

Coaxial Two Way Plug-in Switch (DPDT) || BN 553064



Product manual: M36273

**Radio frequency characteristics**

Interface type (4 connections)	1 5/8" USL-D according to company standard 61790		
Characteristic impedance	50 Ω		
Frequency range	0 to 100 MHz	100 to 230 MHz	230 to 860 MHz
VSWR, max.	1.04	1.04	1.04
Isolation, min.	80 dB	80 dB	70 dB
Insertion loss, max.	0.1 dB	0.1 dB	0.1 dB
Average power capability *	20 kW	13.5 kW	7 kW
Peak voltage capability *	7 kV		

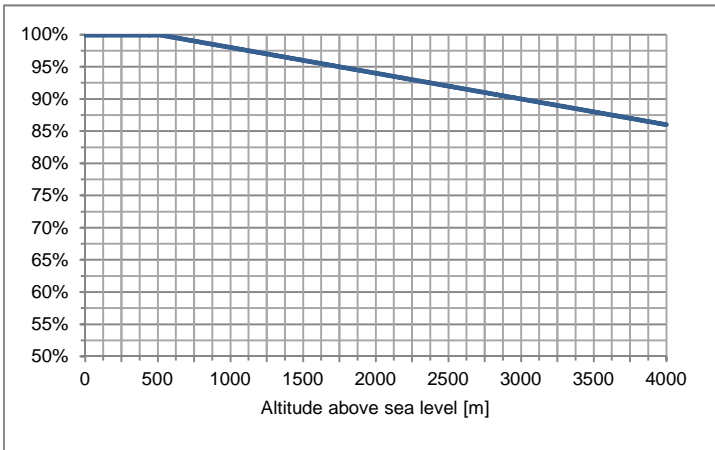
**Electrical and mechanical data**

Switch type	Two way switch, DPDT	
Actuator type	Motor drive, latching, self cutoff	
Strapping plug for USL-interlock I	Connector J3 ***	8 pole SPINNER connector BN 125651
	Maximum ratings	SELV circuits according to IEC-EN-60950-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Nominal fuse	The circuits must be externally limited to 0.5 A
Connector J2 ** for mains connection	5 pole SPINNER connector BN 126920, certified according to VDE-Reg. No. B687, DIN EN 61984: 2009-11; EN 61984: 2009	
Mains connection	L, N, PE, TN-System	
Operating	Operating voltage	230 V AC ±10% 50/60 Hz
	Current, typ. ****	1 A
	Nominal fuse	The switch must be externally fused by time-delay, 2 A

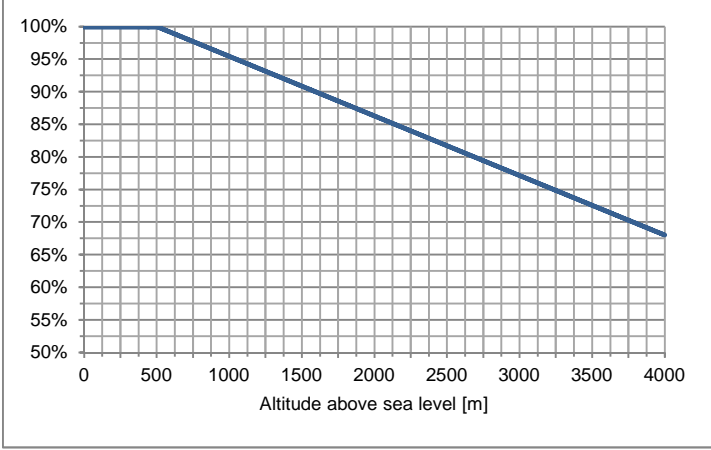
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Connector J1 ** for control, interlock contacts and signaling		25 pole connector according to DIN 41652 / IEC 807-2
Control	Control voltage	SELV circuits according to IEC EN 60950-1, 8 to 31 V DC
	Current, typ.	22 mA
	Nominal fuse	The circuit must be externally fused with 0.5 A
Signal contacts Interlock contacts	Maximum ratings	SELV circuits according to IEC EN 60950-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Nominal fuse	The circuit must be externally limited to 0.5 A
Switching time, typ.***		0.2 s
Command hold time, min.		0.2 s (during this time, the voltage at control input must not change)
Switching frequency, max.		10 operations per minute
Life, min.		250,000 operations
Weight, approx.		5 kg

