

# Switch Adjustable Universal Timer

## DSQU/DSTU MicroTime

### Timing Module



4

- 17.5 mm Package for High Rail Density
- Microprocessor Controlled with +/-0.1% Timing Accuracy
- Multimode: 5 Selectable Functions
- Multirange: Switch Adjust from 0.1 s ... 63 m
- Multivoltage: 24 ... 240 V AC or 9 ... 110 V DC
- 0.7 A Steady, 10 A Inrush Rated Solid State Output

Approvals:

#### Description

The DSQU/DSTU Series of 17.5 mm, switch adjustable, universal solid state timers offer multiple functions, voltages, and time delay ranges. Choose one of 5 functions and 4 time delay ranges via 4 selection switches located on top of the unit. Six switches adjust the time delay through the selected range.

#### Adjustment

DOM	A <input type="checkbox"/> B <input type="checkbox"/>	R		M	
SS	A <input type="checkbox"/> B <input type="checkbox"/>	0.1 ... 6.3s	X0.1s	C <input type="checkbox"/> D <input type="checkbox"/>	E <input type="checkbox"/> F <input type="checkbox"/>
R	A <input type="checkbox"/> B <input type="checkbox"/>	1 ... 63s	X1s	C <input type="checkbox"/> D <input type="checkbox"/>	E <input type="checkbox"/> F <input type="checkbox"/>
DOB	A <input type="checkbox"/> B <input type="checkbox"/>	10 ... 630s	X10s	C <input type="checkbox"/> D <input type="checkbox"/>	E <input type="checkbox"/> F <input type="checkbox"/>
		1 ... 63m	X1m	C <input type="checkbox"/> D <input type="checkbox"/>	E <input type="checkbox"/> F <input type="checkbox"/>

Time Delay Adjustment

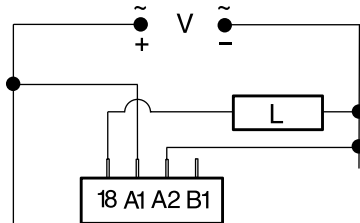


Add switches in ON Position  
TD = 2+8+16=26

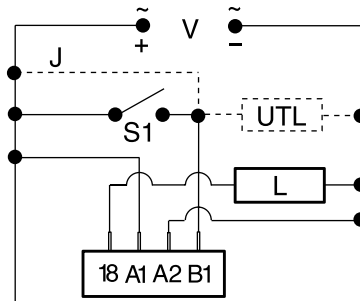
DOM = Delay On Make      R = Range  
SS = Single Shot/Interval      M = Multiplier  
R = Recycling      S = Setting  
DOB = Delay On Break      I = Increments of Time

#### Connection

Delay on Make & Recycling

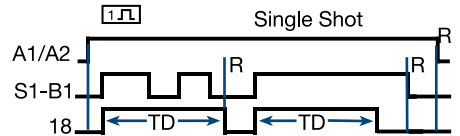
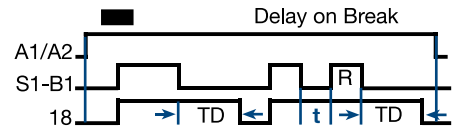
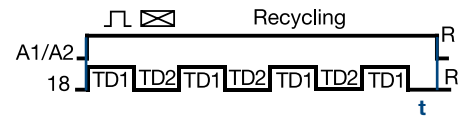
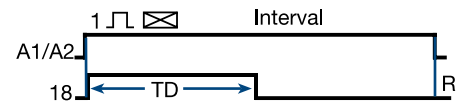
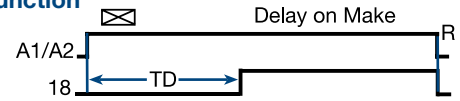


Single Shot, Interval & Delay on Break



V = Voltage    L = Load    J = Wire Required for Interval Operation  
S1 = Initiate Switch    UTL = Optional Untimed Load

#### Function



R = Reset    TD = Time Delay  
t = Incomplete Time Delay  
TD1 = TD2

For Function Descriptions, See Timer Function Section

#### Available Models-

- DSQUA3
- DSQUD3
- DSTUA3
- DSTUD3

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#### Ordering Table

<b>X</b>	<b>Series</b>	<b>X</b>	<b>Input</b>
	DSQU - Quick Connects		A - Universal AC Voltage (24 ... 240 V AC)
	DSTU - Terminal Blocks		D - Universal DC Voltage (9 ... 110 V DC)

<b>X</b>	<b>Base Adaptors</b>
	3 - Both - Surface & DIN Rail Adaptors, with Quick Mount Fasteners



Female quick connect P/Ns:

- P1015-13 (AWG 10/12)
- P1015-64 (AWG 14/16)
- P1015-14 (AWG 18/22)

See accessory pages for specifications.

