

Rotary Joint | BN 835038



Radio frequency characteristics

Interface type / material / surface finish	SMA-m (50 Ω) / copper alloy / gold plated mounted on two cable pigtails with a minimum shielding efficiency of 90 dB
Interface orientation	style L
Frequency range	DC to 4 GHz
Peak power capability	-
Average power capability	18 W
VSWR, max.	1.5
VSWR variation over rotation, max.	0.2
Insertion loss, max.	3.9 dB* @ DC to 2.2 GHz 5.2 dB* @ 2.2 to 4.0 GHz
Insertion loss variation over rotation, max.	0.2 dB
Phase variation over rotation, max.	-
DC carrying capability	0.5 A @ 48 VDC, full RF avg. power 2 A @ 48 VDC, RF avg. power 1 W

Conditions:

^{*} The high insertion loss is caused by the long cable pigtails.



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Mechanical characteristics

Rotating speed, max. / nominal	60 / 30 rpm
Life, min.	2.5 x 10 ⁶ revolutions
Torque (room / min.	0.5 Ncm / - @ start-up
temperature), max.	0.5 Ncm / - @ rotation
Interfere leade many	±0 N in axial direction
Interface loads, max.	±0.1 N in radial direction
Case material	copper alloy
Case surface finish	partly plated by silver, nickel, tin
IP protection level	IP40
Weight, approx.	0.04 kg
Marking	stamping

Environmental conditions

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

Applicable Documents

Drawing	835038-0E Issue A
Technical information	"Rotary Joints – Glossary", Technical Document TD-00021, Spinner GmbH