

## Coaxial Two Way Switch (DPDT) | BN 512698C0110



Typical illustration

## Radio frequency characteristics

Interface type (4 connections)	7/8" EIA (50 Ω) per IEC 60339-2 (threaded flanges)					
Characteristic impedance	50 Ω					
Frequency range	0 to 100 MHz	100 to 230 MHz	230 to 860 MHz	860 MHz to 2.0 GHz	2.0 to 3.0 GHz	3.0 to 3.5 GHz
VSWR, max.	1.02	1.02	1.04	1.06	1.10	1.20
Isolation, min.	80 dB	80 dB	80 dB	70 dB	60 dB	60 dB
Insertion loss, max.	0.03 dB	0.03 dB	0.03 dB	0.05 dB	0.20 dB	0.20 dB
Average power capability <sup>RFC1)</sup> at ambient temperature -10 to +45°C	7.5 kW	4.5 kW	2.4 kW	1.5 kW	1.2 kW	1.1 kW
Peak voltage capability <sup>RFC1)</sup>	3.5 kV					

*RFC1) Standard conditions: - Dielectric: Dry air under standard pressure at sea level ( $p = 1013 \text{ hPa}$ )  
- Load VSWR, max. 1.0 (no standing wave)  
- No modulation, sinusoidal carrier only*

## Electrical and mechanical characteristics

Switch type	Two way switch, DPDT	
Actuator type	Motor drive, latching, self cutoff	
Connector J2 <sup>EMC1)</sup> for mains connection	IEC appliance inlet C14 per IEC 60320-1	
Mains connection	L, N, PE, TN-System	
Operating	Operating voltage	95 to 140 V AC 50/60 Hz
	Operating current, typ. <sup>EMC2)</sup>	0.7 A
	Nominal fuse	F1 / F2: 2 A T per EN 60127-2-3
Connector J1 <sup>EMC1)</sup> for control, interlock contacts and signaling	25 pole connector per DIN 41652 / IEC 807-2	
Control	Control voltage	ES1 circuits per EN 62368-1, 8 to 31 V DC
	Control current, typ.	12 mA at control voltage 24 V DC
	Current limiting	The circuit must be limited externally to 0.5 A



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Signal contacts Interlock contacts	Lead time typ. <sup>EMC2)</sup>	9 ms (the interlock/signal contacts open 9 ms before and close 9 ms after switching of the RF contacts)
	Maximum ratings	ES1 circuits per EN 62368-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Current limiting	The circuit must be limited externally to 0.5 A
Switching time, typ. <sup>EMC2)</sup>		0.12 s
Command hold time, min.		0.12 s (during this time, the voltage at control input must not change)
Switching frequency, max.		5 cycles per minute, max. 50 cycles per hour (10 operations per minute, max. 100 operations per hour)
Life, min.		250,000 cycles (500,000 operations)
Weight, approx.		2.5 kg

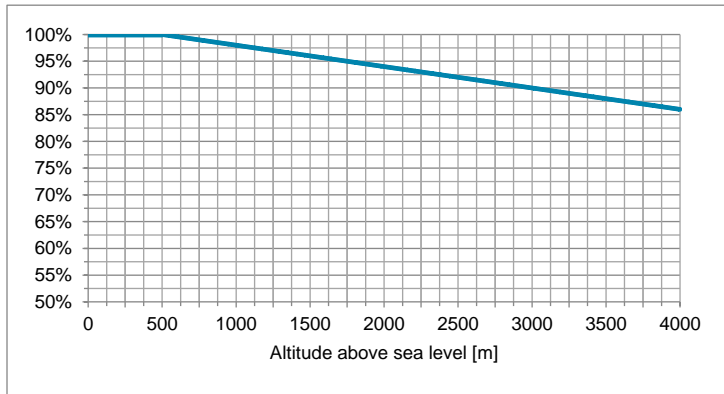
EMC1) Suitable US power supply cord and 25 pole mating connector included  
 EMC2) At room temperature and nominal voltage 120 V AC, 60 Hz

Environmental conditions

Operational conditions	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N
Ambient temperature <sup>EC1)</sup>	-10 to +60°C
Condensation	Not allowed
Relative humidity, max.	95%

