

Coaxial Two Way Switch (DPDT) || BN 941944C0110



Typical illustration

Radio frequency characteristics

Interface type (4 connections)	4 1/2" EIA according to EN 122150 (threaded flanges)			
Characteristic impedance	50 Ω			
Frequency range	1 MHz	10 MHz	100 to 230 MHz	230 to 860 MHz
VSWR, max.	1.04	1.04	1.04	1.06
Isolation, min.	80 dB	80 dB	80 dB	70 dB
Insertion loss, max.	0.03 dB			
Average power capability * at ambient temperature -10 to +45°C	600 kW	200 kW	70 kW	38 kW
Peak voltage capability *	16 kV			

Electrical and mechanical characteristics

Switch type	Two way switch, DPDT	
Actuator type	Motor drive, latching, self cutoff	
Connector J2 ** for mains connection	IEC appliance inlet C14 according to IEC 60320-1	
Mains connection	L, N, PE, TN-System	
Operating	Operating voltage	95 to 140 V AC 50/60 Hz
	Current, typ. ***	1.5 A
	Nominal fuse	F1 / F2: 2 A T according to EN 60127-2-3
Connector J1 ** for control, interlock contacts and signaling	25 pole connector according to DIN 41652 / IEC 807-2	
Control	Control voltage	SELV circuits according to IEC EN 60950-1, 8 to 31 V DC
	Current, typ.	12 mA at control voltage 24 V DC
	Current limiting	The circuit must be externally limited to 0.5 A

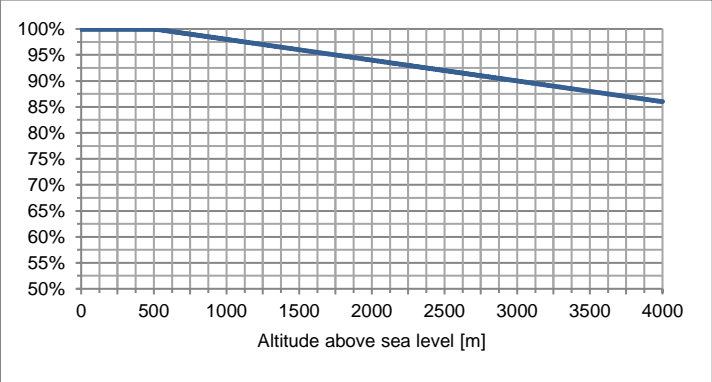
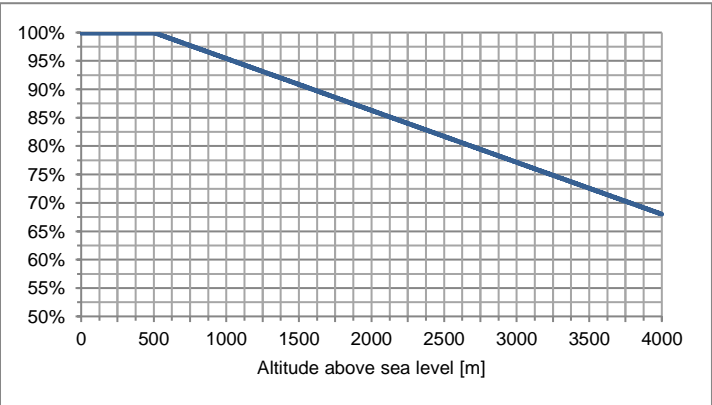
SPINNER GmbH | This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

Template TD-00002Y

Coaxial Two Way Switch (DPDT) || BN 941944C0110

Signal contacts Interlock contacts	Lead time, typ.***	200 ms (the interlock/signal contacts open 200 ms before and close 200 ms after switching of the RF contacts)
	Maximum ratings	SELV circuits according to IEC EN 60950-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Current limiting	The circuit must be externally limited to 0.5 A
Switching time, typ.***		1.0 s
Command hold time, min.		1.0 s (during this time, the voltage at control input must not change)
Switching frequency, max.		3 cycles per minute, max. 30 cycles per hour (6 operations per minute, max. 60 operations per hour)
Life, min.		250,000 cycles (500,000 operations)
Weight, approx.		26.5 kg

