SPECIFICATIONS

SUPPLY	
SUPPLY TERMINALS	A1 - A2
VOLTAGE RANGE	AC/DC 12-240V (AC 50-60 Hz)
POWER INPUT (MAX)	2.5VA/1.5W
SUPPLY VOLTAGE TOLERANCE	–15%; +10%
SUPPLY INDICATION	Green LED
TIME CIRCUIT	
NUMBER OF FUNCTIONS	10
TIME RANGES	0.1s - 10 days
TIME SETTING	Rotary Switch and Potentiometer
TIME DEVIATION	5% - mechanical setting
REPEAT ACCURACY	0.2% - set value stability
TEMPERATURE COEFFICIENT	0.01%/°C, at = 20°C 0.01%/°F, at = 68°F
OUTPUT	
NUMBER OF CONTACTS	1
CONTACT FORM 1	SPDT
CURRENT RATING	
OUTPUT (55°C)	16A/AC1 or 16A General Purpose at 250VAC
OUTPUT (40°C)	Pilot Duty B300
OUTPUT (40°C, N/O ONLY)	1HP at 240VAC, 1/2HP at 120VAC
BREAKING CAPACITY	4000VA/AC1, 384W/DC
ELECTRICAL LIFE (AC1)	100,000 ops.
SWITCHING VOLTAGE	250VAC / 24VDC
POWER DISSIPATION (MAX)	1.2W
OUTPUT INDICATION	Multifunction Red LED
MECHANICAL LIFE	10,000,000 ops.
CONTROL	
CONTROL TERMINALS	A1-S
LOAD BETWEEN S-A2	Yes
IMPULSE LENGTH	min. 25 ms/max. unlimited
RESET TIME	max. 150 ms
OTHER INFORMATION	
OPERATING TEMPERATURE	-20 to +55°C (-4°F to 131°F)
STORAGE TEMPERATURE	-30 to +70°C (-22°F to 158°F)
OPERATING POSITION	Any
DIELECTRIC STRENGTH	4kV AC(supply - output)
MOUNTING	DIN rail EN 60715
PROTECTION DEGREE	IP40 front panel / IP20 terminals
OVERVOLTAGE CATEGORY	III
POLLUTION DEGREE	2
MAX CABLE SIZE (MM^2)	solid wire max. 1x 2.5 or 2 x 1.5 with sleeve max. 1 x 2.5 (AWG 12)
DIMENSIONS	90 x 17.6 x 64mm 3.5″ x 0.7″ x 2.5″
WEIGHT	62g (3oz)
STANDARDS	EN 61812-1

RoHS compliant

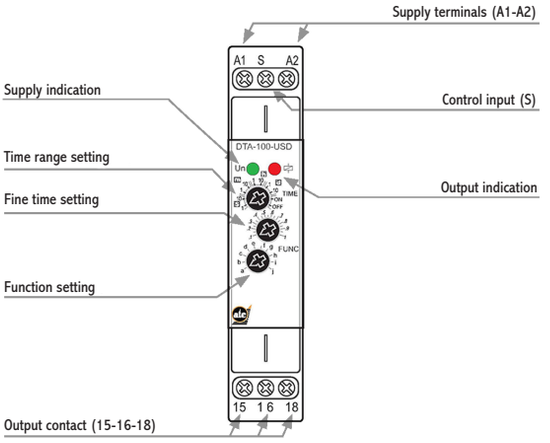
c UL us LISTED
E55826

Multifunction Time Relay

- **10 Functions**
- **Time Ranges 0.1s - 10 days**
- **Universal Supply Voltage**
- **Slim, Space-saving Design**
- **DIN Rail Mount**
- **Multifunction Red Status LED**

- Multifunction time relay for universal use in automation, control, and regulation or in house installations.
- Time scale divided into 10 ranges: (0.1s - 1s / 1s - 10s / 0.1min - 1min / 1min - 10min / 0.1hr - 1hr / 1hr - 10hrs / 0.1 day - 1 day / 1 day - 10 days / only ON / only OFF).
- Comfortable and well-arranged function and time-range setting by rotary switches.
- Multifunction red LED flashes or shines depending on the operating status.

