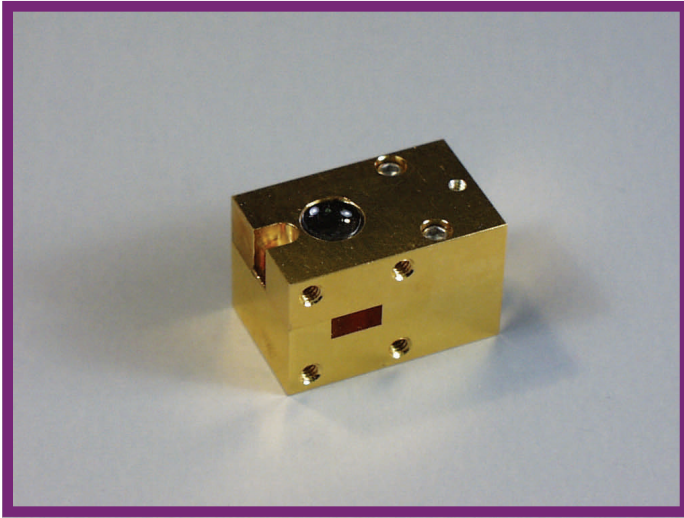


# 172 Series

# Y-Junction Isolators



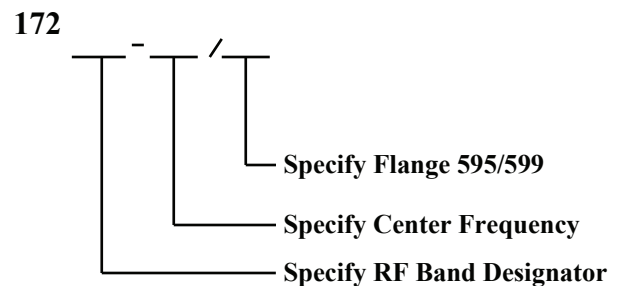
## Features

- Low Loss
- Low VSWR
- High Isolation
- Broad Bandwidth
- Compact & Rugged
- Optimal Temperature Response

## Description 172 Series Isolators

**Mi-Wave's** 172 series is an H-plane, three port Y-junction ferrite device with one arm internally terminated in a matched load. Reflected energy is circulated into this load to isolate the input. All external mating surfaces are machined to extreme flatness to provide connection to standard waveguide flanges for minimum discontinuity. The 172 series isolators are available in standard waveguide sizes from 12.4 to 50 GHz, using square UG-419, UG-595 and 599 style flanges only.

## Ordering Information



## Applications

The 172 series Y-junction isolators are useful in test setup and operational systems. These devices provide a high degree of isolation between signal sources and system loads by sharply attenuating reflected signals with very low loss in the forward direction.

## **Mi-Wave**

Millimeter Wave Products Inc.

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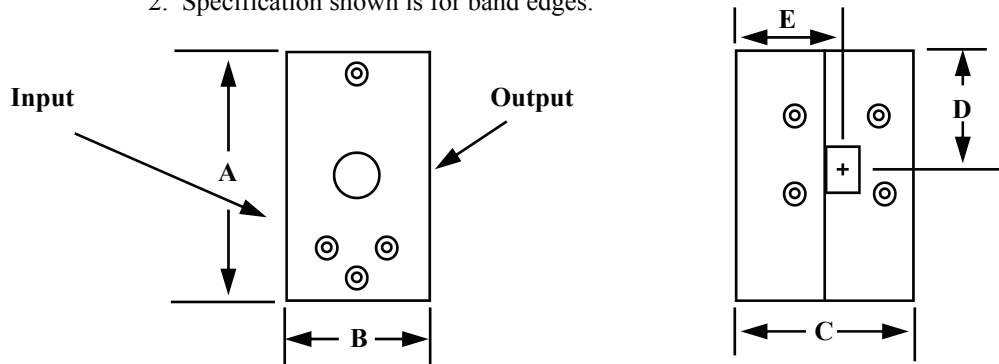
# 172 Series

# Y-Junction Isolators

## Technical Specifications

Model Number	172K	172A	172B
Frequency Band (GHz)	18.0-26.5	26.5-40.0	33.0-50.0
Bandwidth <sup>1</sup>	2.0GHz	1.5GHz	1.3GHz
Isolation <sup>2</sup> (dB)	20.0	20.0	20.0
Insertion Loss (dB)	0.3	0.4	0.5
VSWR <sup>2</sup> Max.	1.30	1.30	1.30
Temperature Range	-15° C to +65° C		
Peak Power (kW)	1.0	1.0	1.0
Average Power (Watts)			
Forward	30	30	25
Backward	1.5	1.0	0.8
Weight (oz)	4.0	4.0	4.0
Flange Type	UG-595/U	UG-599/U	UG-599/U

1. Specify center frequency.
2. Specification shown is for band edges.



Please Note: Smaller versions of certain model numbers are available.  
Please consult **Mi-Wave** for dimensions.

## Dimensional Specifications

Model No.	A		B		C		D		E	
	in	mm	in	mm	in	mm	in	mm	in	mm
172K	1.50	38.1	.88	22.4	1.25	31.8	.63	16.0	.63	16.0
172A	1.20	30.5	.75	19.1	.75	19.1	.38	9.7	.38	9.7
172B	1.20	30.5	.75	19.1	.75	19.1	.38	9.7	.38	9.7

**Mi-Wave**

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