ABB TDUI1A01 02.17.03

Interval (Single Pulse On Operate) **TDUI Digi-Set Timing Module**



- **£10**
- Switch Selectable Time Setting
- Over a 1000 to 1 Time Ratio
- +/-0.5% Repeat Accuracy■ No First-Shot Effects
- Two Models Operate from 19 ... 288 V AC
- One Model Operates from 10 ... 30 V DC

Description

The TDUI 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 TDUI 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 TDUI Series an excellent choice for process control systems and OEM equipment.

Operation

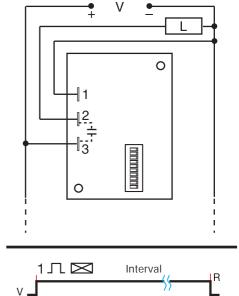
Upon application of input voltage, the time delay begins. The output is energized during the time delay. At the end of the time delay, the output is de-energized and remains deenergized until input voltage is removed.

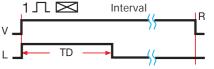
Reset: Removing input voltage resets the time delay and the output.

Approvals:



Input Voltage Range	Time Range - Seconds	Part Number
24 120 V AC	0.1 102.3	TDUIL3000A
100 240 V AC	0.1 102.3	TDUIL3001A
12 24 V DC	0.1 102.3	TDUIL3002A
24 120 V AC	1 1023	TDUI3000A
100 240 V AC	1 1023	TDUI3001A
12 24 V DC	1 1023	TDUI3002A
24 120 V AC	10 10230	TDUIH3000A
100 240 V AC	10 10230	TDUIH3001A
12 24 V DC	10 10230	TDI IIH3003V





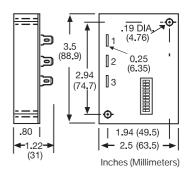
V = Voltage L = Load TD = Time Delay R = Reset - - - Undefined time

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

Digi-Set Binary Switch Operation 10...10.230 0.1...102.3 1...1023 OFF ►ON OFF ►ON 20**=** 8 = 16 = 32 = 64 = 128 = 80 = 160 = 320 = 640**=** 1280**=** 256 = 2560=



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.