



Transfer Latching DC to 12 GHz Electro-Mechanical Relay
Switch, TTL, 600W, 28V, 5M Lifecycles, Self Cutoff, Diodes, N

Electromechanical Relay Switches Technical Data Sheet

PE71S6439

Features

- Single Pole Double Throw Electromechanical Relay Switch
- DC to 12 GHz Frequency Range
- Failsafe Actuator
- 5M Lifecycle Rating
- Insertion Loss 0.4 dB typ
- Isolation > 80 dB typ
- VSWR 1.40:1 typ
- +28 Volt DC Bias
- Terminal Pins for DC Control
- N Type Female Connectors
- -25°C to +65°C Operating Temperature
- Up to 600 Watt Average Power Handling
- 50 Ohm Design
- Hot Switching Capability - Consult Factory
- S-Parameter Data available upon request
- Rugged Design meets Mil-STD-202 Test Conditions

Applications

- Aerospace & Defense
- Test & Measurement
- Microwave Radio Systems
- Military & Commercial Communication Systems
- Research & Development
- SATCOM
- Wireless Communications
- Enterprise
- IoT

Description

The PE71S6439 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 600 Watts of CW input power in a break before make condition. The 50 Ohm design features a Failsafe Actuator and is rated for 2 million lifecycles. Impressive typical performance includes 0.4 dB insertion loss and isolation 80 dB. This switch requires +28Vdc bias voltage and operates over a temperature range of -25°C to +65°C. The rugged and compact package assembly supports N Type female connectors and solder terminal pins for DC control. And for highly reliable operation, the model is guaranteed to meet MIL-STD-202 environmental test conditions for shock and random vibration.

Electrical Specifications

Switch Type	Transfer
Actuator Type	Latching
Switching Sequence	Break before Make
Actuator Options	TTL Logic
TTL Control	on: 2.4 to 5.5 Volts off: 0 to 0.8 Volts

Description	Minimum	Typical	Maximum	Units
Frequency Range	DC		12	GHz
Impedance		50		Ohms
Operating Voltage	26	28	30	Volts
Actuating Set Current @ 28 Volts At +20°C			150	mA
VSWR		1.4:1	1.7:1	
Insertion Loss		0.4	0.7	dB

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, TTL, 600W, 28V, 5M Lifecycles, Self Cutoff, Diodes, N PE71S6439](#)



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Isolation	60	80		dB
Input Power (CW)			600	Watts
Switching Time			20	ms Max

Performance by Frequency

Description	F1	F2	F3	F4	F5	Units
Frequency Range	DC to 2	2 to 4	4 to 8	8 to 12		GHz
VSWR, Max	1.2:1	1.4:1	1.5:1	1.7:1		
Insertion Loss, Max	0.2	0.4	0.5	0.7		dB
Isolation, Min	80	80	70	60		dB

Mechanical Specifications

Size

Body Material and Plating	Aluminum
Package Type	Connectorized
Operating Life	5,000,000 Cycles

Connectors

RF Connector Type	N Female
Control Connector	Solder Terminals

Environmental Specifications

Temperature

Operating Range	-25 to +65 deg C
Storage Range	-55 to +100 deg C

Humidity

Shock MIL-STD-202 Method 213, Cond. D 500G Non Operating

Vibration

MIL-STD-202 Method 214, Cond. D 10G RMS Non Operating

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:

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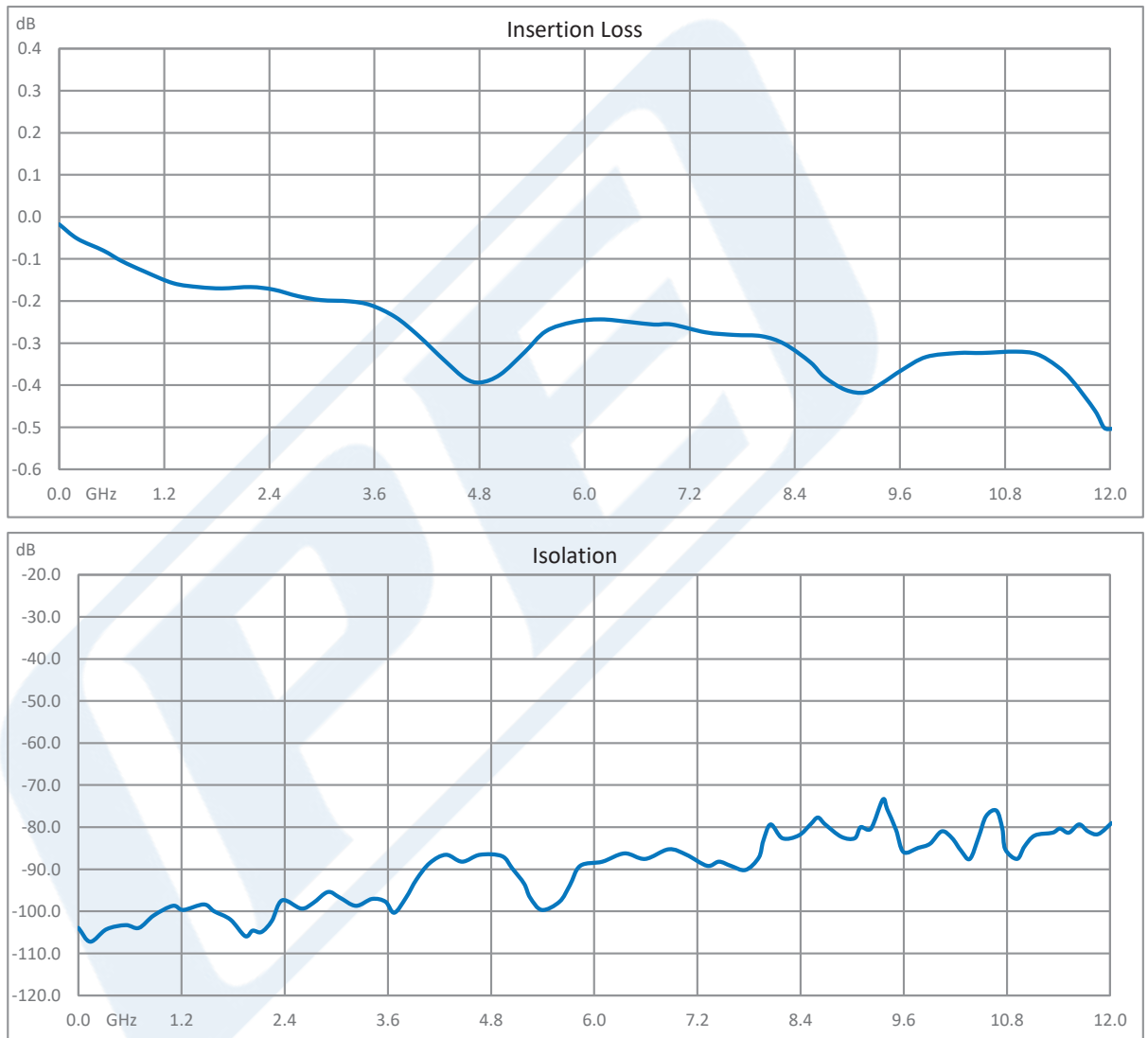


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Electromechanical Relay Switches Technical Data

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Typical Performance Data



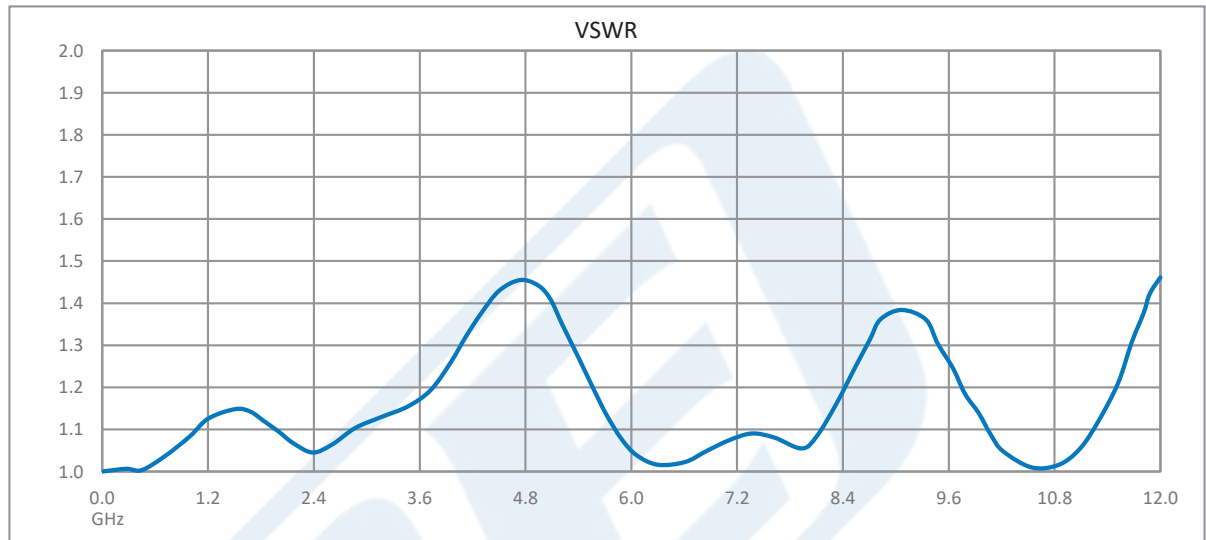
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Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, TTL, 600W, 28V, 5M Lifecycles, Self Cutoff, Diodes, N from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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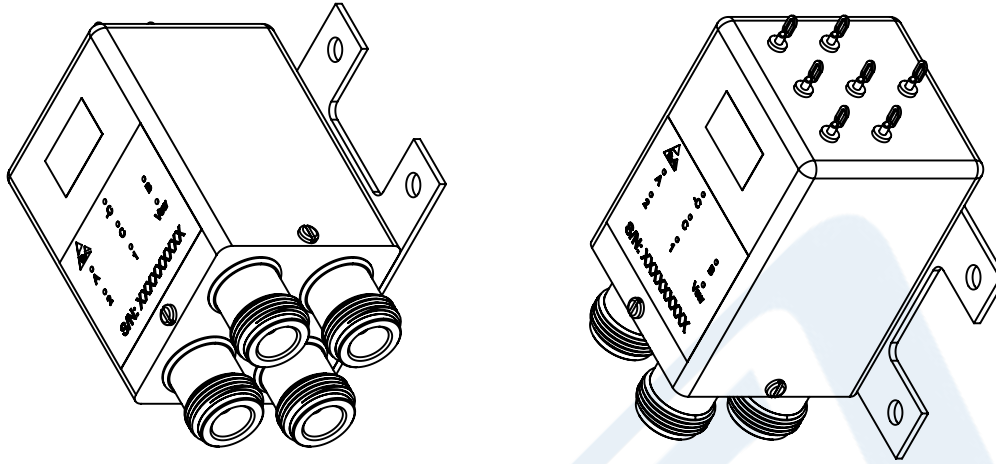
URL: <https://www.pasternack.com/transfer-electromechanical-relay-latching-switch-12-ghz-600w-28v-ttl-n-pe71s6439-p.aspx>