Derating of input power with increasing altitude

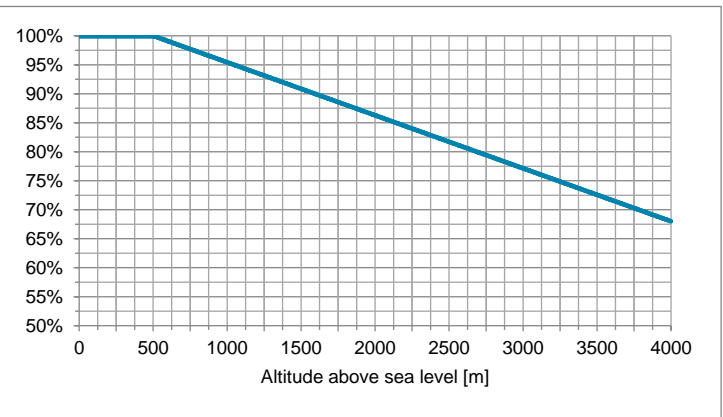
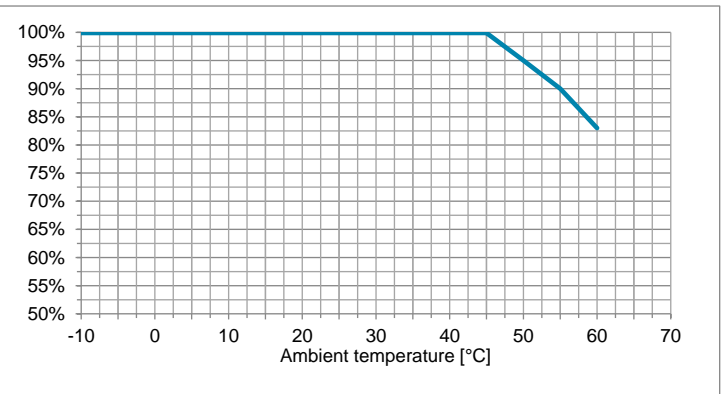
The maximum input power can be applied up to 500 m or 1600 ft above sea level unless noted otherwise in the data sheet. Above this height the maximum input power must be reduced as shown in the diagram.



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<p>Derating of voltage with increasing altitude</p>	<p>The maximum voltage can be applied up to 500 m or 1600 ft above sea level unless noted otherwise in the data sheet. Above this height the voltage must be reduced as shown in the diagram.</p> 
<p>Derating of input power with increasing ambient temperature</p>	<p>The maximum input power can be applied up to +45°C ambient temperature unless noted otherwise in the data sheet. Above this ambient temperature the maximum input power must be reduced as shown in the diagram.</p> 
<p>Max. altitude above sea level</p>	<p>4,000 m or 13,120 ft per IEC EN 60664-1</p>
<p>Protection class</p>	<p>I per IEC EN 61140</p>
<p>IP protection level</p>	<p>IP40 per IEC EN 60529 (all interfaces terminated)</p>
<p>Installation position</p>	<p>Any</p>
<p><b>Transport conditions</b></p>	<p>ETSI EN 300 019-1-2 V2.1.4 (2003-04) class 2.2</p>
<p>Ambient temperature</p>	<p>-25 to +70°C</p>
<p>Rain, condensation, icing</p>	<p>Not allowed</p>
<p><b>Storage conditions</b></p>	<p>ETSI EN 300 019-1-1 V2.1.4 (2003-04) class 1.2</p>
<p>Ambient temperature</p>	<p>-10 to +60°C</p>
<p>Rain, condensation, icing</p>	<p>Not allowed</p>

EC1) Extended temperature range on request

Applicable documents

<p>Product manual</p>	<p>M36022</p>
<p>Outline drawing</p>	<p>512698C0110-0E</p>

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## Accessories (optional)

Installation kit BN 512698C3000

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**Installation kit BN 512698C3000:**

94±0.5  
80±0.2  
105±0.2 (56.569)  
120±0.5  
10 (width across flats)  
4x mounting holes  
4x Ø7 thru  
Ø68±1  
Identification marking  
XX BN 512698C3000  
Installation kit

**Installation instructions for BN 512698C3000-installation kit:**

Coaxial two way switch  
BN 512698C0110  
or BN 512698C0110

Mounting plate  
Washer B6.4

Screw M6x16 (4x)  
use a torque wrench to tighten  
the bolted connections to 6 Nm

X (1,5 : 1)

3±0.3  
11.4  
5.6  
20

1x mounting plate (aluminum)  
4x washer B6.4 DIN125 - A2-70 (stainless steel)  
4x screw M6x16 DIN933 - A2-70 (stainless steel)

**Freigegeben**

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**Do not use the installation kit to support additional mechanical loads.**

Katalognummer Dimensions in mm		DIN ISO		Projektion E		Maßstab / Scale	
Allgemeinbezeichnung General dimensions		2768mH		Name / Name		1 : 1	
Date:		19.09.2019		Erstellt / Date		Zeichnung: Title:	
Kritik / Reviz. / Date:		09.10.2019		Hauptautor / Hauptautor		Installation kit for coaxial two way switch (DPDT)	
Zustimmung / Approval:		09.10.2019		Geprüft / Checked:		7/8" (50 ohms)	
Revisions- History:		A		Startindex		512698C3000-0E	
Hersteller / Manufacturer:		Spinner GmbH Ergänzenummer: 33 D-80335 München		Zeichnungs-Nr. Drawing No.:		512698C3000-0E	
Blatt / Sheet:		1		Format / Format:		A3	
von / of:		1		Blatt / Sheet:		1	
				von / of:		1	