



SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data Sheet

PE71S6184

Features

- Single Pole Four Throw Relay Switch
- DC to 10 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
- 50 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation

Description

The PE71S6184 is a Single Pole Four Throw Electromechanical Relay Switch that operates from DC to 10 GHz and has a rating of 50 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 0.25 dB max and Isolation from 80 dB min, with +12 Vdc operating voltage and performance is guaranteed over -25°C to +65°C. The package interface uses solder terminals and N 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		10	GHz
Impedance		50		Ohms
Operating Voltage		12		Volts
Actuating Current @ 12 Volts		255		mA
VSWR			1.6:1	
Insertion Loss			0.6	dB
Isolation	60			dB
Input Power (CW) (at 10 GHz)			50	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 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes PE71S6184](#)



SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data

PE71S6184

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 4	4 to 8	8 to 10			GHz
VSWR, Max	1.25:1	1.4:1	1.6:1			
Insertion Loss, Max	0.25	0.4	0.6			dB
Isolation, Min	80	70	60			dB

Mechanical Specifications

Size

Length	3.21 in [81.53 mm]
Width/Diameter	2.47 in [62.74 mm]
Height	2.47 in [62.74 mm]
Weight	1.156 lbs [524.35 g]
Body Material and Plating	Aluminum
Package Type	Connectorized Module
Operating Life	1,000,000 Cycles
Switching Time	50 ms Max

Connectors

RF Connector Type	N 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	-25 to +65 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 for current document)

Not 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 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes PE71S6184](#)

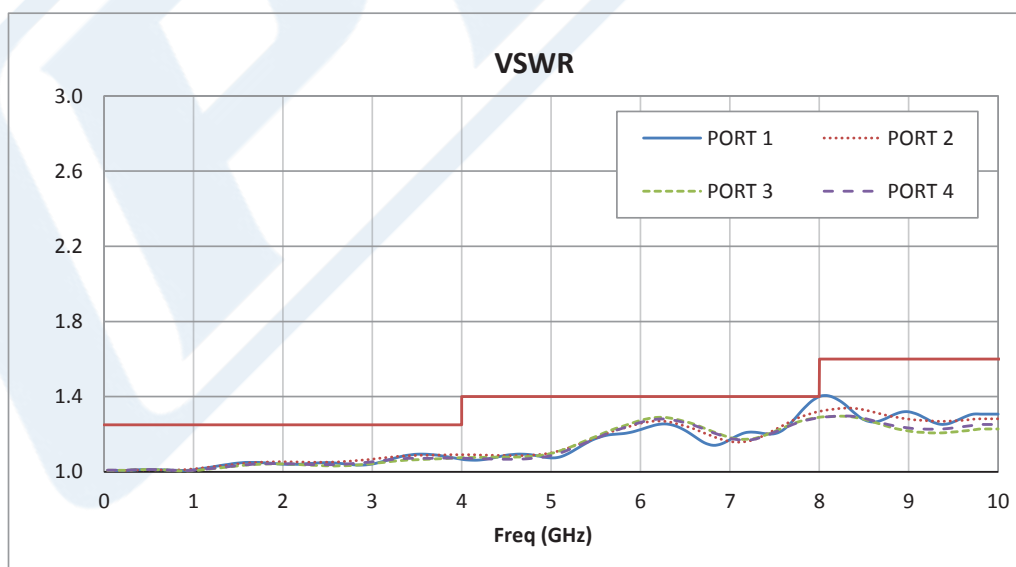
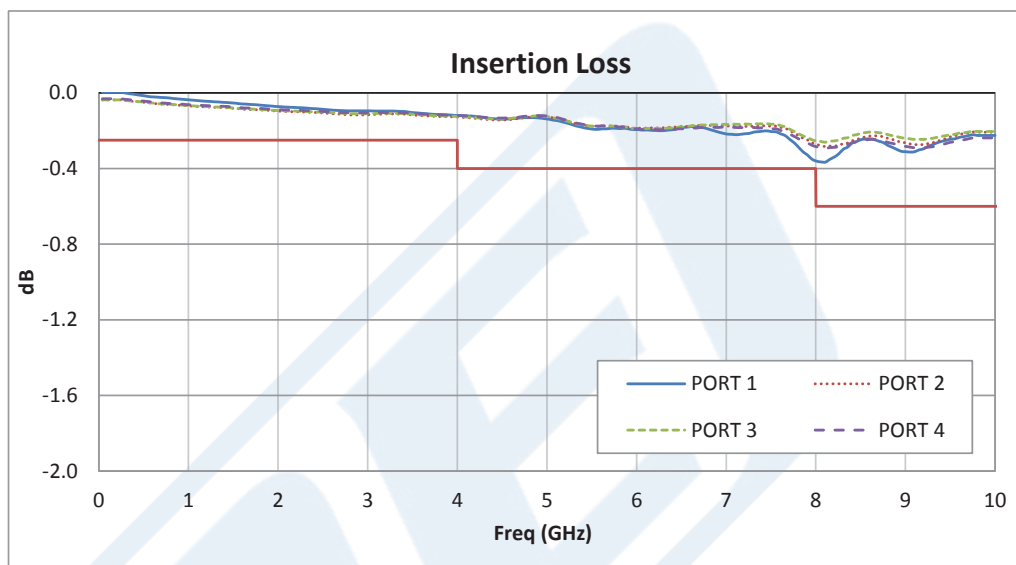


SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data

PE71S6184

Typical Performance Data



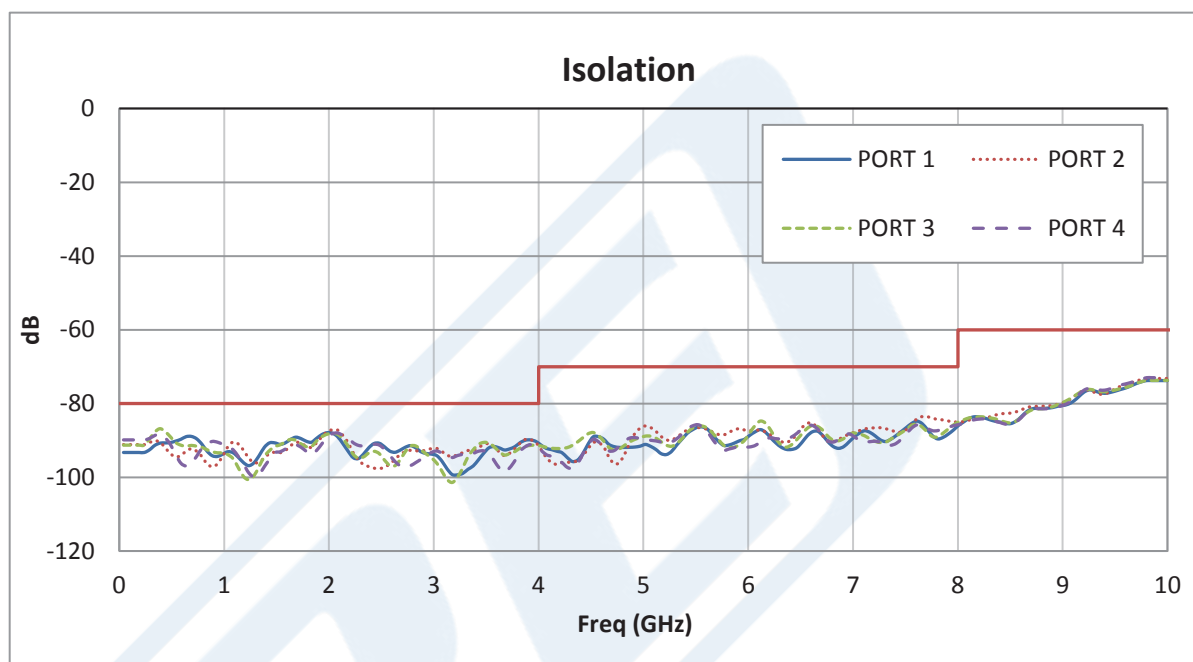
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes PE71S6184](#)



SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes

Electromechanical Relay Switches Technical Data

PE71S6184



SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V 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.

