



SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

## Electromechanical Relay Switches Technical Data Sheet

PE71S6395

### Features

- Single Pole Double Throw
- DC to 18 GHz Frequency Range
- Isolation greater than 80 dB typical
- 5M Cycle Min Operating Life
- +28 Volt DC
- 90 Watt average Power
- Latching Actuator
- 1 Watt Indicators
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.15 dB Max
- VSWR as low as 1.2:1 max
- SMA Female RF connectors
- Solder Pins for DC Control
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request

### Applications

- High Performance Relay Switch
- Military Communications
- Communications Systems
- Test & Measurement

### Description

The PE71S6395 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 18 GHz and can handle up to 90 Watts of CW input power in a break before make condition. The design features a Latching actuator with 1W Indicators, and is rated for 5M life cycles for high reliability operation. Insertion loss is specified as low as 0.15 dB maximum and Isolation up to 80 dB minimum. Operating voltage is +28 V and performance is guaranteed over -25°C to +70°C. The rugged and compact package assembly supports SMA Female connectors and Solder Pins for DC Control. The model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

### Electrical Specifications

|                    |                             |
|--------------------|-----------------------------|
| Switch Type        | SPDT                        |
| Actuator Type      | Latching                    |
| Switching Sequence | Break before Make           |
| Actuator Options   | Indicators                  |
| Indicator Rating   | 1 Watts / 32 Volts / 125 mA |

| Description                  | Minimum | Typical | Maximum | Units  |
|------------------------------|---------|---------|---------|--------|
| Frequency Range              | DC      |         | 18      | GHz    |
| Impedance                    |         | 50      |         | Ohms   |
| Operating Voltage            | 26      | 28      | 30      | Volts  |
| Actuating Current @ 28 Volts |         | 90      |         | mA     |
| VSWR                         |         | 1.2:1   | 1.4:1   |        |
| Insertion Loss               |         | 0.15    | 0.35    | dB     |
| Isolation                    | 65      | 80      |         | dB     |
| Input Power (CW)             |         |         | 60      | Watts  |
| Switching Time               |         |         | 20      | ms Max |

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](#)



SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

## Electromechanical Relay Switches Technical Data

PE71S6395

### Performance by Frequency

| Description           | F1      | F2      | F3       | F4 | F5 | Units |
|-----------------------|---------|---------|----------|----|----|-------|
| Frequency Range       | DC to 6 | 6 to 12 | 12 to 18 |    |    | GHz   |
| VSWR, Max             | 1.2:1   | 1.3:1   | 1.4:1    |    |    |       |
| Insertion Loss, Max   | 0.15    | 0.25    | 0.35     |    |    | dB    |
| Isolation, Min        | 80      | 75      | 65       |    |    | dB    |
| Input Power, Typ (CW) | 90      | 75      | 60       |    |    | Watts |

### Mechanical Specifications

#### Size

|                |                  |
|----------------|------------------|
| Package Type   | Connectorized    |
| Operating Life | 5,000,000 Cycles |

#### Connectors

|                   |            |
|-------------------|------------|
| RF Connector Type | SMA Female |
| Control Connector | Solder Pin |

### Environmental Specifications

#### Temperature

|                 |                   |
|-----------------|-------------------|
| Operating Range | -25 to +70 deg C  |
| Storage Range   | -55 to +100 deg C |

|           |   |
|-----------|---|
| Shock     | MIL-STD-202 Method 213, Cond. D 500G Non Operating    |
| Vibration | MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating |

**Compliance Certifications** (see [product page](#) for current document)

### Plotted and Other Data

Notes:

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](#)

