

Description

Legacy Time Delay and Sensor Relays

820 Series
SPDT, 15 A; DPDT, 15 A



Description

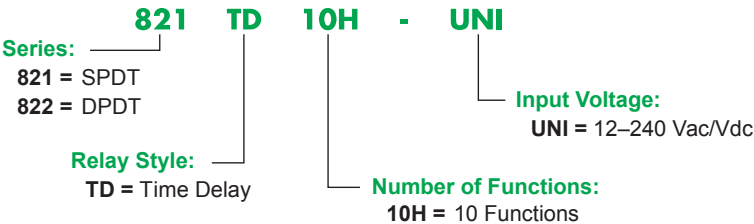
The 820 Series time delay relays are 35-mm DIN-rail mountable products offering ten different timing functions, ultra-wide timing range (10 ms to 10 days), and a universal voltage input (12–240 Vac/Vdc), all in a slim 17.5 mm (0.69 in.) modular package.

Feature	Benefit
Up to 10 functions	■ 5 timing functions controlled via supply voltage ■ 4 timing functions controlled via trigger input ■ 1 memory latching function Meets most timing requirements
Contact configuration	SPDT or DPDT
Universal power supply	12–240 Vac/Vdc
2 LED status indicators	Shows status at a glance
Only 17.5 mm (0.69 in.) wide	Ideal for tight spaces
DIN-rail mountable	Easy installation (screwdriver required)
RoHS compliant	Environmentally friendly

Input Voltage	Functions Available (1)	Timing Range	Contact Configuration	Rated Current	Standard Part Number
12–240 Vac/Vdc	A,B,C,D,E,F,G,H,I,J	10 ms to 10 days	SPDT	15 A	821TD10H-UNI
			DPDT	15 A (2 pairs of contacts)	822TD10H-UNI

(1) For function descriptions, see page 31.

Part Number Explanation



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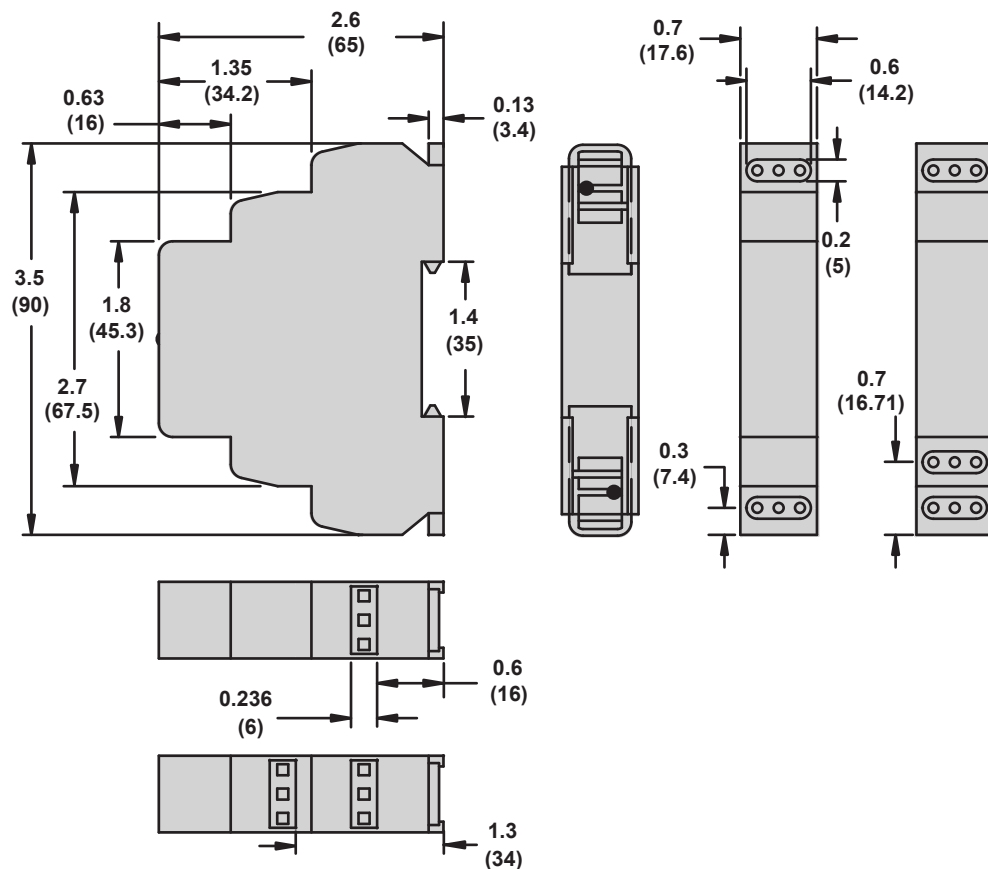
Specifications