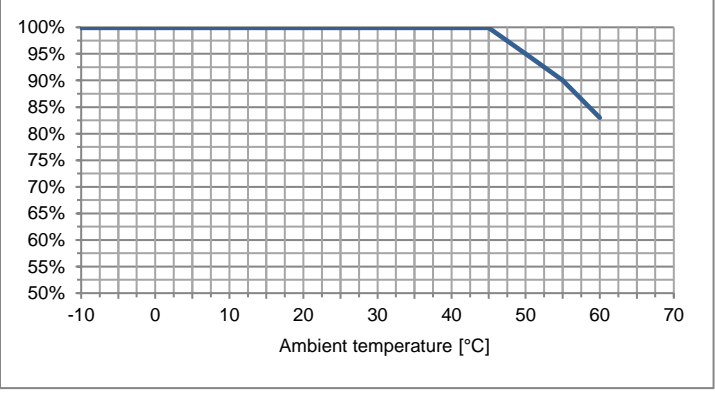
Environmental conditions

Operational conditions	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N																				
Ambient temperature ****	-10 to +60°C																				
Condensation	Not allowed																				
Relative humidity, max.	95%																				
Derating of input power with increasing altitude	<p>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.</p>  <table border="1"> <caption>Derating of input power with increasing altitude</caption> <thead> <tr> <th>Altitude [m]</th> <th>Power (%)</th> </tr> </thead> <tbody> <tr><td>0</td><td>100</td></tr> <tr><td>500</td><td>100</td></tr> <tr><td>1000</td><td>98</td></tr> <tr><td>1500</td><td>96</td></tr> <tr><td>2000</td><td>94</td></tr> <tr><td>2500</td><td>92</td></tr> <tr><td>3000</td><td>90</td></tr> <tr><td>3500</td><td>88</td></tr> <tr><td>4000</td><td>85</td></tr> </tbody> </table>	Altitude [m]	Power (%)	0	100	500	100	1000	98	1500	96	2000	94	2500	92	3000	90	3500	88	4000	85
Altitude [m]	Power (%)																				
0	100																				
500	100																				
1000	98																				
1500	96																				
2000	94																				
2500	92																				
3000	90																				
3500	88																				
4000	85																				
Derating of voltage with increasing altitude	<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>  <table border="1"> <caption>Derating of voltage with increasing altitude</caption> <thead> <tr> <th>Altitude [m]</th> <th>Voltage (%)</th> </tr> </thead> <tbody> <tr><td>0</td><td>100</td></tr> <tr><td>500</td><td>100</td></tr> <tr><td>1000</td><td>95</td></tr> <tr><td>1500</td><td>90</td></tr> <tr><td>2000</td><td>85</td></tr> <tr><td>2500</td><td>80</td></tr> <tr><td>3000</td><td>75</td></tr> <tr><td>3500</td><td>70</td></tr> <tr><td>4000</td><td>68</td></tr> </tbody> </table>	Altitude [m]	Voltage (%)	0	100	500	100	1000	95	1500	90	2000	85	2500	80	3000	75	3500	70	4000	68
Altitude [m]	Voltage (%)																				
0	100																				
500	100																				
1000	95																				
1500	90																				
2000	85																				
2500	80																				
3000	75																				
3500	70																				
4000	68																				

This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

SPINNER GmbH
 Template TD-00002Y

Coaxial Two Way Switch (DPDT) || BN 941944C0110

<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>  <table border="1"> <caption>Derating of input power with increasing ambient temperature</caption> <thead> <tr> <th>Ambient temperature [°C]</th> <th>Input Power (%)</th> </tr> </thead> <tbody> <tr><td>-10</td><td>100</td></tr> <tr><td>0</td><td>100</td></tr> <tr><td>10</td><td>100</td></tr> <tr><td>20</td><td>100</td></tr> <tr><td>30</td><td>100</td></tr> <tr><td>40</td><td>100</td></tr> <tr><td>45</td><td>100</td></tr> <tr><td>50</td><td>95</td></tr> <tr><td>55</td><td>88</td></tr> <tr><td>60</td><td>82</td></tr> </tbody> </table>	Ambient temperature [°C]	Input Power (%)	-10	100	0	100	10	100	20	100	30	100	40	100	45	100	50	95	55	88	60	82
Ambient temperature [°C]	Input Power (%)																						
-10	100																						
0	100																						
10	100																						
20	100																						
30	100																						
40	100																						
45	100																						
50	95																						
55	88																						
60	82																						