**Environmental conditions**

<b>Operational conditions</b>	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N																				
Ambient temperature ****	-10 to +45°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 above sea level [m]</th> <th>Input 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>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>65</td> </tr> </tbody> </table>	Altitude above sea level [m]	Input Power (%)	0	100	500	100	1000	95	1500	90	2000	85	2500	80	3000	75	3500	70	4000	65
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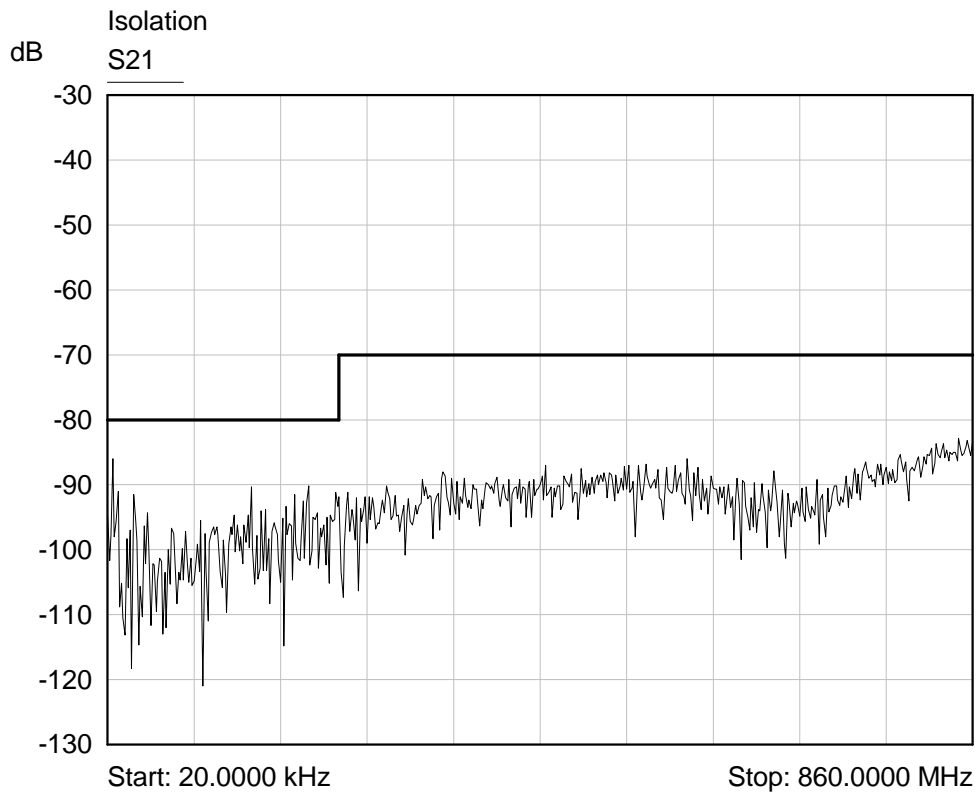
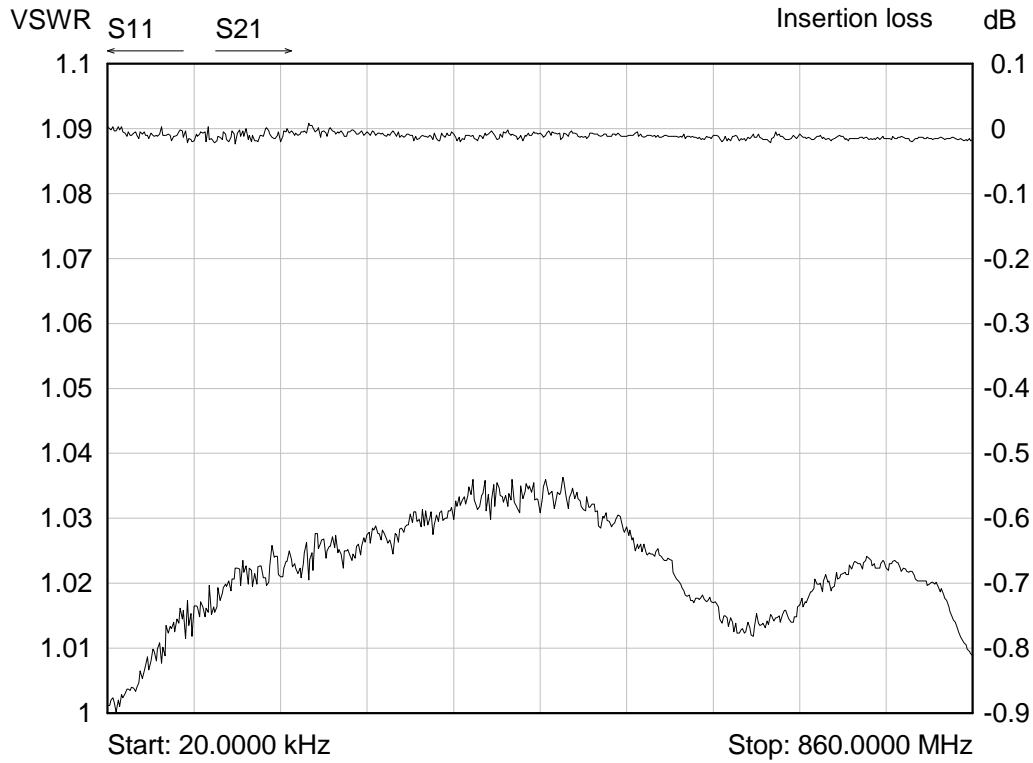
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<p>Derating of voltage with increasing altitude</p>	<p>The maximum voltage can be applied up to 500 m or 1600 ft above sea level unless noted otherwise in the data sheet. Above this height the maximum input power must be reduced as shown in the diagram.</p>  <table border="1"> <caption>Derating of voltage with increasing altitude</caption> <thead> <tr> <th>Altitude above sea level [m]</th> <th>Derating (%)</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 above sea level [m]	Derating (%)	0	100	500	100	1000	95	1500	90	2000	85	2500	80	3000	75	3500	70	4000	68
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<p>Max. altitude above sea level</p>	<p>4,000 m or 13,120 ft according to IEC EN 60664-1</p>																				
<p>Protection class</p>	<p>I according to IEC EN 61140</p>																				
<p>IP protection level</p>	<p>IP40 according to IEC EN 60529 (all interfaces equipped with appropriate gaskets)</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 +45°C</p>																				
<p>Rain, condensation, icing</p>	<p>Not allowed</p>																				

