

## Rotary Joint | BN 945436



### Radio frequency characteristics

Channel designation	Channel 1
Interface type / material / surface finish	7-16 (50Ω) / copper alloy / silver plated
Interface orientation	style I
Frequency range	DC to 6 GHz
Peak power rating	40 kW
Average power rating <sup>RF1)</sup>	3500 W @ DC to 50 MHz 1650 W @ 50 to 500 MHz 1150 W @ 0.5 to 1 GHz 820 W @ 1 to 2 GHz 670 W @ 2 to 3 GHz 580 W @ 3 to 4 GHz 520 W @ 4 to 5 GHz 470 W @ 5 to 6 GHz
VSWR, max.	1.06 @ DC to 2 GHz 1.10 @ 2 to 5 GHz 1.15 @ 5 to 6 GHz
VSWR variation with rotation, max.	0.05
Insertion loss, max. / typ.	0.2 dB / 0.1 dB
Insertion loss variation with rotation, max.	0.02 dB
Transmission phase variation over rotation, max. / typ.	1 deg. / 0.2 deg.
DC carrying rating	8.5 A, 48 VDC @ RF avg. power 5 W

<sup>RF1)</sup> Condition: The mounting flange of the rotary joint must not exceed the defined maximum ambient temperature.

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Template TD-00015.docx

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### Mechanical characteristics

Rotating speed, max.	200 rpm
Lifetime, min.	10 x 10 <sup>6</sup> revolutions
Torque (room temperature), max.	1 N m @ start-up 1 N m @ rotation
Interface loads, max.	±30 N in axial direction ±30 N in radial direction
Case material	copper alloy
Case surface coating	silver plated painted none
IP protection level	IP65
Weight, approx.	1 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	Document-No.: 945436-0E, Issue B
Technical information	"Rotary Joints – Glossary", technical document TD-00021, Spinner GmbH
Application note	"Rotary Joints – Installation Guidelines", technical document TD-00057, Spinner GmbH