Max. altitude above sea level	4,000 m or 13,120 ft according to IEC EN 60664-1
Protection class	I according to IEC EN 61140
IP protection level	IP40 according to IEC EN 60529 (all interfaces terminated)
Installation position	Any
Transport conditions	ETSI EN 300 019-1-2 V2.1.4 (2003-04) class 2.2
Ambient temperature	-25 to +70°C
Rain, condensation, icing	Not allowed
Storage conditions	ETSI EN 300 019-1-1 V2.1.4 (2003-04) class 1.2
Ambient temperature	-10 to +60°C
Rain, condensation, icing	Not allowed

- * *Standard conditions:*
Dielectric: Dry air under standard pressure at sea level (p = 1013 hPa)
Load VSWR, max. 1.0 (no standing wave)
No modulation, sinusoidal carrier only
- ** *Suitable US power supply cord and 25 pole mating connector included*
- *** *At room temperature and nominal voltage 120 V AC, 60 Hz*
- **** *Extended temperature range on request*

Applicable documents

Product manual	M36192
----------------	--------

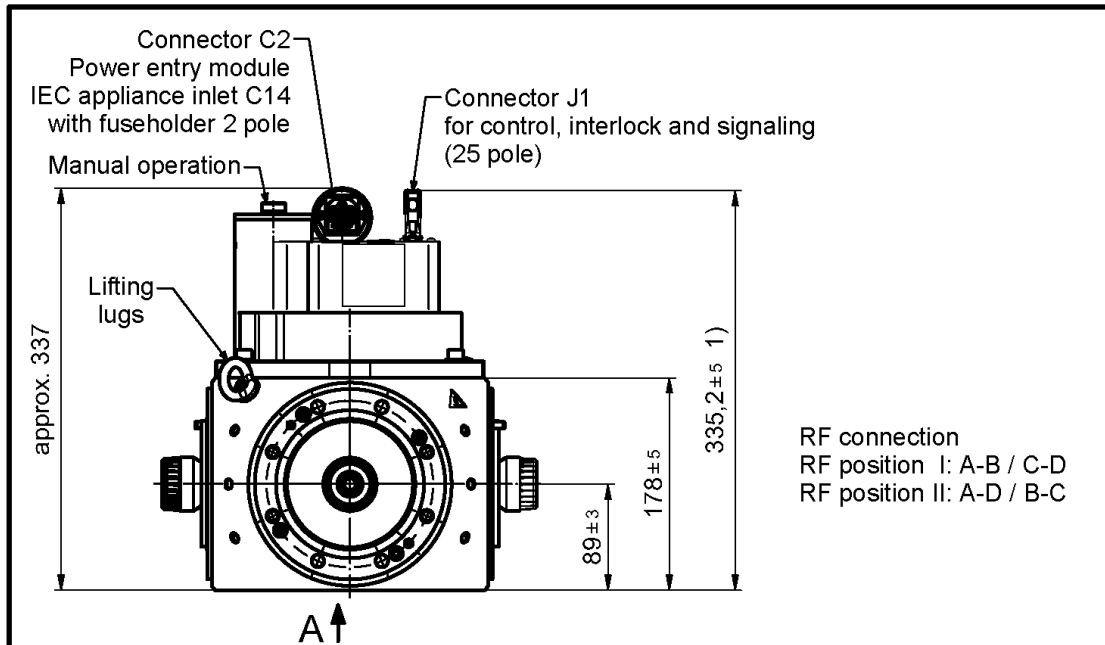
SPINNER GmbH | This document is proprietary to us. All rights reserved. Any use, transfer, or reproduction of this document or the know-how contained therein requires our express consent.

