



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

## Electromechanical Relay Switches Technical Data Sheet

PE71S6402

### Features

- Transfer (DPDT)
- DC to 18 GHz Frequency Range
- Isolation greater than 70 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 0.2 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 PE71S6402 is a Transfer (DPDT) 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 0.2 dB maximum and Isolation up to 70 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	Transfer
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		0.2	0.5	dB
Isolation	60	70		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: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](#)



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

## Electromechanical Relay Switches Technical Data

PE71S6402

### 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	0.2	0.3	0.5			dB
Isolation, Min	70	60	60			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: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](#)

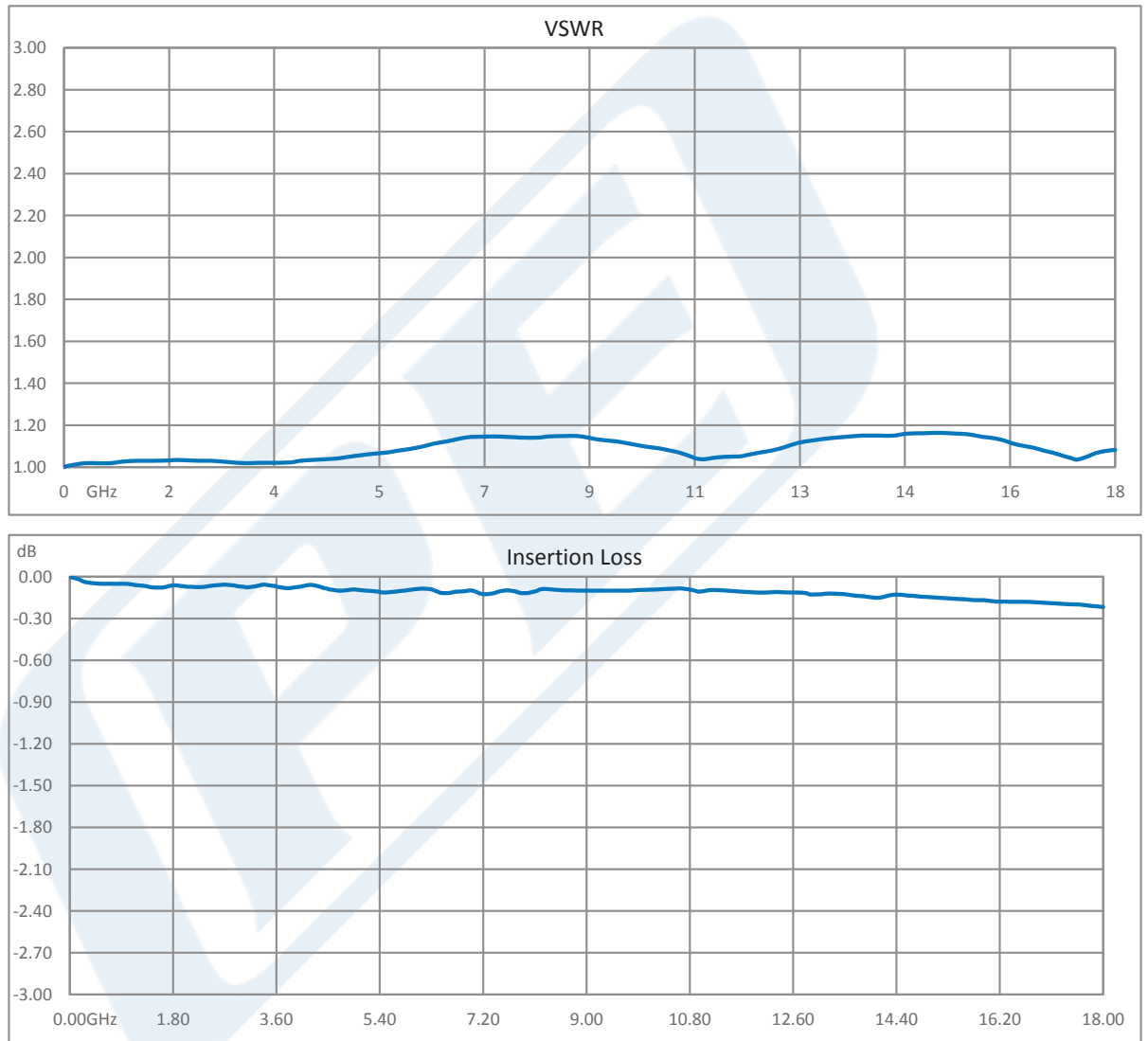


Transfer Electromechanical Relay Latching Switch,  
DC to 18 GHz, up to 90W, 28V, Indicators, SMA

