



## SP4T Electromechanical Relay Normally Open Switch, DC to 18 GHz, up to 240W, 28V, SMA

### Electromechanical Relay Switches Technical Data Sheet

PE71S6074

#### Features

- Single Pole Four Throw Relay Switch
- DC to 18 GHz Frequency Range
- 5M Cycle Min Operating Life
- 100 Watt Avg Power Max
- -40 to +85 Deg C Operating Temperature
- Insertion Loss 0.5 dB Max
- VSWR 1.5:1 Max

#### Applications

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

#### Description

The PE71S6074 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 18 GHz and can handle up to 240 Watts of CW input power in a Break Before Make condition. The design features a Normally Open Actuator and is rated for 5M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -40°C to +85°C and the switch assembly is RoHS and REACH compliant. The package interface uses solder terminals and SMA Female connectors.

#### Electrical Specifications

Switch Type	SP4T
Actuator Type	Normally Open
Switching Sequence	Break before Make
Polarity	Negative Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		18	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts		102		mA
VSWR			1.5:1	
Insertion Loss			0.5	dB
Isolation	60			dB
Input Power (CW)			100	Watts
Switching Time			15	ms Max

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch, DC to 18 GHz, up to 240W, 28V, SMA PE71S6074](#)



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### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 3	3 to 8	8 to 12.4	12.4 to 18		GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1		
Insertion Loss, Max	0.2	0.3	0.4	0.5		dB
Isolation, Min	80	70	60	60		dB
Input Power, Max (CW)	240	150	120	100		Watts

Electrical Specification Notes:  
 Average Power and Actuating Current values at 25°C.

### Mechanical Specifications

#### Size

Length	1.831 in [46.51 mm]
Width/Diameter	1.752 in [44.5 mm]
Height	1.752 in [44.5 mm]
Weight	0.451 lbs [204.57 g]
Package Type	Connectorized
Operating Life	5,000,000 Cycles

#### Connectors

RF Connector Type	SMA Female
RF Connector Specification	MIL C 39012
Control Connector	Solder Pin

Mechanical Specification Notes:  
 Solder Pins: 250°C max/30sec.

### Environmental Specifications

#### Temperature

Operating Range	-40 to +85 deg C
Storage Range	-55 to +85 deg C

Construction	Splashproof
Humidity	MIL-DTE-3928E, Cond.B
Shock	MIL-STD-202, Method 213B, Cond.C
Vibration	MIL-STD-202, Method 204D, Cond.D

Environmental Specification Notes:  
 Environmental specifications are guaranteed but not tested.

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

**Plotted and Other Data**

Notes:

- Values shown are typical at 25°C.

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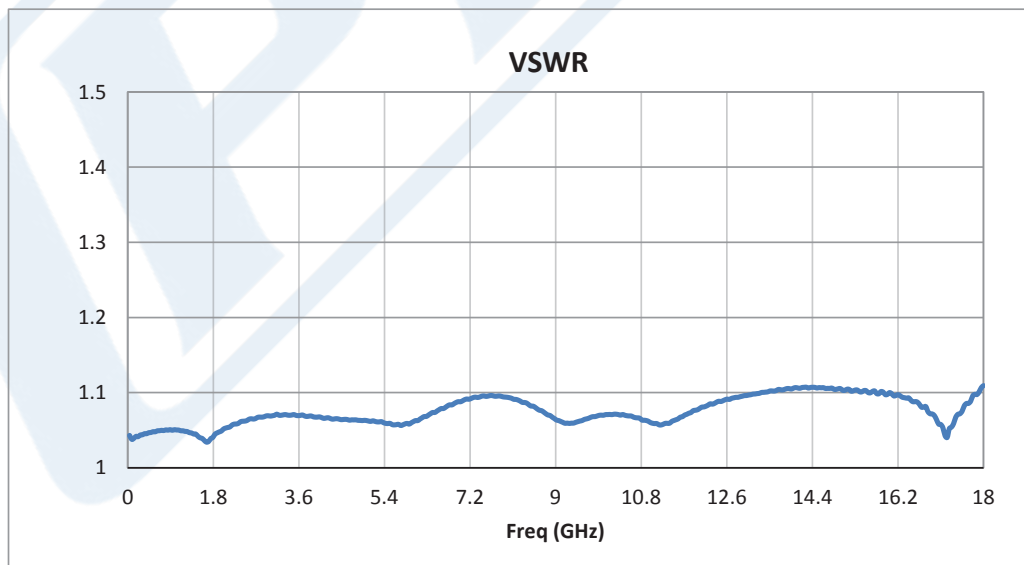
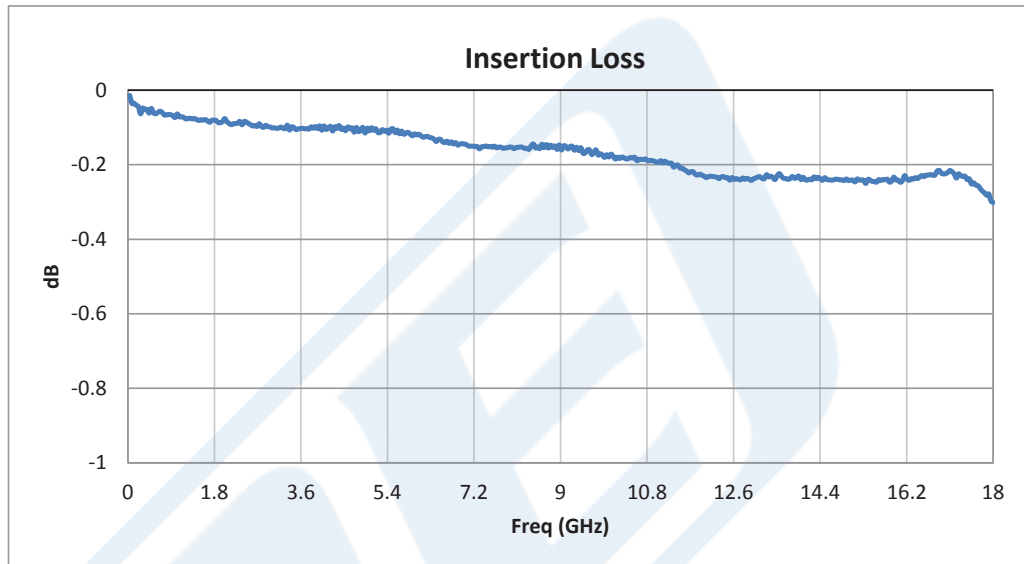


