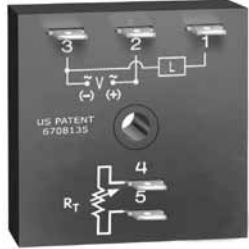


# Interval KSD2 Digi-Timer Timing Module

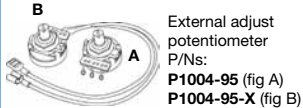


10 YEAR WARRANTY

- Fixed or Adjustable Delays from 0.1 s ... 1000 m
- +/-0.5% Repeat Accuracy
- +/- 5% Factory Calibration
- 24, 120, or 230 V AC
- 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



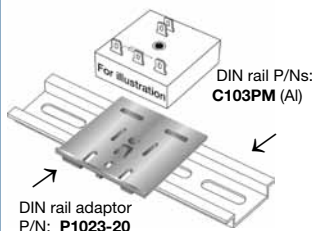
Female quick connect  
P/N:  
P1015-64 (AWG 14/16)



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



Versa-knob  
P/N: P0700-7



DIN rail adaptor  
P/N: P1023-20

See accessory pages for specifications.

### Description

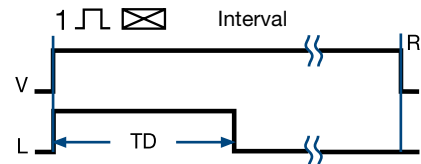
The KSD2 Series is designed for general purpose commercial and industrial applications where a small, cost effective, reliable solid state timer is required. The factory calibration for fixed time delays is within 5% of the target time delay. The repeat accuracy, under stable conditions, is 0.5% of the selected time delay. This series is designed for input voltages of 24, 120 or 230 volts AC. 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. An excellent choice for most OEM pulse shaping, maximum run time, and other process control applications.

### Operation

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

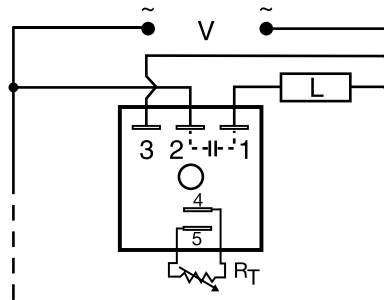
**Reset:** Removing input voltage resets the time delay and the output.

### Function



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

### Connection



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

### Available Models-

KSD2211M	KSD2214M	KSD2221
KSD2413M	KSD24160M	KSD2420
KSD2430		

**Don't see what you need? Call us for a minimum quantity and price quote!**

### Ordering Table

<b>KSD2</b>	<b>X</b>	<b>X</b>	<b>X</b>
<b>Series</b>	<b>Input Voltage</b>	<b>Adjustment</b>	<b>Time Delay*</b>
	-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	-3 - Onboard Adjust	-2 - 10 ... 1000 s
			-3 - 0.1 ... 10 m
			-4 - 1 ... 100 m
			-5 - 10 ... 1000 m

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

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

# Interval KSD2 Digi-Timer Timing Module

Dedicated  
timers

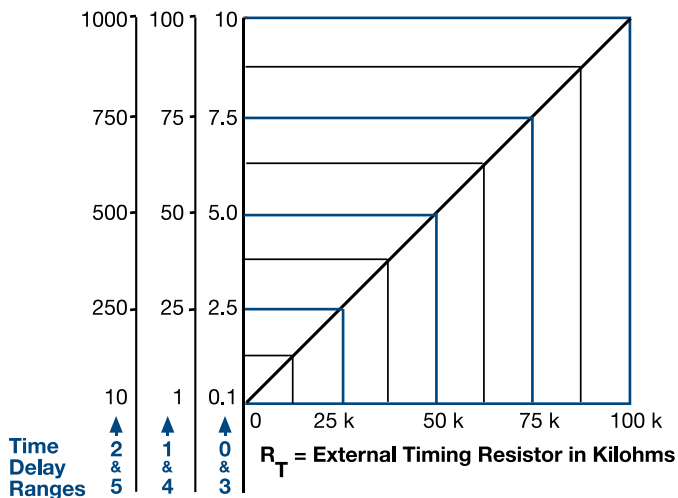
## Technical Data

<b>Time Delay</b>	
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%
<b>Input</b>	
Voltage	24, 120, or 230 V AC
Tolerance	+/-20%
Line Frequency	50 ... 60 Hz
Power Consumption	≤ 2 VA
<b>Output</b>	
Type	Solid state
Form	Normally Open, closed during timing
Maximum Load Current	1 A steady state, 10 A inrush at 60°C
OFF State Leakage Current	≅ 5 mA at 230 V AC
Voltage Drop	≅ 2.5 V at 1 A
<b>Protection</b>	
Circuitry	Encapsulated
Dielectric Breakdown	≥ 2000 V RMS terminals to mounting surface
Insulation Resistance	≥ 100 MΩ
<b>Mechanical</b>	
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
<b>Environmental</b>	
Operating Temperature	-40°C ... +60°C
Storage Temperature	-40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

5

## External Resistance vs Time Delay

In Secs. or Mins.



**This chart applies to externally adjustable part numbers.**

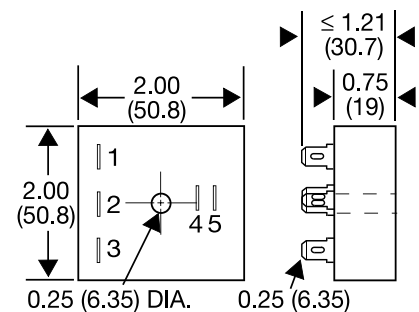
The time delay is adjustable over the time delay range selected by varying the resistance across the  $R_T$  terminals; as the resistance increases the time delay increases.

When selecting an external  $R_T$ , add the tolerances of the timer and the  $R_T$  for the full time range adjustment.

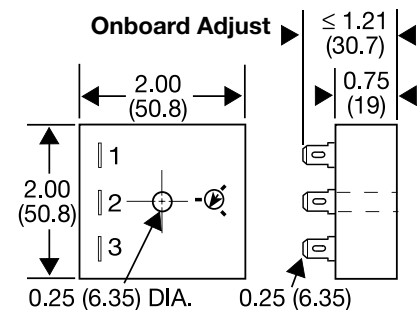
**Examples:** 1 to 50 S adjustable time delay, select time delay range 1 and a 50 K ohm  $R_T$ . For 1 to 100 S use a 100 K ohm  $R_T$ .

## Mechanical View

Fixed & External Adjust



Onboard Adjust



Inches (Millimeters)