

WR-102 Waveguide Electromechanical Relay SPDT/
 DPDT Latching Switch, X Band 11 GHz Max. Freq.,
 6,000 Watts, UG Cover, 12V, Self Cut Off



Waveguide Electromechanical Relay Switches Technical

PEWGS6038

Features

- 7 to 11 GHz SPDT Waveguide Switch
- Optional DPDT Configuration
- WR-102 Waveguide
- Insertion Loss: 0.06 dB Max
- Isolation: 80 dB min
- +12 Vdc Nominal Voltage
- Input Power Rating up to 6 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 PEWGS6038 electromechanical WR-102 waveguide switch operates across a wide frequency range from 7 GHz to 11 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 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 0.06 dB max insertion loss, 80 dB min Isolation, 1.10:1 max VSWR, and an operating life of 250K cycles minimum. The design operates across a temperature range of -40°C to +85°C, requires +12Vdc nominal bias voltage, and has an input power rating of up to 6 KW CW maximum. The waveguide ports have standard UG Cover with Custom O-Ring Groove 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
 Actuator Type
 Actuator Options

SPDT/DPDT
 Latching
 Self Cut Off, Set Indicators, Manual Override, Viewing Window

Description	Minimum	Typical	Maximum	Units
Frequency Range	7		11	GHz
Operating Voltage	10	12	20	Volts
Actuating Current @ 12 Volts			1	A
VSWR			1.1:1	
Insertion Loss			0.06	dB
Isolation	80			dB
Switching Time		100		ms
Input Power (CW)			6	kWatts

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-102 Waveguide Electromechanical Relay SPDT/DPDT Latching Switch, X Band 11 GHz Max. Freq., 6,000 Watts, UG Cover, 12V, Self Cut Off PEWGS6038](#)



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Mechanical Specifications

Size

Operating Life 250,000 Cycles
Operating Pressure 30 psig

Configuration

Waveguide Size WR-102
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

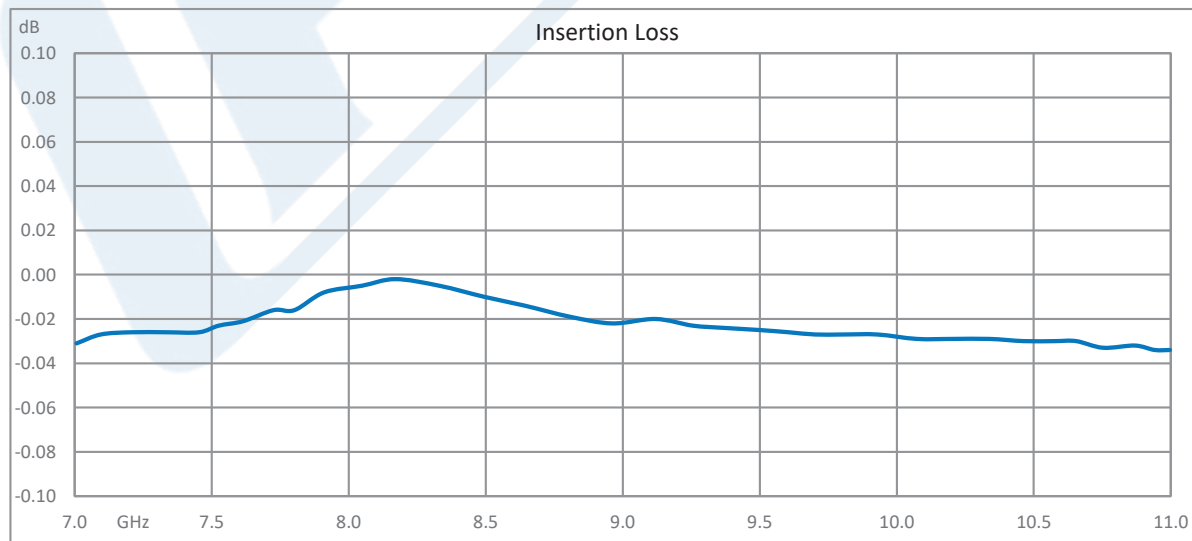
0 to 100%, Fully Weatherized

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

Plotted and Other Data

Notes:

Typical Performance Data



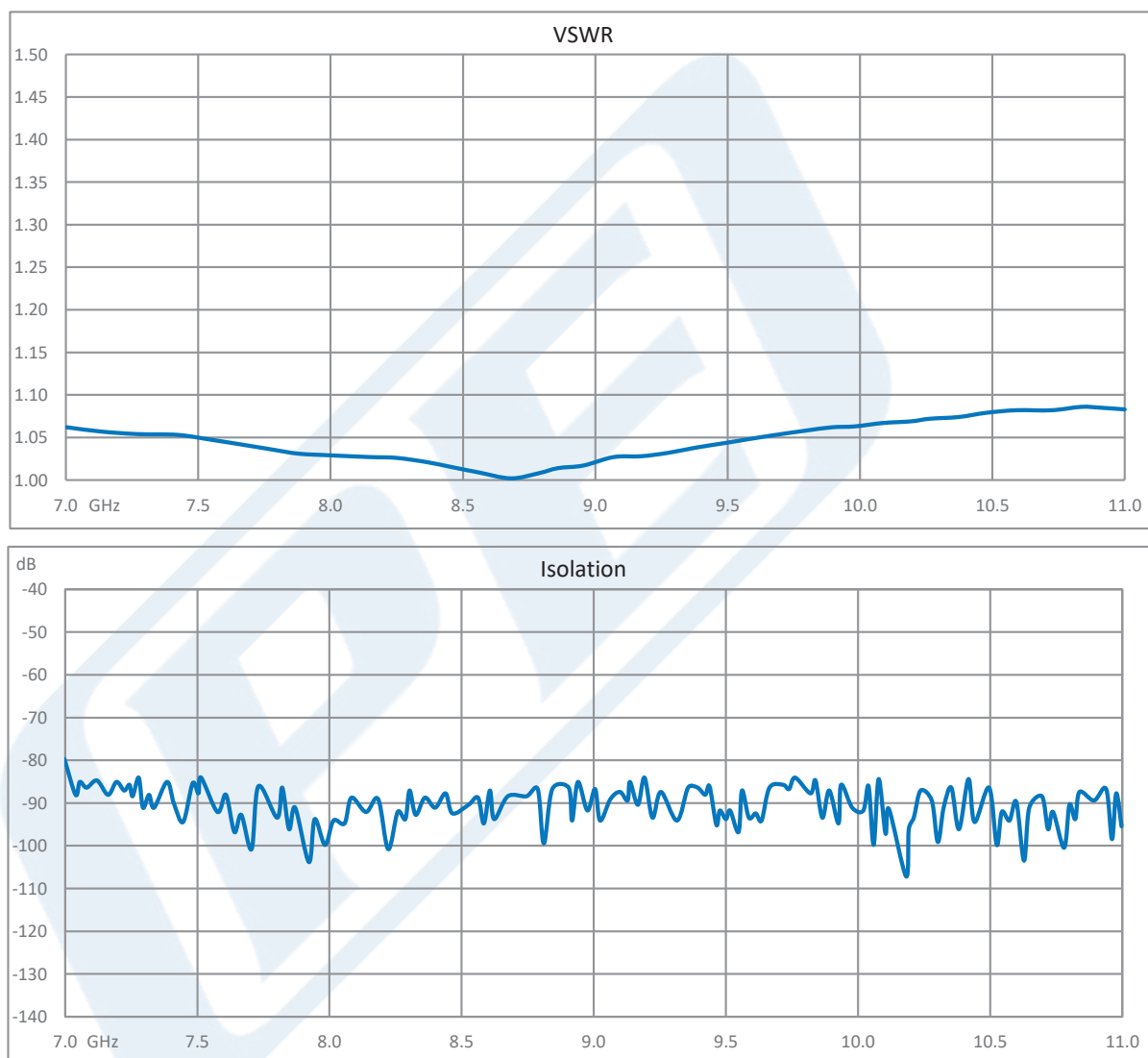
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WR-102 Waveguide Electromechanical Relay SPDT/DPDT Latching Switch, X Band 11 GHz Max. Freq., 6,000 Watts, UG Cover, 12V, Self Cut Off from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99.4% availability and are part of the broadest selection in the industry.