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### Typical Performance Data



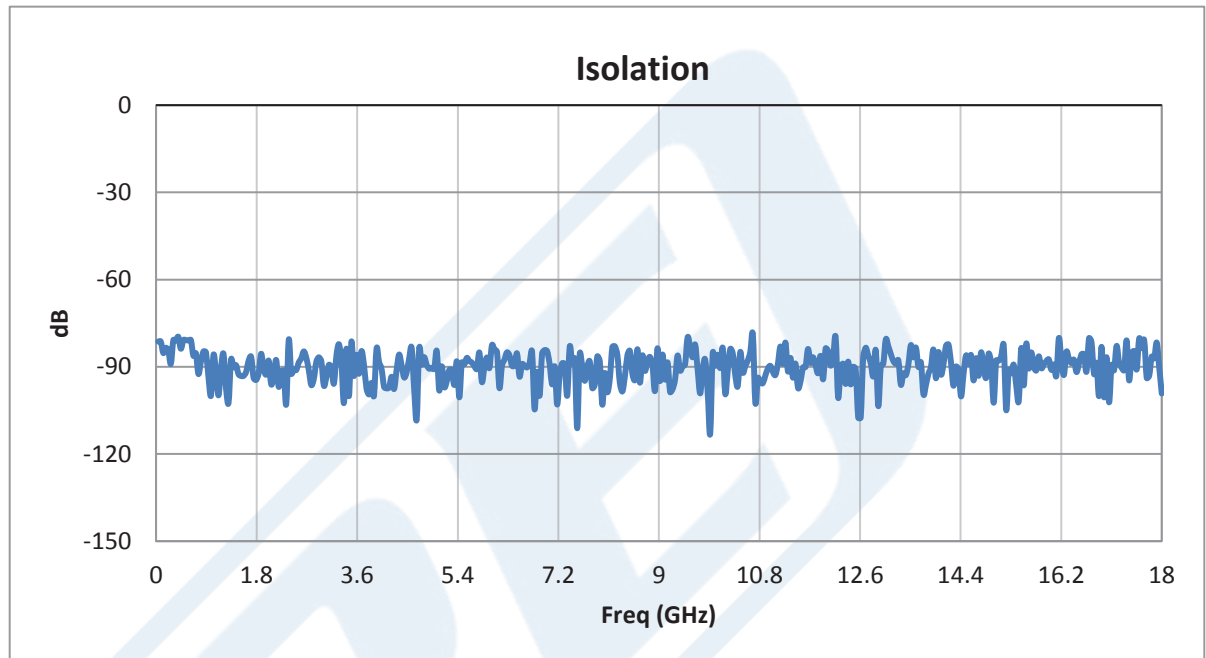
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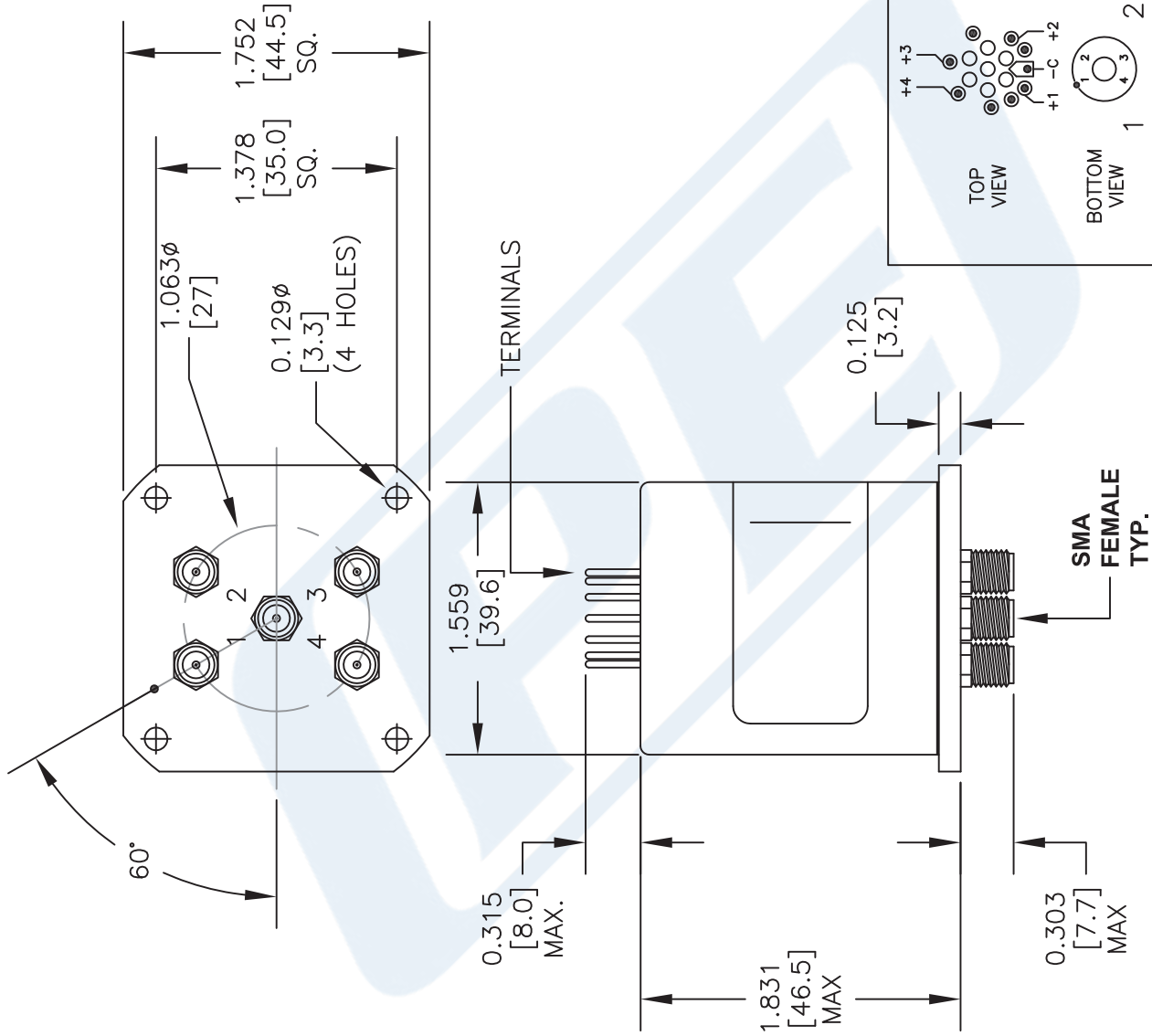
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# PE71S6074 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch,  
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DWG TITLE

**PE71S6074**

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].

FSCM NO. 53919

CAD FILE 120114

