

Coaxial Two Way Switch (DPDT) || BN 941917



Product manual: M36024

Radio frequency characteristics

Interface type (4 connections)	3 1/8" EIA according to EN 122150 (threaded flanges)		
Characteristic impedance	50 Ω		
Frequency range	0 to 100 MHz	100 to 230 MHz	230 to 860 MHz
VSWR, max.	1.03	1.03	1.05
Isolation, min.	75 dB		
Insertion loss, max.	0.05 dB		
Average power capability * at ambient temperature -10 to +45°C	70.0 kW	46.0 kW	24.0 kW
Peak voltage capability *	13.3 kV		

Electrical and mechanical data

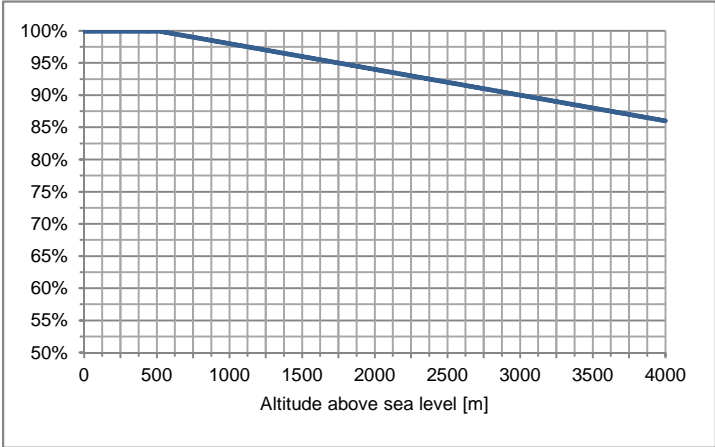
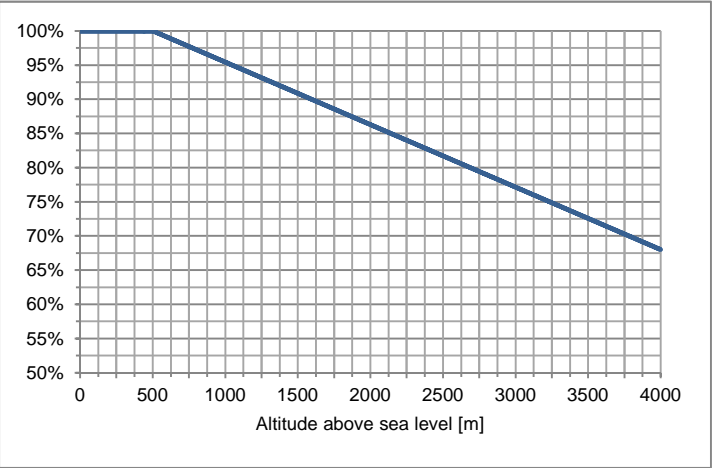
Switch type	Two way switch, DPDT	
Actuator type	Motor drive, latching, self cutoff	
Connector J2 ** for mains connection	5 pole SPINNER connector BN 126920, certified according to VDE-Reg. No. B687, DIN EN 61984: 2009-11; EN 61984: 2009	
Mains connection	L, N, PE, TN-System	
Operating	Operating voltage	187 to 253 V AC 50/60 Hz
	Current, typ. ***	1 A
	Nominal fuse	The switch must be externally fused by time-delay, 2 A
Connector J1 ** for interlock contacts and signaling	25 pole connector according to DIN 41652 / IEC 807-2	
Signal contacts Interlock contacts	Lead time typ.***	50 ms (the interlock/signal contacts open 50 ms before and close 50 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
	Nominal fuse	The circuit must be externally limited to 0.5 A

Template TD-00002J

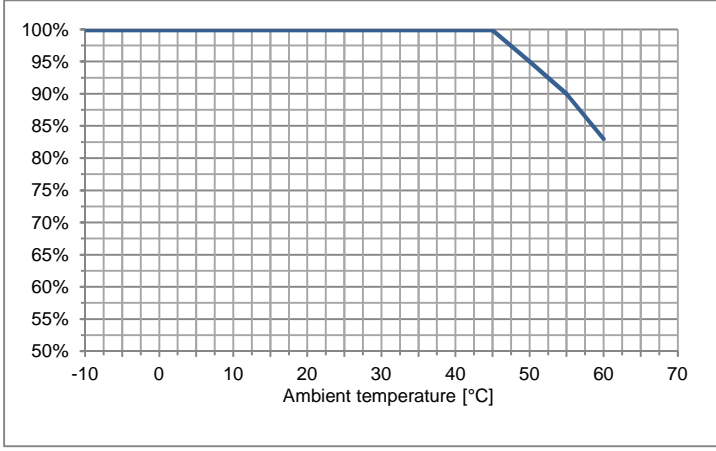
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Switching time, typ.***	0.2 s
Command hold time, min.	0.2 s (during this time, the voltage at control input must not change)
Switching frequency, max.	10 operations per minute
Life, min.	250,000 operations
Weight, approx.	10.5 kg

