trumeter
innovation by design

Programmable Digital Timer *Eliro*®

- Digital 7-Segment display Supply Voltage range of 110-240 VAC
- Input Signal Sensing range of 85-265 VAC/100-265 VDC & 20-60 VAC/DC
- Inbuilt library of 33 functions covering majority applications
- Easy steps to program customized functions
- Suitable for Panel and Base/DIN mounting
- Two separate Channel outputs with selectable Timer modes
- Wide timing range - 0.1 Sec. to 999 Days
- Tamper proof with key lock feature
- Provision to edit Preset time during Run time
- Provision to save two independent functional Profiles (P1 & P2)

Cat. No.		V7DFTS3	V7DDSS3
Parameters			
Timer Description		Programmable Multi Function Digital Timer	
Default Functions		1) On delay 2) On delay constant supply type 2 3) On delay constant supply type 3 4) On delay (control switch resettable) 5) Signal on delay 6) Inverted signal on delay 7) Inverted signal on delay type 2 8) Signal off delay 9) Off delay const. supply type 2 10) Cyclic on/off 11) Cyclic off/on 12) Asymmetric cycle pulse start 13) Asymmetric recycler pulse start type 2 14) Signal on off delay 15) Signal on off delay type 2 16) Signal off/on (new)	17) Impulse on energizing 18) Impulse on/off 19) Accumulative delay on signal 20) Accumulative delay on inverted signal 21) Accumulative impulse on signal 22) Leading edge impulse 23) Leading edge impulse 2 24) Trailing edge impulse 25) Trailing edge impulse 2 26) Delayed impulse 27) Delayed impulse type 2 28) Delayed pulse (constant supply) 29) Delayed pulse (remote trig.) 30) Delayed pulse (const. supply type 1) 31) On pulse (control switch resettable) 32) On pulse (supply reset)mode 33) Leading edge bi-stable or step relay
Supply Voltage (⏚)		110 - 240 VAC	
Supply Variation		-20% to +10% (of ⏚)	
Frequency		47-63 Hz	
Power Consumption (Max.)		9 VA	
Timing Range		0.1s to 999 days	
Reset Time/Initiate Time		200 ms (Max.) / 100 ms (Max.)	
Input Signals/Signal Isolation		High Range: 85-265V AC/ 100-265V DC, Low Range: 24-60V AC/DC / 2 KV	
Signal Sensing Time/ Wait Period		50ms. (max.) / 100ms @ Power On & for signal based modes only.	
Timing Accuracy		± 0.01%	
Output	Relay Output	2 C/O	
	Contact Rating	5A for NO & 3A for NC @ 250VAC/30VDC (Resistive.)	
	Electrical Life	$1x10^5$	
	Mechanical Life	$5x10^6$	
Utilization Category	AC - 15	250V AC/2A, Cos Ø = 0.6, 85°c, 100000 Operations.	
	DC - 13	Ue rated voltage V – 24; Ie rated current A – 2.0.	
Operating Temperature		-5° C to +55° C	
Storage Temperature		-10° C to +60° C	
Humidity (Non Condensing)		95% (Rh)	
LED Indication		SV (Red) - Set Value; P1/P2 (Red) -P1 Running; Up/Down (Red)-Up Counting; SG (Green)- Signal Present;OP1 (Red)-Relay OP1 ON;OP2 (Red)-Relay OP2 ON;	
Enclosure		IP 30 for Housing & front Facial and IP 20 for Terminals	
Dimension (W x H x D) (in mm)		48 X 48 X 92.5	
Weight (unpacked)		160 g	
Mounting		Panel / Flush Mountable	Base / DIN Rail with 11 Pin Universal socket
Certification		CE cULus LISTED RoHS Compliant	
Degree of Protection		IP 20 for Terminals, IP 30 for Enclosure	
EMI / EMC			
Harmonic Current Emissions		IEC 61000-3-2	Ed. 3.2 (2009-04) Class A
ESD		IEC 61000-4-2	Ed. 2.0 (2008-12) Level II
Radiated Susceptibility		IEC 61000-4-3	Ed. 3.2 (2010-04) Level III
Electrical Fast Transients		IEC 61000-4-4	Ed. 3.0 (2012-04) Level IV
Surges		IEC 61000-4-5	Ed. 2.0 (2005-11) Level IV
Conducted Susceptibility		IEC 61000-4-6	Ed. 3.0 (2008-10) Level III
Voltage Dips & Interruptions (AC)		IEC 61000-4-11	Ed. 2.0 (2004-03) All 7 Levels
Voltage Dips & Interruptions (DC)		IEC 61000-4-29	Ed. 1.0 (2000-08) All 5 Levels
Conducted Emission		CISPR 14-1	Ed. 5.2 (2011-11) Class A
Radiated Emission		CISPR 14-1	Ed. 5.2 (2011-11) Class B
Environmental			
Cold Heat		IEC 60068-2-1	Ed. 6.0 (2007-03)
Dry Heat		IEC 60068-2-2	Ed. 5.0 (2007-07)
Vibration		IEC 60068-2-6	Ed. 7.0 (2007-12) 5g
Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 40g, 6ms
Non-Repetitive Shock		IEC 60068-2-27	Ed. 4.0 (2008-02) 30g, 15ms

ORDERING INFORMATION

Cat. No.	Description
V7DFTS3	110 - 240 VAC, Multi Function Digital Timer - Eliro (33 Functions), 2 C/O
V7DDSS3	110 - 240 VAC, Multi Function Digital Timer - Eliro (33 Functions), 2 C/O, 11 Pin Universal socket

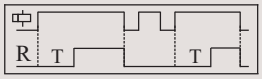
FUNCTIONAL DIAGRAMS

: Supply Voltage, S: Input Signal, R: Relay Output

T: Preset Time, TON: Preset ON Time, TOFF: Preset OFF Time, T-a: Timing Break Before completion

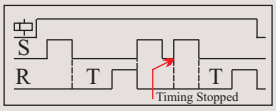
ON DELAY [00]

On application of supply voltage, the preset time duration (T) starts. On completion of the preset time, the output is switched ON and remains ON till the supply voltage is present.



