

# Delay On Break (Release)

## TDUB Digi-Set

### Timing Module



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- Switch Selectable Time Setting
- 0.1 s ...102.3 m in 3 Ranges
- +/- 0.5% Repeat Accuracy
- +/- 2% Setting Accuracy
- 1 A Solid State Output
- Encapsulated
- Wide Voltage Ranges

Approvals:  

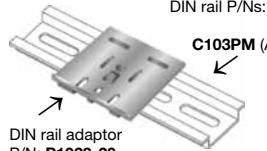
#### Accessories



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**



DIN rail P/Ns:

**C103PM (AI)**

DIN rail adaptor  
P/N: **P1023-20**

See accessory pages for  
specifications.

#### Description

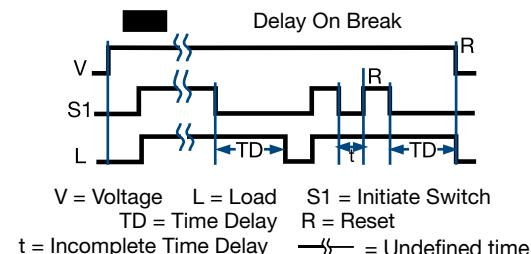
The TDUB Series combines digital timing circuitry with universal voltage operation. Voltages of 24 to 240 V AC and 12 to 24 V DC are available in three ranges. The TDUB Series offers DIP switch selectable time delays ranging from 0.1 seconds to 102.3 minutes in three ranges. Its 1 A rated output, ability to operate on multiple voltages, and wide range of switch selectable time delays make the TDUB Series an excellent choice for process control systems and OEM equipment.

#### Operation

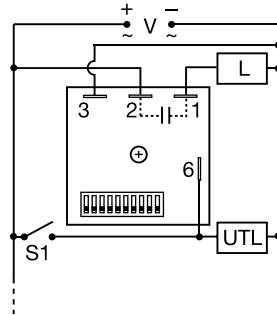
Input voltage must be applied before and during timing. Upon closure of the initiate switch, the output energizes. The time delay begins when the initiate switch is opened (trailing edge triggered). The output remains energized during timing. At the end of the time delay, the output de-energizes. The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

#### Function



#### Connection



Dashed lines are internal connections.  
 UTL = Optional Untimed Load   S1 = Initiate Switch  
 L = Timed Load

#### Available Models-

•TDUB3000A  
TDUBL3001A

TDUB3002A  
TDUBL3002A

TDUBH3002A

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#### Ordering Table

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

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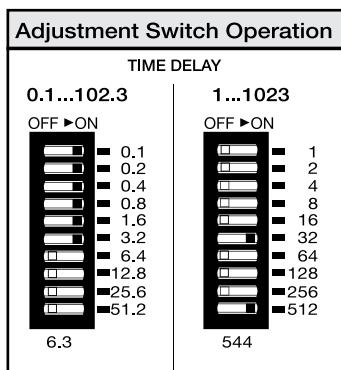
Dedicated  
timers

#### Technical Data

<b>Time Delay</b>	
Range*	0.1 ... 102.3 s in 0.1 s increments 1 ... 1023 s in 1 s increments 0.1 ... 102.3 m in 0.1 m increments +/-0.5% or 20 ms, whichever is greater
Repeat Accuracy	$\leq +/-2\%$ or 20 ms, whichever is greater
Setting Accuracy	$\leq +/-2\%$ or 20 ms, whichever is greater
Reset Time	$\leq 150$ ms
Initiate Time	$\leq 20$ ms
Time Delay vs. Temperature & Voltage	$\leq +/-5\%$
<b>Input</b>	
Voltage / Tolerance	24 ... 240 V AC, 12 ... 24 V DC +/-20%
Line Frequency	50 ... 60 Hz
Power Consumption	AC $\leq 2$ VA; DC $\leq 1$ W
DC Ripple	$\leq 10\%$
<b>Output</b>	
Type	Solid state
Form	Normally Open, closed before and during timing
Rating	1 A steady state, 10 A inrush at 60°C
Voltage Drop	AC $\cong 2.5$ V at 1 A; DC $\cong 1$ V at 1 A
Off State Leakage Current	AC $\cong 5$ mA @ 230 V AC; DC $\cong 1$ mA
<b>Protection</b>	
Circuitry	Encapsulated
Dielectric Breakdown	$\geq 2000$ V RMS terminals to mounting surface
Insulation Resistance	$\geq 100$ MΩ
Polarity	DC units are reverse polarity protected
<b>Mechanical</b>	
Mounting	Surface mount with one #10 (M5 x 0.8) screw
Package	2 x 2 x 1.21 in (50.8 x 50.8 x 30.7 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals
<b>Environmental</b>	
Operating Temperature	-40°C ... +60°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	$\cong 2.4$ oz (68 g)

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

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Add the value of switches in the ON position for the total time delay.

#### Mechanical View

