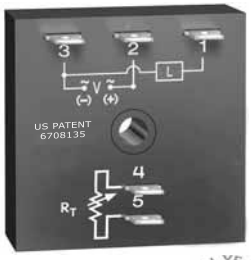
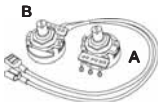
Recycling (Flasher)
KSD3 Digi-Timer
Timing Module



- Fixed or Adjustable Delays from 0.1 s ... 1000 m
- Equal ON and OFF Delays
- +/-0.5% Repeat Accuracy
- +/- 5% Factory Calibration
- 12 ... 120 V in 4 Ranges
- 1 A Solid State Output
- Encapsulated

Approvals:

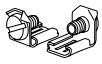
Accessories



External adjust potentiometer
P/Ns:
P1004-95 (fig A)
P1004-95-X (fig B)

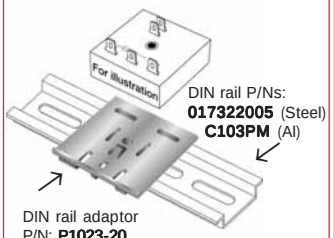
Mounting bracket
P/N: **P1023-6**

Female quick connect
P/N:
P1015-64 (AWG 14/16)



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

Versa-knob
P/N: **P0700-7**



DIN rail P/Ns:
017322005 (Steel)
C103PM (Al)

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

See accessory pages for specifications.

Description

The KSD3 Digi-Timer is a cost effective approach for ON/OFF recycling applications. The ON time is equal to the OFF time. An adjustment of the R_T will change the time delays of both ON and OFF times. This series is designed for general purpose commercial and industrial applications where a small, cost effective, reliable solid state timer is required. The factory calibration for fixed time delays is within 5% of the target time delay. The repeat accuracy, under stable conditions, is 0.5% of the selected time delay. This series is designed for popular AC and DC voltages. Time delays of 0.1 seconds to 1000 minutes are available in 6 ranges. The output is rated 1 A steady and 10 A inrush. The modules are totally solid state and encapsulated to protect the electronic circuitry.

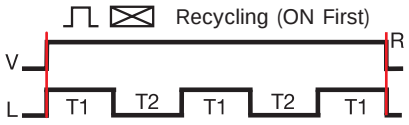
Operation (ON Time First)

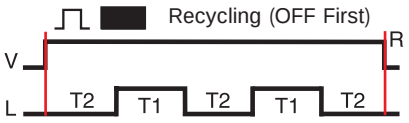
Upon application of input voltage, the output energizes and the T1, ON time begins. At the end of the ON time, the output de-energizes and the T2, OFF time begins. At the end of the OFF time, the output energizes and the cycle repeats as long as input voltage is applied.
Reset: Removing input voltage resets the output and time delays, and returns the sequence to the ON time.

Operation (OFF Time First)

Upon application of input voltage, the T2, OFF time begins. At the end of the OFF time, the T1, ON time begins and the load energizes. At the end of the ON time the load de-energizes, and the cycle repeats until input voltage is removed.
Reset: Removing input voltage resets the output and time delays and the sequence to the OFF time.

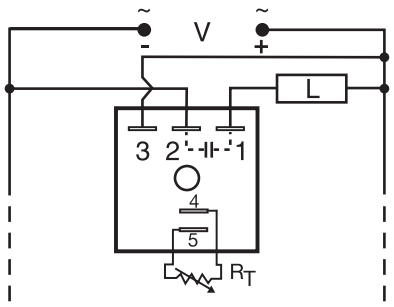
Function





V = Voltage R = Reset L = Load
T1 = ON Time T2 = OFF Time
T1 ≅ T2

Connection



R_T is used when external adjustment is ordered.
Dashed lines are internal connections.

Ordering Table

KSD3 Series

X Input
- **1** - 12 V DC
- **2** - 24 V AC
- **3** - 24 V DC
- **4** - 120 V AC

Note: DC voltages available in negative switching only.