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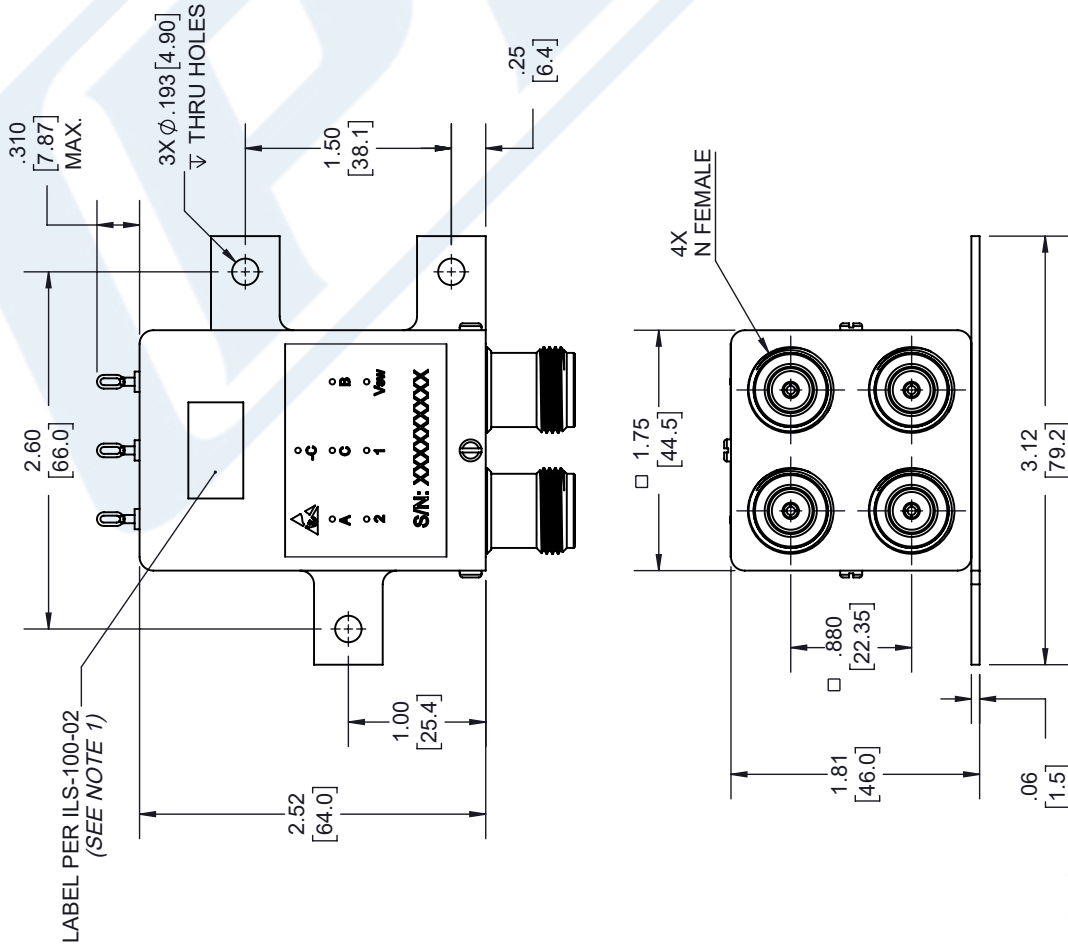
PE71S6439 CAD Drawing

