



SPDT Electromechanical Relay Failsafe Switch, Terminated,
 DC to 22 GHz, 20W, 28V TTL, Indicators, SMA

Electromechanical Relay Switches Technical Data Sheet

PE71S6296

Features

- Single Pole Double Throw Terminated Relay Switch
- DC to 22 GHz Frequency Range
- 1M Cycle Min Operating Life
- Failsafe Actuator
- TTL Logic
- Indicators
- Insertion Loss 0.6 dB max
- Isolation 55 dB min
- 20 Watts Avg Power Max
- Switching Sequence Break Before Make

Applications

- Test & Measurement
- Communications System
- Instrumentation
- Military Communications

Description

The PE71S6296 is a Single Pole Double Throw (SPDT) Terminated 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 output port is terminated in 50 ohms when switched in the isolation (off) state. The design features TTL Logic control Failsafe Actuator with Indicators and Internal Terminations. It is rated for 1M Life Cycles for high reliability operation. Insertion loss is specified from 0.2 dB max and Isolation from 80 dB min at 3 GHz, with +28 Vdc operating voltage. Performance is guaranteed over -35°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	SPDT, Terminated
Actuator Type	Failsafe
Switching Sequence	Break Before Make
Actuator Options	TTL Logic, Indicators
TTL Control	on: 3.5 to 5.5 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			190	mA
Insertion Loss			0.6	dB
Input Power (CW)			20	Watts
Termination Input Power (CW)			5	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, Terminated, DC to 22 GHz, 20W, 28V TTL, Indicators, SMA PE71S6296](#)



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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	18 to 22	GHz
VSWR, Max	1.2:1	1.3:1	1.4:1	1.5:1	1.7:1	
Insertion Loss, Max	0.2	0.3	0.4	0.5	0.6	dB
Isolation, Min	80	70	60	60	55	dB

Mechanical Specifications

Size

Weight	0.181 lbs [82.1 g]
Body Material and Plating	Aluminum, Nickel
Package Type	Connectorized
Operating Life	1,000,000 Cycles

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	-35 to +85 deg C
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Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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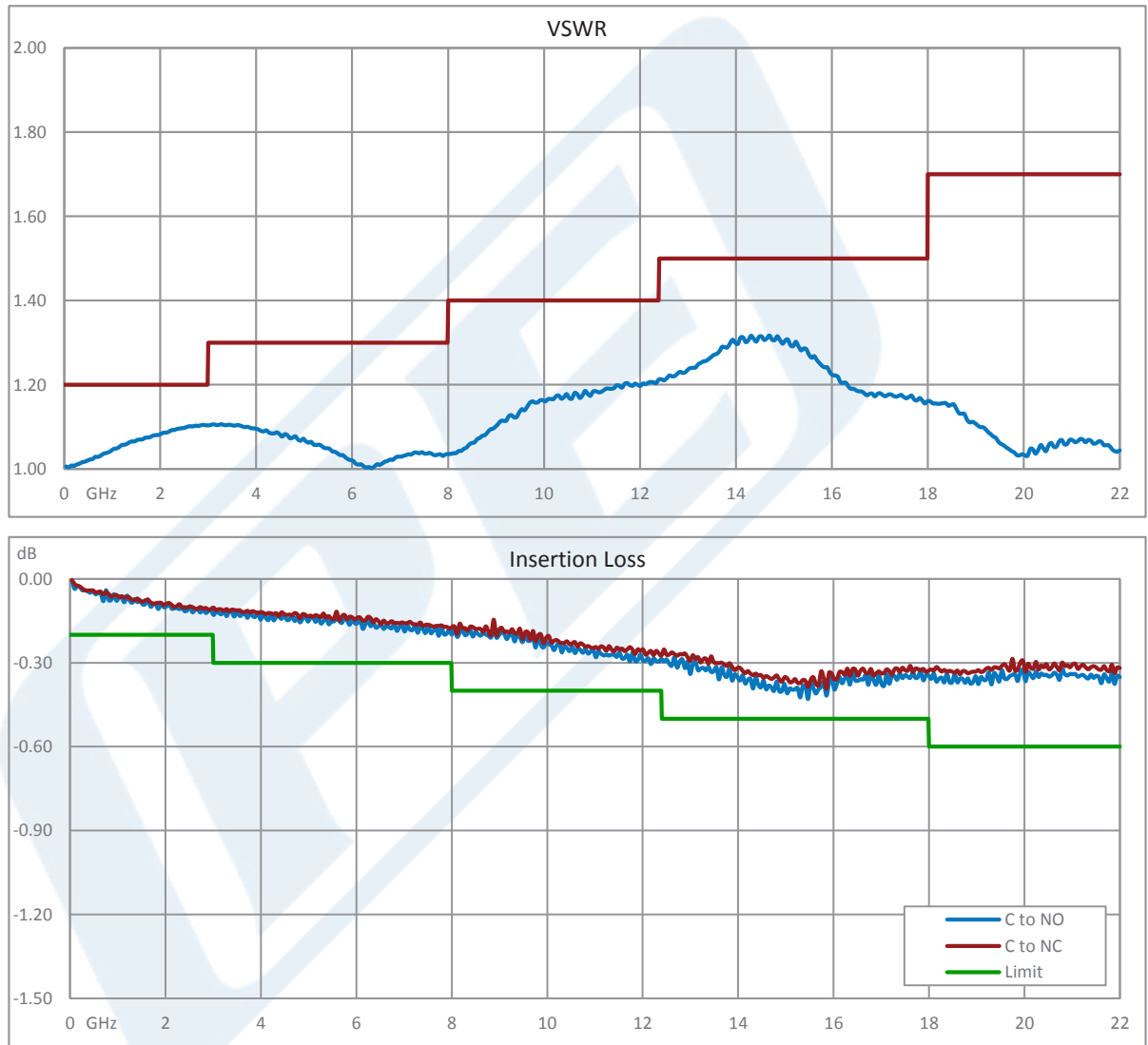


