

# PCSP Module KSPD ProgramaCube™ Timing Module



TEN YEAR WARRANTY

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

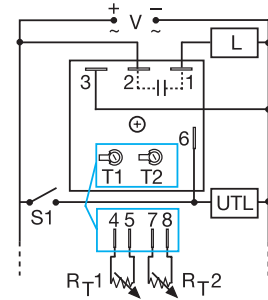
- In Stock
- Chooses
- Micro
- 1 A Ste
- 12 ... 230
- Delays from

## Description

The KSPD Series is a factory programmed module available with 1 of 11 dual functions. The time delays can be factory fixed or adjustable or a combination of fixed and adjustable. Modules are manufactured without the function assigned. When an order is received, the function software is added, making the modules complete. This approach provides fast delivery on all part numbers. The 1 A steady, 10 A 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, long life, and In Stock modules. Special time ranges and functions are available, contact Applications Assistance for more information.

Patent Pending

- Approvals:



A knob is supplied for adjustable units or R<sub>T</sub> terminals for external adjust.

V = Voltage L = Load S1 = Initiate Switch  
UTL = Untimed Load  
T1 & R<sub>T1</sub> = First Adjustment  
T2 & R<sub>T2</sub> = Second Adjustment

## Ordering Table

KSPD Series	X Input	X First Adjustment	X First Time Delay*	X Second Adjustment	X Second Time Delay*	X Function **
1	12 V DC	1 - Fixed	1 - 0.1 ... 10 s	1 - Fixed	1 - 0.1 ... 10 s	Specify Function (Refer to Function Chart for Code)
2	24 V AC	2 - Knob Adjust	2 - 1 ... 100 s	2 - Knob Adjust	2 - 1 ... 100 s	
3	24 V DC	3 - External Adjust	3 - 10 ... 1000 s	3 - External Adjust	3 - 10 ... 1000 s	
4	120 V AC		4 - 0.1 ... 10 m		4 - 0.1 ... 10 m	
5	120 V DC		5 - 1 ... 100 m		5 - 1 ... 100 m	
6	120/230 V AC		6 - 10 ... 1000 m		6 - 10 ... 1000 m	
7			7 - 0.1 ... 10 h		7 - 0.1 ... 10 h	
8			8 - 1 ... 100 h		8 - 1 ... 100 h	
9			9 - 10 ... 1000 h		9 - 10 ... 1000 h	

Example P/N: **KSPD92525MRE** Fixed **KSPD911S15SMB**

\*If Fixed Delay is selected, insert delay [0.1 ... 999] followed by (S) secs., (M) mins., or (H) hrs.

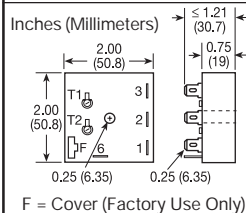
## Technical Data

<b>Time Delay</b>	
Type	Microcontroller circuitry
Range	0.1 s ... 1000 h in 9 adjustable ranges or fixed
Repeat Accuracy	+/-1% or 16 ms @ 60 Hz, 20 ms @ 50 Hz, whichever is greater
Tolerance (Factory Calibration)	≤ +/-2%
Recycle Time	≤ 250 ms
Initiate Time	≅ 40 ms
Time Delay vs Temperature & Input Voltage	≤ +/-2%
<b>Input</b>	
Voltage	12, 24, or 120 V DC; 24, 120, or 120/230 V AC
Tolerance	≤ +/-15%
Line Frequency	50 ... 60 Hz
Power Consumption (DC voltages)	≤ 1 W
<b>Output</b>	
Type	Solid state output
Rating	1 A*** steady, 10 A inrush for 16 ms
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
Polarity	DC units are reverse polarity protected
<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/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.4 oz (68 g)

Code	Function
MB	Delay On Make/Delay on Break
MRE	Delay On Make/Recycle (ON Time First, Equal Times)
MI	Delay On Make/Interval
MS	Delay On Make/Single Shot
IRE	Interval/Recycle (ON Time First, Equal Times)
BRE	Delay On Break/Recycle (ON Time First, Equal Times)
SRE	Single Shot/Recycle (ON Time First, Equal Times)
RXE	Recycle (Both Times Adjustable, ON Time First)
RXD	Recycle (Both Times Adjustable, OFF Time First)
IM	Interval/Delay On Make
AMI	Accumulative Delay On Make/Interval

Desired Time Delay*									R <sub>T</sub> KΩ
Seconds			Minutes			Hours			
1	2	3	4	5	6	7	8	9	
0.1	1	10	0.1	1	10	0.1	1	10	0
1	10	100	1	10	100	1	10	100	10
2	20	200	2	20	200	2	20	200	20
3	30	300	3	30	300	3	30	300	30
4	40	400	4	40	400	4	40	400	40
5	50	500	5	50	500	5	50	500	50
6	60	600	6	60	600	6	60	600	60
7	70	700	7	70	700	7	70	700	70
8	80	800	8	80	800	8	80	800	80
9	90	900	9	90	900	9	90	900	90
10	100	1000	10	100	1000	10	100	1000	100

\* When selecting an external R<sub>T</sub> add at least 15% for tolerance of unit and the R<sub>T</sub>.



Input	Rating (mounted to non-metallic surface)	Rating (mounted to metallic surface)
12, 24, V DC, 24 V AC	1 A @ 60°C	1 A @ 60°C
120 V AC	1 A @ 40°C, 0.5 A @ 60°C	1 A @ 55°C
230 V AC	1 A @ 35°C, 0.5 A @ 55°C	1 A @ 50°C
120 V DC	0.5 @ 40°C	

## Accessories

External adjust potentiometer  
P/Ns: P1004-95 (fig A) P1004-95-X (fig B)

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

DIN rail C103PM

See accessory pages at the end of this section.