNECTION DIAGRAM

### FIXED INPUTS



Order Code : 2233-01

### CONFIGURABLE INPUTS



Order Code : 2233-02

## ORDERING INFORMATION

ORDER CODE	
2233	A
A Control Inputs	
01	Fixed
02	Configurable

### Ordering Options

The following ordering options are available on request.

Minimum order quantity and/or minimum order value may apply.

Option	Details
1. Supply voltage	24 V DC
2. Supply voltage	24 V AC



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