Electromechanical Relay Switches Technical Data

PE71S6402

Typical Performance Data



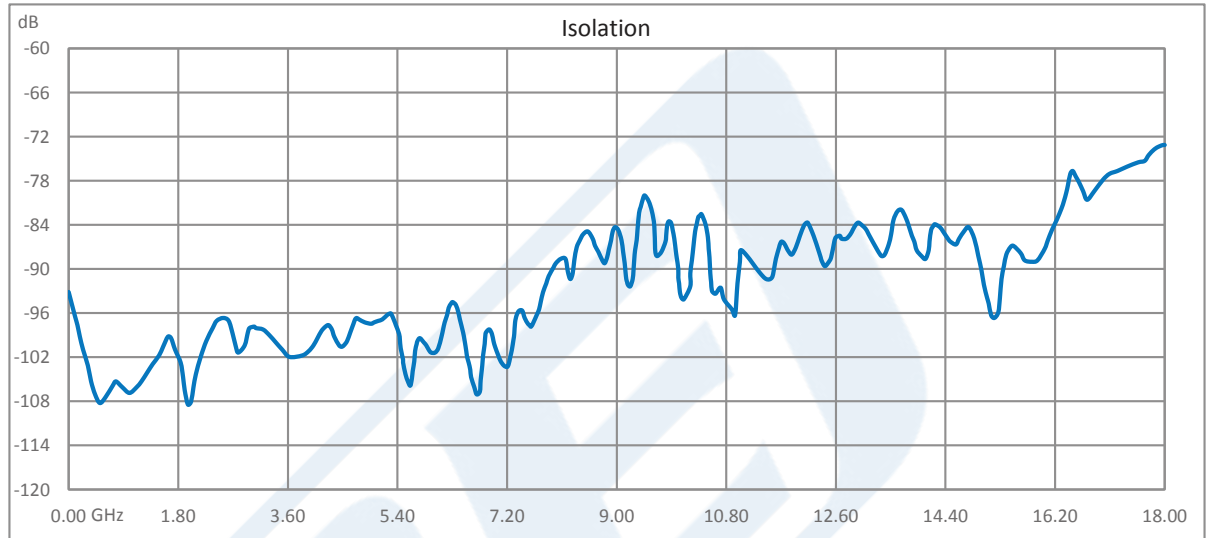
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](#)



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

Electromechanical Relay Switches Technical Data

PE71S6402



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](#)

