



SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data Sheet

PE71S6397

Features

- Single Pole Double Throw
- DC to 12 GHz Frequency Range
- 2M Cycle Min Operating Life
- +28 Volt DC
- 200 Watt Avg Power
- Failsafe Actuator
- -25 to +70°C Operating Temperature
- Insertion Loss as low as 0.3 dB
- VSWR 1.4:1 Max
- N Female RF connectors
- Solder Pins 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 PE71S6397 is a Single Pole Double Throw (SPDT) electromechanical relay switch that operates across a wide frequency range of DC to 12 GHz and can handle up to 200 Watts of CW input power in a break before make condition. The design features a Failsafe actuator and is rated for 2M life cycles for high reliability operation. Insertion loss is specified as low as 0.3 dB and Isolation up to 90 dB minimum. The Failsafe actuator has a +28 Vdc bias voltage, and operates over a temperature range of -25°C to +70°C. The rugged and compact package assembly supports N Female connectors and Solder Pins for DC control. The model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and vibration.

Electrical Specifications

Switch Type SPDT
Actuator Type Failsafe
Switching Sequence Break before Make

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Set Current @ 28 Volts		90		mA
VSWR		1.25:1	1.4:1	
Insertion Loss		0.3	0.5	dB
Isolation	70	90		dB
Input Power (CW)			200	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: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data

PE71S6397

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 1	1 to 4	4 to 8	8 to 12		GHz
VSWR, Max	1.25:1	1.3:1	1.4:1	1.4:1		
Insertion Loss, Max	0.3	0.4	0.4	0.5		dB
Isolation, Min	90	80	80	70		dB
Input Power, Typ (CW)	600	300	230	200		Watts

Mechanical Specifications

Size

Body Material and Plating

Aluminum
Connectorized

Package Type

Operating Life

2,000,000 Cycles

Connectors

RF Connector Type

N Female

RF Connector Contact Material and Plating

Beryllium Copper, Gold

RF Connector Body Material and Plating

Aluminum, Nickel

Control Connector

Solder Pin

Environmental Specifications

Temperature

Operating Range

-25 to +70 deg C

Storage Range

-55 to +100 deg C

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: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](#)