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Typical Performance Data



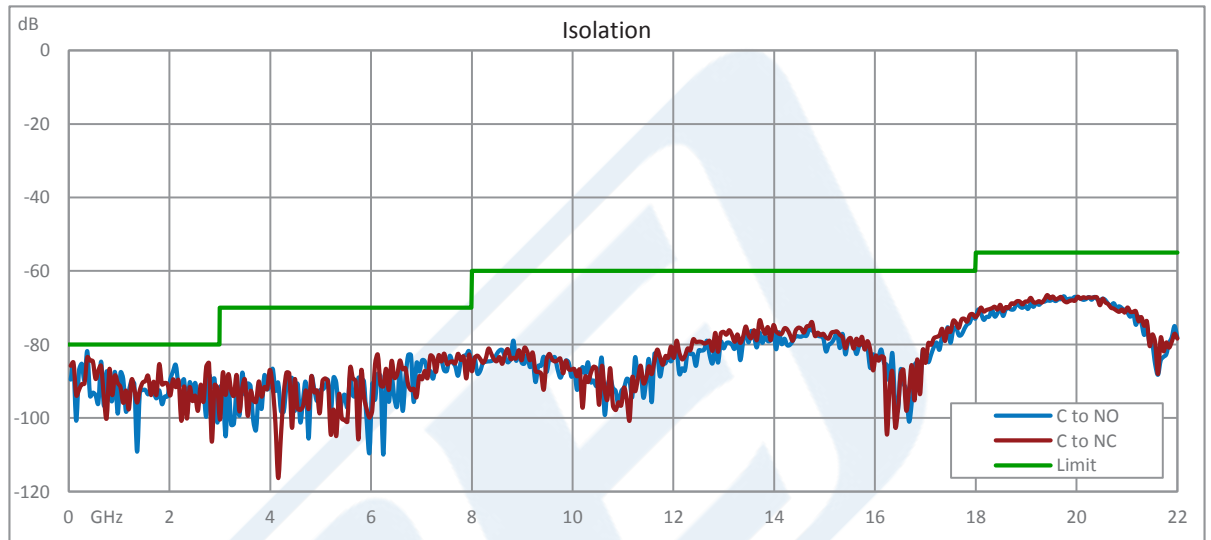
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SPDT Electromechanical Relay Failsafe Switch, Terminated, DC to 22 GHz, 20W, 28V TTL, Indicators, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