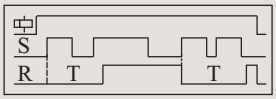
ON DELAY CONSTANT SUPPLY TYPE 2 [01]

Timing will commence when the supply is present and input signal is not applied. After the time period has elapsed, output is switched ON. If signal is applied then the timing period stops. Timing will restart only when signal is removed. Therefore there are two methods this timer can be controlled, either by application or removal of signal input and with the interruption of the supply voltage to the timer with signal removal.



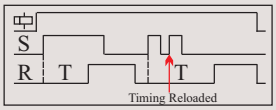
ON DELAY CONSTANT SUPPLY TYPE 3 [02]

A permanent supply is required. The timing period starts when the signal is applied and will continue irrespective of any further changes to signal input. After the time period has elapsed output is switched ON. Signal change has no effect during timing period. To reset the timer, signal must be removed and then applied.



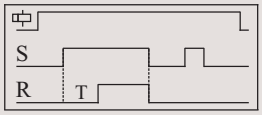
ON DELAY (CONTROL SWITCH RESETTABLE) [03]

When the supply is connected and signal is applied, the timing function starts. If signal is removed and applied during the preset timing then timing is restarted and output stays OFF. After preset time has elapsed the output is ON.



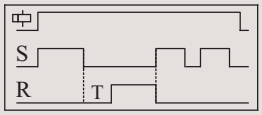
SIGNAL ON DELAY [04]

On application of input signal, the preset time duration (T) starts. On completion of the preset time, the output is switched ON and remains ON till the input signal is present.



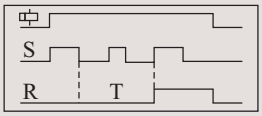
INVERTED SIGNAL ON DELAY [05]

On application of supply voltage, the preset time duration (T) starts. When input signal is applied, the timing pauses & resumes only when the signal is removed. On completion of the preset time, the output is switched ON.



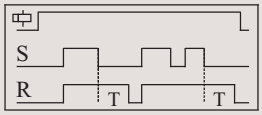
INVERTED SIGNAL ON DELAY-TYPE 2 [06]

Timing starts only upon signal 'S' transition high to low. During timing or after completion of Time (i.e. relay on), any signal transition is ignored. To reset the timer supply has to be interrupted.



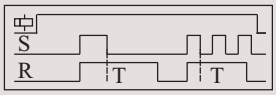
SIGNAL OFF DELAY [07]

On application of supply voltage and input signal, the output is switched ON. When the signal is removed the preset time duration commences & the output is switched OFF at the end of the time duration.



OFF DELAY CONST. SUPPLY TYPE 2 [08]

A permanent supply is required. When the input signal is applied the output is switched ON immediately. When input signal is removed the timing period starts. After the time period has elapsed output is switched OFF. Once the timing period has started further actions of input signal will have no effect. However once the timing cycle has been completed the process may be started again applying input signal. While the timer is executing the only way to reset the timer is to interrupt the supply.



CYCLIC ON/OFF {ON start, (Sym, Asym)} [09]

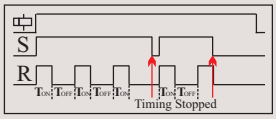
On application of supply voltage, the output is initially switched ON for the preset 'ON' time duration (TON) after which it is switched OFF for the preset 'OFF' time duration (TOFF). This cycle repeats and continues till the supply is present.

CYCLIC OFF/ON {OFF Start, (Sym, Asym)} [10]

On application of supply voltage, the output is initially switched OFF for the preset 'OFF' time duration (TOFF) after which it is switched ON for the preset 'ON' time duration (TON). This cycle repeats and continues till the supply is present.

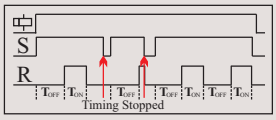
ASYMMETRIC CYCLE PULSE START [11]

A permanent supply is required. The timer function is triggered by the input signal. When input signal applied the output is switched ON while the first preset time period (TON) elapses. Once this time period (TON) has elapsed output is switched OFF for the second preset time (TOFF) period. Once this second time period (TOFF) had elapsed then output switched ON and the cycle will start from the beginning again. If input signal is removed during timing (TON or TOFF) the cycle will stop and output is switched OFF, cycle will start with output ON state when the input signal applied again



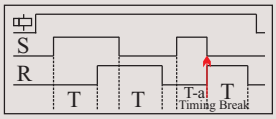
ASYMMETERIC RECYCLER PULSE START TYPE 2 [12]

A permanent supply is required. The timer function is triggered by input signal. When input signal is applied the output is switched OFF while the first preset time period (TOFF) elapses. Once this time period has elapsed output is switched ON for the second preset time period (TON). Once this second time period (TON) had elapsed then output is switched OFF and the cycle will start from the beginning again. If input signal is removed during timing (TON or TOFF) the cycle will stop and output is switched OFF, cycle will start with output OFF state when the input signal applied again.