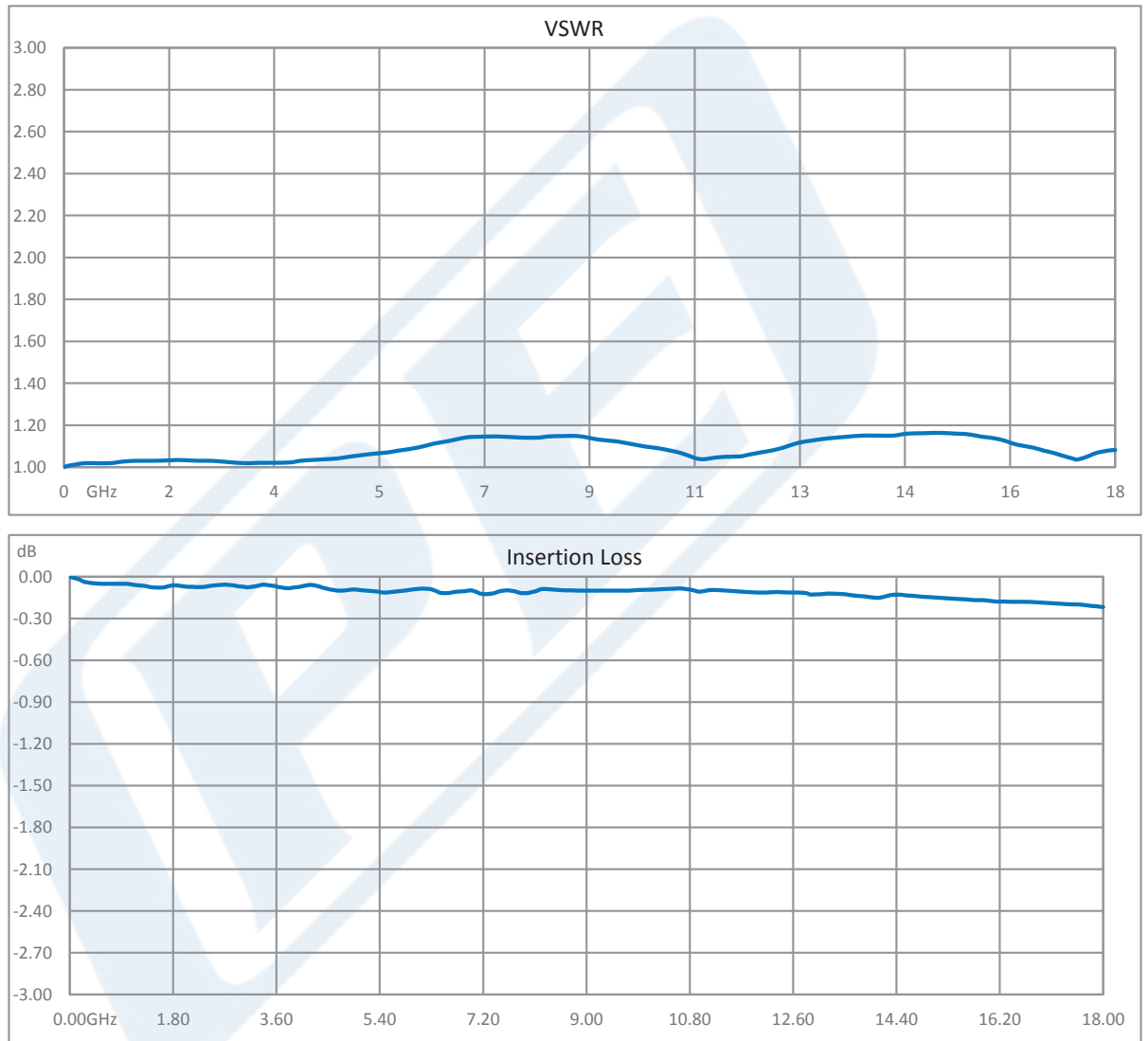


SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

Electromechanical Relay Switches Technical Data

PE71S6395

Typical Performance Data



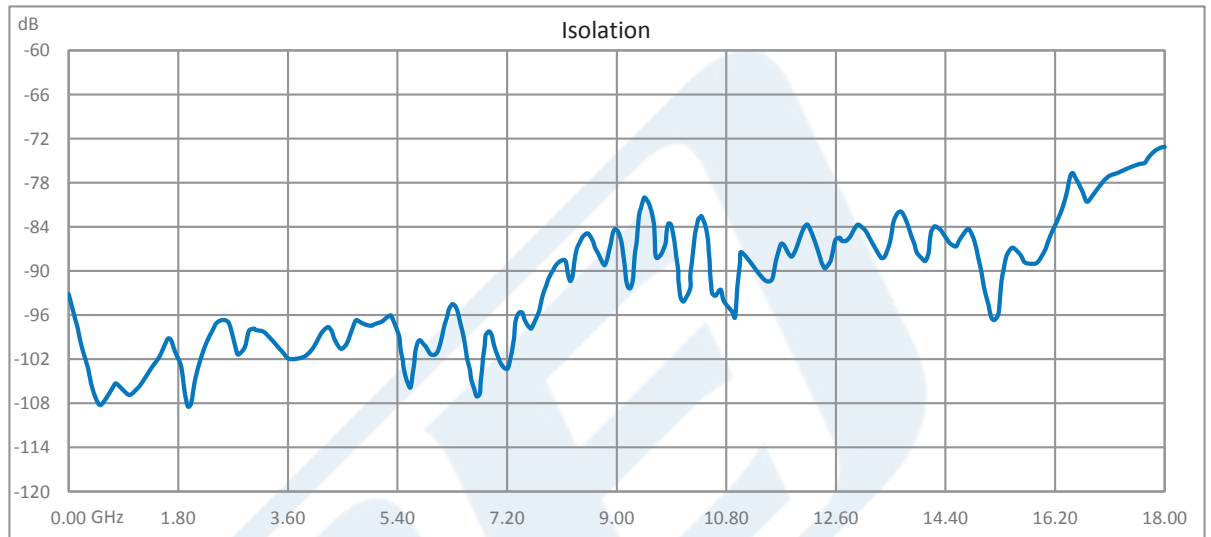
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](#)



SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

## Electromechanical Relay Switches Technical Data

PE71S6395



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](#)

