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

TEN YEAR 10 WARRANTY

- Low Cost, OEM Design
- Fixed or Adjustable Delays from 0.1 s ... 8.3 h
- Digital Circuitry, +/-0.5% Repeat Accuracy
- Input Voltages, 24, 120, or 230 V AC
- 1 A Steady, 10 A Inrush
- Totally Solid State and Encapsulated

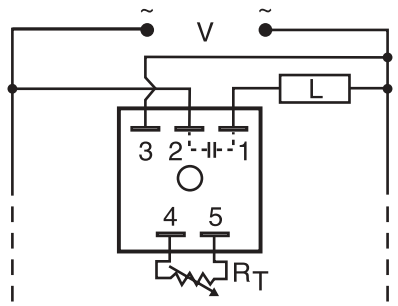
Description

The KSD2 Series utilizes digital circuitry to provide +/-0.5% repeat accuracy and time delays from 0.1 s to 8.33 h 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.

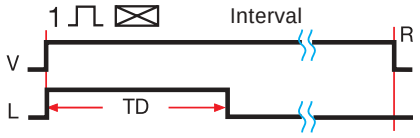
Operation

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_T 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
	-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

*If Fixed Delay is selected, insert delay [**0.1** ... **1000**] followed by (**S**) secs. or [**0.1** ... **500**] (**M**) mins.

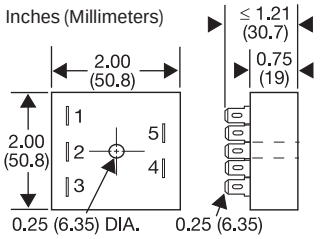
Example P/N: **KSD2421**
Fixed – **KSD2410.5S**

R_T Selection Chart						
Desired Time Delay*						R_T
Seconds			Minutes			
0	1	2	3	4	5	Megohm
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_T add at least 20% for tolerance of unit and the R_T.

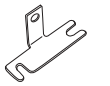
Technical Data

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)

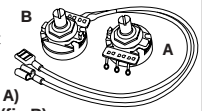


Time Delay	VTP P/N
0 – 0.1 ... 10 s	VTP2C
1 – 1 ... 100 s	VTP2G
2 – 10 ... 1000 s	VTP2K
3 – 0.1 ... 10 m	VTP2N
4 – 1 ... 100 m	VTP2P
5 – 5 ... 500 m	VTP2R

Accessories

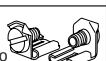


Mounting bracket
P/N: P1023-6



External adjust potentiometer
P/Ns:
P1004-16 (fig A)
P1004-16-X (fig B)

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



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

Plug-on adjustment module
P/N:
VTP(X)(X)

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

Versa-knob
P/N: P0700-7

DIN rail adaptor
P/N: P1023-20

See accessory pages at the end of this section.