SIGNAL ON OFF DELAY [13]

On application of signal the preset time (T) starts. After this preset time has elapsed, output is switched ON. During this timing, if signal is removed then output is switched ON immediately and OFF delay is started. Once this time period has elapsed the output is switched OFF. During this OFF delay if signal is reapplied the output switched OFF immediately and ON Delay restarted.



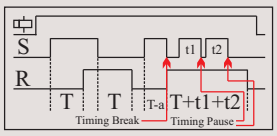
Programmable Digital Timer Eliro®

FUNCTIONAL DIAGRAMS

⊏⊐: Supply Voltage, S: Input Signal, R: Relay Output

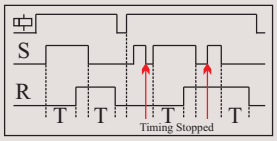
T: Preset Time, TON: Preset ON Time, TOFF: Preset OFF Time

SIGNAL ON OFF DELAY TYPE 2 [14]



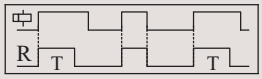
On application of signal the preset time (T) starts. After this preset time has elapsed, output is switched ON. During this timing, if signal is removed then output is switched ON immediately and preset timing is restarted. Removing the signal during this timing suspends timing but does not reset the time sequence. Timing will resume immediately when signal is applied. Therefore, total time taken before the delayed contact changes state is the preset time plus any time that the signal is removed. Once this time period has elapsed the output is switched OFF.

SIGNAL OFF/ON [15]



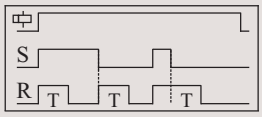
On application of input signal, the preset delay time period (T) starts. During this timing if signal is removed then timing is stopped and timing will be restarted when signal applied again. After this time period has elapsed output is switched ON. On removal of input signal, the preset time period starts again & the output is switched OFF when the preset time duration is complete. Output stays OFF until supply voltage has been interrupted.

IMPULSE ON ENERGIZING [16]



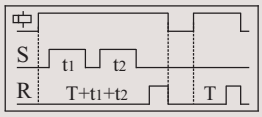
On application of supply voltage, the output is instantly switched ON for the preset time duration (T) after which it is switched OFF.

IMPULSE ON/OFF [17]



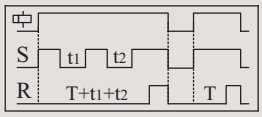
On application or removal of input signal, the output is switched ON & the preset time duration (T) starts. On completion of the time duration the output is switched OFF. When timing commences, changing the state of the input signal resets the time.

ACCUMULATIVE DELAY ON SIGNAL [18]



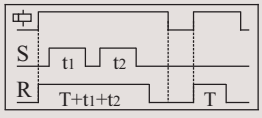
On application of supply voltage, the preset timing duration commences. When input signal is applied, the timing pauses and resumes only when the input signal is removed. The output is switched ON at the end of the preset time duration (T).

ACCUMULATIVE DELAY ON INVERTED SIGNAL [19]



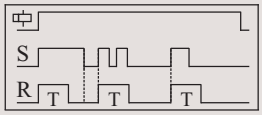
On application of supply voltage and input signal, the preset timing duration commences. When the signal is removed the timing pauses and resumes when the signal is applied. The output is switched ON at the end of the preset time duration (T).

ACCUMULATIVE IMPULSE ON SIGNAL [20]



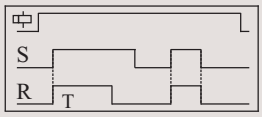
On application of supply voltage the output is switched ON & the preset timing duration commences. When the signal is applied the timing pauses and resumes when the signal is removed. The output is switched OFF at the end of the preset time duration (T).

LEADING EDGE IMPULSE1 [21]



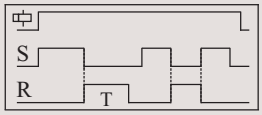
On application of input signal the output is immediately switched ON. The output remains ON for the preset time duration (T) after which it is switched OFF. If the input signal is removed during the preset time, the output remains unaffected.

LEADING EDGE IMPULSE2 [22]



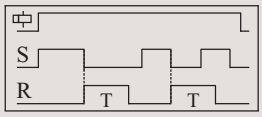
On application of input signal the output is immediately switched ON. The output remains ON for the preset time duration (T) after which it is switched OFF. If the input signal is removed during the preset time, the output is immediately switched OFF.

TRAILING EDGE IMPULSE1 [23]



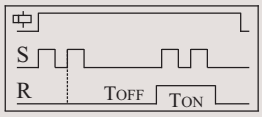
When the input signal to the timer is removed, the output is immediately switched ON for the preset time duration (T) after which it is switched OFF. If the input signal is applied during the preset time, the output is immediately switched OFF

TRAILING EDGE IMPULSE2 [24]



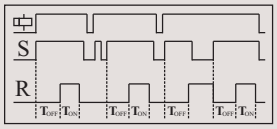
When the input signal to the timer is removed, the output is immediately switched ON for the preset time duration (T) after which it is switched OFF. If the input signal is applied during the preset time, the output remains unaffected

DELAYED IMPULSE [25]



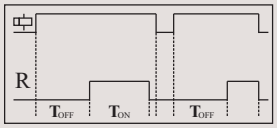
On application of input signal, the preset 'OFF' time duration (TOFF) starts. the output is switched ON at the end of the preset 'OFF' time duration & the preset 'ON' time duration commences irrespective of signal level and remains ON till the completion of 'ToN'.

