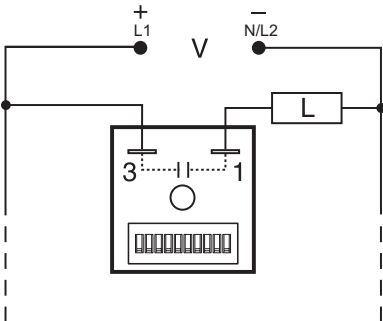


The TDU and KSDU Series are encapsulated solid-state, delay-on-make timers that combine digital timing circuitry with universal voltage operation. The TDU offers DIP switch adjustment allowing accurate selection of the time delay over the full time delay range. The KSDU is factory fixed from 0.1s to 10,230s and does not include the DIP switch. These series are excellent choices for process control systems and OEM equipment.

Operation (Delay-on-Make):
Upon application of input voltage, the time delay begins. The output is de-energized before and during the time delay. At the end of the time delay, the output energizes and remains energized until input voltage is removed. Reset: Removing input voltage resets the time delay and output.

For more information see:
Appendix A, pages 156-164 for function descriptions and diagrams.
Appendix B, page 165, Figure 1 for dimensional drawing.

Connection:



Load may be connected to terminal 3 or 1.
TDU has DIP switch adjustment; KSDU is fixed.

Digi-Set Binary Switch Operation:

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

Features:

- 2 universal voltage ranges from 24 to 240VAC/DC
- Digital integrated circuitry
- Switch selectable delays from 0.1s - 2.8h in 3 ranges or factory fixed
- ±0.5% repeat accuracy
- 1A steady, 10A inrush
- Totally solid state & encapsulated

Approvals:   

Auxiliary Products:

- **Female quick connect:** P/N: P1015-64 (AWG 14/16)
- **Quick connect to screw adaptor:** P/N: P1015-18
- **Mounting bracket:** P/N: P1023-6
- **DIN rail:** P/N: C103PM (Al)
- **DIN rail adaptor:** P/N: P1023-20

Available Models:

KSDU8110	TDUH3000A
KSDU811200	TDUH3001A
TDU3000A	TDUL3000A
TDU3001A	TDUL3001A
TDU3003A	

If desired part number is not listed, please call us to see if it is technically possible to build.

Order Tables:

KSDU

X	X	X
Input Voltage Range	Type	Time Delay (Seconds)
8 - 24 to 120VAC/DC	1 - Fixed	Specify fixed delay in seconds 0.1 - 10230
9 - 100 to 240VAC/DC		

TDU

Input Voltage Range	Time Range - Seconds	Part Number
24 to 120VAC/DC	0.1 - 102.3	TDUL3000A
100 to 240VAC/DC	0.1 - 102.3	TDUL3001A
24 to 120VAC/DC	1 - 1023	TDU3000A
100 to 240VAC/DC	1 - 1023	TDU3001A
120 to 277VAC	1 - 1023	TDU3003A
24 to 120VAC/DC	10 - 10230	TDUH3000A
100 to 240VAC/DC	10 - 10230	TDUH3001A

Specifications

Time Delay

Type	Digital integrated circuitry
Range*	Adjustable (TDU) 0.1 - 102.3s in 0.1s increments 1 - 1023s in 1s increments 10 - 10230s in 10s increments Fixed (KSDU) Fixed from 0.1s - 10230s
Repeat Accuracy	±0.5% or 20ms, whichever is greater
Tolerance (Factory Calibration)	±10%
Recycle Time	≤ 150ms
Time Delay vs Temp. & Voltage	±5%

Input

Voltage	24 to 120VAC/DC; 100 to 240VAC/DC
AC Line Frequency	50/60 Hz
Tolerance	±20%

Output

Type	Solid state
Form	NO, open during timing
Maximum Load Current	1A steady state, 10A inrush at 60°C

Minimum Holding Current	40mA
Voltage Drop	≈ 2.5V @ 1A

Protection

Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000V RMS terminals to mounting surface
Insulation Resistance	≥100 MΩ

Mechanical

Mounting	Surface mount with one #10 (M5 x 0.8) screw
Dimensions	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

Environmental

Operating / Storage Temperature	-40° to 60°C / -40° to 85°C
Humidity	95% relative, non-condensing
Weight	≈ 2.4 oz (68 g)

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