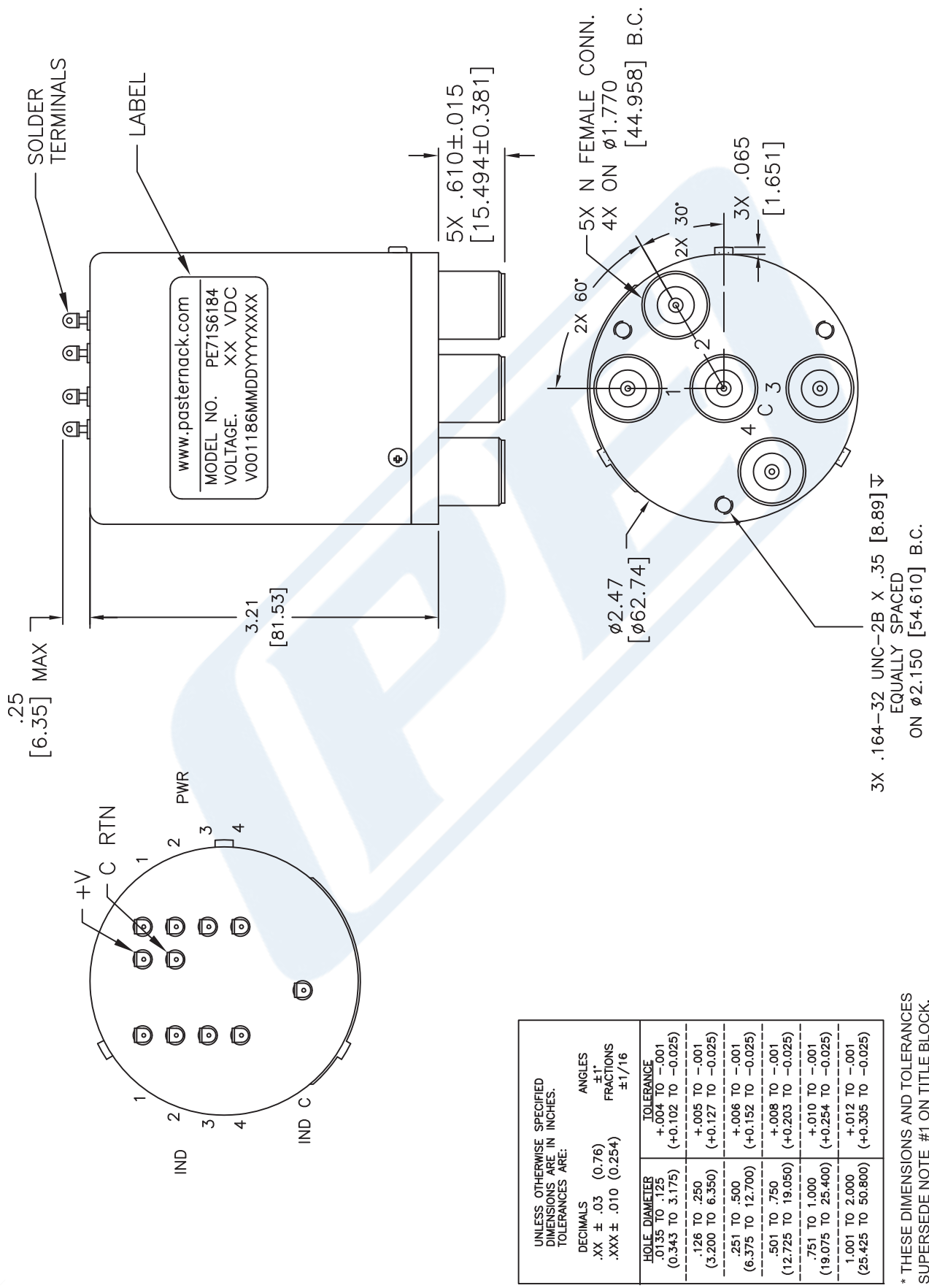
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes PE71S6184](http://www.pasternack.com/n-sp4t-electromechanical-relay-switch-10-ghz-indicators-normally-open-ttl-logic-pe71s6184-p.aspx)