DELAYED IMPULSE TYPE 2[26]



A permanent supply is required. When signal is applied the output will remain OFF while the first preset time period (TOFF) elapses. Once this time period has elapsed the output is switched ON for the second preset time period (TON). Once this second time period (TON) had elapsed then output is switched OFF and cycle stops. Output stays OFF until supply voltage has been interrupted. During timing period (TON or TOFF) if signal is removed then output is switched OFF and the cycle stops, cycle will start with output OFF state when the input signal applied again.

DELAYED PULSE (CONSTANT SUPPLY) POWER BASED [27]



The timing period (TOFF) starts when the supply is applied to the timer. After the preset has elapsed output is switched ON for the preset pulse (TON) duration. To reset the timer the supply has to be interrupted. If this interruption occurs during the pulsed output (TON) then the output is switched OFF and the timer will reset.

Programmable Digital Timer *Eliro*®

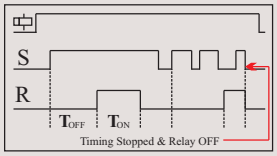
FUNCTIONAL DIAGRAMS

⊏⊐: Supply Voltage, S: Input Signal, R: Relay Output

T: Preset Time, TON: Preset ON Time, TOFF: Preset OFF Time

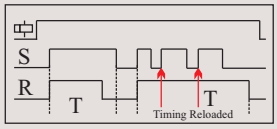
DELAYED PULSE (REMOTE TRIG.) [28]

The timing period (TOFF) will start when input signal is applied with the supply connected. After preset time (TOFF) has elapsed the output is switched ON for the per-selected pulse (TON) duration. To reset the timer either input signal needs to be removed or supply has to interrupt. If this action occurs during the pulsed output cycle (TON) then output is switched OFF and the timer will reset.



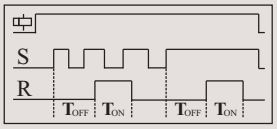
ON PULSE (CONTROL SWITCH RESETTABLE) / WATCH DOG TYPE [30]

When the supply is connected and signal is applied, output is switched ON and the timing function starts. If signal is removed and applied during the preset timing then timing is restarted and output stays ON. After preset time(TON) has elapsed the output is switched OFF



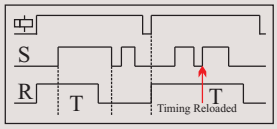
DELAYED PULSE (CONST. SUPPLY TYPE 1) [29]

Supply to the unit must be continuous. On application of input signal the time period 'TOFF' starts to run. On completion of 'TOFF', the relay output is switched ON immediately and the time period 'TON' starts to run. On completion of 'TON' the output is switched OFF. The input signal has no effect until 'TOFF' + 'TON' have completely expired.



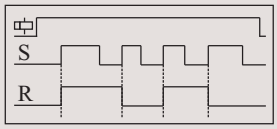
ON PULSE (SUPPLY RESET)[31]

On application of supply voltage the output is switched ON. The first pulse of input signal starts the preset time period. Receiving pulses during the time period extends it and output stays ON. Receiving no signal pulses during the time period completes it and output is switched OFF. Output stays OFF until supply voltage has been interrupted.



LEADING EDGE BI-STABLE OR STEP RELAY [32]

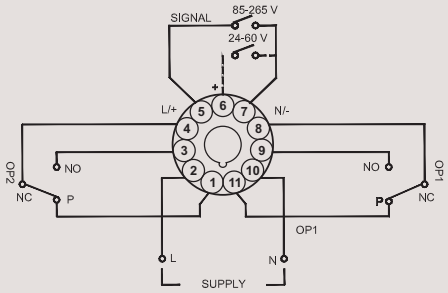
After every signal, the output contact changes their states, alternately switching from open to close and vice versa.



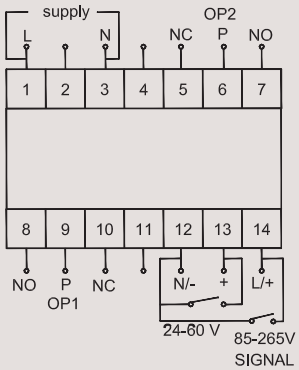
TERMINAL TORQUE & CAPACITY

Ø 3.5 mm	Torque - 0.50 N.m (3.5 Lb.in) Terminal screw - M3
	Solid Wire - 1 X 0.12...2 mm^2
AWG	1X26 to 14

CONNECTION DIAGRAM

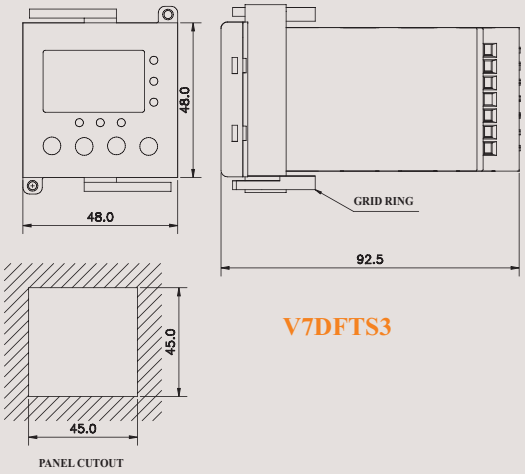


DIN / SOCKET / BASE MOUNT

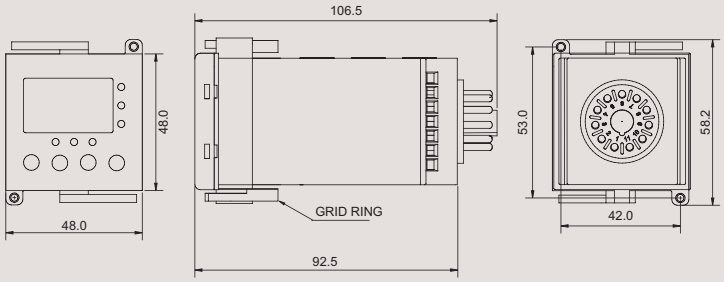


PANEL / FLUSH MOUNT

MOUNTING DIMENSIONS (mm)