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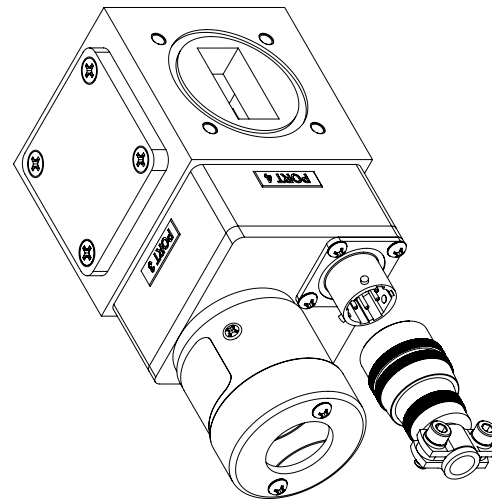
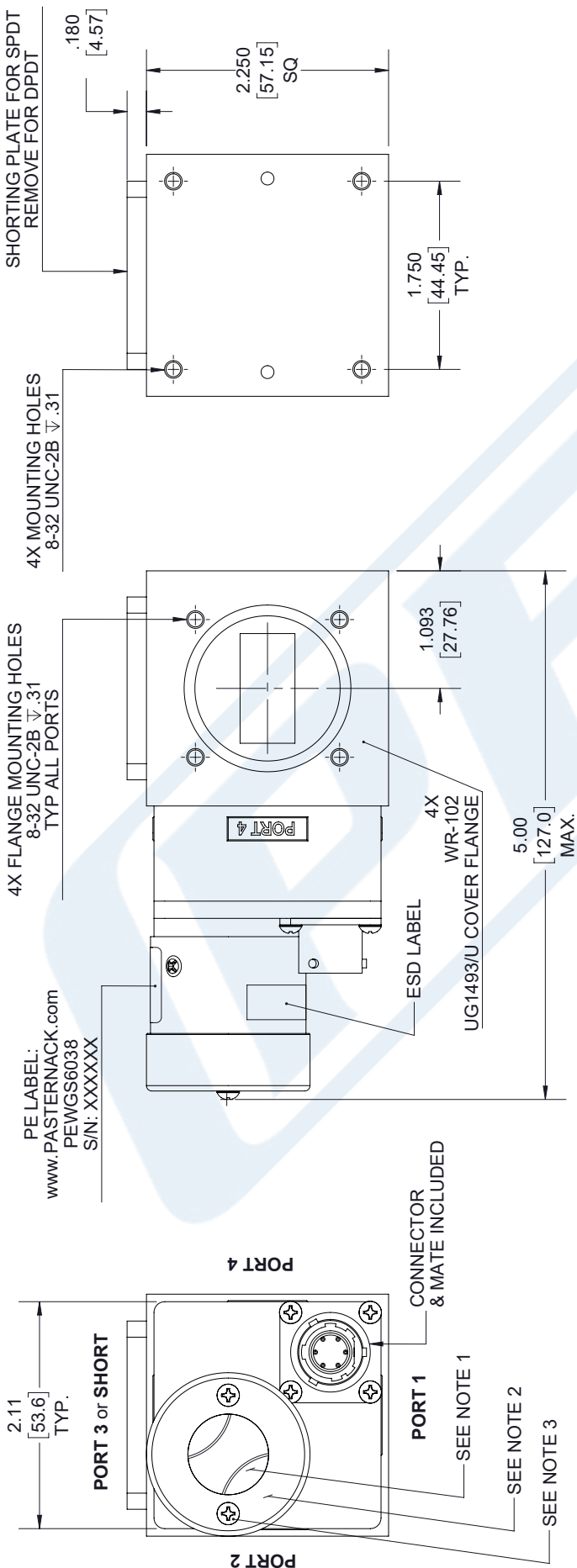
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PEWGS6038 CAD Drawing

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NOTES:

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



REVISIONS

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

UNLESS OTHERWISE SPECIFIED
LEADING DIMENSIONS ARE IN INCHES
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TOLERANCES:
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XX±.01 [.25] ±.132
XXX±.005 [.13] ANGLES ± 1°

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THIRD-ANGLE PROJECTION



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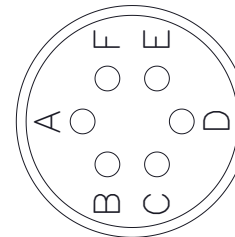
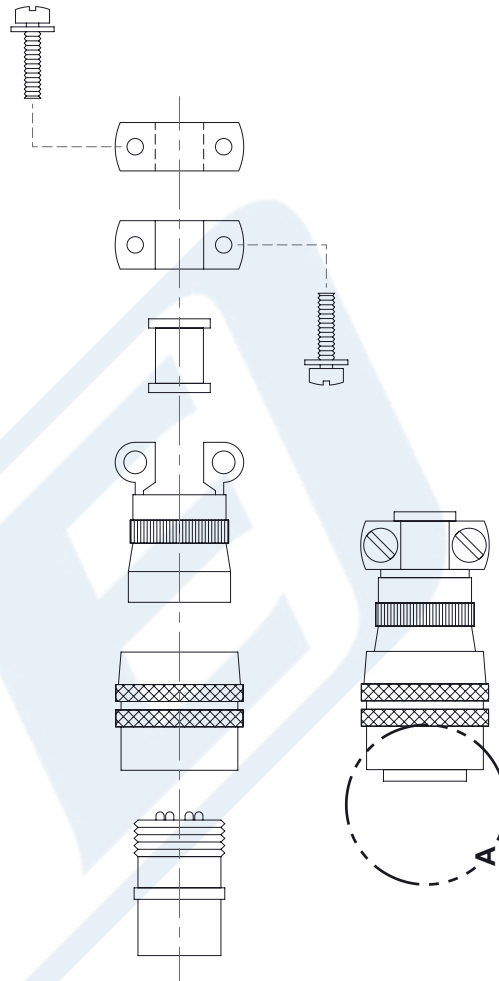
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VIEW A

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