

Rotary Joint || BN 153130



Radio frequency characteristics

Channel designation	Inner channel (CH2)	Outer channel (CH1)
Interface type / material / surface finish	2.92mm-f (50 Ω) / copper alloy / gold plated	2.92mm-f (50 Ω) / copper alloy / gold plated
Interface orientation	style L	style L
Frequency range	29.1 to 31 GHz	19.4 to 21.2 GHz
Peak power capability	-	-
Average power capability	10 W	1 W
VSWR, max.	1.5	1.5
VSWR variation over rotation, max.	0.2 @ 29.1 GHz to 29.5 GHz 0.1 @ 29.5 GHz to 31.0 GHz	0.1
Insertion loss, max.	0.8 dB	0.8 dB
Insertion loss variation over rotation, max.	0.2 dB @ 29.1 GHz to 29.5 GHz 0.1 dB @ 29.5 GHz to 31.0 GHz	0.1 dB
Phase variation over rotation, max.	-	-
Isolation, min.	50 dB	
DC carrying capability	-	-

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Mechanical characteristics

Rotating speed, max. / nominal	150 / 100 rpm
Life, min.	20 x 10 ⁶ revolutions
Torque (room / min. temperature), max.	0.08 Nm / - @ start-up 0.05 Nm / - @ rotation
Interface loads, max.	±3 N in axial direction ±3 N in radial direction
Case material	aluminum alloy
Case surface finish	chromate conversion coat per MIL-DTL-5541 type 1 or type 2
IP protection level	IP54
Weight, approx.	0.18 kg
Marking	adhesive label

Environmental conditions

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

Applicable Documents

Drawing	153130-0E Issue D
Technical information	"Rotary Joints – Glossary", Technical Document TD-00021, Spinner GmbH

Further Remarks

Vibration: per MIL-STD-810G or DO-160G

Shock: per MIL-STD-810G or DO-160G