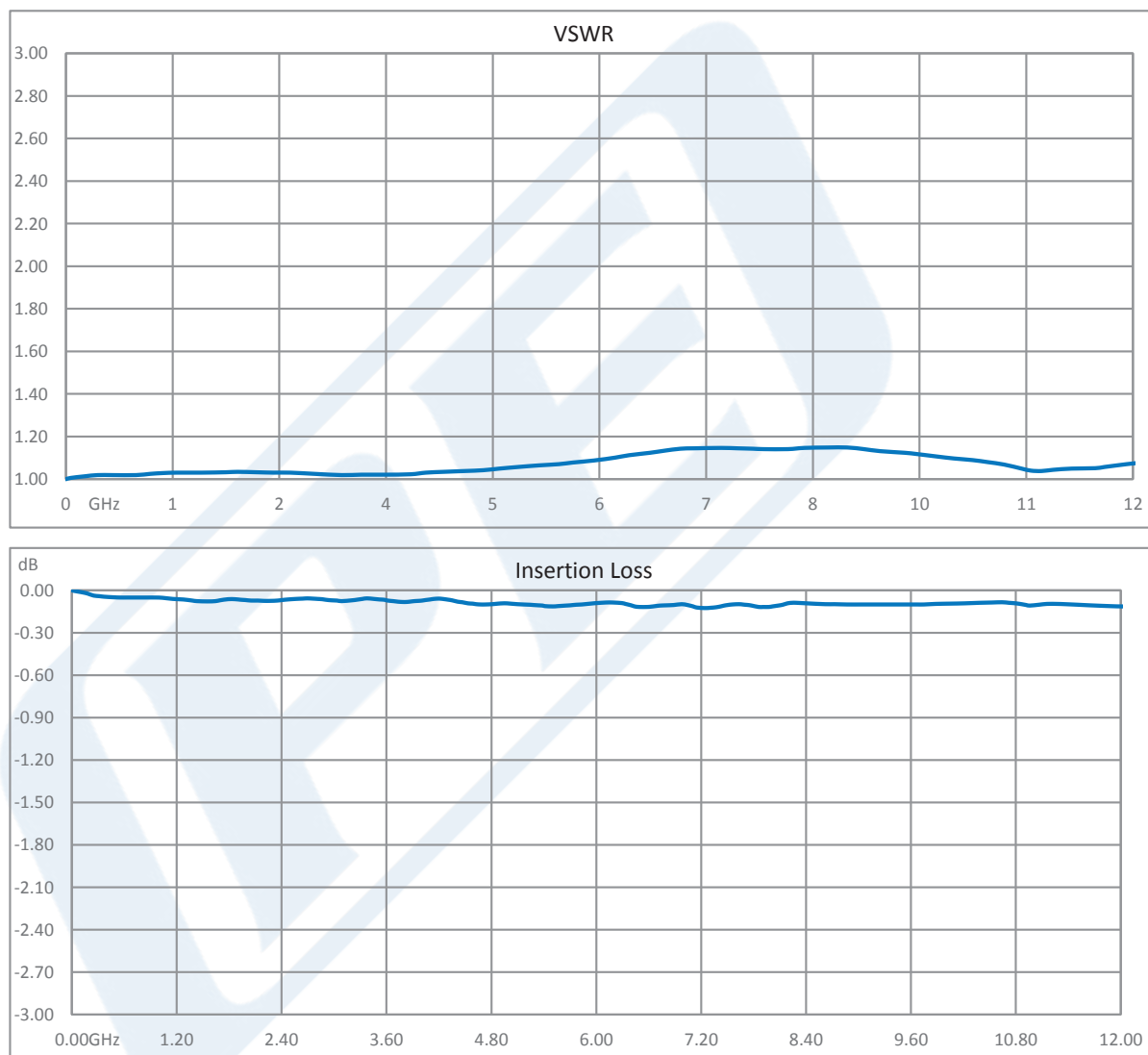


SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data

PE71S6397

Typical Performance Data



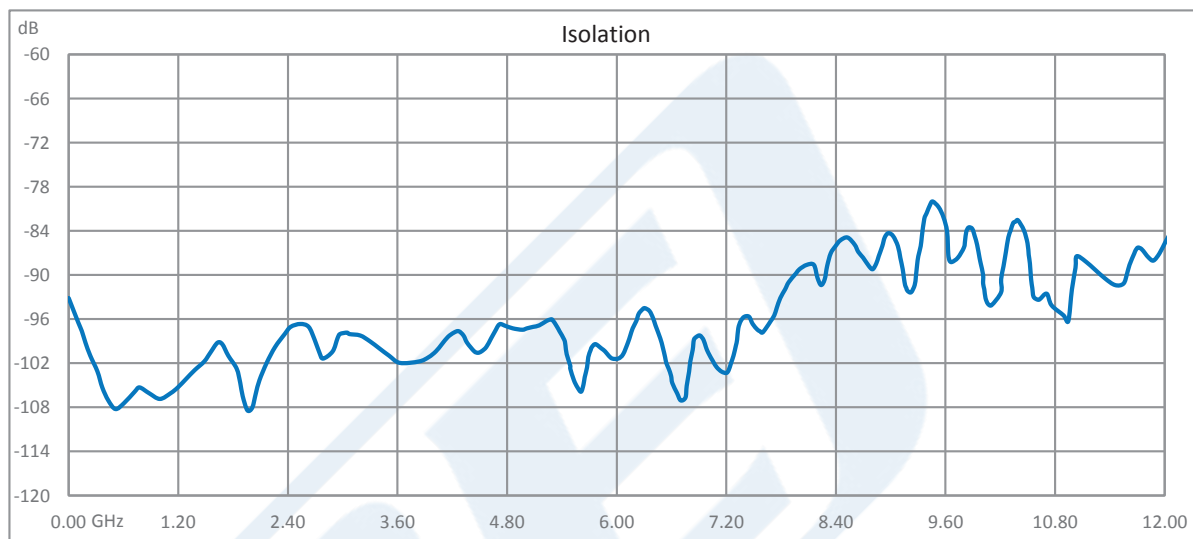
Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data

PE71S6397



Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](#)