Template TD-00002Y

Coaxial Two Way Switch (DPDT) || BN 941944C0110

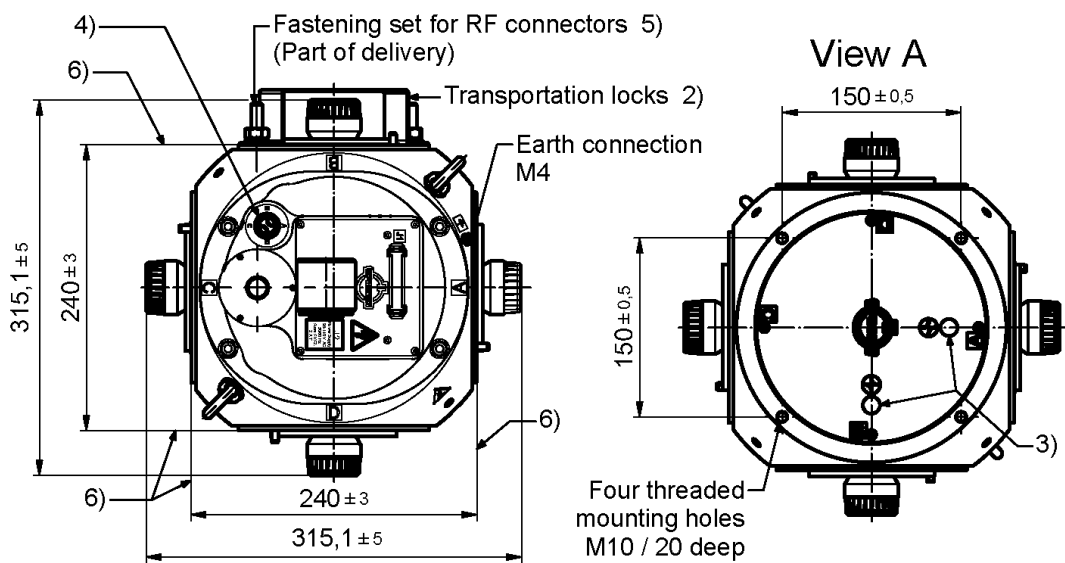
Outline (all dimensions in millimeter)

© 1999 Spinner GmbH Elektrotechnische Fabrik
 This drawing is proprietary to us. All rights reserved.
 Any use, transfer or reproduction of this drawing or the
 know-how contained therein requires our express consent.



RF connection
 RF position I: A-B / C-D
 RF position II: A-D / B-C

Freigegeben



- 1) + 10 mm to disconnect the connectors
- 2) Only shown once. Please remove before installation
- 3) Position indicators bottom side - current position is shown by white dot (marking)
- 4) Position indicator top side - current position is shown by pictogram
- 5) Altogether 32 (8 used for transportation locks)
- 6) Reference plane for respective port

Maßangaben in mm Dimensions in mm		Projektion E: Projection E:		Maßstab / Scale: 1 : 5	
Allgemeintoleranzen: General tolerances:		DIN ISO 2768mH	Datum: Date:	Name: Name:	Bezeichnung: Title:
Erstellt: Creator:	09.05.2019	Hupfauer	coaxial two way switch 4 1/2" EIA (50 ohms) outline		
Geprüft: Checked:	23.09.2019	Hupfauer			
Spinner GmbH Erzgiessereistr. 33 D-80335 München			Zeichnungs-Nr.: Drawing-No.:	Format: Format:	Blatt: Sheet:
B Text ber 23.09.2019 Hupfauer			941944C0110-0E	A4	1
A Startindex 09.05.2019 Hupfauer					von: of:

Diese Zeichnung ist unser Eigentum. Verwendung, Vervielfältigung,
 Weitergabe der Zeichnungen oder des darin enthaltenen
 Know-hows an Dritte nur mit unserer ausdrücklichen Genehmigung.

SPINNER GmbH
 This document is proprietary to us.
 All rights reserved. Any use, transfer, or reproduction of this document
 or the know-how contained therein requires our express consent.