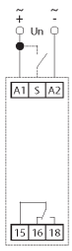
DESCRIPTION

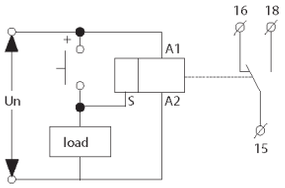


ORDERING INFORMATION

PART NO.	DESCRIPTION
DTA100USD	DIN rail mounted Multifunction Time Relay

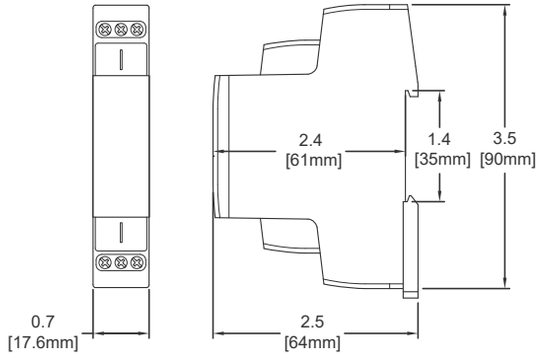
TERMINAL CONNECTIONS





Possibility to connect load onto controlling input
It is possible to connect the load (e.g.: contactor) between terminals S-A2, without any interruption of correct relay function.

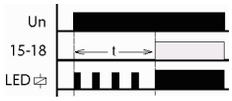
DIMENSIONS



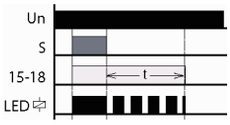
INDICATION OF OPERATING STATES

Examples of status LED operation

Function a



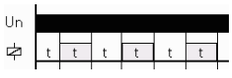
Function e



TIMING DIAGRAMS

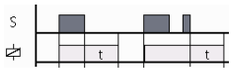
a. ON DELAY
When the input voltage U is applied, timing delay t begins. Relay contacts R change state after time delay is complete. Contacts R return to their shelf state when input voltage U is removed. Trigger switch is not used in this function.

b. INTERVAL ON
When input voltage U is applied, relay contacts R change state immediately and timing cycle begins. When time delay is complete, contacts return to shelf state. When input voltage U is removed, contacts will also return to their shelf state. Trigger switch is not used in this function.

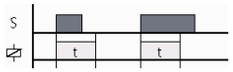


c. FLASHER - OFF FIRST
When input voltage U is applied, time delay t begins. When time delay t is complete, relay contacts R change state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.

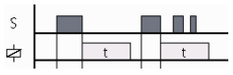
d. FLASHER - ON FIRST
When input voltage U is applied, relay contacts R change state immediately and time delay t begins. When time delay t is complete, contacts return to their shelf state for time delay t. This cycle will repeat until input voltage U is removed. Trigger switch is not used in this function.



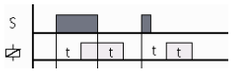
e. OFF DELAY
Input voltage U must be applied continuously. When trigger switch S is closed, relay contacts R change state. When trigger switch S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger switch S is closed before time delay t is complete, then time is reset. When trigger switch S is opened, the delay begins again, and relay contacts R remain in their energized state. If input voltage U is removed, relay contacts R return to their shelf state.



f. SINGLE SHOT
Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. During time-out, the trigger signal S is ignored. The relay resets by applying the trigger switch S when the relay is not energized.

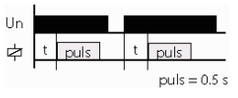


g. SINGLE SHOT FALLING EDGE
Upon application of input voltage U, the relay is ready to accept trigger signal S. Upon application of the trigger signal S, the relay contacts R transfer and the preset time t begins. At the end of the preset time t, the relay contacts R return to their normal condition unless the trigger switch S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger switch S at a rate faster than the preset time will cause the relay contacts R to remain closed. If input voltage U is removed, relay contacts R return to their shelf state.



h. ON/OFF DELAY
Input voltage U must be applied continuously. When trigger switch S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger switch S is opened. If input voltage U is removed, relay contacts R return to their shelf state.

i. MEMORY LATCH
Input voltage U must be applied continuously. Output changes state with every trigger switch S closure. If input voltage U is removed, relay contacts R return to their shelf state.



j. PULSE GENERATOR
Upon application of input voltage U, a single output pulse of 0.5 seconds is delivered to relay after time delay t. Power must be removed and reapplied to repeat pulse. Trigger switch is not used in this function.