



SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6129

**Features**

- Single Pole Four Throw Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Normally Open Actuator
- TTL Logic Driver, Position Indicators, Suppression Diodes
- Insertion Loss 0.6 dB max
- Isolation 60 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

**Applications**

- Test & Measurement
- Communications System
- Instrumentation

**Description**

The PE71S6129 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 22 GHz and has a rating of 20 Watts input power (CW) in a Break Before Make condition. The design features a Normally Open Actuator with TTL Logic Driver, Position Indicators, Suppression Diodes and is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.3 dB max and Isolation from 75 dB min, with +28 Vdc operating voltage. Performance is guaranteed over -55°C to +85°C and the switch assembly is RoHS compliant. The package interface uses solder terminals and SMA Female connectors.

**Electrical Specifications**

Switch Type	SP4T, Reflective
Actuator Type	Normally Open
Switching Sequence	Break Before Make
Actuator Options	Indicators, TTL Logic, Diodes
TTL Control	on: 2.4 to 5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		22	GHz
Impedance		50		Ohms
Operating Voltage		28		Volts
Actuating Current @ 28 Volts		135		mA
VSWR			1.6:1	
Insertion Loss			0.6	dB
Isolation	60			dB
Input Power (CW) (at 22 GHz)			20	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 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes PE71S6129](#)





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### Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 12	12 to 18	18 to 22	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1	1.6:1	
Insertion Loss, Max	0.3	0.35	0.4	0.5	0.6	dB
Isolation, Min	75	70	65	60	60	dB

### Mechanical Specifications

#### Size

Length 2.75 in [69.85 mm]  
 Width/Diameter 1.75 in [44.45 mm]  
 Height 1.75 in [44.45 mm]

Weight 0.367 lbs [166.47 g]  
 Body Material and Plating Aluminum  
 Package Type Connectorized

Operating Life 1,000,000 Cycles  
 Switching Time 15 ms Max

#### Connectors

RF Connector Type SMA Female  
 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 -55 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-DTL-3928

### Compliance Certifications (visit [www.Pasternack.com](http://www.Pasternack.com) for current document)

RoHS Compliant

### 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: [SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes PE71S6129](#)

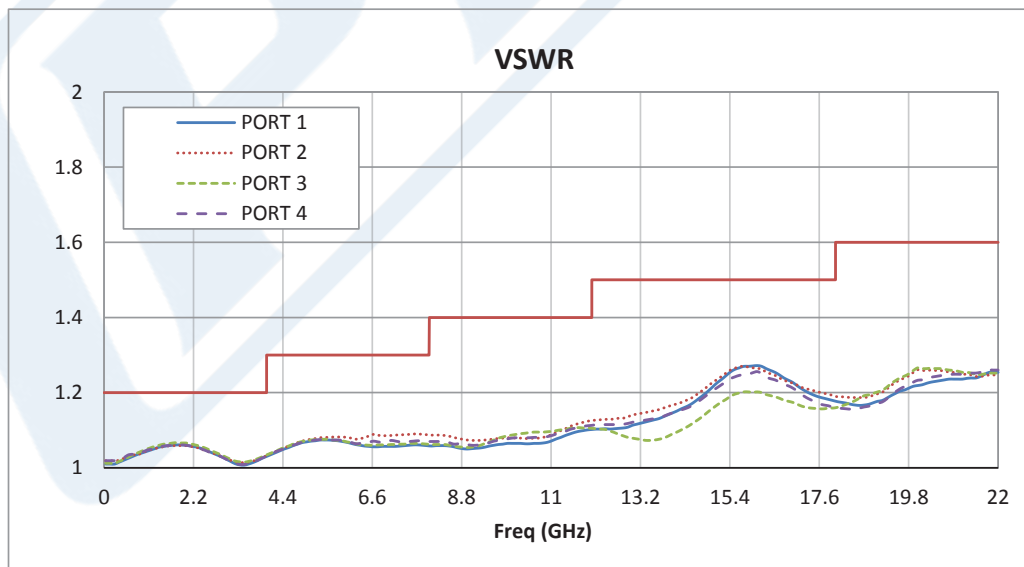
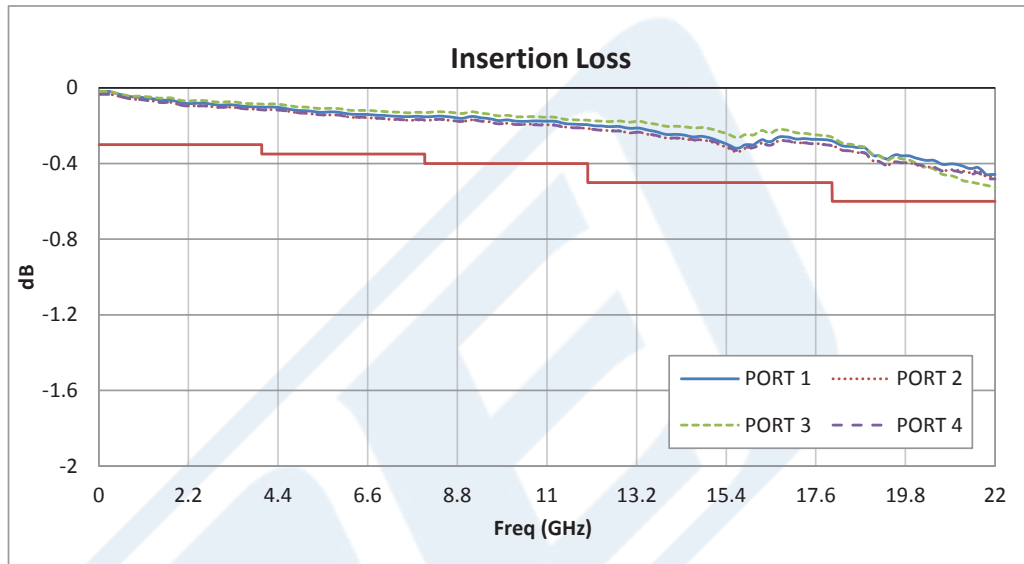