SCALE N/A

SIZE A

150

**(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

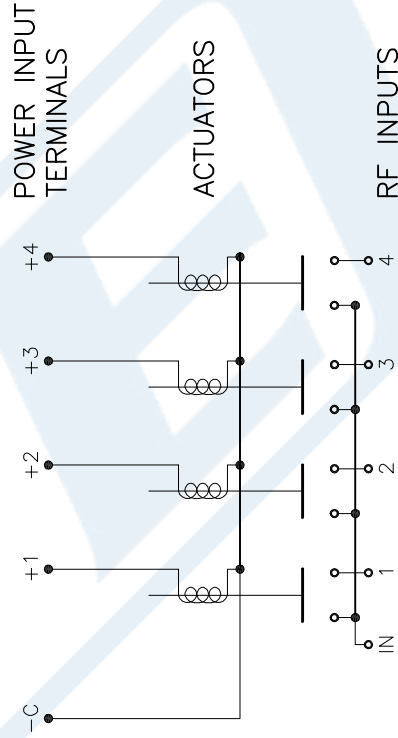
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# PE71S6074 CAD Drawing

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Voltage	RF Continuity
- C + 1	IN ↔ 1
- C + 2	IN ↔ 2
- C + 3	IN ↔ 3
- C + 4	IN ↔ 4

SCHEMATIC DIAGRAM



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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

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