



WRD-650 Double Ridge Waveguide SPDT/DPDT Latching Relay Switch, 6.5 GHz to 18 GHz Frequency Band, 8,500 Watts, UG Cover, 28V, Self Cut Off

Waveguide Electromechanical Relay Switches Technical

PEWGS6044

Features

- 6.5 to 18 GHz SPDT Double Ridge Waveguide Switch
- Optional DPDT Configuration
- WRD-650 Double Ridge Waveguide
- Insertion Loss: 0.35 dB Max
- Isolation: 60 dB min
- +28 Vdc Nominal Voltage
- Input Power Rating up to 8.5 KW CW max
- Latching Self Cut Off Actuator
- Position Indicator and Manual Override Access
- Fully Weatherized Package
- Quick Connect Circular DC Connector with Mate
- -40°C to +85°C Operating Temperature

Applications

- Electronic Warfare
- Electronic Countermeasures
- Microwave Radio
- VSAT
- Radar
- Space Systems
- Test Instrumentation
- Research and Development

Description

The PEWGS6044 electromechanical relay switch supports double wridge WRD-650 waveguide ports and operates across an ultra-wide frequency range from 6.5 GHz to 18 GHz. The switch is configured for single pole double throw (SPDT) operation. A shorting plate on port 3 can be removed for optional double pole double throw (DPDT) operation. This innovative design features a latching TTL Logic controlled Self Cut Off actuator and patented motor drive with arc suppression. The motor drive housing supports a viewable position indicator window and a cover that can be removed for manual override access. Impressive performance includes 0.35 dB max insertion loss, 60 dB min Isolation, 1.18:1 max VSWR, and an operating life of 250K cycles minimum. The design operates across a temperature range of -40°C to +85°C, requires +28Vdc nominal bias voltage, and has an input power rating of up to 8.5 KW CW maximum. The double wridge waveguide ports have standard UG Cover Flanges. The rugged package design is fully weatherized for up to 100% humidity exposure and supports a quick connect circular 6 pin MIL-SPEC DC bias connector with mate included.

Electrical Specifications

Switch Type	SPDT/DPDT
Actuator Type	Latching
Actuator Options	Self Cut Off, Set Indicators, Manual Override, Viewing Window

Description	Minimum	Typical	Maximum	Units
Frequency Range	6.5		18	GHz
Operating Voltage	21	28	32	Volts
Actuating Current @ 28 Volts			1	A
VSWR			1.18:1	
Insertion Loss			0.35	dB
Isolation	60			dB
Switching Time		100		ms
Input Power (CW)			8.5	kWatts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WRD-650 Double Ridge Waveguide SPDT/DPDT Latching Relay Switch, 6.5 GHz to 18 GHz Frequency Band, 8,500 Watts, UG Cover, 28V, Self Cut Off PEWGS6044](#)



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Mechanical Specifications
Size

Operating Life 250,000 Cycles
Operating Pressure 30 psig

Configuration

Waveguide Size WRD-650
Flange Type UG Cover
Body Material and Plating Aluminum, Gold
Body Plating Specification MIL-DTL-5541