V7DFTS3



V7DDSS3

PROGRAMMABLE DIGITAL TIMER ELIRO - MULTIFUNCTION (33 Functions):

CAT. NO.: V7DFTS3 & V7DDSS3

BASIC FEATURES:

1. Luxurious look with 2x4 '7'Segment Display.
2. 33 Default Modes.
3. Modes can be Customized as per user's requirement.
4. Wide range of Applications with multiple Operating Modes.
5. Wide Timing Range 0.1 s to 999 Days.
6. User Friendly Keys & Key Operations with Lock & Unlock facility.
7. Two Timers with Two separate Relay Outputs.
8. Preset Time can be edit during Run Time.
9. Modes can be saved & re-called through two Profiles P1/P2.
10. Wide Input Supply Range : 110-240V AC (Un) , -20% to +10% of Un
11. Wide Signal Sensing Range: 85-265V AC/100-265V DC & 24-60V AC/DC.
12. High Timing Accuracy.
13. IP 30 Protection for front facial & Housing.
14. Suitable for 48x48 Panel Mounting or Base Mounting/DIN/Socket.
15. IEC 61812-1, CE, RoHS Compliance.

Eliro

CE

RoHS

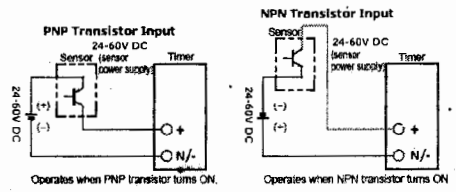
CAUTION:

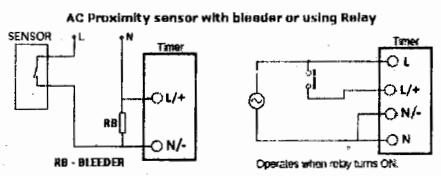
1. Always follow instructions stated in the Product Leaflet. Before installation, ensure that specifications agree with intended application.
2. Installation must be done by skilled technician only.
3. Automation device must be properly installed so that they are protected against any risk of involuntary actuations.
4. Suitable dampers should be provided in event of excessive vibrations.
5. Use of 250mA fuse in series with product supply is recommended.
6. Do not touch the bleeder resistor when connected to the device as it can have high body temperature.

Note:

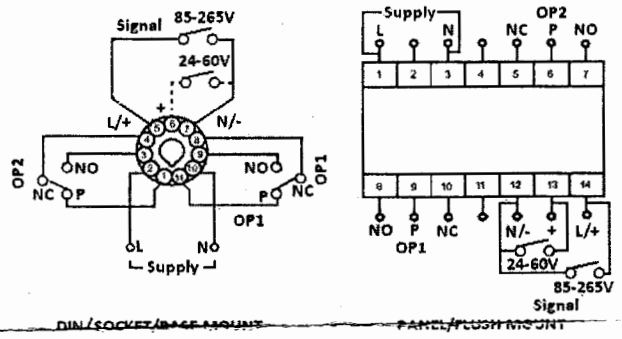
1. Using of AC 2 Wire Proximity Sensor (Input signal range- 85-265V AC):
   Please add the input bleeder across signal input terminals to prevent false signal Sensing due to leakage current of proximity sensor. Generally suggested value of Bleeder is 22K, 5W (included with the product as an accessory).

Connection for sensors:

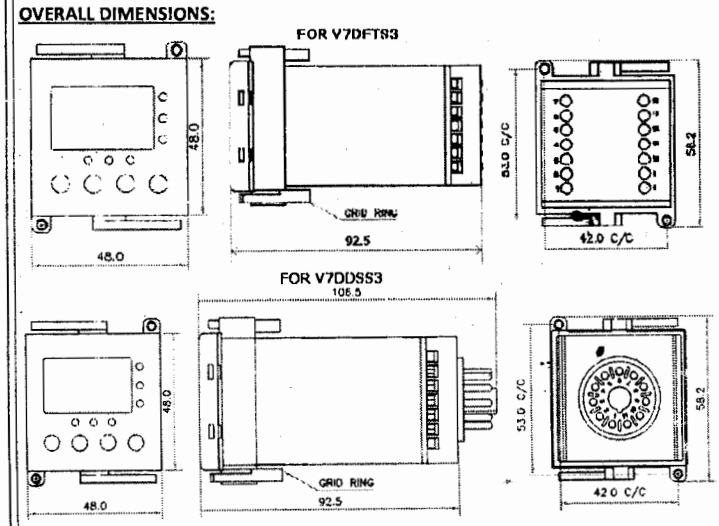




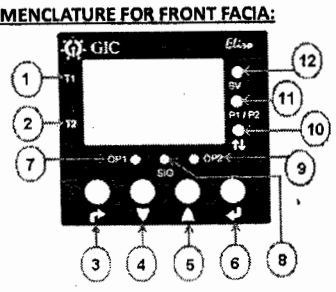
CONNECTION DIAGRAM:



OVERALL DIMENSIONS:



NOMENCLATURE FOR FRONT FACIA:



1. T1: Current Time (Process Time) of Timer 1
2. T2: Current Time (Process Time) of Timer 2
3. 'Esc' Key for Operation
4. 'Scroll Down' Key for Operation
5. 'Scroll Up' Key for Operation
6. 'Enter' Key for Operation
7. OP1: Relay Output 1 Indication
8. SIG: Signal Input Indication
9. OP2: Relay Output 2 Indication
10. Down/Up counting indication
    LED ON: Up (Elapsed Time)Counting
    LED OFF: Down (Remaining Time) Counting
11. P1/P2: Running profile indication
    LED ON: Profile 'P1' running
    LED OFF: Profile 'P2' running
12. SV: Set Time of Timer 1 & Timer 2

Important Notes:

1. When only Timer 1 is selected by user then T1 shows Current Time (Running Value) of Timer 1 & T2 shows Set Value of Timer 1.
2. When both Timer 1 & Timer 2 are selected by user then T1 shows Current Time (Running Value) of Timer 1 & T2 shows Current Time (Running Value) of Timer 2. If user presses the UP key during Run time then Set values of both Timer 1 & Timer 2 will be shown on respective Displays.

Meaning of notations of first digit of Seven segment display during run time:

- n - Time running on the device is in Seconds scale.
- L - Time running on the device is in Minutes scale.
- c - Time running on the device is in Hours scale.
- r - Time running on the device is in Hours: Minute scale.
- U - Time running on the device is in Minutes: Second scale.
- d - Time running on the device is in Days sale.

Key Conventions:

Long Press: Key pressed for more than 3 sec.
Short Press: Key pressed for less than 3 sec.

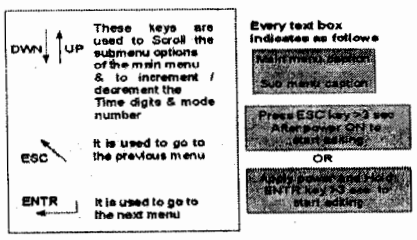
1. 'Enter' Key Long Pressed at power on – Program mode/Edit mode (with device version display).
2. 'Enter' key short pressed in Program mode/Edit mode – Value/parameter entered & Move to next menu.
3. 'Enter' short pressed during Run mode – Edit Preset Time during Timer Operation.
4. 'ESC' key long pressed during Run mode – Program mode/Edit mode.
5. 'ESC' key short pressed in Program mode – Return to previous menu.
6. 'ESC' key short pressed in online edit – Device will come out of online editing
7. 'ESC + Enter' long pressed run mode - lock / unlock.
8. 'ESC + Up' key long pressed in run mode - Getting profile/Profile Recall & Run.
9. 'Down' key long pressed in Run mode - Resets timer1.
10. 'Down' Key short pressed in Online Program mode - Blinking preset digit gets decremented.
11. 'UP' key long pressed in run mode - Resets timer 2 (if both timers are selected).
12. 'UP' key short pressed during run mode – if both timers are configured then display will show Set value of both the timers for 2 sec. When only one timer is configured then it will have no effect on the screen.
13. 'Up/down' short pressed in Program mode – Increment / Decrement the value/Parameter.
14. 'Down + UP' key long pressed in run mode when both timers are selected – Reset the timer1 and timer2.

Abbreviations used on seven segment Display during Programming and Operation:

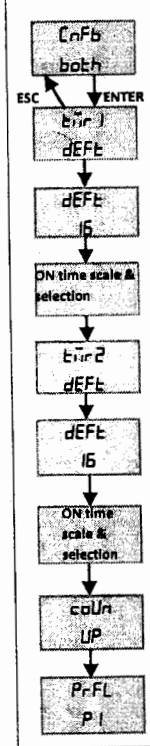
Abbreviation	Description
cnFg	Device Configuration - Timer1 or Both Timer 1 & 2.
tim 1	Timer 1 - Selection/Setting/Configuration.
tim2	Timer 2 - Setting/Configuration.
both	Both Timer 1 & Timer 2 Selection/Setting/Configuration.
dEFt	Default Mode Configuration/Selection - User can select different default Modes for Timer1 & Timer2. There are 33 inbuilt default modes available.
CUSt	Customized Mode Configuration/Selection - User can build their own Mode/Profile as per their requirement by using menu selection.
IrLS	Initial relay status before signal status detection.
rLYS	Relay Status after Power ON (For Non-signal based modes).
tmE	Do you want to keep Relay ON/OFF for specific timing?
SIg or nSIg	Signal Based or Non-signal Based Mode Selection in customized Mode.
SP or SA	Action to be taken on which signal transition – Signal Present/Signal Absent
rSP or rSA	Relay Status after transition of signal Present/Absent.
OFF	Relay OFF selection.
On	Relay ON selection.
onoF	Relay ON-OFF cycle selection.
oFon	Relay OFF-ON cycle selection.
cont	Relay Continuously ON / OFF selection.
trAn or LEvL	Action to be taken on signal - transition or level
cYcn	Number of cycles ON/OFF Cycles i.e. user can select the two cycles with different ON time & OFF time.
cYcr	Cycle Repeat. Do you want repeat cycle? Select 'YES' or 'NO'.
dUrn	Action to be taken during ON time or OFF time or both for cyclic mode.
tdt 1	Do you want to take Action if the transition of signal occurs during timing before 'Action after time Completion' or relay state changeover? Here user can define the action to be taken if Transition of the signal occurs during Run Time. Action can be taken on the SP or SA, user can take actions like 'Break'; 'Pause'; 'Reload'; 'Return' & 'Relay OFF'.
brEA	Break: If Break condition is selected in trdt1: ATT action is started, there are four ATT actions Reload, Relay Off, New time and No. Action will be taken after signal changes its state. If break is applied no ATT is selected then toggle relay status and stop the cycle.
PAUS	Pause: Pause the timing on selected signal Present /Absent action.
rLod	Reload the timing: When this action is selected the Output is kept ON for the time same as previous one.
rEt	Stops the timing/mode operation without changing output state and wait for signal state to start the mode/timing operation once again.
rLoF	Stop the timing/mode operation with changing output state to OFF state and wait for signal state to start mode/timing operation once again.
Att	Action after time Completion, on opposite transition of signal i.e. if cycles starts on signal present then action for ATT is at signal absent.
tdt2	Transition of the signal during Run Timing after 'Action after time Completion'. Here user can define the action to be taken if transition of the signal occurs during run Time. Action can be taken on the SP or SA; user can take actions like 'No'; 'Reload'; 'New Time' & 'Relay OFF'.
nEWt	New Time - When this action is selected the Output is kept ON for the NEW preset time. After completion of this ATT action the cycle is stopped.
rPtS	Repeat signal sensing or Cycle, after 1st cycle completion.
CoUn	Counting: Time counting method selection.
UP	Up or Elapsed counting selection.
doWn	Down (Remaining) counting selection.
PrFL	Profile selection

