



## WR-90 Waveguide Rotary Joint, UG Cover/UG Grooved Flanges, Inline Style in Aluminum

### TECHNICAL DATA SHEET

PEW90RJ0002

#### Features

- WR-90 Waveguide
- Operating Frequency Range from 9.2 GHz to 9.5 GHz
- UG Cover/UG Grooved Flanges
- Inline Style Configuration
- 1.2:1 Max VSWR
- 300 Watts (CW) Max Power Handling
- Insertion loss(Max): 0.3 dB
- Rotating Speed (Max): 30 RPM
- Lifetime (Min): 500 x 10<sup>4</sup> Revolutions

#### Applications

- Radar Systems
- Military and Space
- Wireless Radio Systems
- Communication Systems
- R&D Labs
- Maritime Waveguide Systems

#### Description

Waveguide rotary joints are used to connect waveguide components which need to rotate or change orientation during operation within a waveguide system. Designed to perform in harsh operating environment, PEW90RJ002 from Pasternack is a WR-90 waveguide rotary joint that operates in the frequency range of 9.2 GHz to 9.5 GHz. This WR-90 waveguide rotary joint has a Max VSWR of 1.2:1. This waveguide rotary joint is made of painted aluminum and incorporates UG Cover/UG Grooved flange interface with maximum rotary speed of 30 RPM and minimum life time of 500 x 10<sup>4</sup> Revolutions. Waveguide rotary joints are part of Pasternack's comprehensive waveguide product offerings which are available in stock and ready for same-day shipment.

#### Electrical Specifications (Values at 25°C, sea level)

Description	Minimum	Typical	Maximum	Units
Frequency Range	9.2		9.5	GHz
VSWR			1.2:1	
VSWR 1, Rotational Variance			0.05	
Insertion Loss			0.3	dB
Input Power (CW)			300	Watts
Peak Power			3	kWatts
Insertion Loss Rotational Variance			0.05	dB
Phase Rotational Variance			2	Degrees

#### Mechanical Specifications

Description	Minimum	Typical	Maximum	Units
<b>Temperature</b>				
Operating Temperature		-40 to 70 °C		
Storage Temperature		-55 to 85 °C		
Humidity		85% (Max)		

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [WR-90 Waveguide Rotary Joint, UG Cover/UG Grooved Flanges, Inline Style in Aluminum PEW90RJ0002](#)



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Grooved Flanges, Inline Style in Aluminum

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**Size**

Weight 0.0622 lbs [28.21 g]

**Interface**

Waveguide Size	WR-90
Flange Type 1	UG Cover
Flange Type 2	UG Grooved
Body Material and Plating	Aluminum, Paint
Rotating Speed	30 RPM
Lifetime	500 x 10 <sup>4</sup> Revolutions
Starting Torque	1.77 in-lbs [0.2 Nm]
Torque During Rotation	0.88 in-lbs [0.1 Nm]
IP Protection Level	IP54

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

**Plotted and Other Data**

WR-90 Waveguide Rotary Joint, UG Cover/UG Grooved Flanges, Inline Style in Aluminum 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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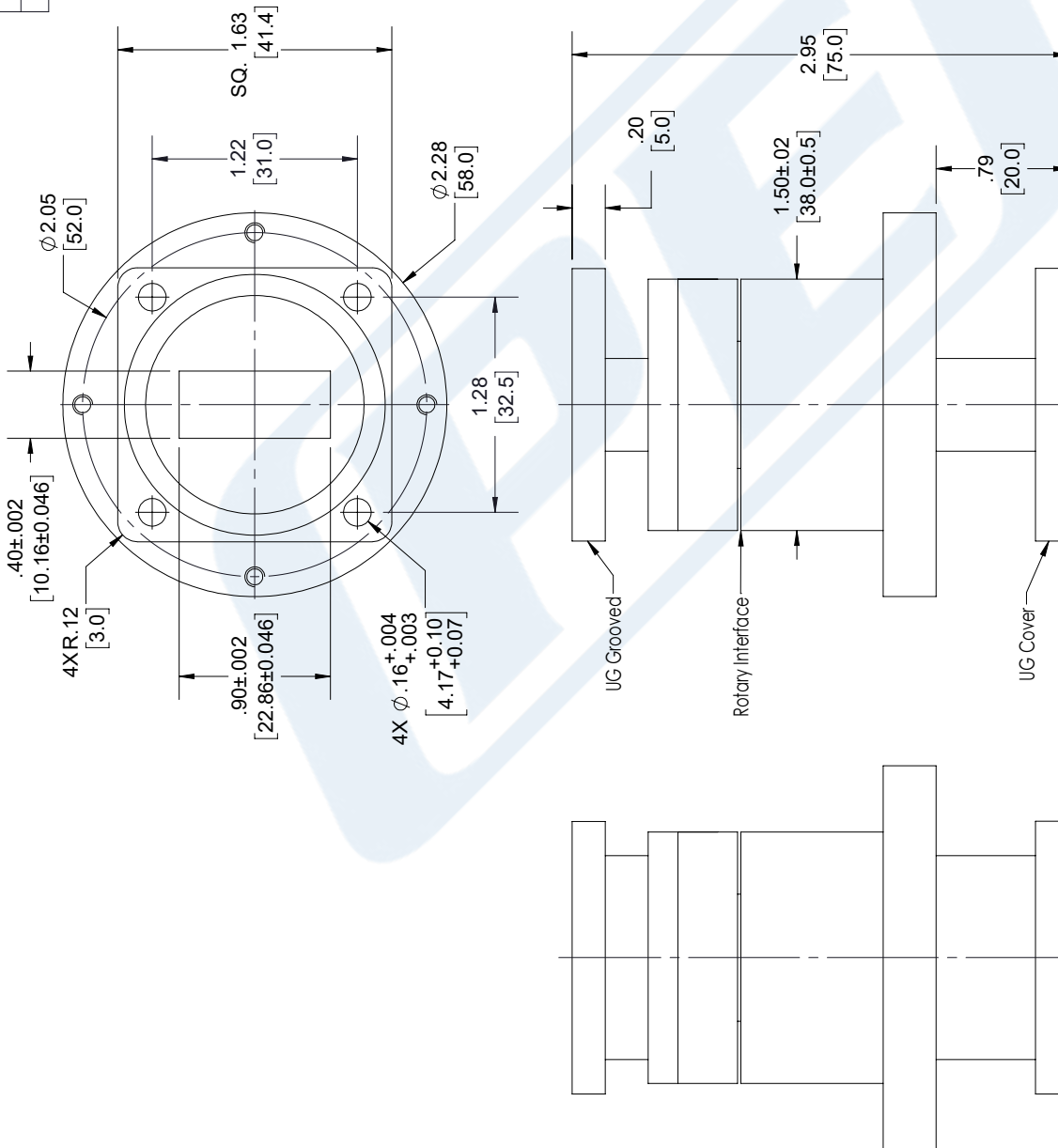
URL: <https://www.pasternack.com/pew90rj0002-p.aspx>

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.

# PEW90RJ0002 CAD Drawing

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REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	10/04/2021	SPONG



UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES DIMENSIONS IN [ ] ARE MILLIMETERS	
TOLERANCES:	FRACTIONS
.X = ±.2	[.08]
.XX = ±.02	[.51]
.XXX = ±.005	[.13]
ANGLES ± 1°	
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	
ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.	



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SHEET 1 OF 1  
SCALE N/A

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