



WR-187 Waveguide Electromechanical Relay SPDT/
 DPDT Latching Switch, C Band 5.85 GHz Max.
 Freq., 22,000 Watts, CPR Flat, 28V, TTL

Waveguide Electromechanical Relay Switches Technical

PEWGS6029

Features

- 3.95 to 5.85 GHz SPDT Waveguide Switch
- Optional DPDT Configuration
- WR-187 Waveguide
- Insertion Loss: 0.02 dB Max
- Isolation: 80 dB min
- +28 Vdc Nominal Voltage
- Input Power Rating up to 22 KW CW max
- Latching TTL Logic 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 PEWGS6029 electromechanical WR-187 waveguide switch operates across a wide frequency range from 3.95 GHz to 5.85 GHz and 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 0.02 dB max insertion loss, 80 dB min Isolation, 1.05:1 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 22 KW CW maximum. The waveguide ports have standard CPR Flat Flanges. The rugged package design is fully weatherized for up to 100% humidity exposure and supports a quick connect circular 10 pin MIL-SPEC DC bias connector with mate included.

Electrical Specifications

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

Description	Minimum	Typical	Maximum	Units
Frequency Range	3.95		5.85	GHz
Operating Voltage	21	28	32	Volts
Actuating Current @ 28 Volts			1	A
VSWR			1.05:1	
Insertion Loss			0.02	dB
Isolation	80			dB
Switching Time		150		ms
Input Power (CW)			22	kWatts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-187 Waveguide Electromechanical Relay SPDT/DPDT Latching Switch, C Band 5.85 GHz Max. Freq., 22,000 Watts, CPR Flat, 28V, TTL PEWGS6029](#)



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Mechanical Specifications

Size

Operating Life 250,000 Cycles
Operating Pressure 30 psig

Configuration

Waveguide Size WR-187
Flange Type CPR Flat
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

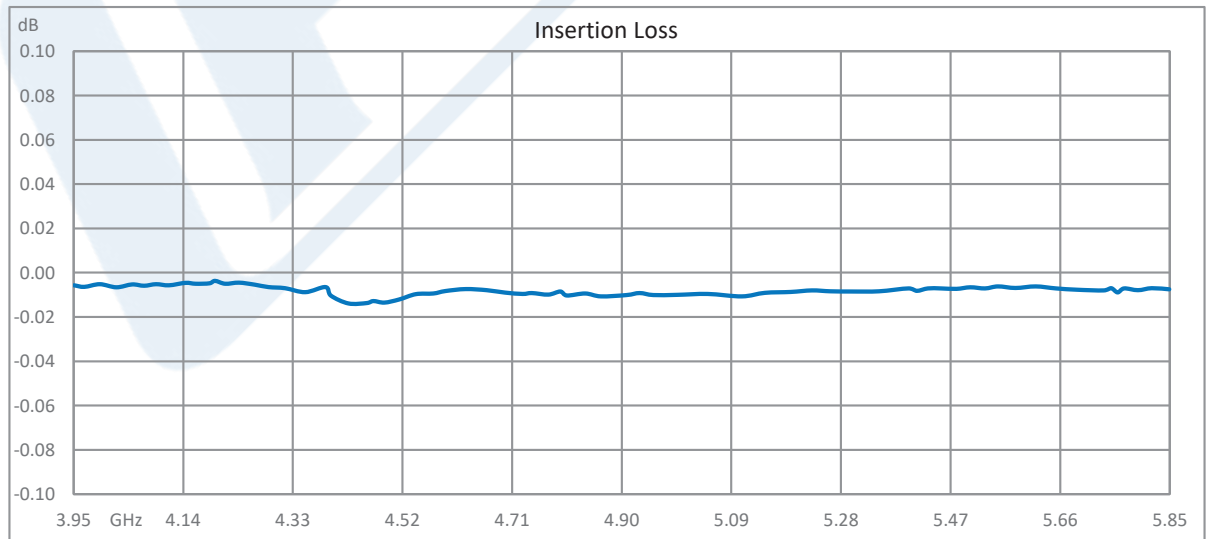
Humidity 0 to 100%, Fully Weatherized

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

Plotted and Other Data

Notes:

Typical Performance Data



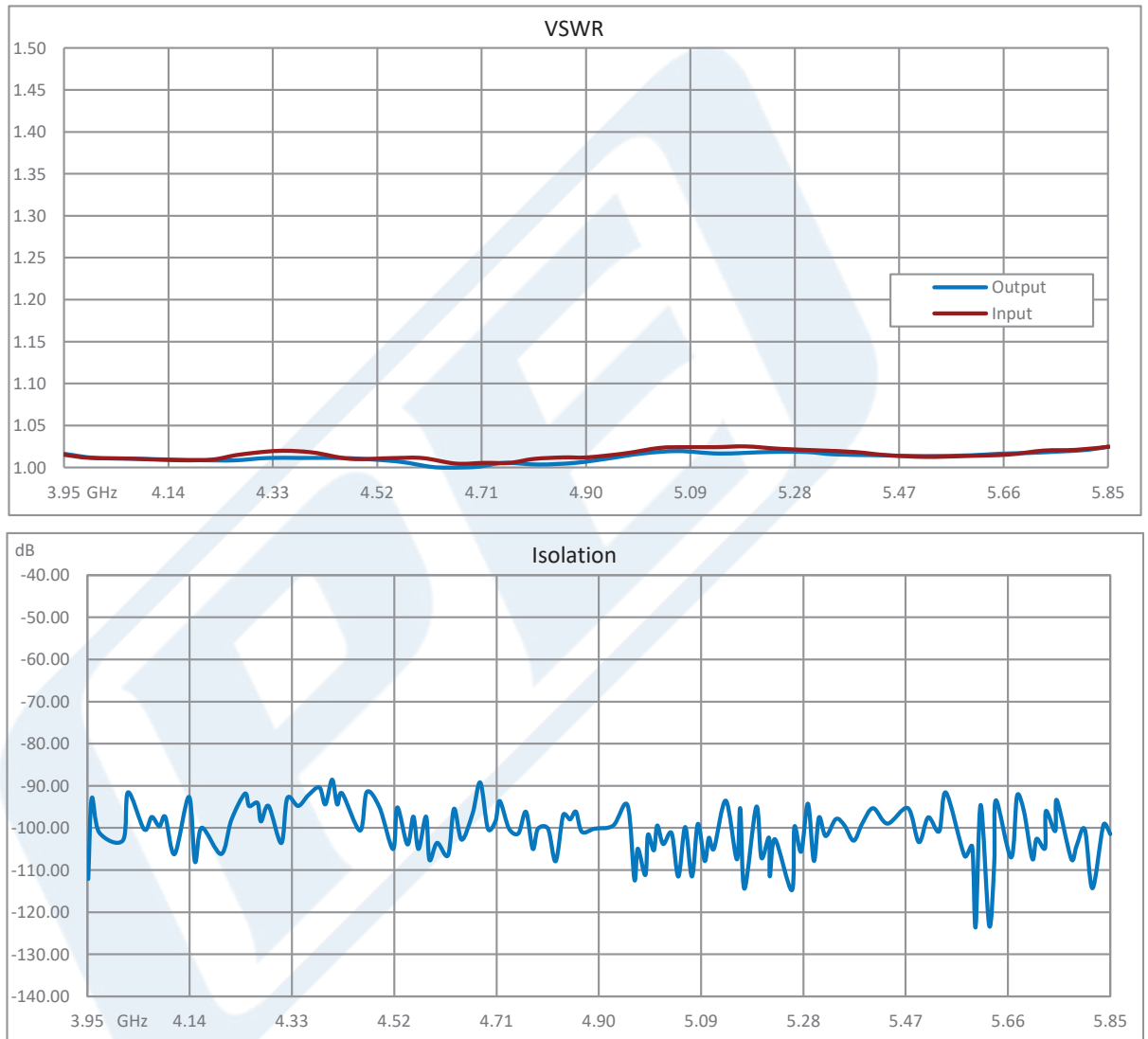
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WR-187 Waveguide Electromechanical Relay SPDT/DPDT Latching Switch, C Band 5.85 GHz Max. Freq., 22,000 Watts, CPR Flat, 28V, TTL