Environmental Specifications

Temperature

Operating Range -40 to +85 deg C
Storage Range -55 to +100 deg C

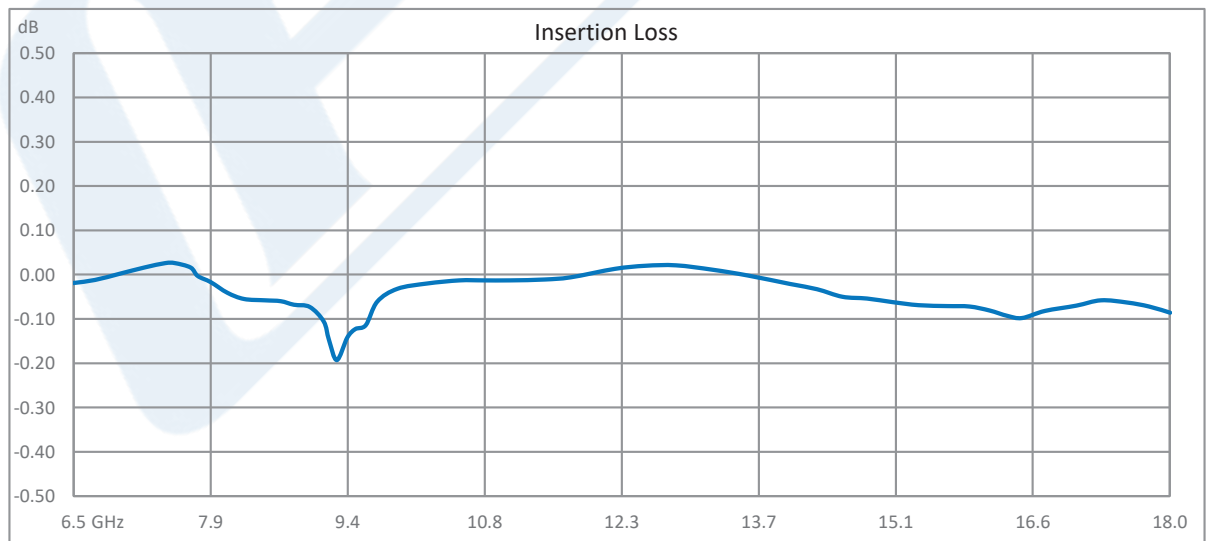
Humidity 0 to 100%, Fully Weatherized

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

Plotted and Other Data

Notes:

Typical Performance Data



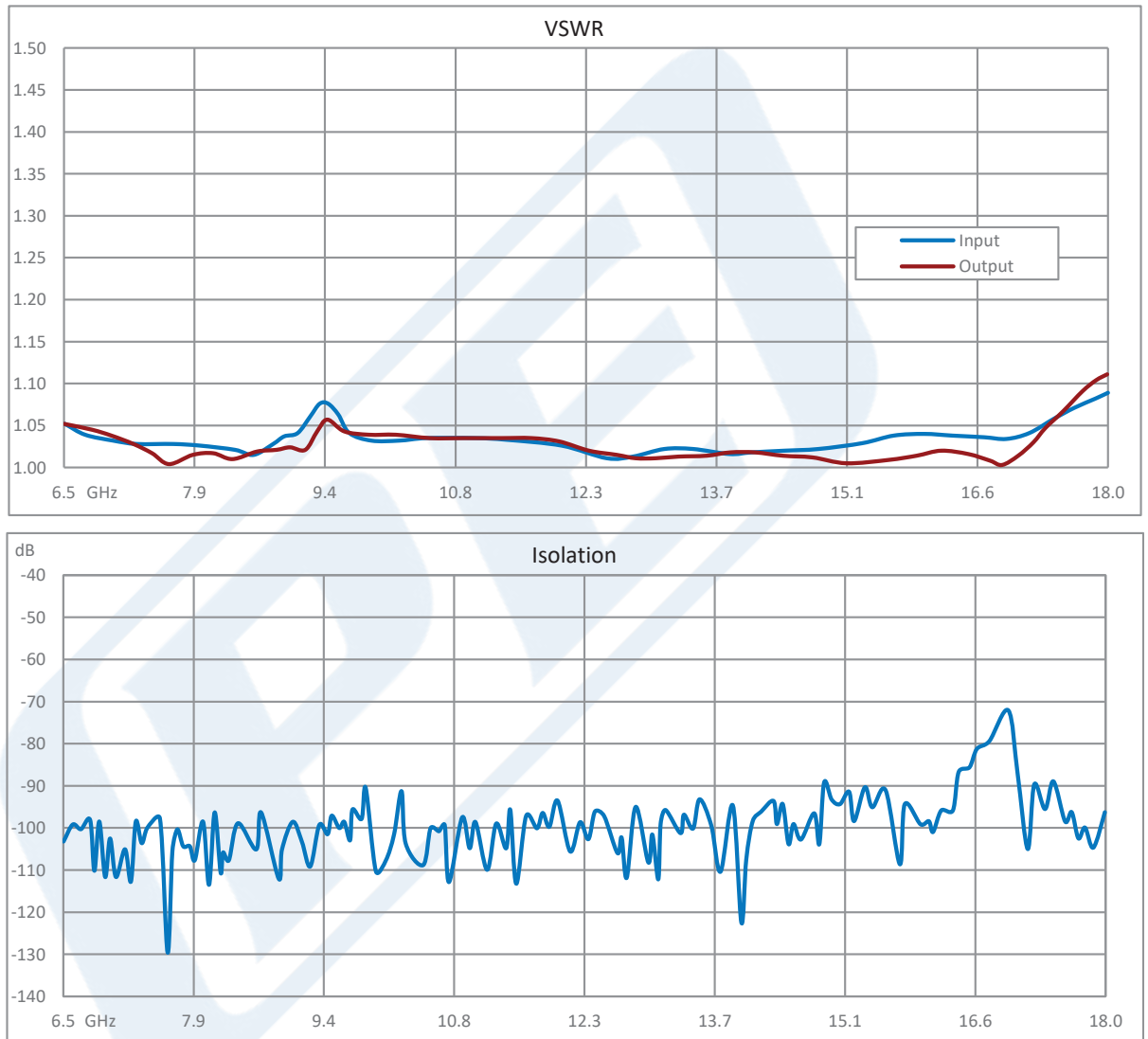
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Band, 8,500 Watts, UG Cover, 28V, Self Cut Off