URL: <http://www.pasternack.com/n-sp4t-electromechanical-relay-switch-10-ghz-indicators-normally-open-ttl-logic-pe71s6184-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.

PE71S6184 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		
DECIMALS	ANGLES	FRACTIONS
.XX \pm .03 (0.76)	$\pm 1^\circ$	$\pm 1/16$
.XXX \pm .010 (0.254)		
HOLE DIAMETER	TOLERANCE	
.0135 TO .125 (0.343 TO 3.175)	+.004 TO -.001 (+0.102 TO -0.025)	
.126 TO .250 (3.200 TO 6.350)	+.005 TO -.001 (+0.127 TO -0.025)	
.251 TO .500 (6.375 TO 12.700)	+.006 TO -.001 (+0.152 TO -0.025)	
.501 TO .750 (12.725 TO 19.050)	+.008 TO -.001 (+0.203 TO -0.025)	
.751 TO 1.000 (19.075 TO 25.400)	+.010 TO -.001 (+0.254 TO -0.025)	
1.001 TO 2.000 (25.425 TO 50.800)	+.012 TO -.001 (+0.305 TO -0.025)	

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

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
PE71S6184

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 050815

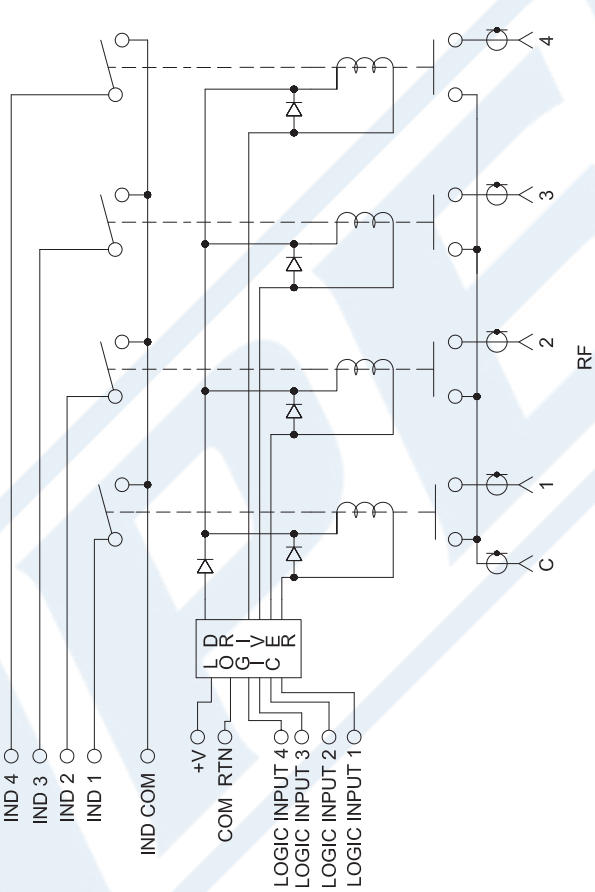
SCALE N/A

SIZE A

2233

PE71S6184 CAD Drawing

SP4T Electromechanical Relay Normally Open Switch DC to 10 GHz, N, 50 Watts, 12V Control, Indicators, TTL, Diodes



SCHEMATIC NORMALLY OPEN SHOWN IN DE-ENERGIZED POSITION

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
PE71S6184

FSCM NO. 53919

CAD FILE 050815

SCALE N/A

SIZE A

2233

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