

Delay On Break (Release) TDUB Digi-Set Timing Module



Description

The TDUB Series combines digital timing circuitry with universal voltage operation. 24 to 240 V AC and 12 to 24 V DC are available in three ranges. The TDUB Series offers DIP switch selectable time delays ranging from 100 ms to 10,230 s in three ranges. Its 1 A rated output, its ability to operate on multiple voltages, and its wide range of switch selectable time delays make the TDUB Series an excellent choice for process control systems and OEM equipment.

Operation

Input voltage must be applied to the input before and during timing. Upon closure of the initiate switch, the output is energized. The time delay begins when the initiate switch is opened (trailing edge triggered). The output remains energized during timing. At the end of the time delay, the output is de-energized. The output will energize if the initiate switch is closed when input voltage is applied.

Reset: Reclosing the initiate switch during timing resets the time delay. Loss of input voltage resets the time delay and output.

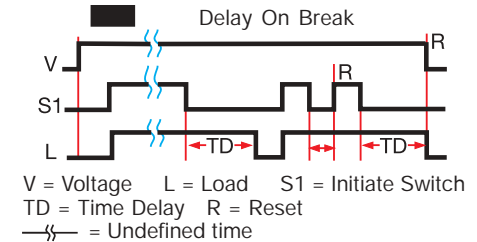
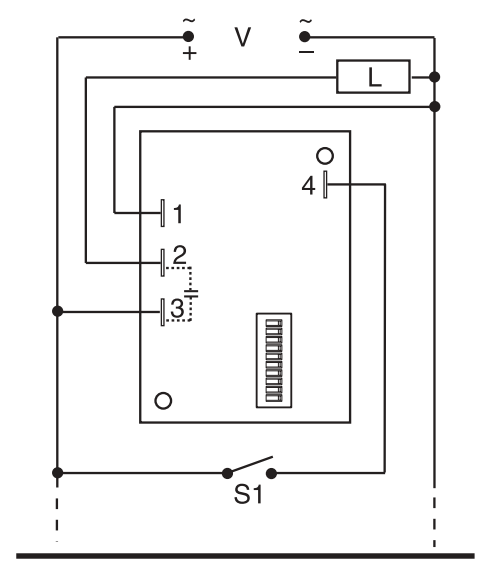
Approvals:

- Switch Selectable Time Setting
- Three Time Ranges from 100 ms ... 10,230 s
- No First-Shot Effect
- Fully Solid State and Encapsulated

Input Voltage Range	Time Range - Seconds	Part Number
24 ... 120 V AC	0.1 ... 102.3	TDUBL3000A
100 ... 240 V AC	0.1 ... 102.3	TDUBL3001A
12 ... 24 V DC	0.1 ... 102.3	TDUBL3002A
24 ... 120 V AC	1 ... 1023	TDUB3000A
100 ... 240 V AC	1 ... 1023	TDUB3001A
12 ... 24 V DC	1 ... 1023	TDUB3002A
24 ... 120 V AC	10 ... 10230	TDUBH3000A
100 ... 240 V AC	10 ... 10230	TDUBH3001A
12 ... 24 V DC	10 ... 10230	TDUBH3002A

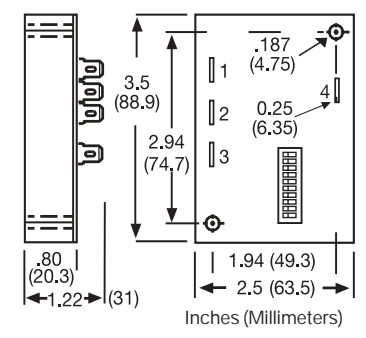
Technical Data

Time Delay	
Type	Digital integrated circuitry
Range*	0.1 ... 102.3 s in 0.1 s increments 1 ... 1023 s in 1 s increments 10 ... 10,230 s in 10 s increments
Repeat Accuracy	+/-0.5%
Tolerance (Factory Calibration)	+/-10%
Reset Time	150 ms
Recycle Time	150 ms
Time Delay vs. Temperature & Voltage	+/-5%
Input	
Voltage	24 ... 240 V AC, 12 ... 24 V DC +/-20%
Line Frequency	50 ... 60 Hz
DC Ripple	10%
Output	
Type	Solid state
Form	Normally Open, closed before and during timing
Rating	1 A steady state, 10 A inrush at 60°C
Voltage Drop	≅ 2.5 V at 1 A
Leakage	≅ 5 mA
Protection	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
Mechanical	
Mounting	Surface mount with two #8 (M4 x 0.7) screws
Package	3.5 x 2.5 x 1.2 in. (88.9 x 63.5 x 31 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals
Environmental	
Operating Temperature	-40°C ... +80°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 4.8 oz (136.1 g)



Digi-Set Binary Switch Operation

0.1...102.3			1...1023			10...10,230		
OFF ▶ ON			OFF ▶ ON			OFF ▶ ON		
0.1	1	10	1	1	10	1	1	10
0.2	2	20	2	2	20	2	2	20
0.4	4	40	4	4	40	4	4	40
0.8	8	80	8	8	80	8	8	80
1.6	16	160	16	16	160	16	16	160
3.2	32	320	32	32	320	32	32	320
6.4	64	640	64	64	640	64	64	640
12.8	128	1280	128	128	1280	128	128	1280
25.6	256	2560	256	256	2560	256	256	2560
51.2	512	5120	512	512	5120	512	512	5120
6.3 S			544 S			3000 S		



Accessories

Female quick connect
P/Ns:
P1015-13 (AWG 10/12)
P1015-64 (AWG 14/16)
P1015-14 (AWG 18/22)

Quick connect to screw adaptor
P/N: P1015-18

See accessory pages at the end of this section.

*For CE approved applications, power must be removed from the unit when a switch position is changed.