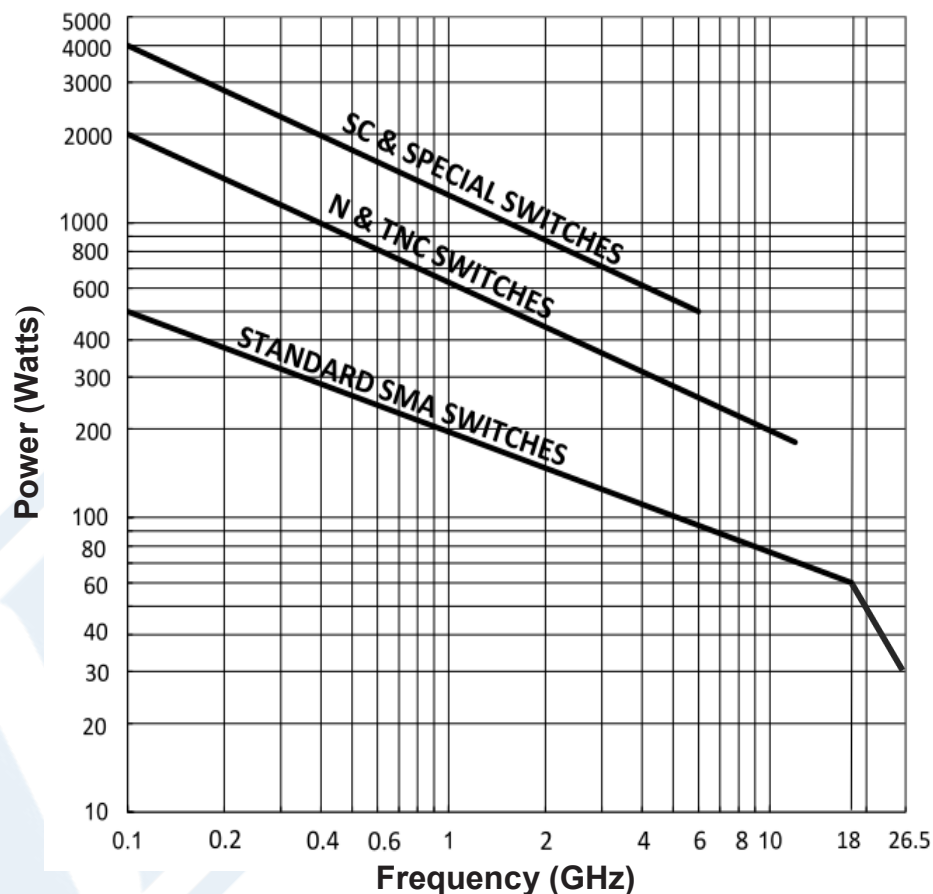


SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data

PE71S6397

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: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](#)



SPDT Electromechanical Relay Failsafe Switch,
DC to 12 GHz, up to 600W, 28V, N

Electromechanical Relay Switches Technical Data

PE71S6397

SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N 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: [SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N PE71S6397](https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-12-ghz-200w-28v-n-pe71s6397-p.aspx)

URL: <https://www.pasternack.com/spdt-electromechanical-relay-failsafe-switch-12-ghz-200w-28v-n-pe71s6397-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.

