

WR-75 Waveguide Rotary Joint, UG Cover Flanges, Inline Style in Aluminum

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, FMW75RJ0003 from Fairview is a WR-75 waveguide rotary joint that operates in the frequency range of 13.75 GHz to 14.5 GHz. This WR-75 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 Cover flange interface with maximum rotary speed of 30 RPM and minimum life time of 500×10^4 Revolutions. Waveguide rotary joints are part of Fairview's comprehensive waveguide product offerings which are available in stock and ready for same-day shipment.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	13.75		14.5	GHz
VSWR			1.2:1	
VSWR 1, Rotational Variance			0.05	
Insertion Loss			0.3	dB
Input Power (CW)			100	Watts
Peak Power			1	kWatts
Insertion Loss Rotational Variance			0.05	dB
Phase Rotational Variance			2	Degrees

Mechanical Specifications

Temperature

Operating Temperature	-40 to 70 °C
Storage Temperature	-55 to 85 °C
Humidity	85% (Max)

Interface

Waveguide Size	WR-75
Flange Type 1	UG Cover
Flange Type 2	UG Cover
Body Material and Plating	Aluminum, Paint
Rotating Speed	30 RPM
Lifetime	500×10^4 Revolutions
Starting Torque	1.77 in-lbs [0.2 Nm]
Torque During Rotation	0.88 in-lbs [0.1 Nm]
IP Protection Level	IP54



Features:

- WR-75 Waveguide
- Operating Frequency Range from 13.75 GHz to 14.5 GHz
- UG Cover/UG Cover Flanges
- Inline Style Configuration
- 1.2:1 Max VSWR
- 100 Watts (CW) Max Power Handling
- Insertion loss(Max): 0.3 dB
- Rotating Speed (Max): 30 RPM
- Lifetime (Min): 500×10^4 Revolutions

Applications:

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

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

Plotted and Other Data

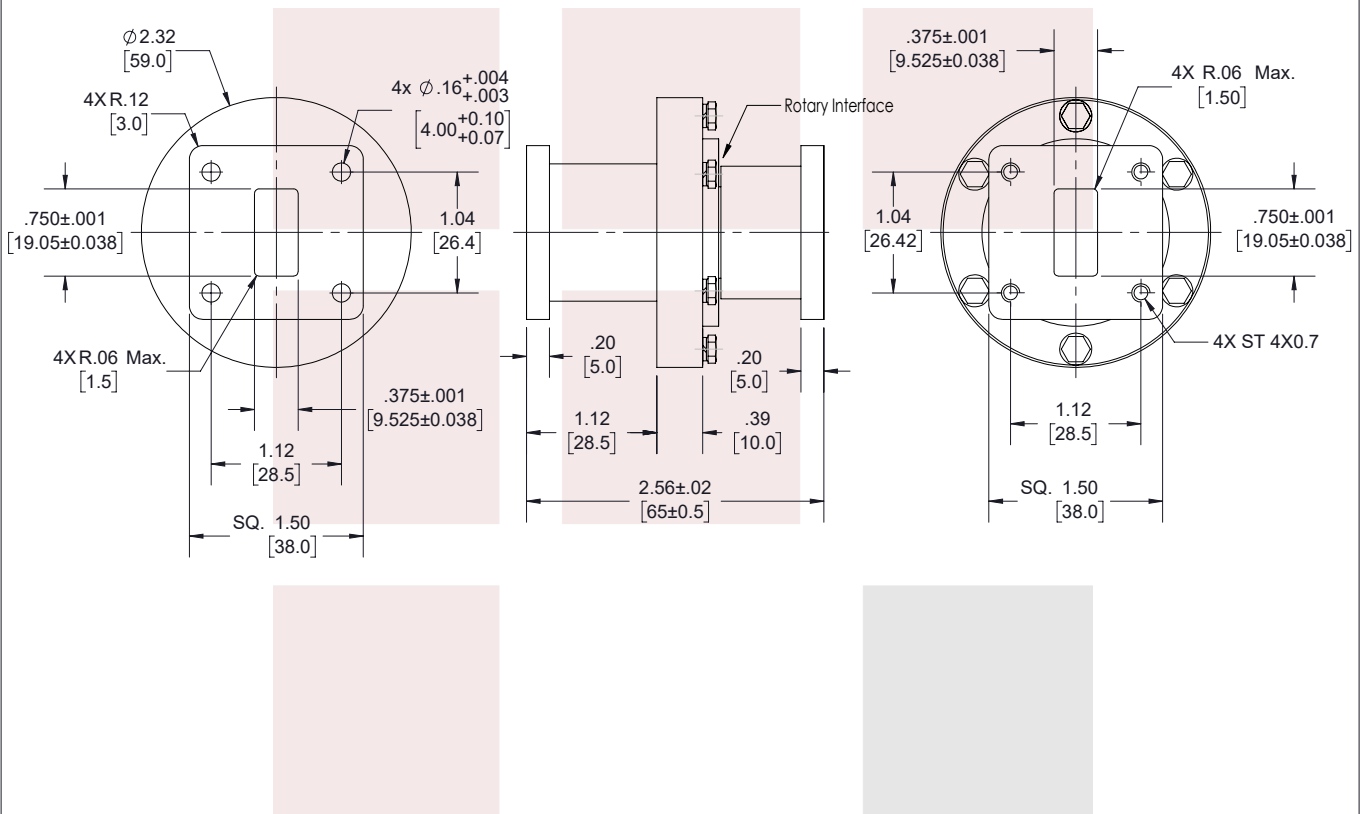
WR-75 Waveguide Rotary Joint, UG Cover Flanges, Inline Style in Aluminum from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [WR-75 Waveguide Rotary Joint, UG Cover Flanges, Inline Style in Aluminum FMW75RJ0003](#)

URL: <https://www.fairviewmicrowave.com/undefined-url-for-pn-fmw75rj0003-fmw75rj0003-p.aspx>

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



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

TOLERANCES:		CABLE LENGTH (L) TOLERANCES:	
X = ± 2 [5.08]	FRACTIONS ± 1/32	L ≤ 12 [305]	= +1 [25] / -0
.XX = ± 0.02 [0.51]	ANGLES ± 1°	12 [305] < L ≤ 60 [1524]	= +2 [51] / -0
.XXX = ± 0.005 [0.13]		60 [1524] < L ≤ 120 [3048]	= +4 [102] / -0
		120 [3048] < L ≤ 300 [7620]	= +6 [152] / -0
		300 [7620] < L	= +5%L / -0

THIRD-ANGLE PROJECTION
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SHEET 1 OF 1

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

SCALE N/A

SIZE	CAGE CODE	DRAWN BY	ITEM NO.	REV
A	3FKR5	MVEERAPPAN	FMW75RJ0003	A

T-Rev.D