- \* *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 mating connector included*
- \*\*\* *Suitable SPINNER mating connector BN 539145 not in delivery!*
- \*\*\*\* *At room temperature and nominal voltage 230 V AC*
- \*\*\*\*\* *Extended temperature range on request*

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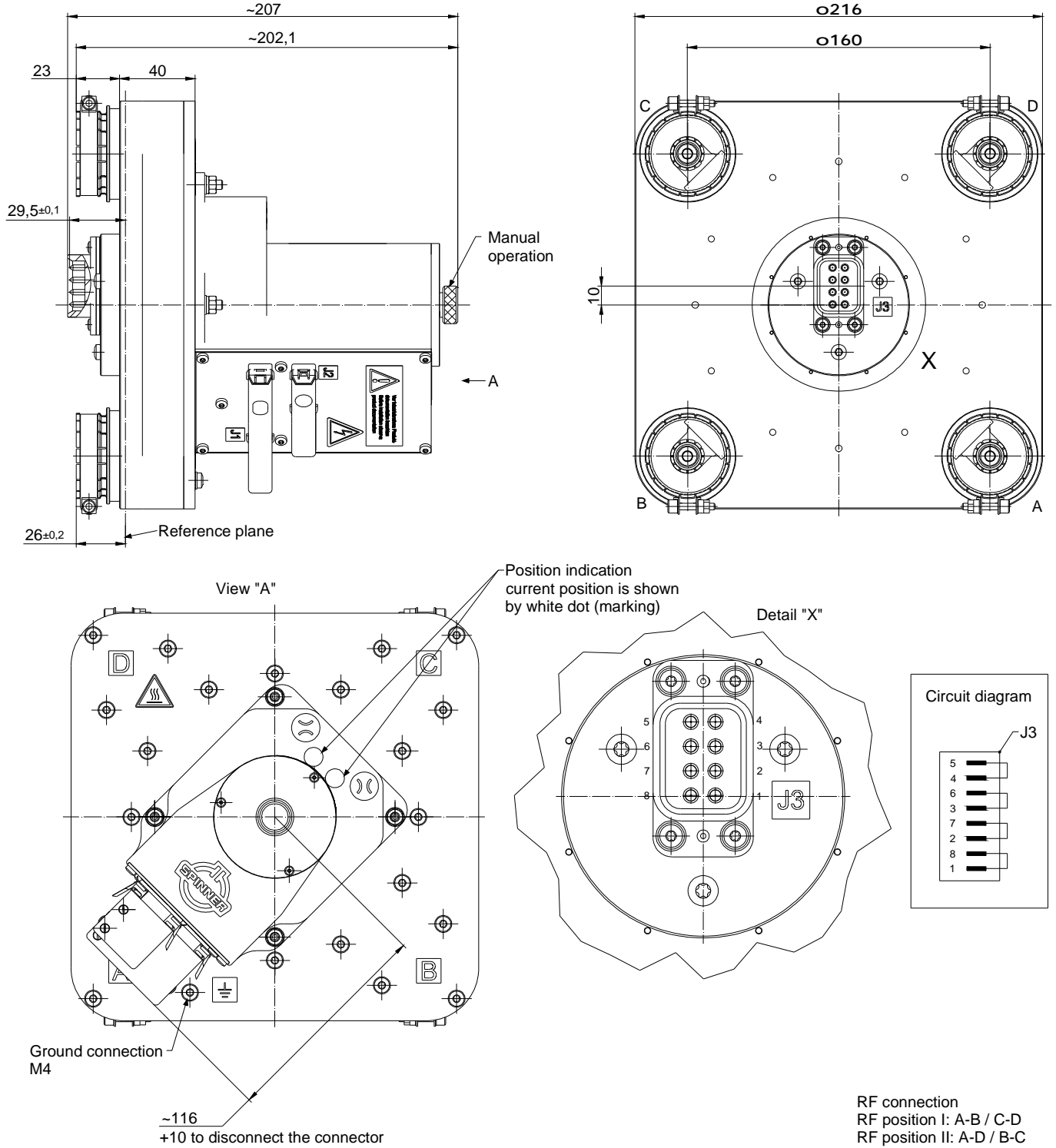
Typical diagram



