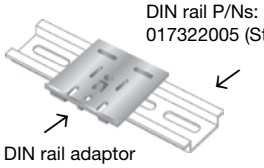
KSPU Series Single Timer or Counter Function
Timing Module (1A Solid State Output)

US Patent 6708135

- Choose 1 of 16 Standard Functions
- Factory Programmed
- Microcontroller Circuitry, +/-0.1% Repeat Accuracy
- Solid State Output 1 A Steady, 10 A Inrush
- Accurate Switch Adjustment
- Universal Voltage 24 ... 240 V AC
- Delays from 100 ms...1023 h in 6 ranges
- Counts to 1023 in 3 Ranges

Complete Product Details:
http://www.ssac.com/pp1.htm

Mounting Accessory



DIN rail P/Ns:
017322005 (Steel)

DIN rail adaptor
P/N: P1023-20

See accessory pages

Switch Adjustment

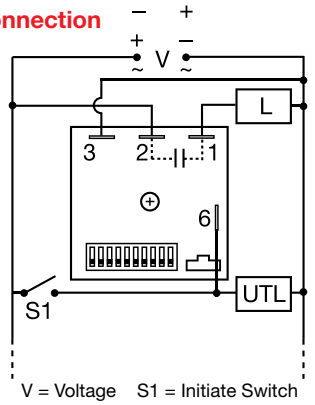
Adjustment Switch Operation

TIME DELAY		COUNTER	
0.1...102.3	1...1023	1...165	1...63
OFF ►ON	OFF ►ON	OFF ►ON	OFF ►ON
0.1 0.2 0.4 0.8 1.6 3.2 6.4 12.8 25.6 51.2	1 2 4 8 16 32 64 128 256 512	1 2 3 4 5 10 20 30 40 50	1 2 4 8 16 32 M 1 2 4
6.3	544	57 counts	44 s Delay 2 counts to Start

One or more switches must be ON for proper operation.

The KSPU Series is a factory programmed 1 amp solid state module available in any 1 of 16 switch adjustable timer or counter functions. Modules are manufactured without the function assigned. When an order is received, the function and time delay software are added. This approach provides fast QuickShip delivery on a large number of part numbers. Switch adjustment allows accurate selection of the time delay or number of counts the first time and every time. The solid state output provides 100 million operations, typical. The KSPU Series is a cost effective approach for OEM applications that require small size, solid state reliability, and accurate switch adjustment.

Connection



V = Voltage S1 = Initiate Switch
L = Load UTL = Untimed Load

The untimed load is optional. S1 is not used for some functions. Dashed lines are internal connections.

**Function Chart

	Code
Delay on Make	M
Delay on Break	B
Recycle (ON Time First, Equal Times)	RE
Recycle (OFF Time First, Equal Times)	RD
Single Shot	S, SD
Interval	I
Trailing Edge Single Shot	TS
Inverted Single Shot	US
Inverted Delay on Break	UB
Accumulative Delay on Make	AM
Motion Detector/Retriggerable, Single Shot	PSD PSE
Counter/Pulsed Output	C
Counter/Interval Output	CI
Flip Flop (trailing edge, alternating)	FT
Flip Flop (leading edge)	F

See page 9 for function time diagrams

Technical Data

Count	
Rate	≤ 25 counts per second
Output	
Rating	1 A steady, 10 A inrush for 16 ms
Counter Output (P/N Variable 7 & 8)	Output Pulse width: 300 ms +/-20%
Protection	
Circuitry	Encapsulated
Mechanical	
Mounting	Surface mt. 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 connects

Ordering Table

KSPU Series — **X Input**

- A - 24 ... 240 V AC
- P - 12 ... 120 V DC Positive Switching
- N - 12 ... 120 V DC Negative Switching

†**Note:** Grayed option is available in standard lead time.

X Time Delay/Counts

- 1 - 0.1 ... 102.3 s
- 2 - 1 ... 1023 s
- 3 - 0.1 ... 102.3 m
- 4 - 1 ... 1023 m
- 5 - 0.1 ... 102.3 h
- 6 - 1 ... 1023 h
- 7 - 1 ... 165 counts (straight) w/pulsed output
- 8 - 1 ... 1023 counts (binary) w/pulsed output
- 9 - 1 ... 7 counts to start 1 ... 63 s or m interval time

X Function**

Specify Function (Refer to Function Chart for Code)

Example P/N:

KSPUA2RE = Universal AC voltage, switch adjustment, 1...1023 sec., recycling, ON first