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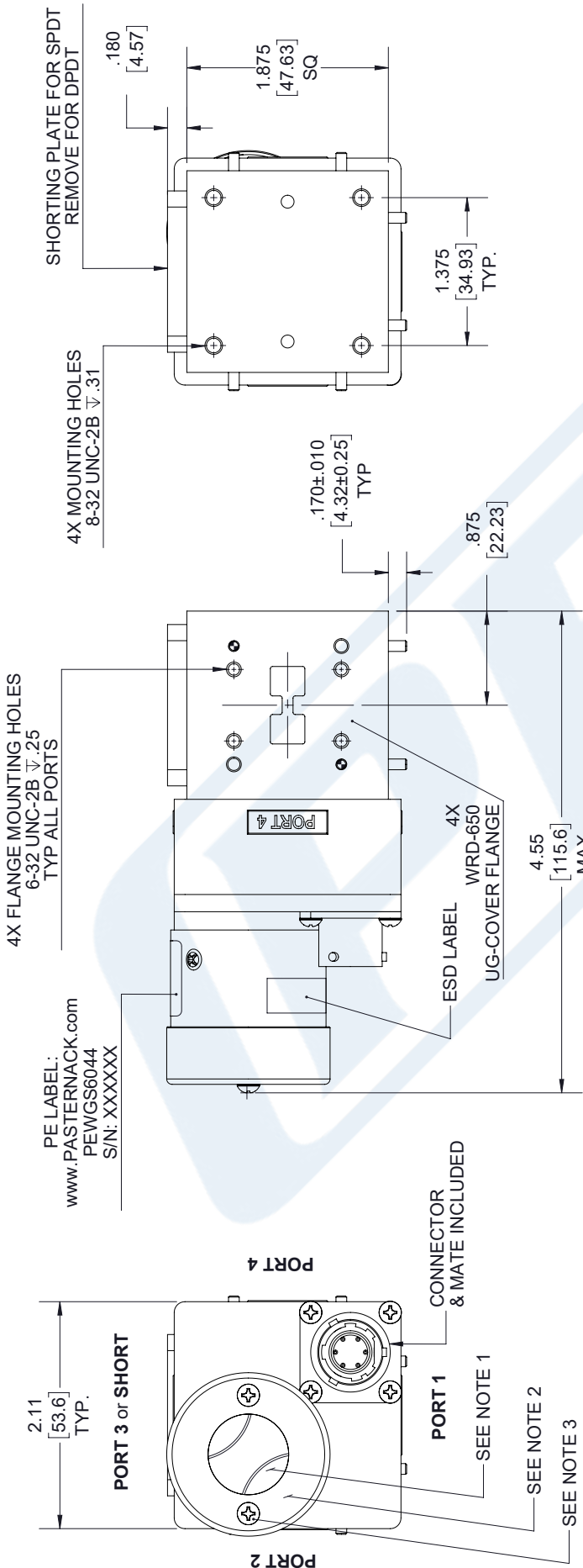
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements.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