X Adjustment
- **1** - Fixed
- **2** - External Adjust
- **3** - Onboard Adjust

X Time Delay*
- **0** - 0.1 ... 10 s
- **1** - 1 ... 100 s
- **2** - 10 ... 1000 s
- **3** - 0.1 .... 10 m
- **4** - 1 ... 100 m
- **5** - 10 ... 1000 m

X Operating Sequence
- **A** - ON Time First
- **B** - OFF Time First

*If Fixed Delay is selected, insert delay [**0.1** ... **1000**] followed by (**S**) secs. or (**M**) mins.

Example P/N: **KSD3421B** Fixed – **KSD3410.5SA**

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Technical Data

Time Delay	
Range	0.1 s ... 1000 m in 6 adjustable ranges or fixed
Repeat Accuracy	+/-0.5% or 20 ms, whichever is greater
Tolerance (Factory Calibration)	≤ +/- 5%
Reset Time	≤ 150 ms
Time Delay vs. Temperature & Voltage	≤ +/-10%
Input	
Voltage	24 or 120 V AC; 12 or 24 V DC
Tolerance	+/-20%
Line Frequency	50 ... 60 Hz
Power Consumption	AC ≤ 2 VA; DC ≤ 1 W
Output	
Type	Solid state
Maximum Load Current	1 A steady state, 10 A inrush at 60°C
OFF State Leakage Current	AC ≅ 5 mA at 230 V AC; DC ≅ 1 mA
Voltage Drop	AC ≅ 2.5 V at 1 A; DC ≅ 1 V at 1 A
DC Operation	Negative switching only
Protection	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
Polarity	DC units are reverse polarity protected
Mechanical	
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
Environmental	
Operating Temperature	-40°C ... +60°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

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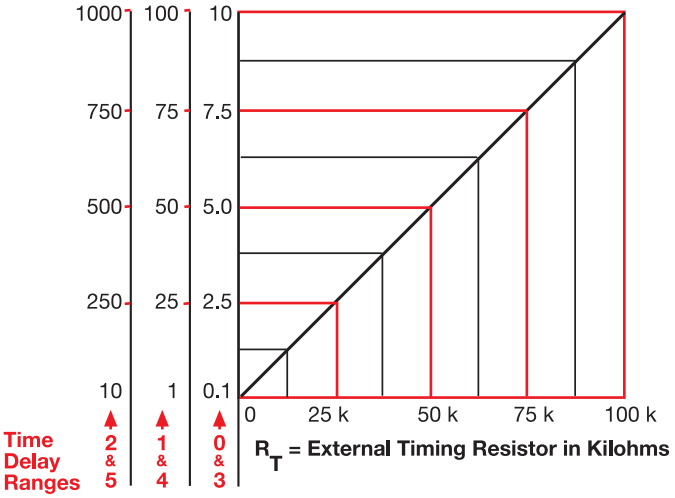
External Resistance vs Time Delay

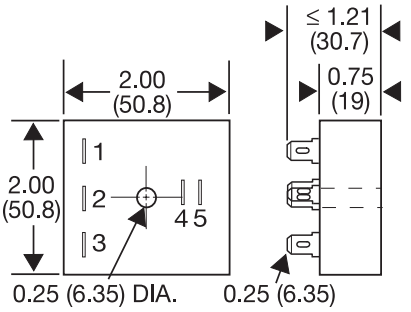
In Secs. or Mins.



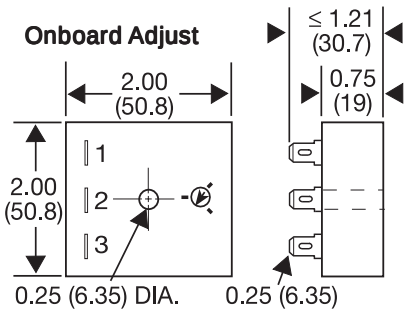
This chart applies to externally adjustable part numbers.
The time delay is adjustable over the time delay range selected by varying the resistance across the RT terminals; as the resistance increases the time delay increases.
When selecting an external RT, add the tolerances of the timer and the RT for the full time range adjustment.
Examples: 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm RT. For 1 to 100 S use a 100 K ohm RT.

Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)

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