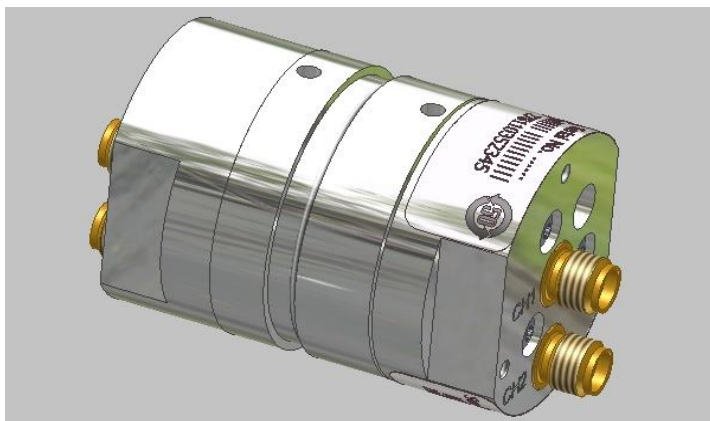


Rotary Joint || BN 153171



**Radio frequency characteristics**

Channel designation	Inner channel (CH1)	Outer channel (CH2)
Interface type / material / surface finish	3.5-f (50 Ω) / copper alloy / gold plated	3.5-f (50 Ω) / copper alloy / gold plated
Interface orientation	style I	style I
Frequency range	DC to 8 GHz	DC to 8 GHz
Peak power capability	1 kW	1 kW
Average power capability	100 W @ DC to 2 GHz 60 W @ 2 to 4.5 GHz 35 W @ 4.5 to 8 GHz	10 W
VSWR, max.	1.2 @ DC to 4.5 GHz 1.35 @ 4.5 to 8 GHz	1.5 @ DC to 4.5 GHz 2.5 @ 4.5 to 8 GHz
VSWR variation over rotation, max.	0.05 @ DC to 4.5 GHz 0.1 @ 4.5 to 8 GHz	0.2 @ DC to 4.5 GHz 0.4 @ 4.5 to 8 GHz
Insertion loss, max.	0.25 dB @ DC to 4.5 GHz 0.4 dB @ 4.5 to 8 GHz	0.5 dB @ DC to 4.5 GHz 1.0 dB @ 4.5 to 8 GHz
Insertion loss variation over rotation, max.	0.05 dB @ DC to 8 GHz	0.15 dB @ DC to 4.5 GHz 0.35 dB @ 4.5 to 8 GHz
Phase variation over rotation, max.	0.5 deg.	4 deg.
Isolation, min.	50 dB	
DC carrying capability	0.5 A, 48 VDC @ full RF avg. power 2 A, 48 VDC @ RF avg. power 5 W 5 A*, 48 VDC @ RF avg. power 5 W	0.5 A, 24 VDC @ full RF avg. power

Conditions:

DC applied to one channel only

\* applied for max. 1 x 10E6 revolutions or 50 h

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**Mechanical characteristics**

Rotating speed, max. / nominal	30 / - rpm
Life, min.	5 x 10 <sup>6</sup> revolutions
Torque (room / min. temperature), max.	0.05 Nm / - @ start-up 0.05 Nm / - @ rotation
Interface loads, max.	±5 N in axial direction ±5 N in radial direction
Case material	aluminum alloy
Case surface finish	chromate conversion coat
IP protection level	IP64
Weight, approx.	0.13 kg
Marking	adhesive label

**Environmental conditions**

<b>Operation</b>	
Ambient temperature range	-40 to +71°C
Relative humidity, max.	95% (non-condensing)
<b>Storage</b>	
Ambient temperature range	-55 to +85°C
Relative humidity, max.	95% (non-condensing)

**Applicable Documents**

Drawing	153171-0E Issue E
Technical information	"Rotary Joints – Glossary", Technical Document TD-00021, Spinner GmbH

**Further Remarks**

Customer Specification: 116466 / Sea Tel