Part Number	821TD10H-UNI	822TD10H-UNI
Input Characteristics		
Input Voltage Range	12–240 Vac/Vdc	12–240 Vac/Vdc
Operating Voltage (% of Nominal)	85% of 12 V to 110% of 240 V	85% of 12 V to 110% of 240 V
Maximum Power Consumption	3 VA 1.7 W	3 VA 1.7 W
Output Characteristics		
Contact Configuration	SPDT	DPDT
Output Current Rating	15 A	15 A
Contact Material	Silver alloy	Silver alloy
Switching Capability	15 A @ 240 Vac, 50/60 Hz, 24 Vdc 1/2 hp @ 120 Vac 1 hp @ 240 Vac Pilot duty B300	15 A @ 240 Vac, 50/60 Hz, 24 Vdc 1/2 hp @ 120 Vac 1 hp @ 240 Vac Pilot duty B300
Minimum Switching Requirement	100 mA	100 mA
Timing Characteristics		
Functions Available (1)	Multifunction	Multifunction
Time Scales	8	8
Time Ranges	100 ms to 1 s 1 s to 10 s 0.1 min to 1 min 1 min to 10 min 0.1 hr to 1 hr 1 hr to 10 hr 0.1 day to 1 day 1 day to 10 days	100 ms to 1 s 1 s to 10 s 0.1 min to 1 min 1 min to 10 min 0.1 hr to 1 hr 1 hr to 10 hr 0.1 day to 1 day 1 day to 10 days
Tolerance	5% of mechanical setting	5% of mechanical setting
Repeatability at Constant Voltage and Temperature	0.2%	0.2%
Reset Time	150 ms maximum	150 ms maximum
Trigger Pulse Length	50 ms minimum	50 ms minimum
General Characteristics		
Electrical Life (Operations at Rated Current) (2)	70,000 operations	70,000 operations
Mechanical Life (Unpowered) (2)	10,000,000 operations	10,000,000 operations
Dielectric Strength (Input to Contacts)	2500 Vac	2500 Vac
Dielectric Strength (Between Open Contacts)	1600 Vac	1600 Vac
Storage Temperature Range	–30 to +70 °C (–22 to +158 °F)	–30 to +70 °C (–22 to +158 °F)
Operating Temperature Range	–20 to +55 °C (–4 to +131 °F)	–20 to +55 °C (–4 to +131 °F)
Terminal Wire Capacity (Input and Output)	14 AWG (2.1 mm ²) maximum	14 AWG (2.1 mm ²) maximum
Terminal Screw Torque	7.1 lb-in (0.8 N•m) maximum	7.1 lb-in (0.8 N•m) maximum
Weight	55 g (1.9 oz)	70 g (2.5 oz)
Input Indication	Green LED	Green LED
Output Indication (Blinking = Timing; On = Energized)	Red LED	Red LED
Enclosure Rating (according to IEC 60529 IP rating)	IP20	IP20
Approvals	cULus (File: E234203, CCN: NKCR, NKCR7), CE 61810-1, RoHS	cULus (File: E234203, CCN: NKCR, NKCR7), CE 61810-1, RoHS

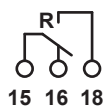
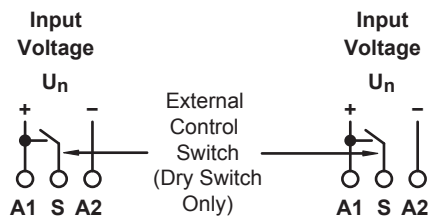
(1) For function descriptions, see page 31.

(2) Actual product life varies based on electrical load, duty cycle, application, and environmental conditions.

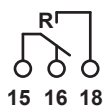
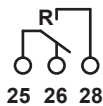
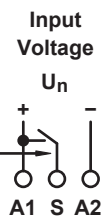
Dimensions—in. (mm)



Wiring Diagram



821TD10H-UNI



822TD10H-UNI

15—Common
16—Normally Closed
18—Normally Open

25—Common
26—Normally Closed
28—Normally Open