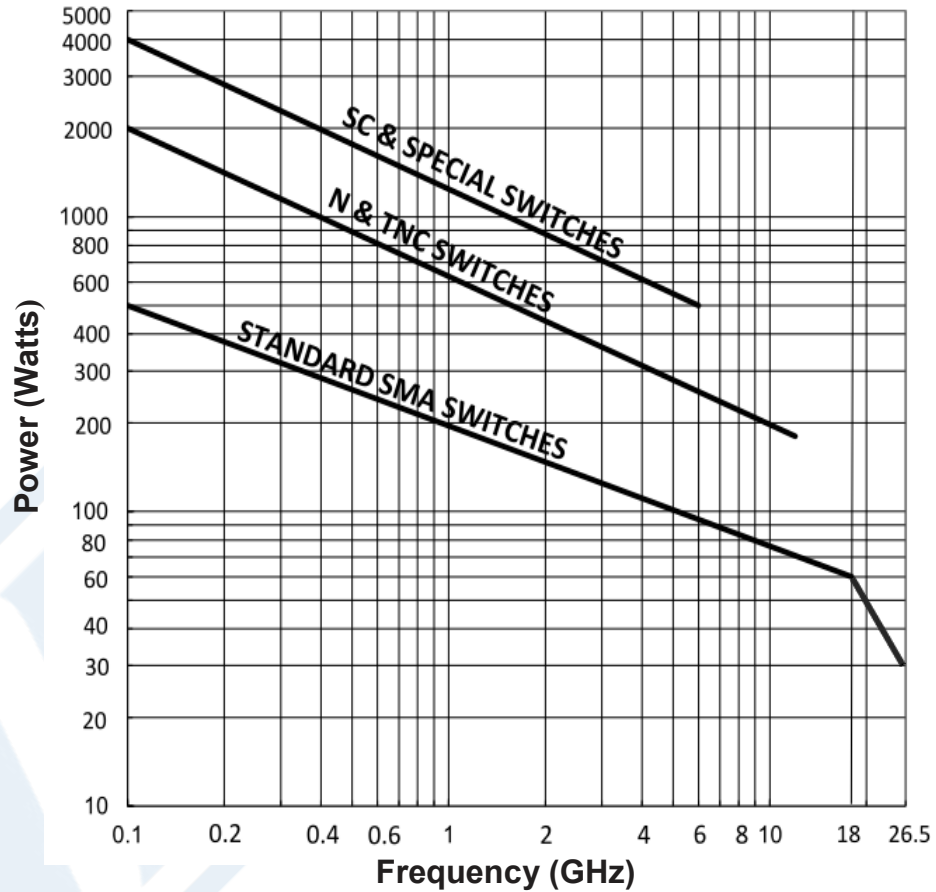


Transfer Electromechanical Relay Latching Switch,  
DC to 18 GHz, up to 90W, 28V, Indicators, SMA

Electromechanical Relay Switches Technical Data

PE71S6402

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: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](#)



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

## Electromechanical Relay Switches Technical Data

PE71S6402

Transfer 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.

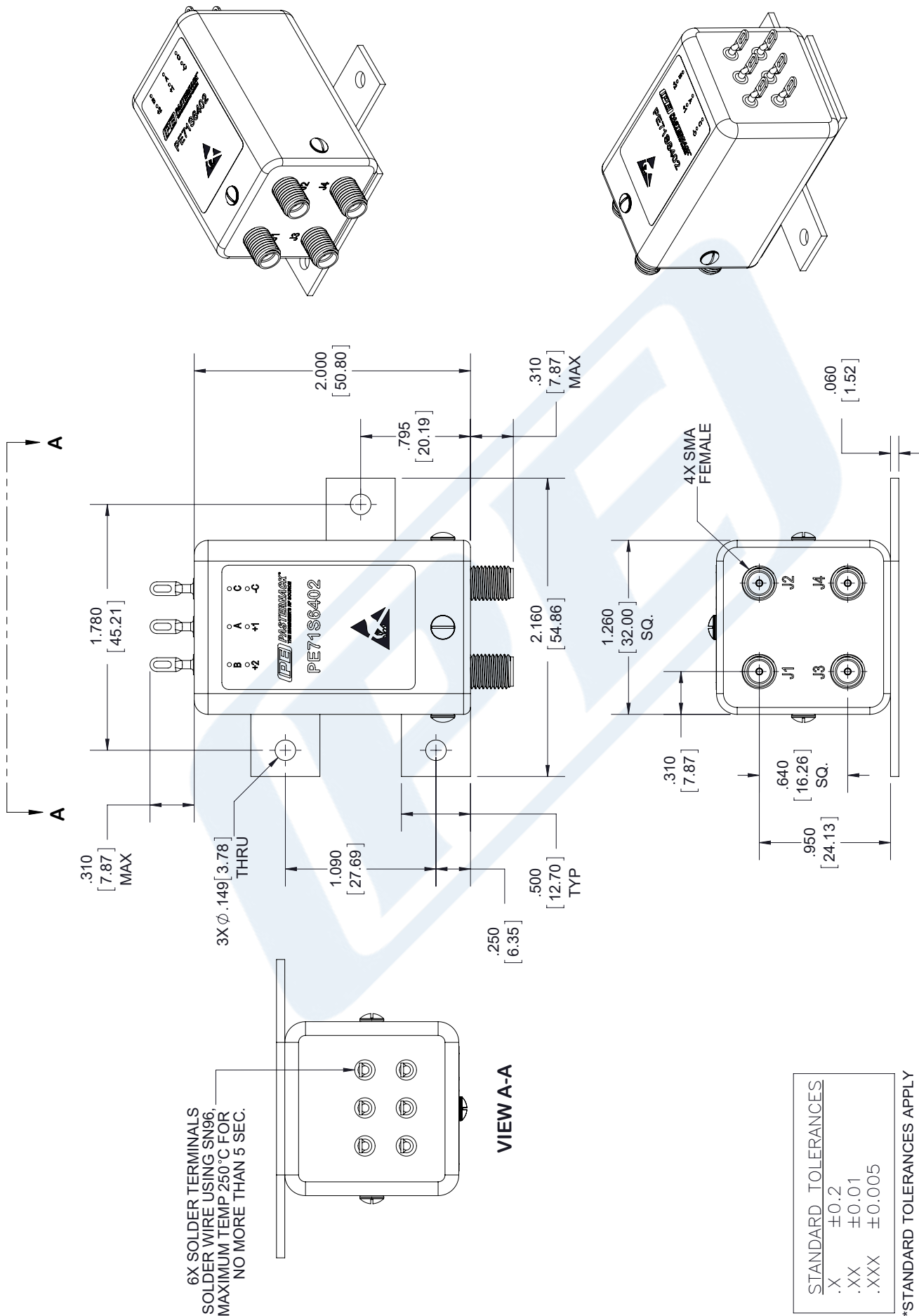
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Electromechanical Relay Latching Switch, DC to 18 GHz, up to 90W, 28V, Indicators, SMA PE71S6402](https://www.pasternack.com/transfer-electromechanical-relay-latching-switch-18-ghz-60w-28v-indicators-sma-pe71s6402)

