

PCSP Module KRPD ProgramaCube™ Timing Module



TEN YEAR WARRANTY

Obsolete Specification
Redesigned product is available
see new specifications at:
www.ssac.com/standard/standard.htm

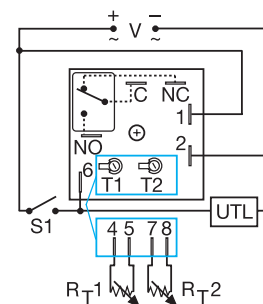
- Modules ... Shipped Fast
- Chassis ...
- Micro ... Repeat Accuracy
- Isolated ... Contacts
- Input Voltage ... 230 V in 5 Ranges
- Delays from ... 1000 h in 9 Ranges

Description

The KRPD 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 SPDT output relay contacts offer a full 10 A rating with complete isolation. Its microcontroller timing circuit provides excellent repeat accuracy and stability. Encapsulation protects against shock, vibration, and humidity. The KRPD Series is a cost effective approach for OEM applications that require small size, isolation, accuracy, and long life. 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_T terminals for external adjust.

V = Voltage C = Common
NC = Normally Closed NO = Normally Open
T1 & R_{T1} = First Adjustment
T2 & R_{T2} = Second Adjustment
S1 = Initiate Switch
UTL = Untimed Load

Note: See KRPS Series for dimensional view

Ordering Table

KRPD Series	X Input	X First Adjustment	X First Time Delay*	X Second Adjustment	X Second Time Delay*	X Function**
-1	12 V DC	Fixed	0.1 ... 10 s	Fixed	0.1 ... 10 s	Specify Function (Refer to Function Chart for Code) *If Fixed Delay is selected, insert delay [0.1 ... 999] followed by (S) secs., (M) mins., or (H) hrs.
-2	24 V AC/DC	Knob Adjust	1 ... 100 s	Knob Adjust	1 ... 100 s	
-3	120 V AC	External Adjust	10 ... 1000 s	External Adjust	10 ... 1000 s	
-4	120 V AC		0.1 ... 10 m		0.1 ... 10 m	
-5	110 V DC		1 ... 100 m		1 ... 100 m	
-6	120/230 V AC		10 ... 1000 m		10 ... 1000 m	
-7			0.1 ... 10 h		0.1 ... 10 h	
-8			1 ... 100 h		1 ... 100 h	
-9			10 ... 1000 h		10 ... 1000 h	

Example P/N: **KRPD92525MRE**
Fixed **KRPD4110S110SMB**

Technical Data

Time Delay	
Type	Microcontroller circuitry
Range	0.1 s ... 1000 h in 9 adjustable ranges or fixed (to 999)
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%
Input	
Voltage	12, 24, or 110 V DC; 24, 120, or 120/230 V AC
Tolerance	12 V DC & 24 V DC/AC -15% ... +20% 110 ... 230 V AC/DC -20% ... +10%
AC Line Frequency	50 ... 60 Hz
Power Consumption	12 V DC - ≤ 1 W, 24 V AC/DC - ≤ 1 VA 110 V DC - ≤ 2 W, 120/230 V AC - ≤ 2 VA
Output	
Type	Isolated relay contacts
Form	Single pole double throw, SPDT
Rating (at 40°C)	10 A resistive at 125 V AC 5 A resistive at 230 V AC 5 A resistive at 30 V DC, 1/4 hp at 125 V AC
Max. Switching Voltage	250 V AC
Life	Mechanical - 1 x 10 ⁷ operations Electrical - 1 x 10 ⁵ operations at rated load
Protection	
Circuitry	Encapsulated
Isolation Voltage	≥ 1500 V RMS input to output
Insulation Resistance	≥ 100 MΩ
Polarity	DC units are reverse polarity protected
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/Storage Temperature	-40°C ... +60°C / -40°C ... +85°C
Humidity	95% relative, non-condensing
Weight	≅ 2.6 oz (74 g)

**Function Chart

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

Desired Time Delay*										R _T 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_T add at least 15% for tolerance of unit and the R_T .

Accessories

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

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

Versa-knob
P/N: **P0700-7**

Female quick connect
P/N:
P1015-64 (AWG14/16)

DIN rail adaptor
P/N: **P1023-20**

See accessory pages at the end of this section.