Example P/N: DSQUA3, DSTUD3

# Switch Adjustable Universal Timer

## DSQU/DSTU MicroTime

### Timing Module

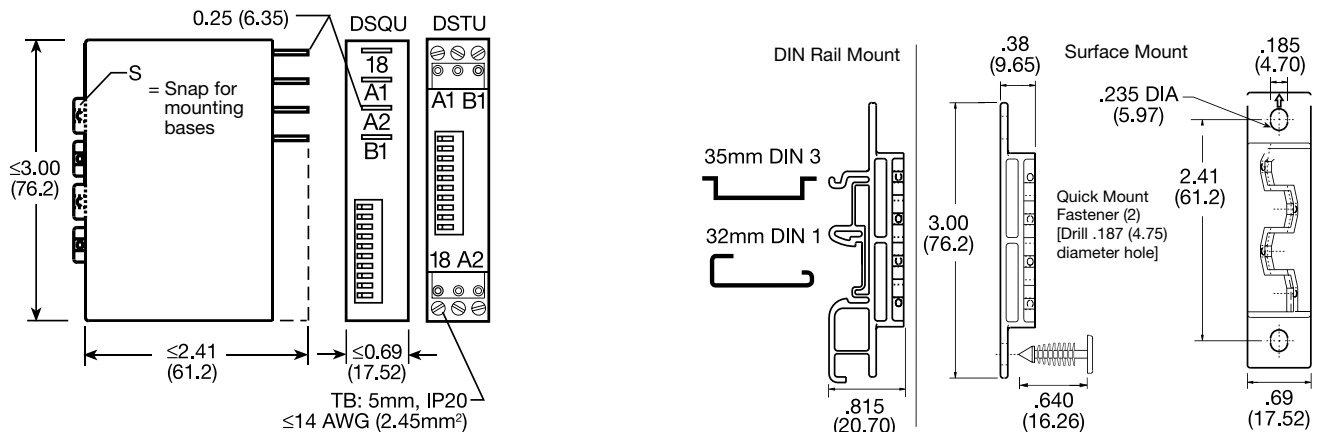
Multifunction  
timers

#### Technical Data

<b>Time Delay</b>	
Type	Microcontroller based with ceramic resonator and watchdog circuitry
Adjustment and Range*	6 switches adjust the time delay; 2 switches select 1 of 4 multipliers; x0.1s = 0.1 ... 6.3 s in 0.1 s increments x1s = 1 ... 63 s in 1 s increments x10s = 10 ... 630 s in 10 s increments x1m = 1 ... 63 m in 1 m increments
Repeat Accuracy	+/-0.1% or +/-20 ms, whichever is greater
Setting Accuracy	+/-2% or +/-50 ms, whichever is greater
Reset Time	≤ 300 ms
Initiate Time	Single Shot & Delay on Break: ≤ 32 ms
Time Delay vs. Temp. & Voltage	+/-2% or +/-50 ms, whichever is greater
<b>Input</b>	
Voltage	AC: 24 ... 240 V AC; -20% ... +10% DC: 9 ... 110 V DC; -0% ... +20% @ -25°C 9.4 ... 110 V DC; -0% ... +20% @ -40°C
AC Line Frequency	50 ... 60 Hz
DC Ripple	≤ 10%
<b>Output</b>	
Type	Solid state
Form	Normally Open
Rating	0.7 A steady state, 10 A inrush
Voltage Drop	AC: ≅ 2.5 V at 0.7 A; DC: ≅ 1.5 V at 0.7 A
<b>Protection</b>	
Surge	IEEE C62.41-1991 Level A
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Polarity	DC units are reverse polarity protected
<b>Mechanical</b>	
Mounting	Two base adaptors are available
DIN Rail	Snap on to 32 mm DIN 1 & 35 mm DIN 3 rail
Surface	Two #6 (M3.5 x 0.6) screws or quick mount fasteners
Termination	
DSQU	0.25 in. (6.35 mm) male quick connect terminals
DSTU	0.197 in. (5 mm) push-on terminal blocks for up to #14 AWG (2.5 mm <sup>2</sup> ) wire
<b>Environmental</b>	
Operating Temperature	-40°C ... +60°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 4.2 oz (119 g)

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

#### Mechanical View



TB = Push-on Terminal Blocks

Inches (Millimeters)