



## SP4T Electromechanical Relay Normally Open Switch DC to 40 GHz, 2.92mm, 3 Watts, 28V Control

### Electromechanical Relay Switches Technical Data Sheet

PE71S6135

#### Features

- Single Pole Four Throw Relay Switch
- DC to 40 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- Insertion Loss 0.9 dB max
- Isolation 50 dB min
- 3 Watts Avg Power Max
- Switching Sequence Break Before Make

#### Applications

- Test & Measurement
- Communications System
- Instrumentation
- Suitable for Aircraft

#### Description

The PE71S6135 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 40 GHz and has a rating of 3 Watts input power (CW) in a Break Before Make condition. The design features a Normally Open Actuator and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 70 dB min, with +28 Vdc operating voltage and performance is guaranteed over -35°C to +85°C. The package interface uses solder terminals and 2.92mm Female connectors.

#### Electrical Specifications

Switch Type	SP4T, Reflective
Actuator Type	Normally Open
Switching Sequence	Break Before Make
Polarity	Positive Common

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		40	GHz
Impedance		50		Ohms
Operating Voltage	24	28	30	Volts
Actuating Current @ 28 Volts			140	mA
VSWR			2:1	
Insertion Loss			0.9	dB
Isolation	50			dB
Input Power (CW) (at 40 GHz)			3	Watts

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 40 GHz, 2.92mm, 3 Watts, 28V Control PE71S6135](#)



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Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 6	6 to 12	12 to 18	18 to 26.5	26.5 to 40	GHz
VSWR, Max	1.3:1	1.4:1	1.5:1	1.7:1	2:1	
Insertion Loss, Max	0.2	0.4	0.5	0.7	0.9	dB
Isolation, Min	70	60	60	55	50	dB

Mechanical Specifications

Size

Length	1.6 in [40.64 mm]
Width/Diameter	1.75 in [44.45 mm]
Height	1.75 in [44.45 mm]
Weight	0.225 lbs [102.06 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	15 ms Max

Connectors

RF Connector Type	2.92mm Female
RF Connector Specification	MIL-C-39012
RF Connector Contact Material and Plating	Beryllium Copper, Gold
RF Connector Body Material and Plating	Passivated Stainless Steel
Control Connector	Solder Pin

Environmental Specifications

Temperature

Operating Range	-35 to +85 deg C
ESD Sensitivity	ESD Sensitive Material. Transport material in Approved ESD bags. Handle in approved ESD Workstation.