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Electromechanical Relay Switches Technical Data

PE71S6129

Typical Performance Data



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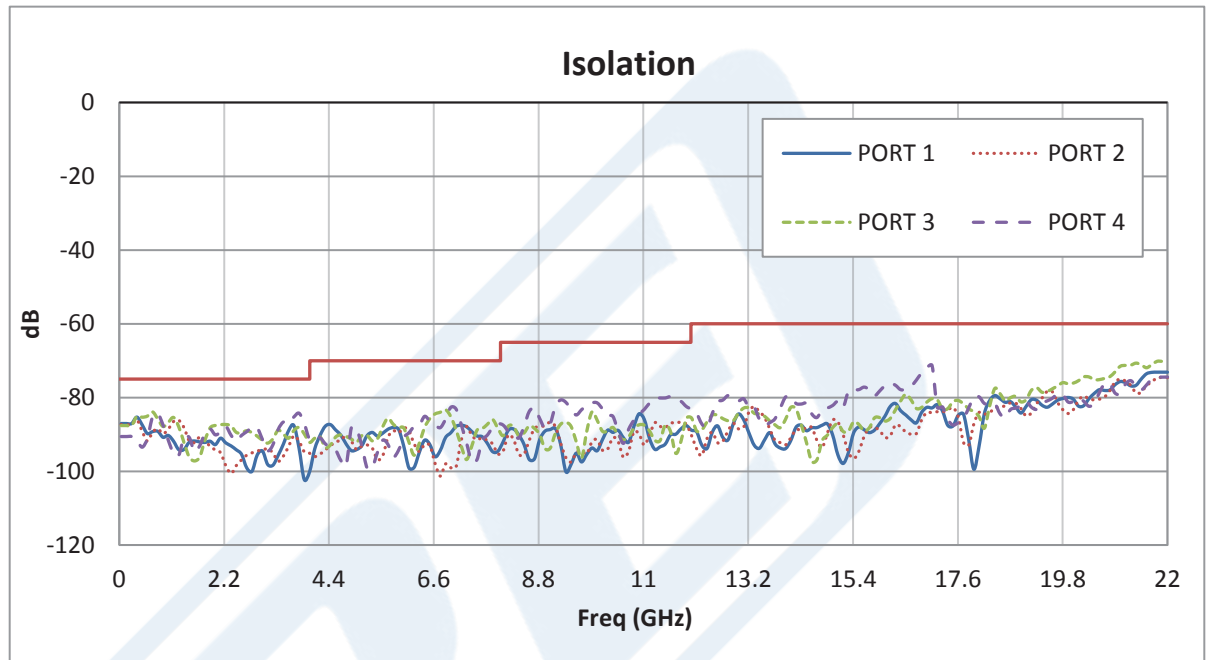