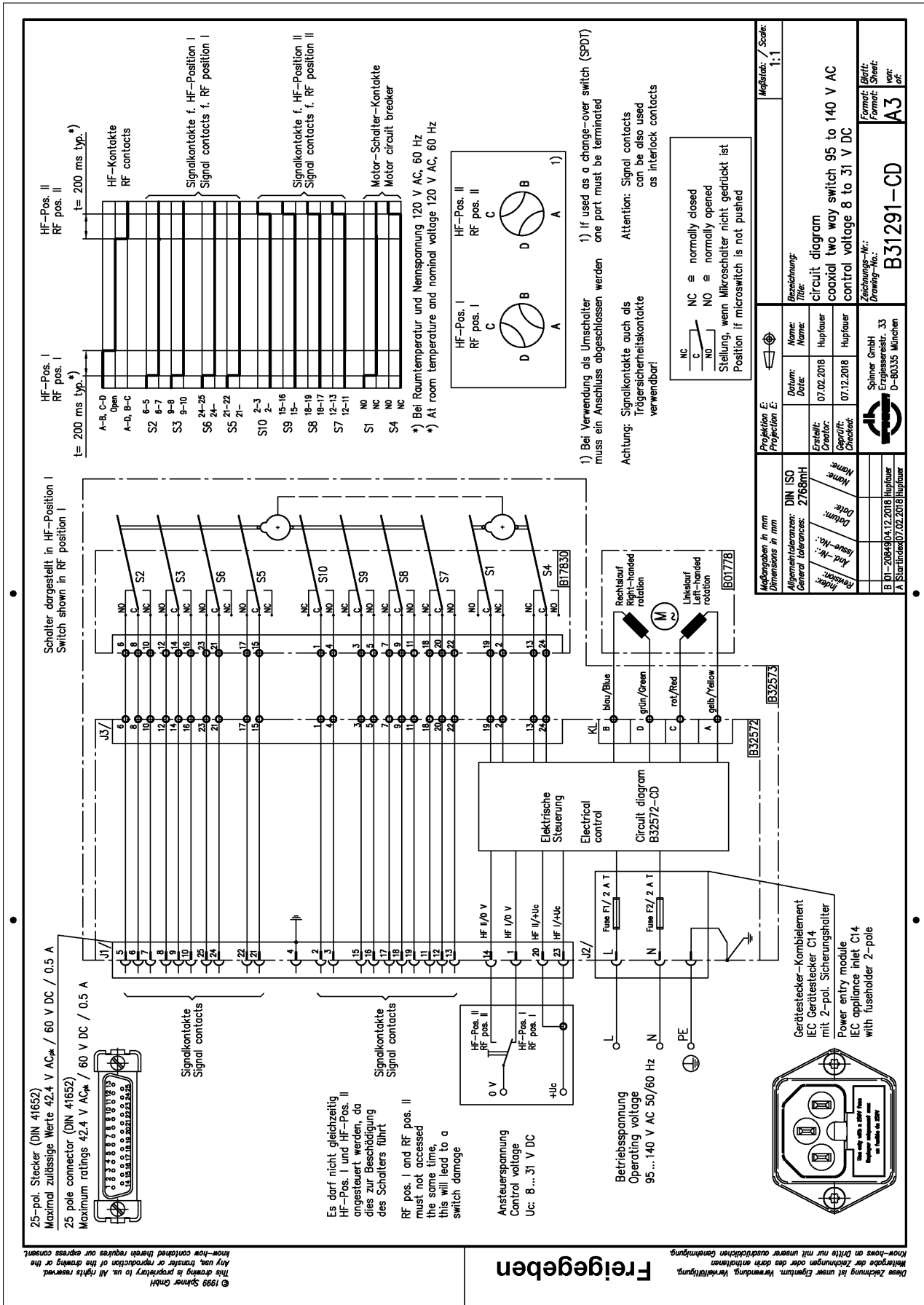
Template TD-00002Y

Coaxial Two Way Switch (DPDT) || BN 941944C0110

Circuit diagram

SPINNER GmbH
 This document is proprietary to us.
 All rights reserved. Any use, transfer, or reproduction of this document
 or the know-how contained therein requires our express consent.

Template TD-00002Y



Freigegeben

Diese Zeichnung ist unser Eigentum. Verwendung, Vervielfältigung,
 Know-hows on Dritte nur mit unserer ausdrücklichen Genehmigung
 Mitgabe oder das darin enthaltenen
 Know-hows on Dritte nur mit unserer ausdrücklichen Genehmigung