How to configure the Device:

User can configure the device (Timer 1 or Both Timers) in either Default Mode or Customized Mode. Following are the examples of Operating Procedures to configure the device in Default or Customized mode. For Operating procedures of all 33 Defaults modes & Customized modes refer 'User Manual' which can be downloaded from our website www.gicindia.com.



Example 16: IMPULSE ON ENERGIZING (Refer Mode No. 16 on page no. 02)
Select the Menu as given below to configure the Timers for IMPULSE ON ENERGIZING (Default).



Device configuration Selection (tim 1/both) - Select 'BOTH' (Both Timers configuration)

Timer 1 Mode selection (dEFt/cUSt) - select 'Default'

Select Default Mode - '03'

Select the time scale & time for which should remain ON

Timer 2 Mode selection (dEFt/cUSt) - select 'Default'

Select Default Mode – '03'

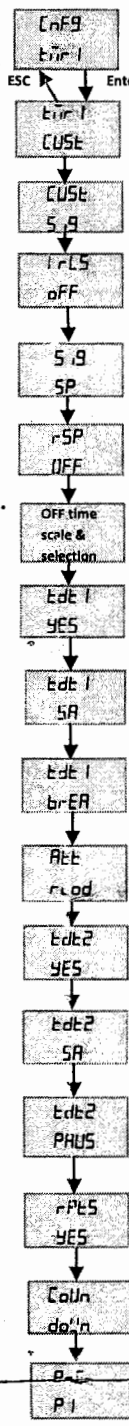
Select the time scale & time for which should remain ON

Time Counting method (UP/doWn) – here selected 'Up' as an example

At which profile you want to save this mode (P 1/P2) – here selected P1 as an example

Operating Mode & Description	Timing Diagram

Example 2: SIGNAL ON/OFF DELAY TYPE 2 (Refer Mode No. 13 on page no. 02)
Select the Menu as given below to configure the Timers for SIGNAL ON/OFF TYPE 2 (Customized).



Device configuration Selection (tim 1/both) -Select Timer 1

Timer 1 Mode selection select (dEFt/cUSt) - Select Customized

Customized Mode Selection (SIg/nSIg) – Select Signal Based

Initial output state before required signal state detection.
E.g. This mode/timer operation start at signal present, then here IRLS means the output state before signal presents.

Action to be taken on which signal transition (SP/SA)- Select Signal Present - Select SP - Level

Relay status after the transition of signal present (On/OFF) - select Relay OFF

Select the time scale & time for which should remain OFF

Do you want to take action if the transition of signal Occurs during Run time (YES/no) – Select Yes.

Select transition on which you want to take any action (SA/SP) - Select Signal Absent

What Action do you want to take if the transition of signal absent occurs during timing (brEA/rLod/rEt/rLoF/PAUS) - Select Break

Select the action after above time completion on signal absent (no/rLod/rLoF/nEWt) – Select Reload

Do you want to take Action if the transition of signal occurs during Run Time after change in relay state (YES/no)- Select Yes

Action to be taken on which signal transition (SA/SP) - Select SA - Signal Absent

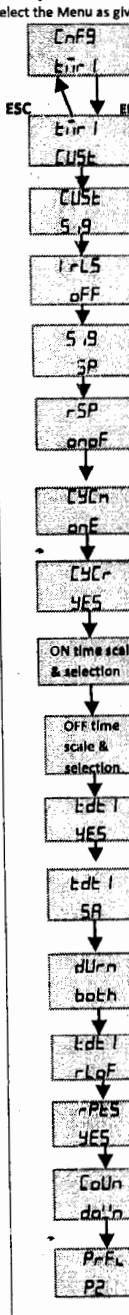
Do you want to take Action if the transition of the signal absent occurs after change in Relay state (PAUS/rLod/rEt/rLoF)- Select Pause

Do you want to repeat this cycle after every signal transition (YES/no) – Select Yes

Counting method (UP/doWn) – here Selected 'Down' as an example

At which profile you want to save this mode (P 1/P2) – here Selected P1 as an example

Example 2: ASYMETERIC CYCLE PULSE START (Refer Mode No. 32 on page no. 02)
Select the Menu as given below to configure the Timers for ASYMMETRIC CYCLE PULSE START (Customized).



Device configuration Selection (tim 1/both) -Select Timer 1

Timer 1 Mode selection select (dEFt/cUSt) - Select Customized

Customized Mode Selection (SIg/nSIg) – Select Signal Based

Initial Relay Status before signal detection (On/OFF) - Select OFF

Action to be taken on which signal transition (SP/SA)- Select Signal Present. Select SP - Level

Relay status after the transition of signal present (On/OFF) - select Relay OFF

Number of ON-OFF cycles (onE/tWo) : Select One.