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SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz, SMA, 20 Watts, 28V Control, Indicators, TTL, Diodes from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

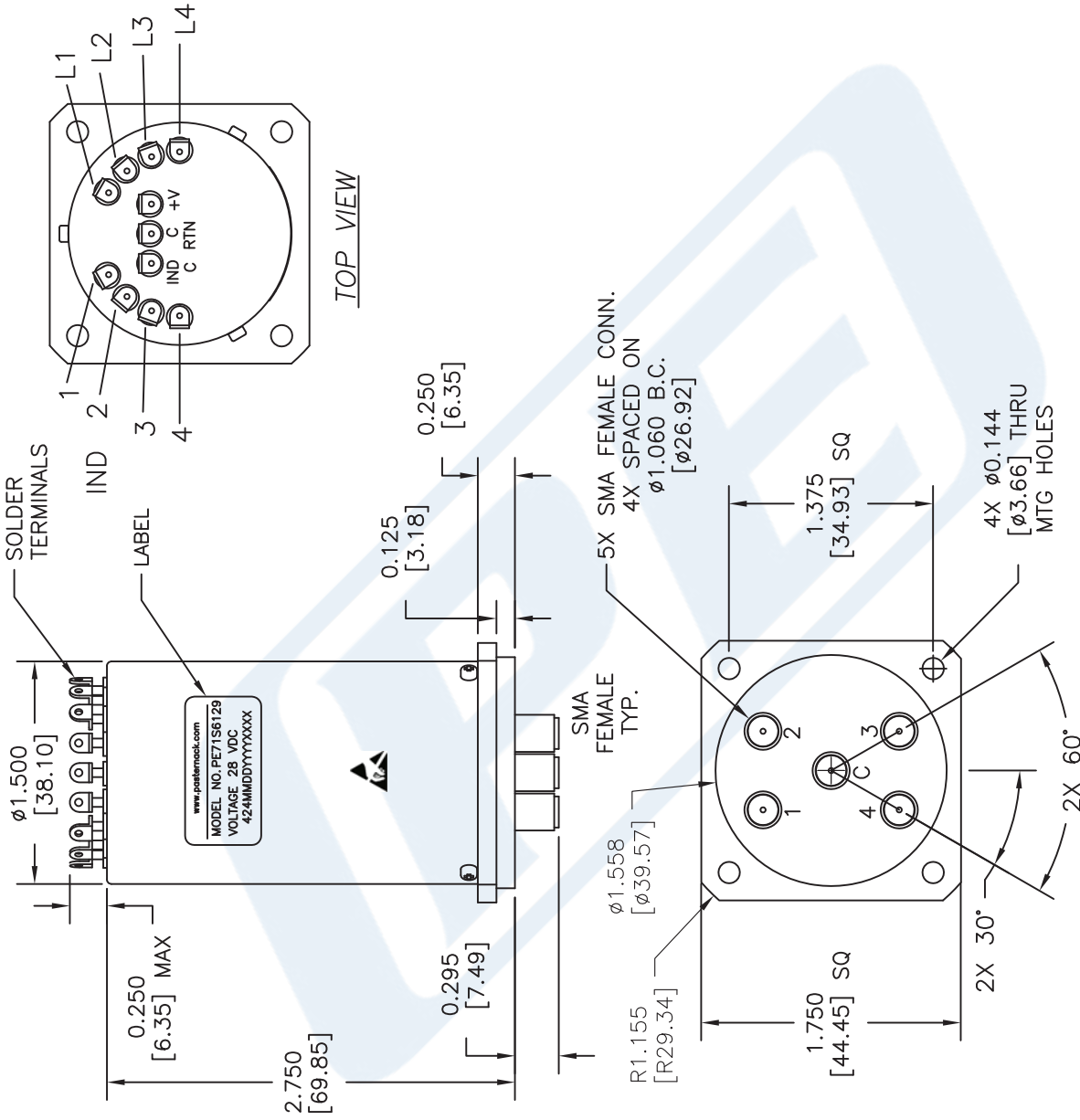
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URL: <http://www.pasternack.com/sma-sp4t-electromechanical-relay-switch-22-ghz-normally-open-indicators-pe71s6129-p.aspx>

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.

# PE71S6129 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz,  
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:	
DECIMALS	ANGLES FRACTIONS
.XX $\pm .03$	$\pm 1^\circ$
.XXX $\pm .010$	$\pm 1/16$

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.