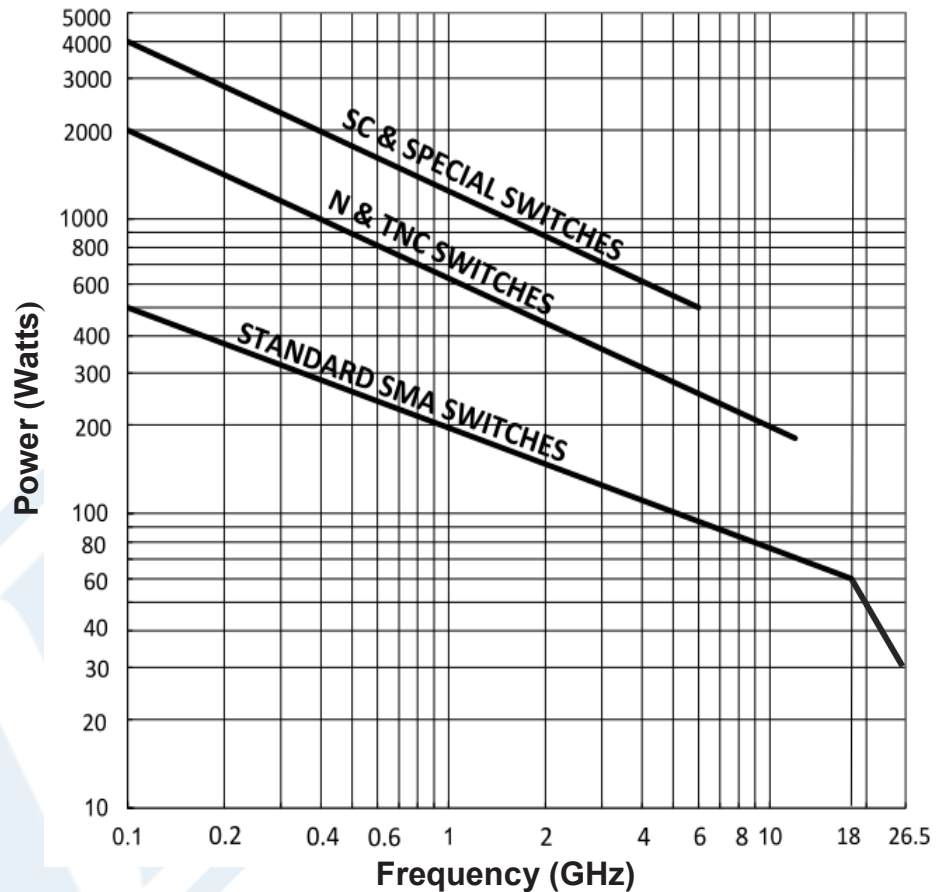


SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

Electromechanical Relay Switches Technical Data

PE71S6395

**Power Handling vs. Frequency & Connector Type**



**Environmental and Test Conditions:**

- Ambient temperature of 25°C or less
- Altitude: Sea Level
- Load VSWR: 1.20:1 max.
- Cold Switching

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](#)



SPDT Electromechanical Relay Latching Switch, DC  