URL: <https://www.pasternack.com/transfer-electromechanical-relay-latching-switch-18-ghz-60w-28v-indicators-sma-pe71s6402-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.

# PE71S6402 CAD Drawing

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



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].

DWG TITLE  
**PE71S6402**

CAGE CODE **53919**

SCALE N/A

SIZE A

CAD FILE 090817

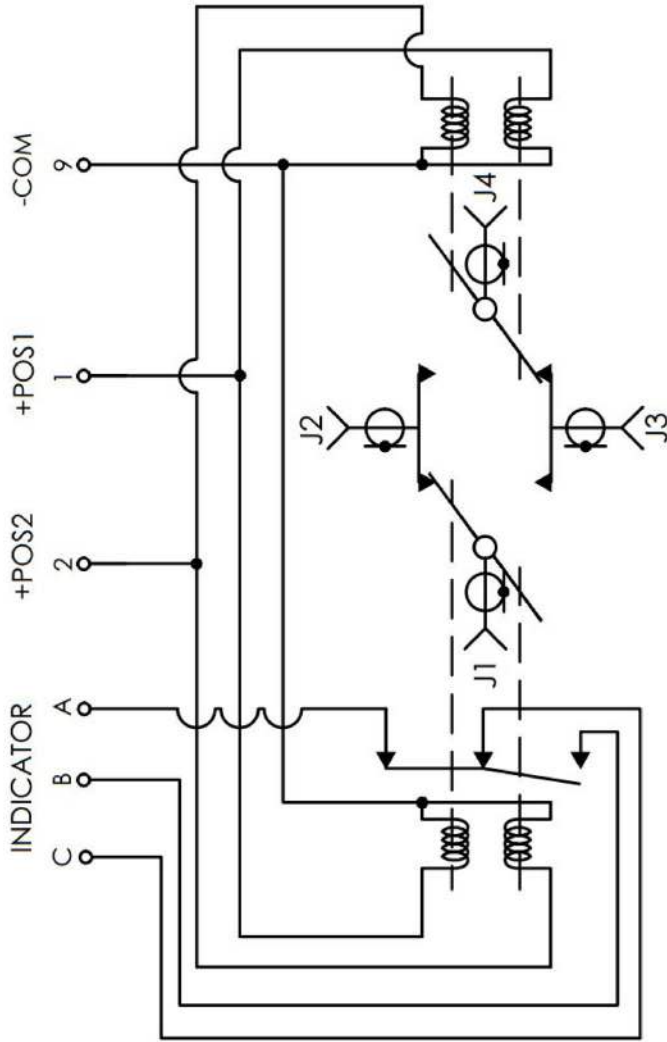
7361

**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



# PE71S6402 CAD Drawing

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



**SCHEMATIC SHOWN IN LATCHING POSITION**

POS	VOLTAGE	RF PATH	INDICATOR PATH
POS 1	1-9	J1-J2, J3-J4	A-C
POS 2	2-9	J1-J3, J2-J4	B-C

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  
PE71S6402  
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 090817 SCALE N/A SIZE A 7361