

This device is designed for connection of 1-phase voltage, 12-240 V AC/DC and must be installed according to norms valid in existing state. Connections must be made according to details in this instruction sheet. Installation, connections, setting and servicing should be performed by qualified electrician staff, who understands this instruction sheet and functions of respective device.

Before starting installation ensure that the main switch is in "OFF" position and there should be no power going to the device. Qualified installer must also ensure the device is being installed into a temperature controlled environment which will guarantee not to exceed the specified maximum operating temperature. For installation use a screwdriver with 2 mm tip.

# DESCRIPTION



## **TIME RANGES**

0.1 - 1s	■101 <sup>10</sup> 11 10 10 10 10 10 10 10 10 10 10 10 10 1	0.1 - 1 min	■1011921 1000 1	0.1 - 1 h
1 - 10 h	0.1 - 1 day	1 - 10 days		

#### WIRING DIAGRAMS



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Function	Operation	Timing Chart
A. ON DELAY Power On	When the control 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 control voltage U is removed. Trigger switch is not used in this function.	R off t
B. FLASHER Starting Off	When controls 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 control voltage U is removed. Trigger switch is not used in this function.	U R off_t_t_t_t
C. INTERVAL Power On	When controls 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 control voltage U is removed, contacts will also return to their shelf state. Trigger switch is not used in this function.	U t t
D. OFF DELAY S Break	Controls voltage U must be applied continuously. When trigger S is closed, relay contacts R change state. When trigger S is opened, delay t begins. When delay t is complete, contacts R return to their shelf state. If trigger S is closed before time delay t is complete, then time is reset. When trigger S is opened, the delay begins again, and relay contacts remain in their energized state. If control voltage U is removed, relay contacts R return to their shelf state.	U S close opent
E. RETRIGGE- RABLE ONE SHOT	Upon application of control 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 the relay contacts R return to their normal condition unless the trigger signal S is opened and closed prior to time out t (before preset time elapses). Continuous cycling of the trigger signal S at a rate faster than the preset time will cause the relay contacts R to remain closed. If control voltage U is removed, relay contacts R return to their shelf state.	U S open
F. FLASHER Starting On	When control 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 control voltage U is removed. Trigger switch is not used in this function.	U R off t t t
G. PULSE GENERATOR	Upon application of control 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 S is not used in this function.	R off
H. ONE SHOT	Upon application of control 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 signal S when the relay is not energized.	U S close open R on t t t
I. ON/OFF DELAY S Make/Break	Control voltage U must be applied continuously. When trigger S is closed, time delay t begins. When time delay t is complete, relay contacts R change state and remain transferred until trigger S is opened. If control voltage U is removed, relay contacts R return to their shelf state.	U S close open R off t states R off t states S close
J. MEMORY LATCH S Make	Control voltage U must be applied continuously. Output changes state with every trigger S closure. If control voltage U is removed, relay contacts R return to their shelf state.	S close R on off



# Modular Style Time Delay Relays

# SPECIFICATIONS

OUTPUT CHARACTER	RISTICS			
Number and type of cont		SPDT or DPDT		
Contact material		Silver alloy		
Merge		15 A @ 240 VAC,		
morgo		240 V 50/60 Hz		
		1/3 HP @ 120 V 50/60 Hz		
Contact Ratings		3/4 HP @ 240 V 50/60 Hz		
5		B300 pilot duty		
Minimum switching requi	rement	100 mA		
Indication		Red LED		
INPUT CHARACTERIS	TICS	I		
Control voltage range		12 to 240 V 50/60 Hz/ VDC		
Operating range (% of no	ominal)	85% to 110%		
Maximum consumption	,	3 VA (AC)		
		1.7 W (DC)		
Indication		Green LED		
TIMING CHARACTERI	STICS	1		
Functions available		10		
Time scales		10		
Time ranges		0.1 sec to 10 days		
Tolerance (mechanical se	etting)	5%		
Repeatability (constant v	oltage and temperature)	0.2%		
Reset time (maximum)		150 ms		
Trigger pulse length (min	imum)	50 ms		
PERFORMANCE CHAI	RACTERISTICS			
Electrical life (operations	@ rated current)	100,000 cycles (resistive)		
Mechanical life (unpower	red)	10,000,000 cycles		
Dielectric strength	Input to contacts	2500 VAC		
	Between open contacts	1000 VAC		
Terminal wire capacity	•	12-22 AWG		
Terminal torque (maximu	m)	3.5 in-lbs lbf in (0.4 Nm)		
ENVIRONMENT				
Product certifications		cULus, CE, RoHS		
Ambient air temperature	Storage	-30 to +70 °C (-22 to +158 °F)		
Around the device	Operation	-20 to +55 °C (-4 to +131 °F)		
Degree of protection		IP 20		
Weight		65 grams (2.3 oz)		

## **DIMENSIONS** INCHES (MILLIMETERS)



$\begin{vmatrix} CONTACT \\ 15 A \end{vmatrix} \xrightarrow{-1} = \begin{vmatrix} -\pi c \\ -\pi c \\$	RELAY	LOAD								
	CONTACT		-	⊐म⊡⊫	<del>е</del>   -70µF	Ē	AC1A	C3	AC15	DC1 (24/110/220 V)
AgNi 1000 W 4000 VA 0.9 kW 750 VA 15 A/0.5 A/0	AgNi	1000 W					4000 VA	0.9 kW	750 VA	15 A/0.5 A/0.35 A

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