Do you want to repeat the cycle (YES/no) – Select Yes.

Select the time scale & time for which relay should remain in the ON State.

Select the time scale & time for which relay should remain in the OFF State.

Do you want to take action if the transition of signal Occurs during Run time (YES/no) – Select Yes.

Select transition on which you want to take any action (SA/SP) - Select Signal Absent

During which relay status you want to take action if the transition of signal absent during run timing (on/oFF/both) – Select Both

What Action do you want to take if the transition of signal absent occurs during timing (brEA/rLod/rEt/rLoF/PAUS) - Select Relay OFF

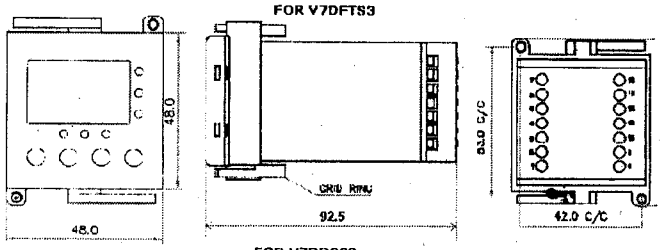
Do you want to repeat this cycle after every signal transition (YES/no) - Select Yes.

Counting method (UP/doWn) – here Down has been selected as an example

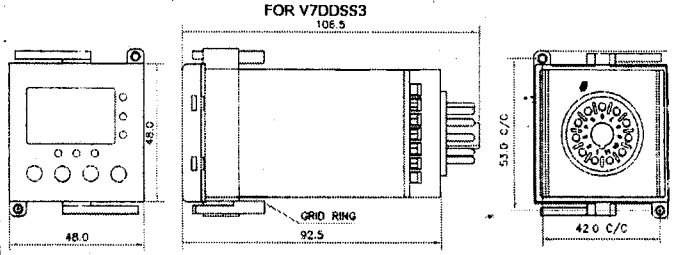
At which profile you want to save this mode (P 1/P2) – here 'P2' has been selected as an example.

OVERALL DIMENSIONS:

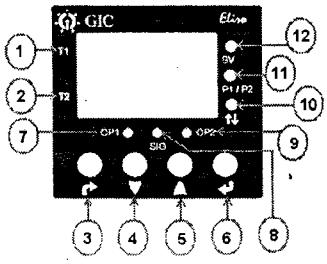
FOR V7DFTS3



FOR V7DDSS3



NOMENCLATURE FOR FRONT FACIA:



1. T1: Current Time (Process Time) of Timer 1
2. T2: Current Time (Process Time) of Timer 2
3. 'Esc' Key for Operation
4. 'Scroll Down' Key for Operation
5. 'Scroll Up' Key for Operation
6. 'Enter' Key for Operation
7. OP1: Relay Output 1 Indication
8. SIG: Signal Input Indication
9. OP2: Relay Output 2 Indication
10. Down/Up counting Indication
    LED ON: Up (Elapsed Time)Counting
    LED OFF: Down (Remaining Time) Counting
11. P1/P2: Running profile indication
    LED ON: Profile 'P1' running
    LED OFF: Profile 'P2' running
12. SV: Set Time of Timer 1 & Timer 2

Important Notes:

1. **When only Timer 1 is selected by user then T1 shows Current Time (Running Value) of Timer 1 & T2 shows Set Value of Timer 1.**
2. **When both Timer 1 & Timer 2 are selected by user then T1 shows Current Time (Running Value) of Timer 1 & T2 shows Current Time (Running Value) of Timer 2. If user presses the UP key during Run time then Set values of both Timer 1 & Timer 2 will be shown on respective Displays.**

Meaning of notations of first digit of Seven segment display during run time:

- n - Time running on the device is in Seconds scale.
- ı - Time running on the device is in Minutes scale.
- c - Time running on the device is in Hours scale.
- r - Time running on the device is in Hours: Minute scale.
- U - Time running on the device is in Minutes: Second scale.
- D - Time running on the device is in Days sale.

Key Conventions:

Long Press: Key pressed for more than 3 sec.
Short Press: Key pressed for less than 3 sec.

1. 'Enter' Key Long Pressed at power on – Program mode/Edit mode (with device version display).
2. 'Enter' key short pressed in Program mode/Edit mode – Value/parameter entered & Move to next menu.
3. 'Enter' short pressed during Run mode – Edit Preset Time during Timer Operation.
4. 'ESC' key long pressed during Run mode – Program mode/Edit mode.
5. 'ESC' key short pressed in Program mode – Return to previous menu.
6. 'ESC' key short pressed in online edit – Device will come out of online editing
7. 'ESC + Enter' long pressed run mode - lock / unlock.
8. 'ESC + Up' key long pressed in run mode - Getting profile/Profile Recall & Run.
9. 'Down' key long pressed in Run mode - Resets timer1.
10. 'Down' Key short pressed in Online Program mode - Blinking preset digit gets decremented.
11. 'UP' key long pressed in run mode - Resets timer 2 (if both timers are selected).
12. 'UP' key short pressed during run mode – If both timers are configured then display will show Set value of both the timers for 2 sec. When only one timer is configured then it will have no effect on the screen.
13. 'Up/down' short pressed in Program mode – Increment / Decrement the value/Parameter.
14. 'Down + UP' key long pressed in run mode when both timers are selected – Reset the timer1 and timer2.

Set Time →