to 18 GHz, up to 90W, 28V, Indicators, SMA

## Electromechanical Relay Switches Technical Data

PE71S6395

SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6395](https://www.pasternack.com/spdt-electromechanical-relay-latching-switch-18-ghz-60w-28v-indicators-sma-pe71s6395)

URL: <https://www.pasternack.com/spdt-electromechanical-relay-latching-switch-18-ghz-60w-28v-indicators-sma-pe71s6395-p.aspx>

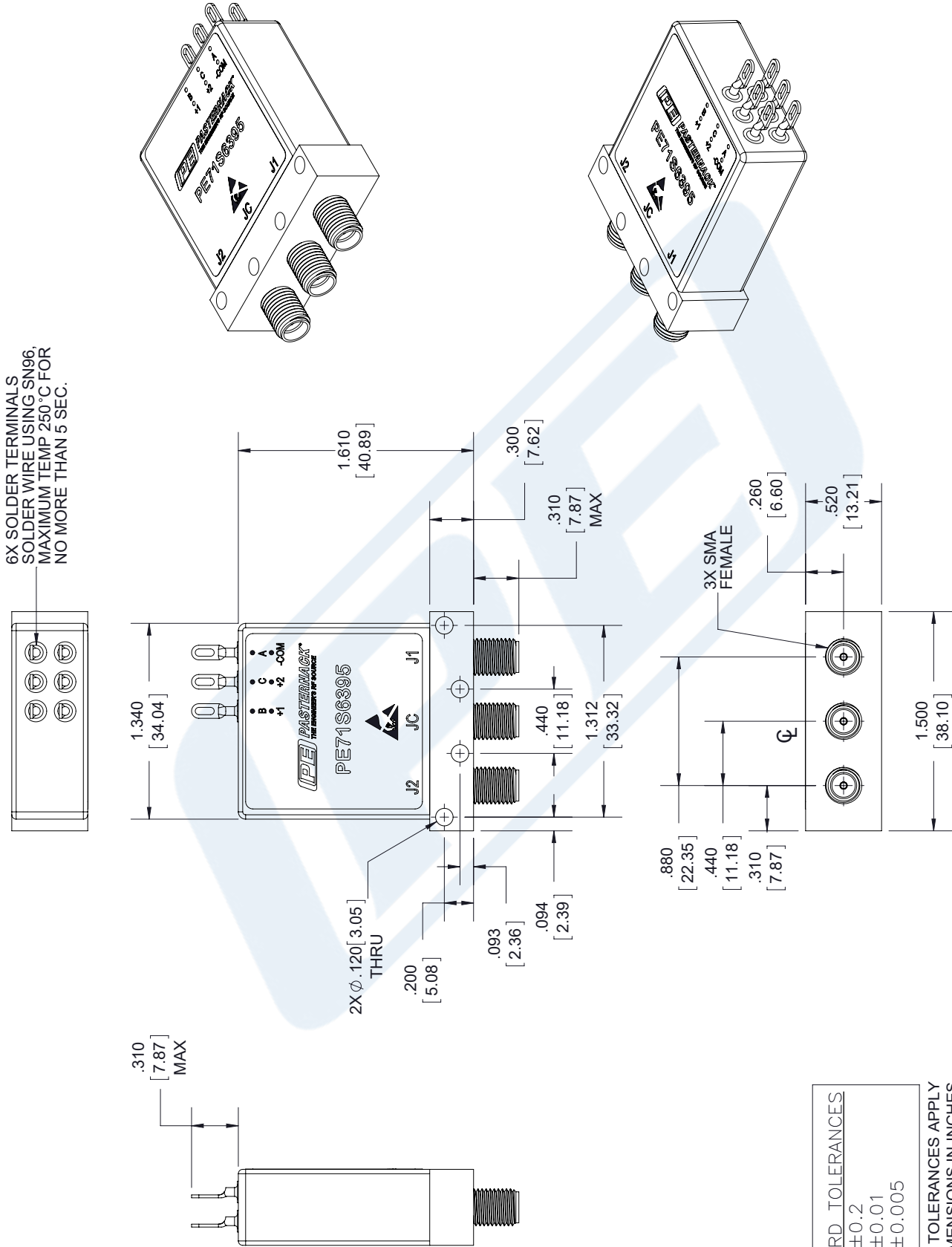
The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.