Environmental Specification Notes:  
Designed to meet MIL-E-5400 and MIL-S-3928

**Compliance Certifications** (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)  
Not RoHS Compliant

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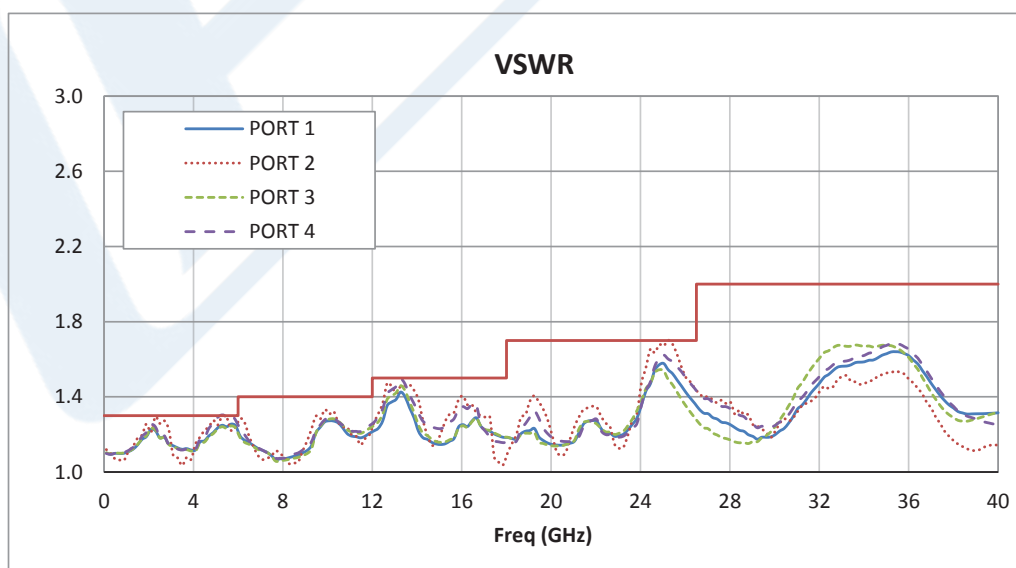
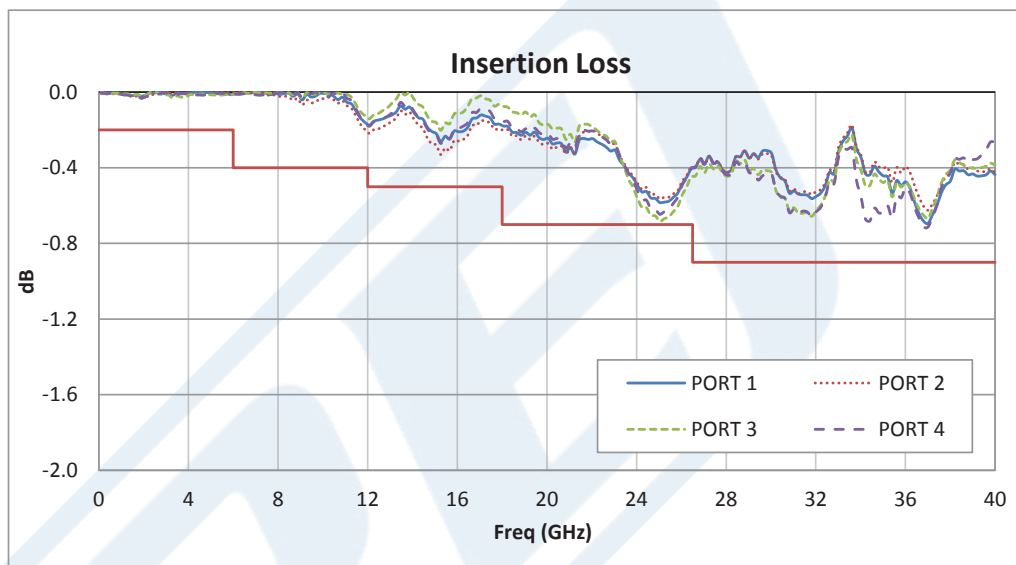
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Plotted and Other Data

Notes:

Typical Performance Data



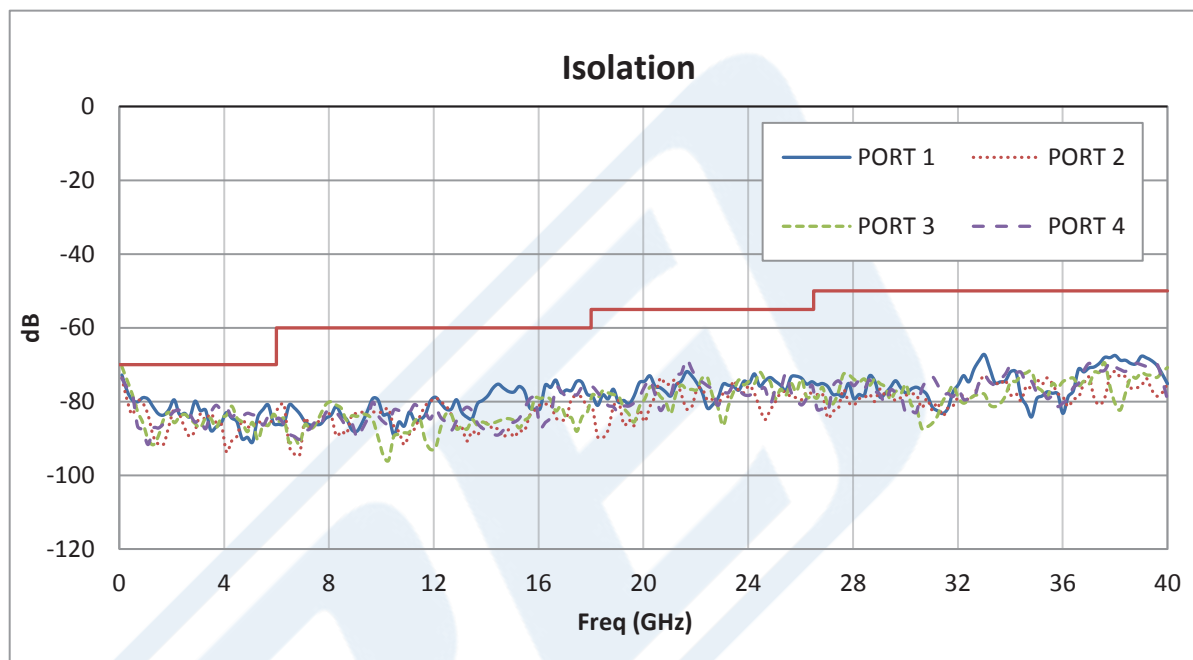
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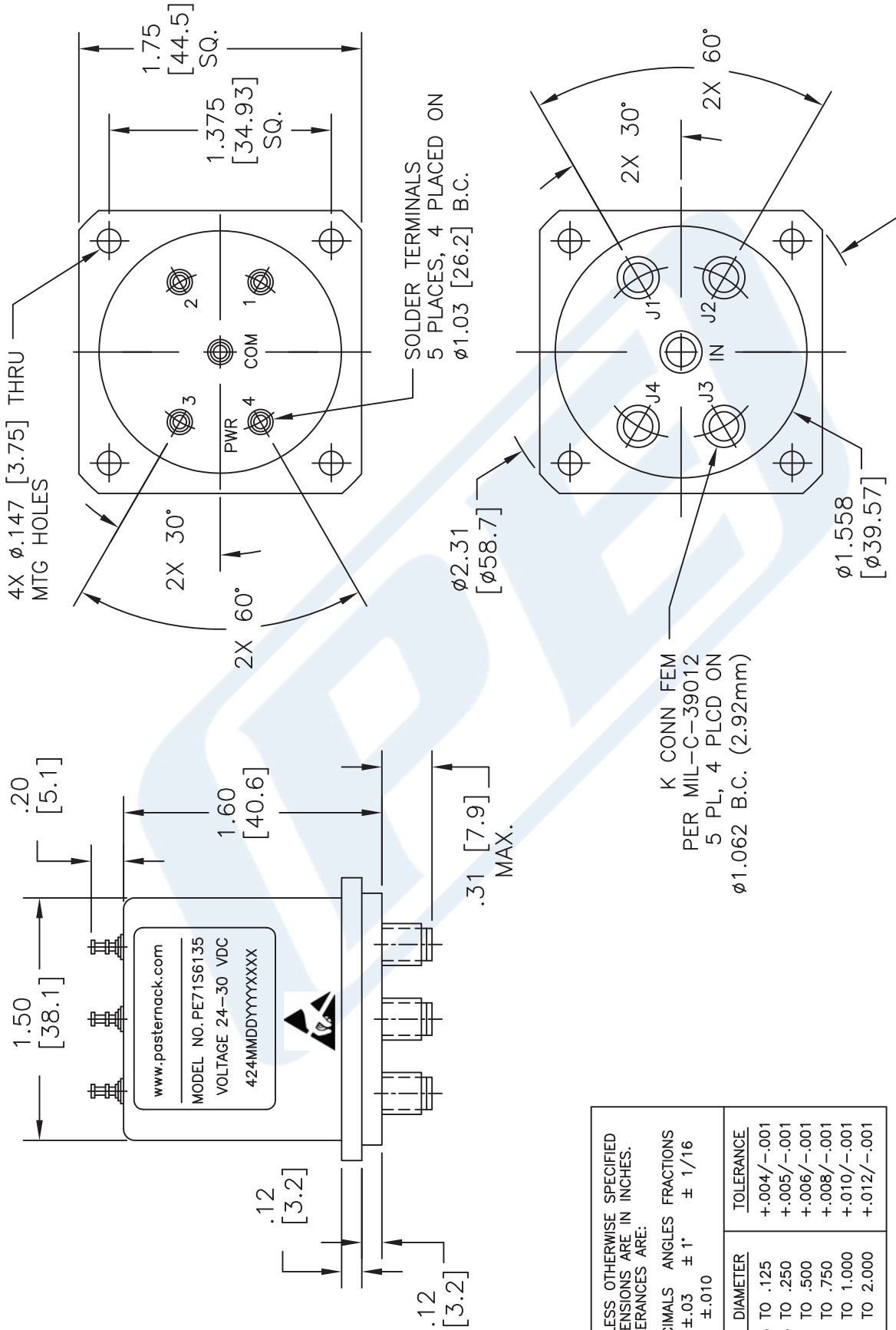
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# PE71S6135 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC  
to 40 GHz, 2.92mm, 3 Watts, 28V Control