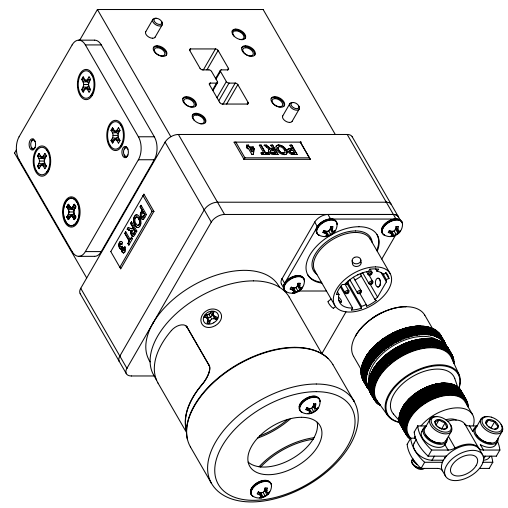
PEWGS6044 CAD Drawing

WRD-650 Double Ridge Waveguide SPDT/DPDT Latching Relay Switch, 6.5 GHz to 18 GHz Frequency Band, 8,500 Watts, UG Cover, 28V, Self Cut Off

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	07/16/19	T. GALLA



- NOTES:
- MANUAL OVERRIDE & POSITION INDICATOR.
 - WEATHERIZED COVER WITH CLEAR VIEWING WINDOW.
 - FOR ACCESS TO MANUAL OVERRIDE LOOSEN (2) CAPTIVE SCREWS.

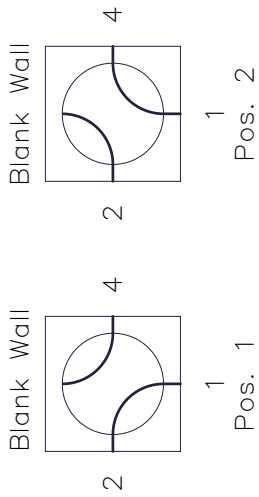


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	X±.2	(5.08)	FRACTIONS							
.XX±.01	(.25)	±.132								
.XXX±.005	(.13)	ANGLES ± 1°								
<p>www.pasternack.com e-mail: sales@pasternack.com</p> <p>SIZE A</p> <p>CAGE 53919</p> <p>DRAWN BY K.DANG</p> <p>PART NUMBER PEWGS6044</p> <p>REV A</p>	<p>PE PASTERNAK an INFINITO brand</p> <p>Pasternack Enterprises, Inc. P.O. Box 16759, Irvine, CA 92623. Phone: 1.949.261.1920 1.866.727.8376 Fax: 1.949.261.7451</p>									

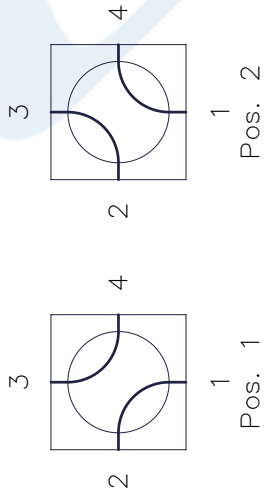
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PEWGS6044 CAD Drawing