# PE71S6395 CAD Drawing

SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA

6X SOLDER TERMINALS  
SOLDER WIRE USING SN96,  
MAXIMUM TEMP 250°C FOR  
NO MORE THAN 5 SEC.



| STANDARD TOLERANCES |
|---------------------|
| .X ±0.2             |
| .XX ±0.01           |
| .XXX ±0.005         |

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES

**PE PASTERNAK®**  
THE ENGINEER'S RF SOURCE  
Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: www.pasternack.com | E-Mail: sales@pasternack.com

DWG TITLE  
**PE71S6395**

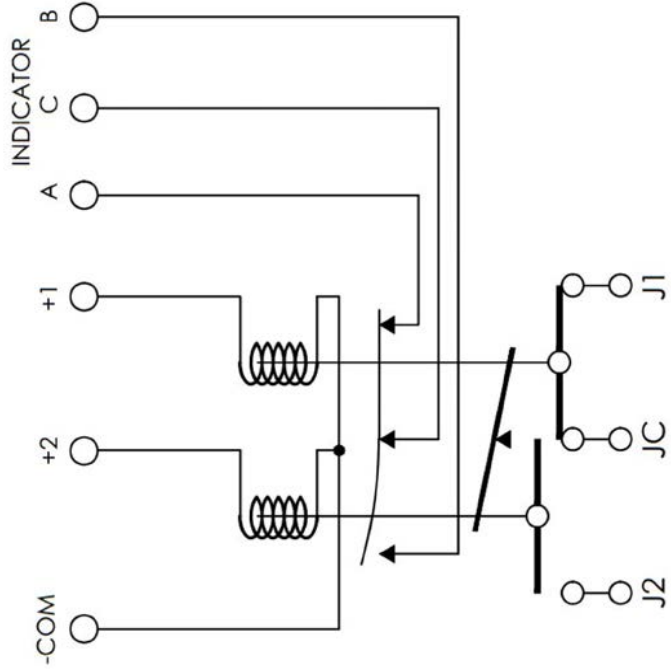
CAGE CODE **53919**

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME  
3. DIMENSIONS ARE IN INCHES [mm].

CAD FILE 090617 SCALE N/A SIZE A 7361

# PE71S6395 CAD Drawing

SPDT Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA



**SCHEMATIC SHOWN IN LATCHING POSITION**

**STANDARD TOLERANCES**

.X ±0.2  
.XX ±0.01  
.XXX ±0.005

\*STANDARD TOLERANCES APPLY ONLY TO DIMENSIONS IN INCHES



Pasternack Enterprises, Inc.  
P.O. Box 16759 | Irvine | CA | 92623  
Phone: (949) 261-1920 | Fax: (949) 261-7451  
Website: [www.pasternack.com](http://www.pasternack.com) | E-Mail: [sales@pasternack.com](mailto:sales@pasternack.com)

DWG TITLE

PE71S6395

NOTES:  
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME  
3. DIMENSIONS ARE IN INCHES [mm].

CAGE CODE 53919

CAD FILE 090617

SCALE N/A

SIZE A

7361