Template TD-00002S

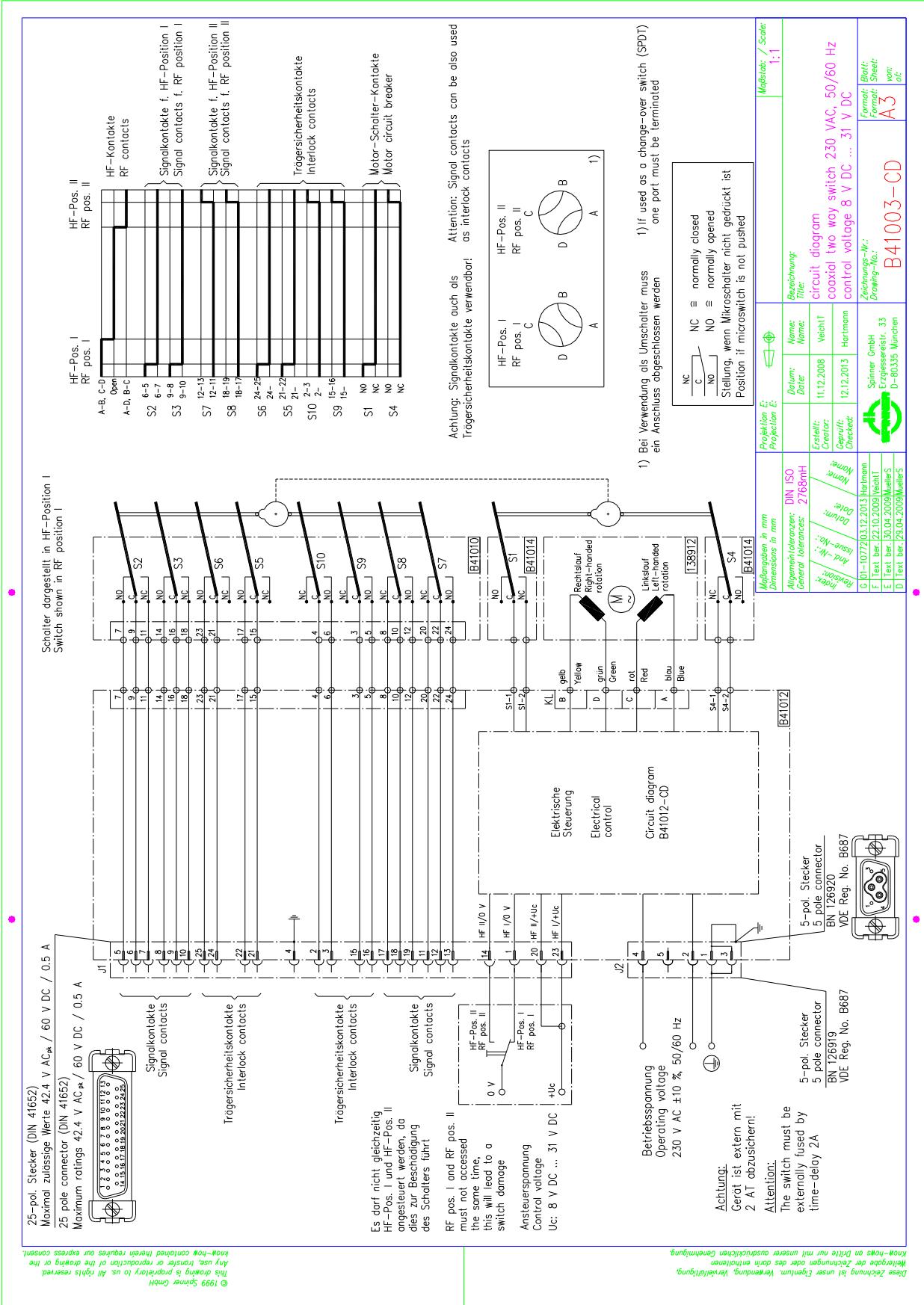
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Outline (all dimensions in millimeters)



## Coaxial Two Way Plug-in Switch (DPDT) || BN 553064

### Circuit diagram (B41003-CD, Issue G)



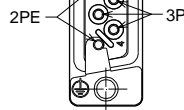
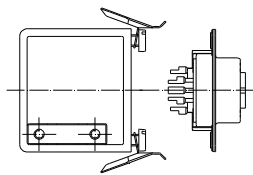
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Cable socket (126919-0E, Issue D)

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Anleitung für den Kabelanschluss  
 Instructions for cable connection

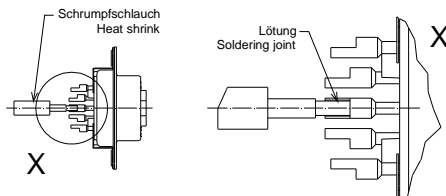
1. Entfernen des Schutzgehäuses  
 Removing of the protective housing