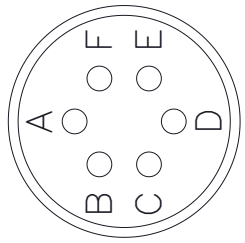
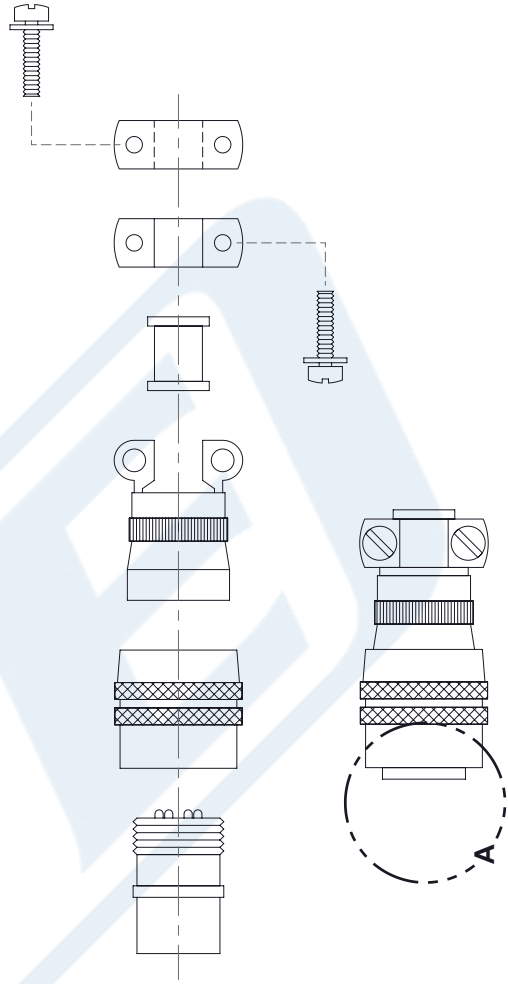
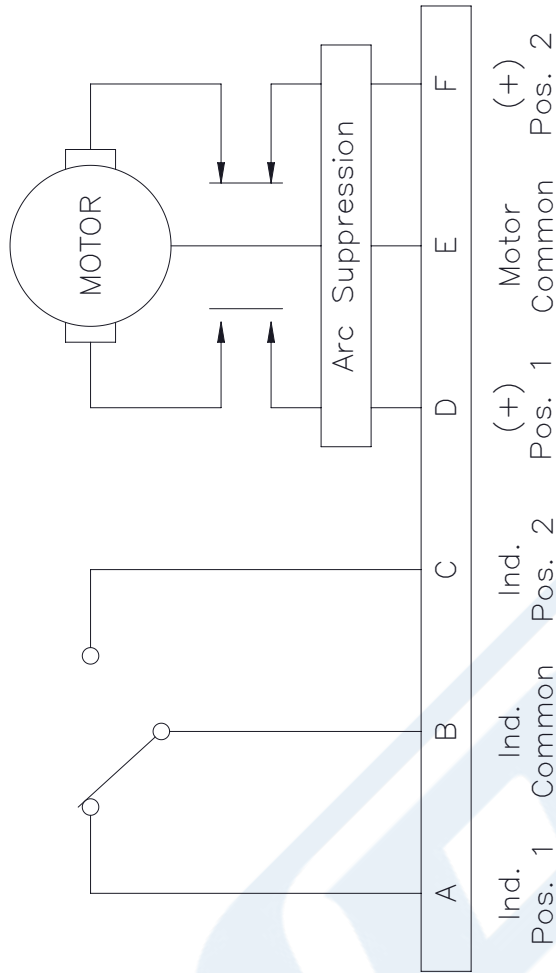
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R.F. PATHS--SRDI



R.F. PATHS--DPDI



VIEW A

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

TOLERANCES:
X±.2 [5.08]
.XX±.01 [.25]
.XXX±.005 [.13]

FRACTIONS
±1/32
ANGLES ± 1°

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THIRD-ANGLE PROJECTION

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DRAWN BY: K.DANG
PART NUMBER: PEWGS6044

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SHEET 2 OF 2
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