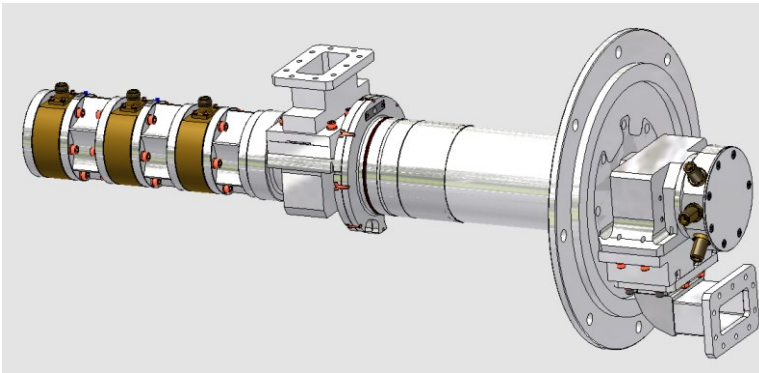


Multi Channel Rotary Joint || BN 532419



Radio frequency channel characteristics

Channel designation	Channel 1	Channel 2	Channel 3	Channel 4
Interface type / material / surface finish	WR-284	N-f (50 Ω) / copper alloy / silver plated	N-f (50 Ω) / copper alloy / silver plated	N-f (50 Ω) / copper alloy / silver plated
Frequency range	2.7 to 3.1 GHz	2.7 to 3.1 GHz	2.7 to 3.1 GHz	2.7 to 3.1 GHz
Peak power capability*	200 kW	5 kW	5 kW	5 kW
Average power capability	3500 W ¹⁾	100 W	100 W	100 W
VSWR, max.	1.25	1.3	1.3	1.3
VSWR variation over rotation, max.	0.05	0.1	0.1	0.1
Insertion loss, max.	0.3 dB	1.0 dB	1.0 dB	1.0 dB
Insertion loss variation over rotation, max.	0.05 dB	0.1 dB	0.1 dB	0.1 dB
Phase variation over rotation, max.	1.5 deg.	2 deg.	2 deg.	2 deg.
Isolation, min.	60 dB			

¹⁾ Condition: The waveguide flange of the rotary joint must not exceed the defined maximum ambient temperature.

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Mechanical data

Differential operating pressure, max. / nominal	0.1 MPa (1 bar) / 0.014 MPa (0.14 bar)
Leakage rate, max.	25 cm ³ /minute @ nominal differential pressure
Rotating speed, max. / nominal	60 rpm / 30 rpm
Rotating direction (view from the top)	both directions
Life, min.	50 x 10 ⁶ revolutions
Maintenance period	25 x 10 ⁶ revolutions
Torque (room temperature), max.	10 Nm @ start-up 9 Nm @ rotation
Interface loads, max.	no loads allowed
Case material	aluminum alloy
Case surface finish	chromate conversion coat per MIL-DTL-5541 type 1 or type 2 Painted RAL2004 orange
IP protection level	IP53 per EN 60529 (all interfaces connected with appropriate gaskets)
Weight, approx.	35 kg
Marking	adhesive label

Environmental conditions

Operation	
Application	ground, fixed
Operating altitude, max.	3500 m
Ambient temperature range for rotary joint	-40 °C to +71 °C
Relative humidity, max.	95% (non-condensing)
Shock	30 g / 11 ms half sine, 3 shocks in each direction of 3 orthogonal axes Compliant to MIL-STD-810G
Vibration	20-50 Hz, PSD of 0.02 g ² /Hz falling to 0.001 g ² /Hz at 500 Hz in each of 3 orthogonal axes Duration: 15 min/axis Compliant to MIL-STD-810G
Storage	
Ambient temperature range for rotary joint	-55 °C to +85 °C
Relative humidity, max.	95% (non-condensing)

Applicable documents

Drawing	532419-0E, Issue C
Product manual	M36303
Technical information	“Rotary Joints – Glossary”, Technical Document TD-00021, Spinner GmbH