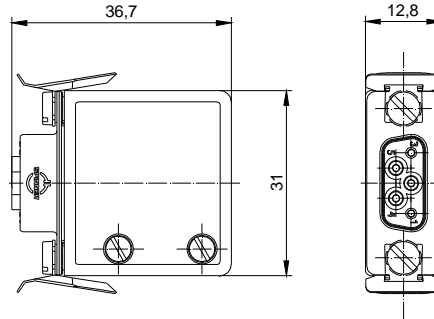
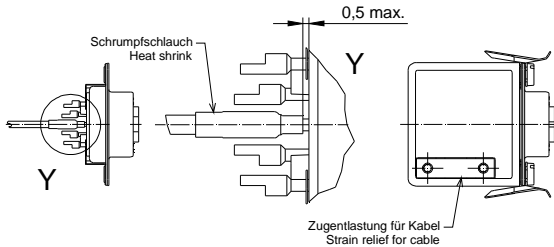
2. Absetzen der Kabellitzen  
 Trimming the cable strands



3. Anbringen der drei Schrumpfschläuche (PIN 2/4/5)  
 3.a Placing of the three heat shrinks (pins 2/4/5)  
 3.b Lötten der fünf Kabellitzen  
 3.b Soldering of the five cable strands



4. Aufschrumpfen der drei Schrumpfschläuche (PIN 2/4/5)  
 4.a Shrinking three heat shrinks (pins 2/4/5)  
 4.b Montage des Schutzgehäuses  
 4.b Assembling of the protective housing



Technical data

5-polige Kabelkupplung 5 pole cable socket	ohne Schaltleistung Without breaking capacity
Bemessungsspannung Rated voltage	250 V AC
Bemessungsstrom Rated current	2 A
Bemessungsstoßspannung Rated impulse voltage	2.5 kV
Polzahl Number of poles	3P + 2PE
Anschlussart Kind of termination	Lötanschluss Solder termination
Leiterquerschnitt Cross section area	Max. 0.75 mm <sup>2</sup> / min. 0.50 mm <sup>2</sup>
Kabeldurchmesser Values for cable clamp	Ø 6 mm ... Ø 8 mm
Temperaturbereich Temperature range	-25 °C ... +85 °C
Steckzyklen Operation cycles	10
Schutzart Degree of protection	IP 20 nach / acc. to IEC EN 60529
Verschmutzungsgrad Degree of pollution	2
Max. Einsatzhöhe über N.N. Max. altitude above sea level	4000 m / 13,120 ft nach / acc. to IEC EN 60664-1
Schrumpfschlauch über Pins 2/4/5 Heat shrink above pins 2/4/5	
Zertifiziert nach Certified according to	VDE-Reg.-No. B687 DIN EN 61984: 2009-11; EN 61984: 2009
Zugelassene Steckerleiste Approved plug connector	BN 126920

Beim Anschluss eines Kabels sind die gültigen  
 Sicherheitsvorschriften zu beachten!  
 Please attend the valid safety rules for assembling!

Konstruktionsänderungen vorbehalten  
 Design is subject to change without notice

Maßangaben in mm Dimensions in mm		Projektion E: Projection E:		Maßstab: / Scale:	
Allgemeintoleranzen: General tolerances: DIN ISO 2768mH		Datum: Date: 31.01.2011	Name: Name: Frank	Bezeichnung: Title: Kabelkupplung cable socket	
Index: Revision:	Änd.-Nr.: Issue-No.:	Erstellt: Creator: 31.01.2011	Geprüft: Checked: 12.12.2013	5-polig / 5 pole, 250 VAC	
Datum: Date: 01-1077203.12.2013	Name: Name: Hartmann	Zeichnungs-Nr.: Drawing-No.: 126919-0E		Format: Format: A4	Blatt: Sheet: 1
D 01-1077203.12.2013 Hartmann		Spinner GmbH Erzgießereistr. 33 D-80335 München		von: of: 1	
C 01-0907127.02.2013 Hupfauer					
B DIV.CORR01.02.2011 Frank					
A Startindex31.01.2011 Frank					

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