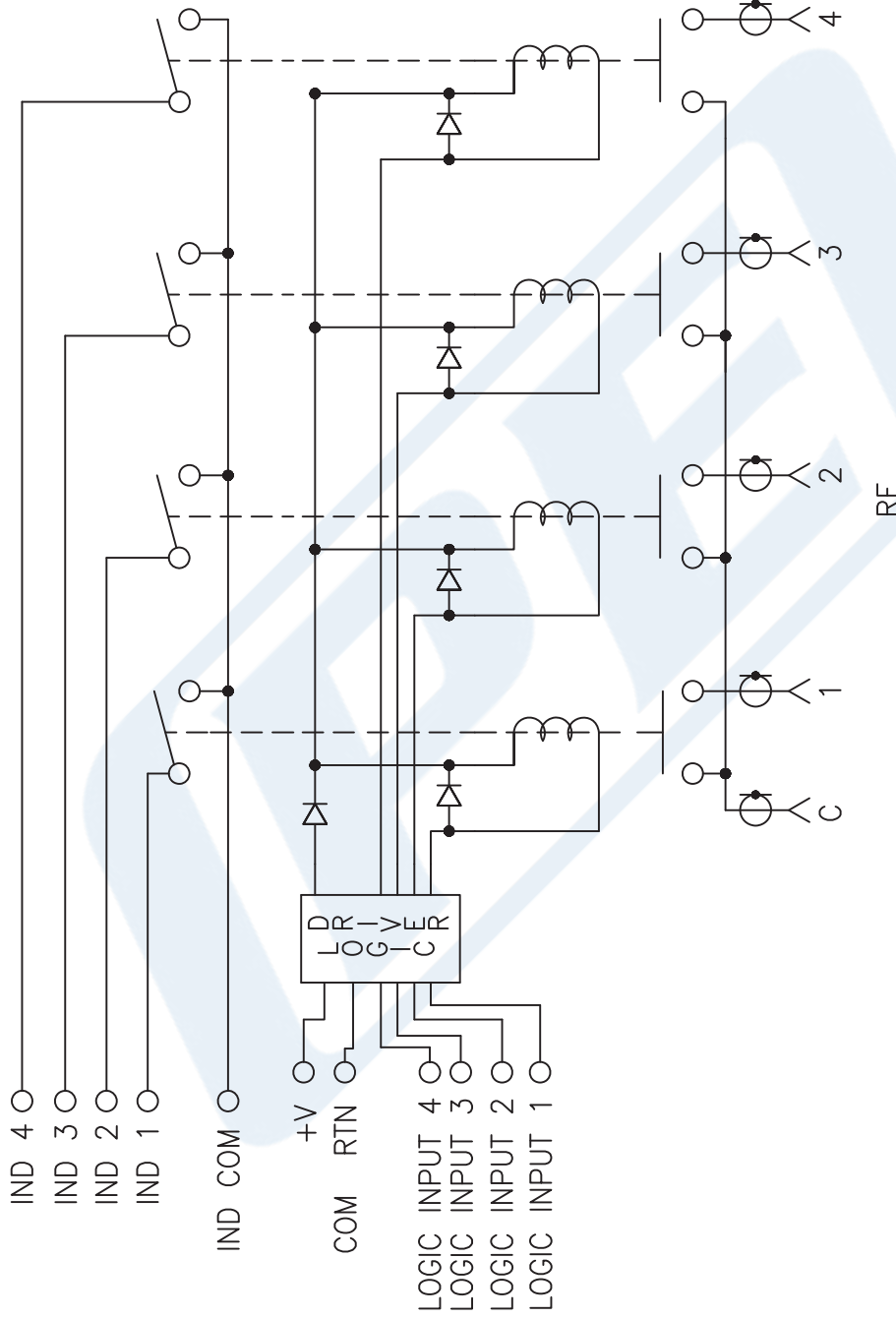
**NOTES:**  
 1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.  
 2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.  
 3. DIMENSIONS ARE IN INCHES [mm].

DWG TITLE  
**PE71S6129**  
 FSCM NO. 53919  
 CAD FILE 031115  
 SCALE N/A  
 SIZE A  
 200

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# PE71S6129 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 22 GHz,  
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SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

DWG TITLE

**PE71S6129**

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FSCM NO. 53919

CAD FILE 030615

SCALE N/A

SIZE A

200



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