from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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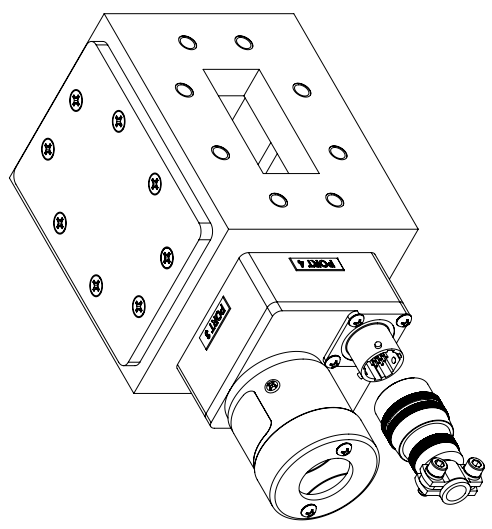
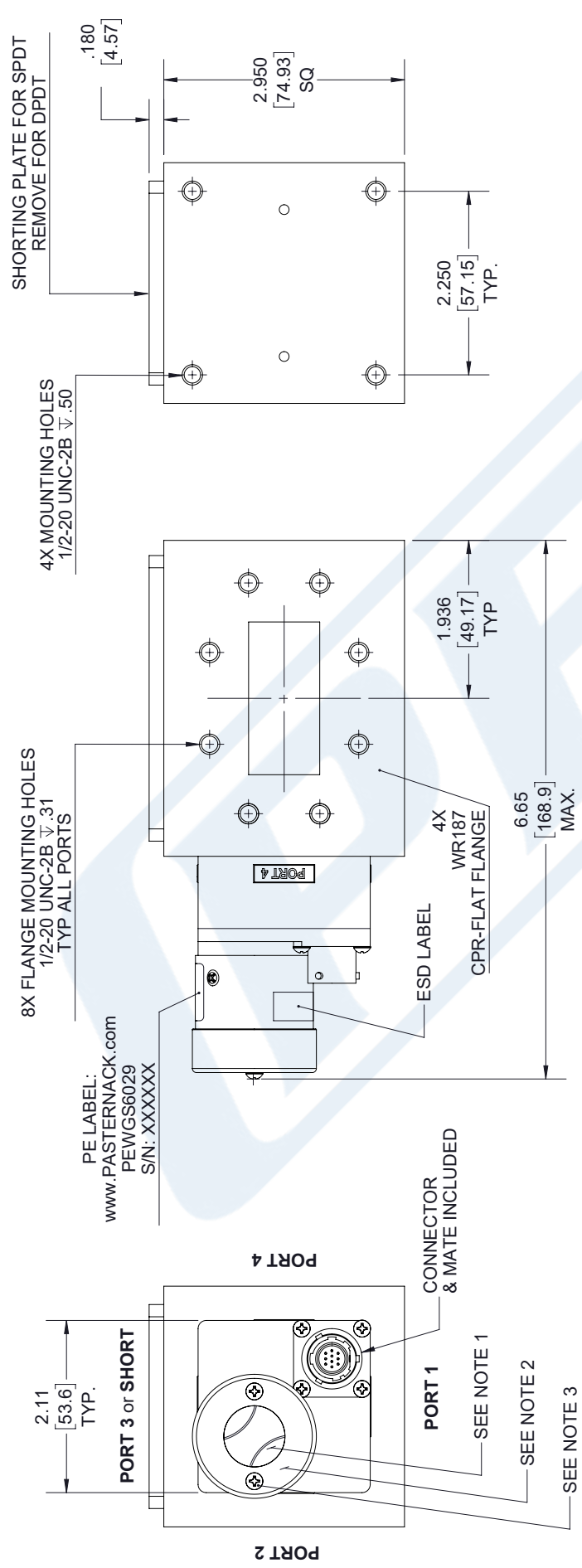
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PEWGS6029 CAD Drawing