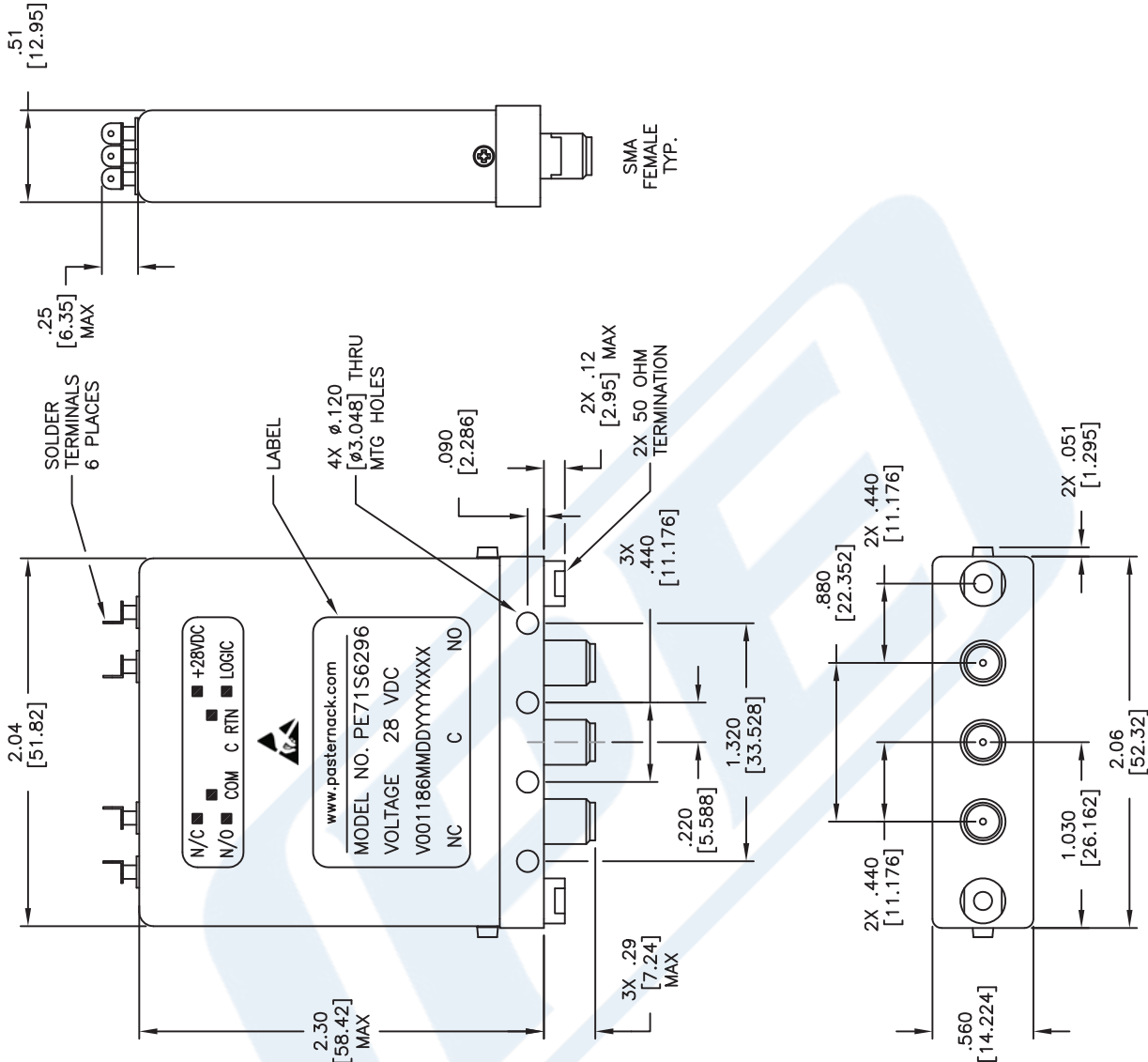
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. 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.