Transfer Latching DC to 12 GHz Electro-Mechanical Relay Switch, TTL, 600W, 28V, 5M Lifecycles, Self Cutoff, Diodes, N

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/13/2020	T.GALLA



7X SOLDER TERMINALS.
SOLDER WIRE USING SN96,
MAXIMUM TEMP 250 °C FOR
NO MORE THAN 5 SEC.



LABEL PER ILS-100-02
(SEE NOTE 1)

NOTES:

- LABEL PER ILS-100-02. FOR INTERNAL REFERENCE ONLY.
LABEL LOCATION FOR REFERENCE ONLY.

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TOLERANCES:
 .X = ±.2 [5.08] FRACTIONS ±.1032
 .XX = ±.02 [.51] ANGLES ± 1°
 .XXX = ±.005 [.13]

CABLE LENGTH (L), TOLERANCES:
 L ≤ 12 [305] = +1 [25] / -0
 12 [305] < L ≤ 60 [1524] = +2 [51] / -0
 60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
 120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
 300 [7620] < L = +5% / -0

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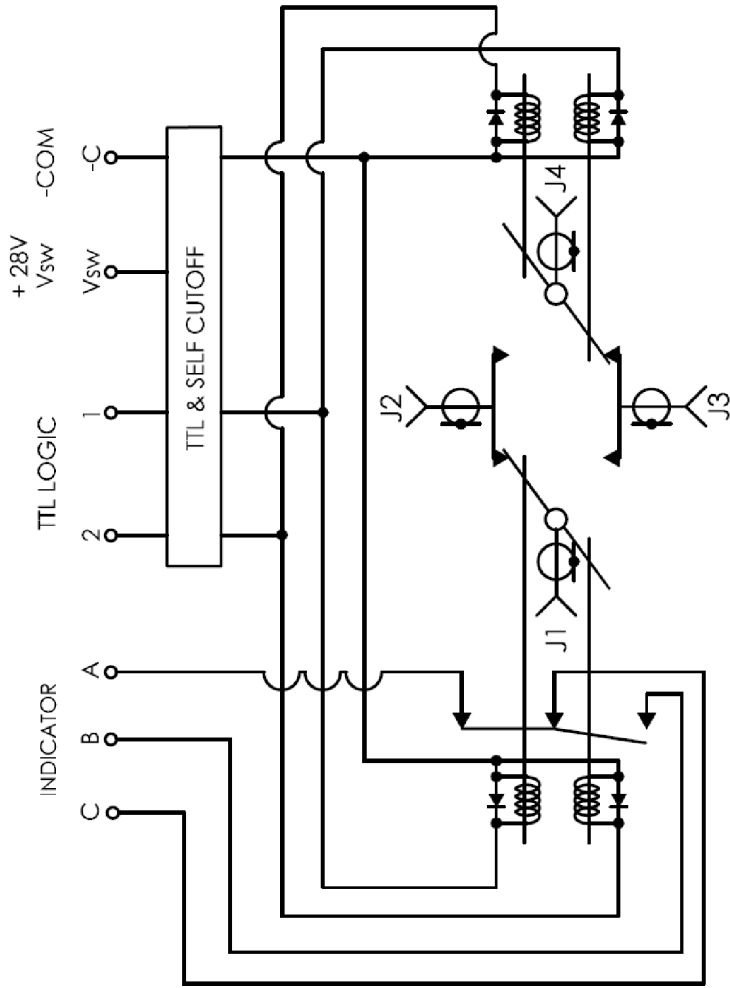
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PE71S6439 CAD Drawing

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SCHEMATIC

OPERATIONAL LOGIC TABLE			
TERMINALS	RF PORTS	IND. PATH	
1	2		
0	0	NO CHANGE	NO CHANGE
0	1	J1-J3, J2-J4	B-C
1	0	J1-J2, J3-J4	A-C
1	1	FORBIDDEN	FORBIDDEN

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TOLERANCES:
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SIZE A CAGE CODE 53919 DRAWN BY K.DANG ITEM NO. PE71S6439

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