

## KSPD SERIES

### Solid State Timer



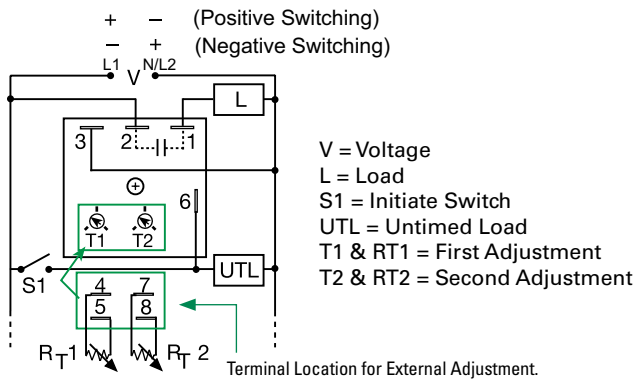
### Description

The KSPD Series is a factory programmed module available with 1 of 12 standard dual functions. The time delays can be factory fixed, externally or onboard adjustable, or a combination of fixed and adjustable. The 1A steady, 10A inrush rated solid-state output provides 100 million operations, typical. Its microcontroller timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KSPD Series is a cost effective approach for OEM applications that require small size and long life.

### Features & Benefits

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

### Wiring Diagram



### Accessories

|  |                                                                                                                                                                  |
|--|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <b>P1004-95, P1004-95-X Versa-Pot</b><br>Panel mountable, industrial potentiometer recommended for remote time delay adjustment.                                 |
|  | <b>P1023-6 Mounting bracket</b><br>The 90° orientation of mounting slots makes installation/removal of modules quick and easy.                                   |
|  | <b>P0700-7 Versa-Knob</b><br>Designed for 0.25 in (6.35 mm) shaft of Versa-Pot. Semi-gloss industrial black finish.                                              |
|  | <b>P1015-64 (AWG 14/16) Female Quick Connect</b><br>These 0.25 in. (6.35 mm) female terminals are constructed with an insulator barrel to provide strain relief. |
|  | <b>C103PM (AL) DIN Rail</b><br>35 mm aluminum DIN rail available in a 36 in. (91.4 cm) length.                                                                   |
|  | <b>P1023-20 DIN Rail Adapter</b><br>Allows module to be mounted on a 35 mm DIN type rail with two #10 screws.                                                    |

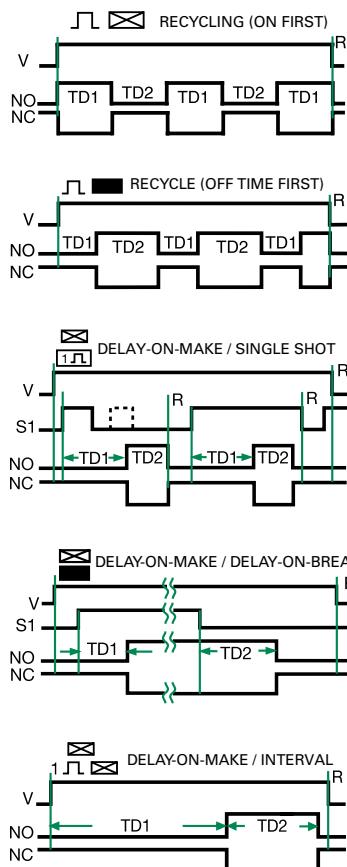
### Ordering Information

| MODEL           | INPUT                           | ADJUSTMENT 1 | TIME DELAY 1 | ADJUSTMENT 2 | TIME DELAY 2 | FUNCTION                |
|-----------------|---------------------------------|--------------|--------------|--------------|--------------|-------------------------|
| KSPDA2222RXE    | 24 to 240VAC                    | Onboard      | 1-100s       | Onboard      | 1-100s       | Recycling/On Time First |
| KSPDP110M18SRXE | 12 to 120VDC positive switching | Fixed        | 10 mins      | Fixed        | 8s           | Recycling/On Time First |

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## KSPD SERIES

### Function Diagrams



V = Voltage  
S1 = Initiate Switch  
NO = Normally Open Contact  
NC = Normally Closed Contact  
TD1, TD2 = Time Delay  
R = Reset  
— = Undefined Time

### Specifications

#### Time Delay

#### Type

#### Range

Microcontroller circuitry  
0.1s - 1000h in 9 adjustable ranges or fixed (to 999)  
±0.5% or 20ms, whichever is greater

#### Repeat Accuracy

#### Tolerance

#### (Factory Calibration)

#### Reset Time

#### Initiate Time

#### Time Delay vs Temp.

#### & Voltage

≤ ±2%  
≤ 150ms  
≤ 20ms; ≤ 1500 operations per minute  
≤ ±2%

#### Input

#### Voltage

#### Tolerance

#### AC Line Frequency/DC Ripple

#### Power Consumption

12 to 120VDC; 24 to 240VAC  
≤ ±15%  
50/60Hz / ≤ 10%  
AC ≤ 2VA; DC ≤ 1W

#### Output

#### Type

#### Rating

#### Voltage Drop

#### OFF State Leakage Current

Solid-state output  
1A steady, 10A inrush for 16ms  
AC ≅ 2.5V @ 1A; DC ≅ 1V @ 1A  
AC ≅ 5mA @ 230VAC; DC ≅ 1mA

#### Protection

#### Circuitry

#### Dielectric Breakdown

#### Insulation Resistance

#### Polarity

#### Mechanical

#### Mounting

#### Dimensions

#### Termination

#### Environmental

#### Operating/Storage

#### Temperature

#### Humidity

#### Weight

Encapsulated  
≥ 2000V rms terminals to mounting surface  
≥ 100 MΩ  
DC units are reverse polarity protected  
Surface mt. with one #10 (M5 x 0.8) screw  
**H** 50.8 mm (2"); **W** 50.8 mm (2");  
**D** 30.7 mm (1.21")  
0.25 in. (6.35 mm) male quick connects  
-40° to 60°C / -40° to 85°C  
95% relative, non-condensing  
≅ 2.4 oz (68 g)