

KSD2 SERIES

Interval Timer



Description

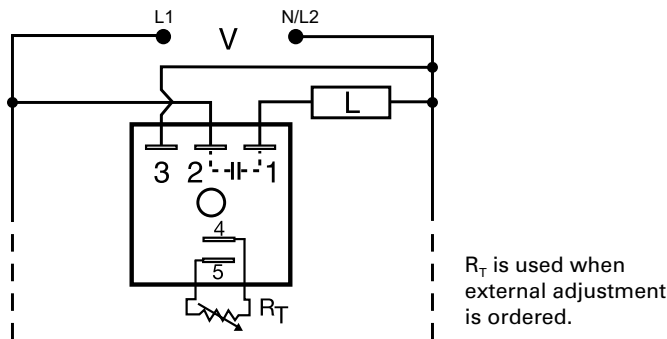
The KSD2 Series is designed for general purpose commercial and industrial applications where a small, cost effective, reliable, solid-state timer is required. The factory calibration for fixed time delays is within 5% of the target time delay. The repeat accuracy, under stable conditions, is 0.5% of the selected time delay. This series is designed for input voltages of 24, 120 or 230VAC. Time delays of 0.1 seconds to 1000 minutes are available in 6 ranges. The output is rated 1A steady and 10A 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 (Interval)

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.

Wiring Diagram



Features & Benefits

FEATURES	BENEFITS
Microcontroller based	Repeat Accuracy +/- 0.5%, +/- 5% time delay accuracy
Compact, low cost design	Allows flexibility for OEM applications
1A Steady solid-state output, 10A inrush	Provides 100 million operations in typical conditions.
Totally solid state and encapsulated	No moving parts to arc and wear out over time and encapsulated to protect against shock, vibration, and humidity

Accessories



P1004-95, P1004-95-X Versa-Pot
Panel mountable, industrial potentiometer recommended for remote time delay adjustment.



P1023-6 Mounting bracket
The 90° orientation of mounting slots makes installation/removal of modules quick and easy.



P0700-7 Versa-Knob
Designed for 0.25 in. (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.



P1015-64 (AWG 14/16) Female Quick Connect
These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief.

Ordering Information

MODEL	INPUT VOLTAGE VAC	ADJUSTMENT	TIME DELAY
KSD2221	24	External	1 - 100s
KSD2413M	120	Fixed	3m
KSD2420	120	External	0.1 - 10s

If you don't find the part you need, call us for a custom product 800-843-8848

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Accessories



P1015-18 Quick Connect to Screw Adapter
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.

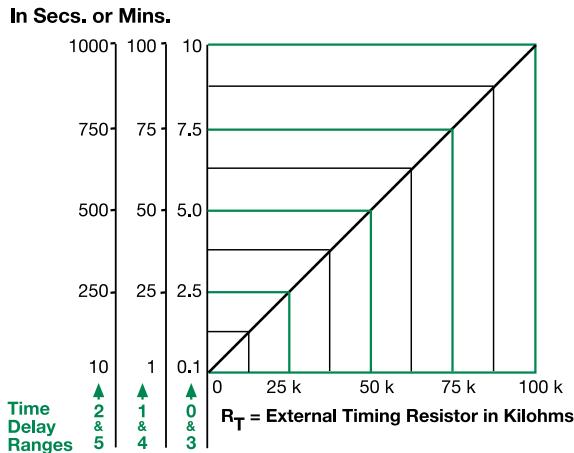


C103PM (AL) DIN Rail
35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.



P1023-20 DIN Rail Adapter
Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.

External Resistance vs. Time Delay

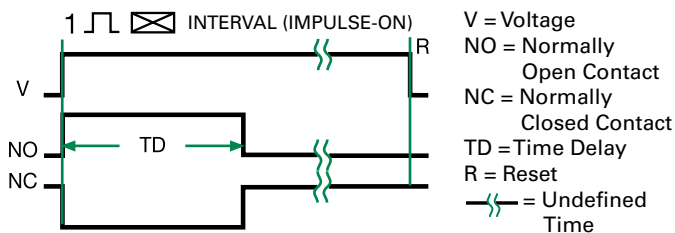


This chart applies to externally adjustable part numbers.
The time delay is adjustable over the time delay range selected by varying the resistance across the R_T terminals; as the resistance increases the time delay increases.

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 .

Function Diagram



Specifications

Time Delay Range	0.1s - 1000m in 6 adjustable ranges or fixed
Repeat Accuracy Tolerance (Factory Calibration)	$\pm 0.5\%$ or 20ms, whichever is greater
Reset Time	$\leq \pm 5\%$
Time Delay vs. Temperature & Voltage	$\leq 150\text{ms}$
Input Voltage	$\leq \pm 10\%$
Tolerance	24, 120, or 230VAC
AC Line Frequency	$\pm 20\%$
Power Consumption	50/60 Hz
Output Type	$\leq 2\text{VA}$
Form	Solid state
Maximum Load Current	NO, closed during timing
OFF State Leakage Current	1A steady state, 10A inrush at 60°C
Voltage Drop	$\approx 5\text{mA @ 230VAC}$
Protection Circuitry	$\approx 2.5\text{V @ 1A}$
Dielectric Breakdown	Encapsulated
Insulation Resistance	$\geq 2000\text{V RMS terminals to mounting surface}$
Mechanical Mounting Dimensions	$\geq 100\text{M}\Omega$
Termination	Surface mount with one #10 (M5 x 0.8) screw
Environmental Operating/Storage Temperature	H 50.8 mm (2"); W 50.8 mm (2"); D 30.7 mm (1.21")
Humidity	0.25 in. (6.35 mm) male quick connect terminals
Weight	-40° to 60°C / -40° to 85°C
	95% relative, non-condensing
	$\approx 2.4\text{ oz (68 g)}$