WR-187 Waveguide Electromechanical Relay SPDT/DPDT Latching Switch,
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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.

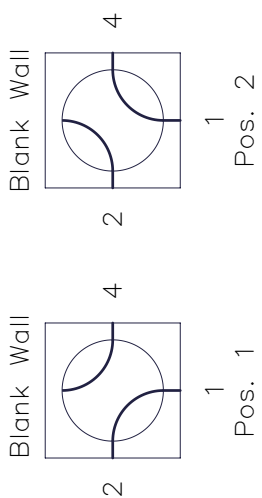


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	X±.2	[5.08]	FRACTIONS							
.XX±.01	[.25]	±.132								
.XXX±.005	[.13]	ANGLES ± 1°								
<p>www.pasternack.com e-mail: sales@pasternack.com</p> <p>SIZE A</p> <p>CAGE 53919</p> <p>DRAWN BY K.DANG</p> <p>PART NUMBER PEWGS6029</p> <p>REV A</p>										

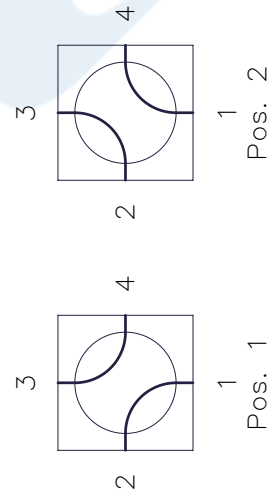
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PEWGS6029 CAD Drawing

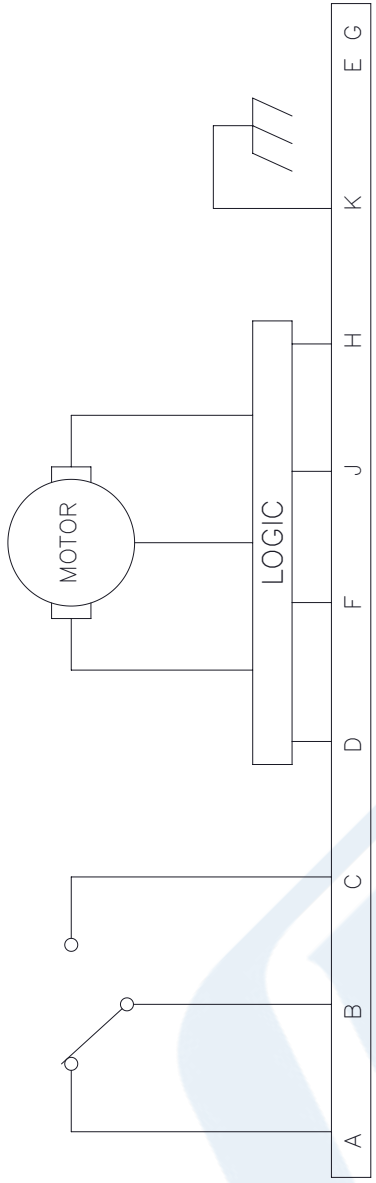
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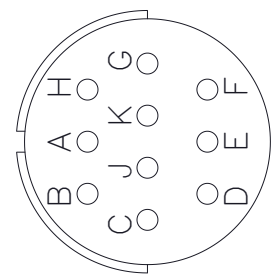
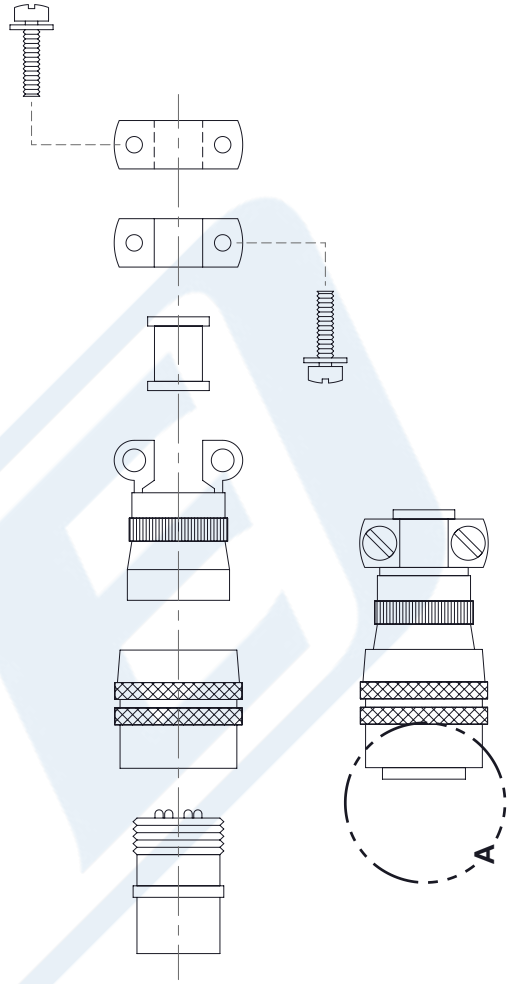
R.F. PATHS—SPDI



R.F. PATHS—DPDI



Ind. Pos. 1
Ind. Pos. 2
Ind. Common
Pos. 1 Logic Command
Pos. 2 Logic Command
+Vdc Nominal Voltage
-Vdc Nominal Voltage
Case Ground
Spares



VIEW A

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

TOLERANCES:
X±.2 [5.08]
.XX±.01 [.25]
.XXX±.005 [0.13]

FRACTIONS
±1/32
ANGLES ± 1°

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ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION

PE PASTERNAK
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SIZE [CAGE] DRAWN BY PART NUMBER
A 53919 K.DANG PEWGS6029

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SHEET 2 OF 2
SCALE N/A

REV A