

# Interval (Single Pulse On Operate) KSD2 Digi-Timer Timing Module



- Low Cost
- Fixed or Adjustable from 0.1 s ... 1000 m
- Digital Repeat Accuracy
- Input Voltage 24, 120, or 230 V AC
- 1 A Steady State, 10 A Inrush
- Totally Solid State and Encapsulated

Obsolete Specification

Redesigned product is available  
see new specifications at:  
[www.ssac.com/standard/standard.htm](http://www.ssac.com/standard/standard.htm)

## Description

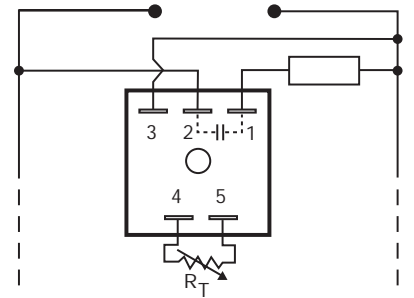
The KSD2 Series utilizes digital circuitry to provide +/-0.5% repeat accuracy and time delays from 0.1 s to 1000 m in six ranges. Time delays can be factory fixed or externally adjustable. The solid state output is rated 1 A steady, 10 A inrush and is encapsulated to protect against harsh industrial environments. An excellent choice for most OEM pulse shaping, minimum run time, and other process control applications.

## Operation

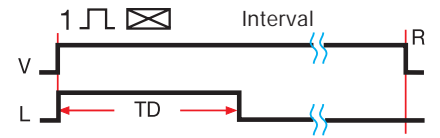
Upon application of input voltage, the time delay begins. The output is energized during the time delay. At the end of the time delay, the output is de-energized and remains de-energized until input voltage is removed.

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

- Approvals:



R<sub>T</sub> is used when external adjustment is ordered.



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

## Ordering Table

KSD2 Series	X Input Voltage	X Adjustment	X Time Delay*	
	2 - 24 V AC	-1 - Fixed	0 - 0.1 ... 10 s	*If Fixed Delay is selected, insert delay [0.1 ... 1000] followed by (S) secs. or [0.1 ... 500] (M) mins.
	4 - 120 V AC	-2 - External Adjust	1 - 1 ... 100 s	
	6 - 230 V AC		2 - 10 ... 1000 s	
			3 - 0.1 ... 10 m	
			4 - 1 ... 100 m	
			5 - 5 ... 500 m	

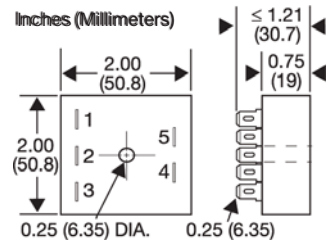
Example P/N: **KSD2421**  
Fixed - **KSD2410.5S**

Desired Time Delay*						R <sub>T</sub> Megohm
Seconds			Minutes			
0	1	2	3	4	5	
0.1	1	10	0.1	1	5	0.0
1	10	100	1	10	50	0.1
2	20	200	2	20	100	0.2
3	30	300	3	30	150	0.3
4	40	400	4	40	200	0.4
5	50	500	5	50	250	0.5
6	60	600	6	60	300	0.6
7	70	700	7	70	350	0.7
8	80	800	8	80	400	0.8
9	90	900	9	90	450	0.9
10	100	1000	10	100	500	1.0

\* When selecting an external R<sub>T</sub> add at least 20% for tolerance of unit and the R<sub>T</sub>.

## Technical Data

Time Delay	
Type	Digital integrated circuitry
Range	0.1 s ... 500 m in 6 adjustable ranges or fixed
Repeat Accuracy	+/-0.5% or 16 ms, whichever is greater
Tolerance (Factory Calibration)	≤ +/-10%
Recycle Time	≤ 300 ms
Time Delay vs. Temperature & Voltage	≤ +/-10%
Input	
Voltage	24, 120, or 230 V AC
Tolerance	+/-20%
Line Frequency	50 ... 60 Hz
Output	
Type	Solid state
Form	Normally Open, closed during timing
Maximum Load Current	1 A steady state, 10 A inrush at 55°C
Voltage Drop	≅ 2.5 V at 1 A
Protection	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
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)



Time Delay	VTP P/N
0 - 0.1 ... 10 s	VTP2C
1 - 1 ... 100 s	VTP2G
2 - 10 ... 1000 s	VTP2K
3 - 0.1 ... 10 m	VTP2N
4 - 1 ... 100 m	VTP2P
5 - 5 ... 500 m	VTP2R

## Accessories

- Mounting bracket  
P/N: P1023-6
- External adjust potentiometer  
P/Ns:  
P1004-16 (fig A)  
P1004-16-X (fig B)
- Female quick connect  
P/N:  
P1015-64 (AWG 14/16)
- Plug-on adjustment module  
P/N:  
VTP(X)(X)
- Quick connect to screw adaptor  
P/N: P1015-18
- Versa-knob  
P/N: P0700-7
- DIN rail adaptor  
P/N: P1023-20

DIN rail P/Ns:  
C103PM (Al)  
17322005 (Steel)

See accessory pages at the end of this section.