UNLESS OTHERWISE SPECIFIED  
DIMENSIONS ARE IN INCHES.  
TOLERANCES ARE:

DECIMALS ANGLES FRACTIONS  
.XX ±.03 ± 1° ± 1/16  
.XXX ±.010

HOLE DIAMETER	TOLERANCE
.0135 TO .125	+ .004 / - .001
.126 TO .250	+ .005 / - .001
.251 TO .500	+ .006 / - .001
.501 TO .750	+ .008 / - .001
.751 TO 1.000	+ .010 / - .001
1.001 TO 2.000	+ .012 / - .001

\* THESE DIMENSIONS AND TOLERANCES  
SUPERSEDE NOTE #1 ON TITLE BLOCK.

DWG TITLE

**PE71S6135**

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].

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FSCM NO. 53919

CAD FILE 022615

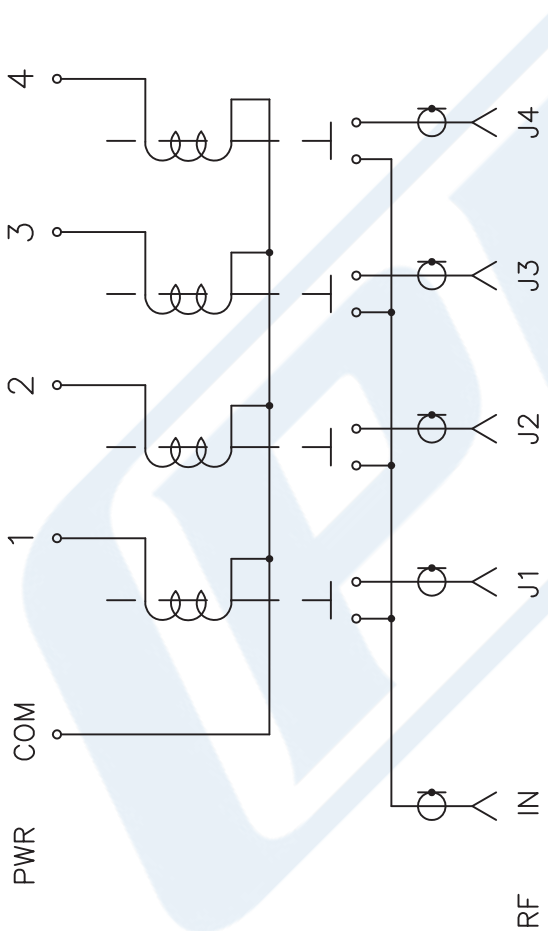
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