PE71S6296 CAD Drawing

SPDT Electromechanical Relay Failsafe Switch, Terminated,
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ARE:		ANGLES
DECIMALS		±1°
FRACTIONS		±1/16
.XX ± .03	(0.76)	
.XXX ± .010	(0.254)	
HOLE DIAMETER	TOLERANCE	
.0135 TO .125	+0.004 TO -0.001	
(0.343 TO 3.175)	(+0.102 TO -0.025)	
.126 TO .250	+0.005 TO -0.001	
(3.200 TO 6.350)	(+0.127 TO -0.025)	
.251 TO .500	+0.006 TO -0.001	
(6.375 TO 12.700)	(+0.152 TO -0.025)	
.501 TO .750	+0.008 TO -0.001	
(12.725 TO 19.050)	(+0.203 TO -0.025)	
.751 TO 1.000	+0.010 TO -0.001	
(19.075 TO 25.400)	(+0.254 TO -0.025)	
1.001 TO 2.000	+0.012 TO -0.001	
(25.425 TO 50.800)	(+0.305 TO -0.025)	

* 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
PE71S6296

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FSCM NO. 53919

CAD FILE 071516

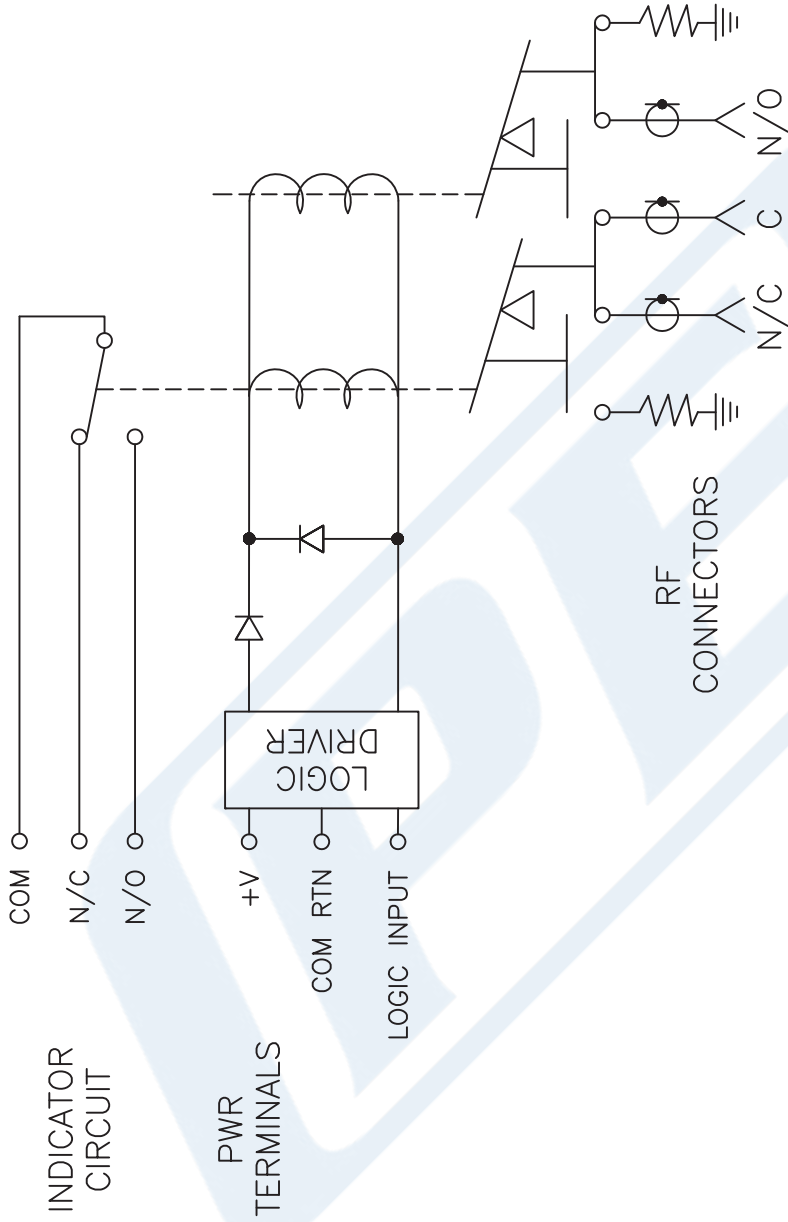
SCALE N/A

SIZE A

2233

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SCHEMATIC FAILSAFE IN NORMALLY CLOSED POSITION

DWG TITLE

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