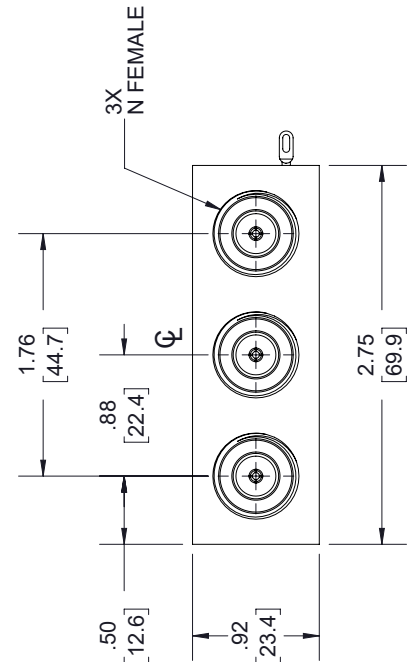
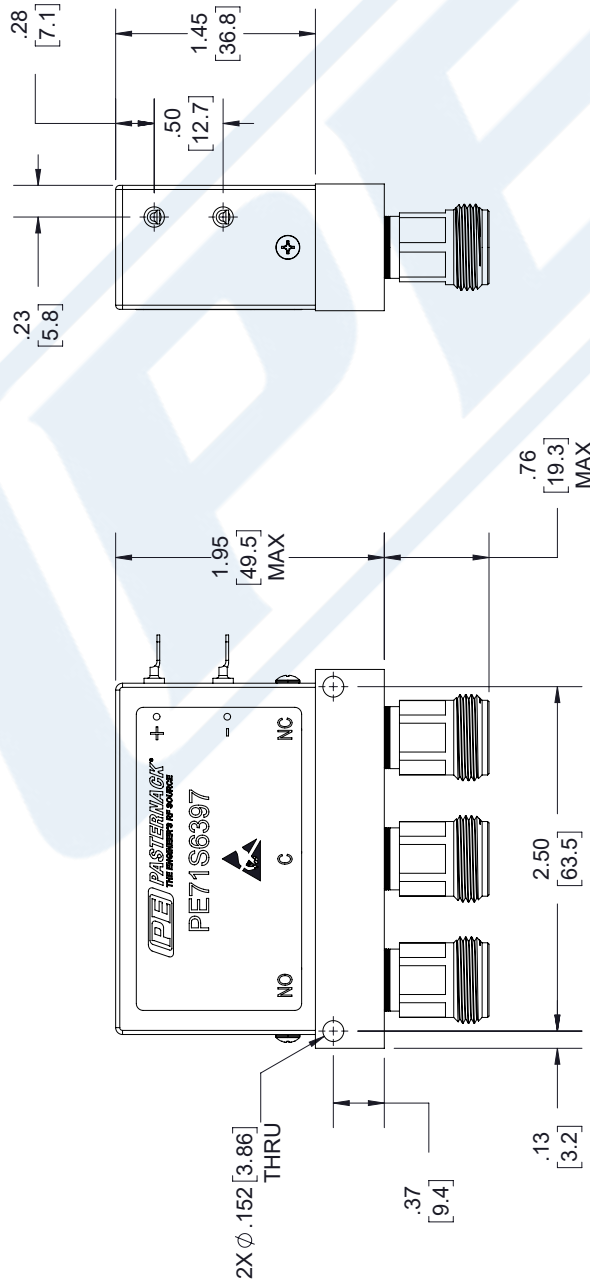
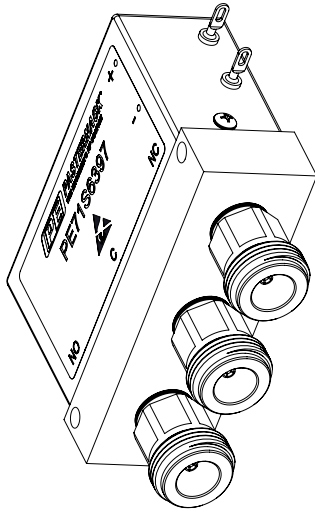
PE71S6397 CAD Drawing

SPDT Electromechanical Relay Failsafe Switch, DC to 12 GHz, up to 600W, 28V, N

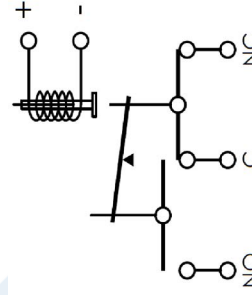
REV.	DESCRIPTION	DATE	APPROVED
A	PCR FMSW6397	1/14/2020	T. GALLA

REVISIONS

2X SOLDER TERMINALS
SOLDER WIRE USING SN96,
MAXIMUM TEMP 210°C FOR
NO MORE THAN 5 SEC.



SCHEMATIC SHOWN IN FAILSAFE POSITION



UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE IN INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES:	FRACTIONS
.X = ±.2	[.08]
.XX = ±.02	[.51]
.XXX = ±.005	[.13]
CABLE LENGTH (L) TOLERANCES:	
L ≤ 12 [305]	±.125 [3.18]
12 [305] < L ≤ 60 [1524]	±.125 [3.18]
60 [1524] < L ≤ 120 [3048]	±.125 [3.18]
120 [3048] < L ≤ 300 [7620]	±.125 [3.18]
300 [7620] < L	±.125 [3.18]



THE INFORMATION AND
DESIGN IN THIS DOCUMENT
IS THE PROPERTY OF
PASTERNAK CORPORATION
ALL RIGHTS RESERVED.

SHEET	1	OF	1
-------	---	----	---

SCALE	N/A
-------	-----



Pasternack Enterprises, Inc.
P.O. Box 16759, Irvine, CA 92623.
Phone: 1.949.261.1920 | 1.866.727.8376
Fax: 1.949.261.7451
Website: www.pasternack.com
E-mail: sales@pasternack.com

THESE COMMODITIES, TECHNOLOGY OR SOFTWARE WERE EXPORTED FROM THE UNITED STATES IN ACCORDANCE
WITH THE EXPORT ADMINISTRATION REGULATIONS. DIVERSION CONTRARY TO U.S. LAW PROHIBITED.

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	53919	K.DANG	PE71S6397	A