

# HSPZA22SL



OBSOLETE



## Description

The HSPZA22SL is a factory programmed module available in any 1 of 13 standard functions. The HSPZA22SL offers dual switch adjustable timer or counter functions. Switch adjustment allows accurate selection of the time delay or number of counts the first time and every time. 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 HSPZA22SL is a cost effective approach for OEM applications that require small size, solid state reliability, and accurate switch adjustment.

### Operation (Single Shot Lockout)

Upon application of input voltage and momentary or maintained closure of S1, the output relay energizes and TD1 single shot time delay begins. The output relay de-energizes at the end of TD1 and the TD2 lockout time delay begins. During TD2 (and TD1) closing switch S1 has no effect on the operation. After TD2 is complete, closing S1 starts another operation. If S1 is closed when input voltage is applied, the output energizes and the TD1 time delay begins.

**Reset:** Removing input voltage resets the time delays and the output and returns the cycle to the first delay.

## Features & Benefits

FEATURES	BENEFITS
<b>Microcontroller based</b>	Repeat Accuracy +/- 0.1%
<b>User selectable time delay</b>	Timing settings are switch selectable 0.1s - 1023h in a dual switch timer function for added flexibility
<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

## Accessories



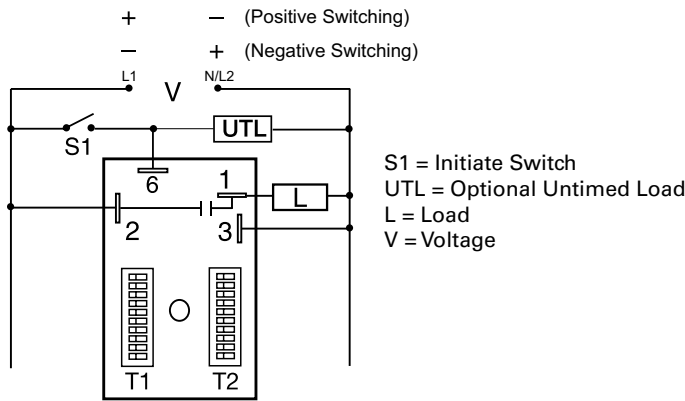
**P1015-18 Quick Connect to Screw Adapter**  
Screw adapter terminal designed for use with all modules with 0.25 in. (6.35 mm) male quick connect terminals.



**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.

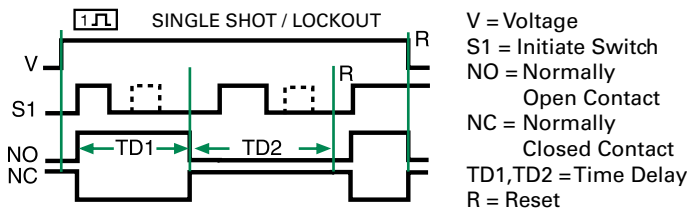


# HSPZA22SL

## Switch Adjustment

Adjustment Switch Operation			
TIME DELAY		TIME DELAY and COUNTER	
0.1...102.3	1...512	1...1023	1...165
OFF ▶ ON	OFF ▶ ON	OFF ▶ ON	OFF ▶ ON
0.1	1	1	1
0.2	2	2	2
0.4	4	4	3
0.8	8	8	4
1.6	16	16	5
3.2	32	32	10
6.4	64	64	20
12.8	128	128	30
25.6	256	256	40
51.2	M	512	50
6.3	300 s Delay	544	57 counts

## Function Diagrams



## Specifications

### Time Delay

#### Type

Microcontroller circuitry

#### Range

1-1023s, m or h in 1s, m or h increments

#### Repeat Accuracy

±0.1% or 20ms, whichever is greater

#### Setting Accuracy

≤ ±1% or 20ms, whichever is greater

#### Reset Time

≤ 150ms

#### Initiate Time

≤ 20ms

#### Time Delay vs Temp.

≤ ±2%

#### & Voltage

#### Count Range

1 - 1023 in 2 ranges

#### Count Rate

≤ 25 counts per second

### Input

#### Voltage

24 to 240VAC

#### Tolerance

≤ ±15%

#### AC Line Frequency/

#### DC Ripple

50/60Hz / ≤ 10%

#### Power Consumption

AC ≤ 2VA; DC ≤ 1W

### Output

#### Type

Solid-state output

#### Rating

1A steady, 10A inrush for 16ms

#### Voltage Drop

AC ≈ 2.5V @ 1A; DC ≈ 1V @ 1A

#### OFF State Leakage Current

AC ≈ 5mA @ 240VAC; DC ≈ 1mA

#### Counter Output

Output pulse width: 300ms ±20%

### Protection

#### Circuitry

Encapsulated

#### Dielectric Breakdown

≥ 2000V RMS terminals to mounting surface

#### Insulation Resistance

≥ 100 MΩ

#### Polarity

DC units are reverse polarity protected

### Mechanical

#### Mounting

Surface mount with one #10 (M5 x 0.8) screw

#### Dimensions

**H** 76.2 mm (3.0"); **W** 50.8 mm (2.0");

**D** 38.1 mm (1.5")

0.25 in. (6.35 mm) male quick connects

#### Termination

### Environmental

#### Operating/Storage

#### Temperature

-40° to 60°C / -40° to 85°C

#### Humidity

95% relative, non-condensing

#### Weight

≈ 3.9 oz (111 g)