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 above sea level [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>97.5</td></tr> <tr><td>1500</td><td>95</td></tr> <tr><td>2000</td><td>92.5</td></tr> <tr><td>2500</td><td>90</td></tr> <tr><td>3000</td><td>87.5</td></tr> <tr><td>3500</td><td>85</td></tr> <tr><td>4000</td><td>82.5</td></tr> </tbody> </table>	Altitude above sea level [m]	Power (%)	0	100	500	100	1000	97.5	1500	95	2000	92.5	2500	90	3000	87.5	3500	85	4000	82.5
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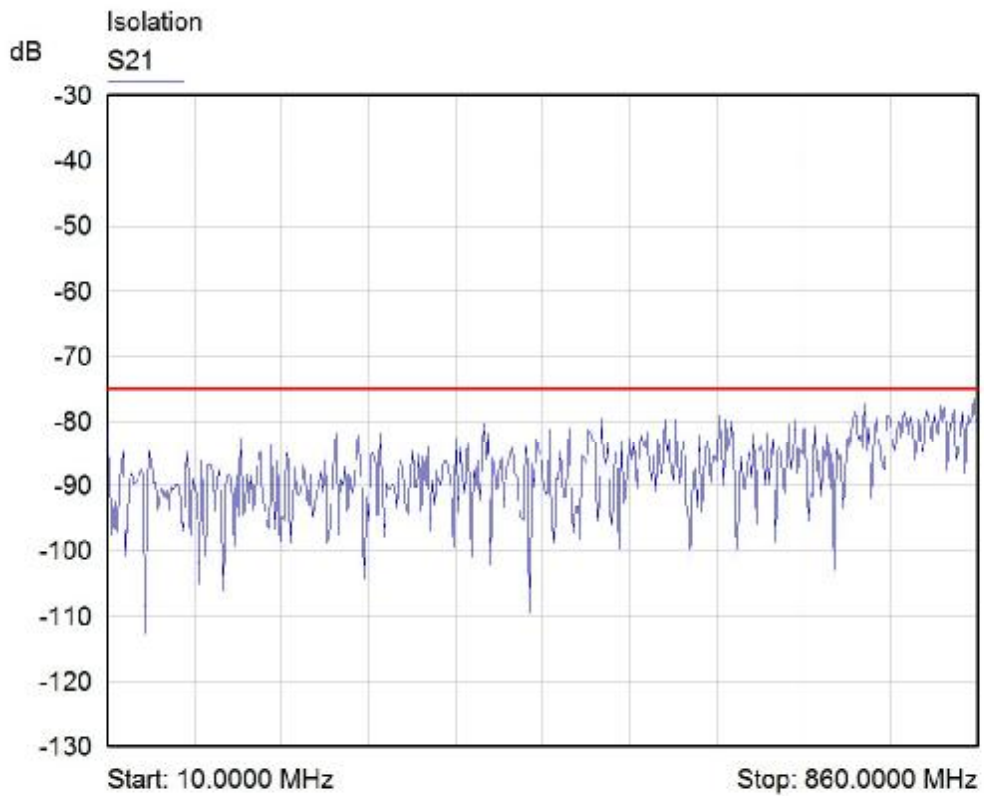
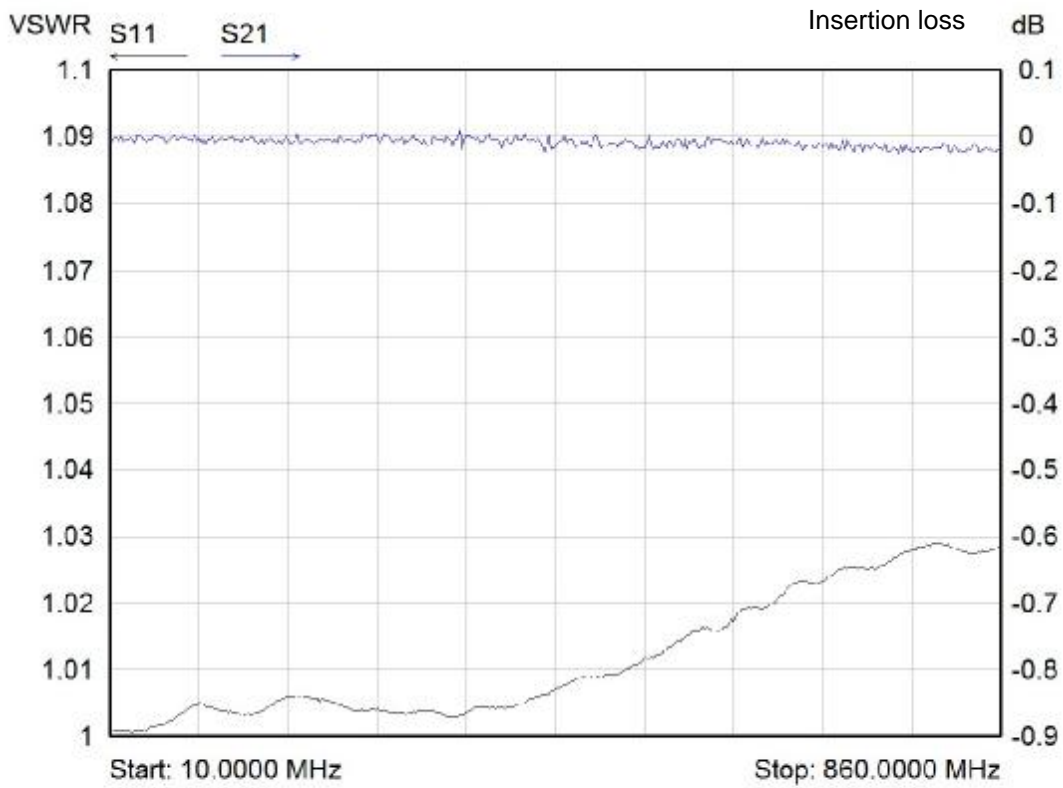
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<p>Derating of input power with increasing ambient temperature</p>	<p>The maximum input power can be applied up to +45°C ambient temperature unless noted otherwise in the data sheet. Above this ambient temperature the maximum input power must be reduced as shown in the diagram.</p>  <table border="1"> <caption>Derating of input power data</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>83</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	83
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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>Transport conditions</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>Storage conditions</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>																						

- * *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*
- *** *At room temperature and nominal voltage 230 V AC*
- **** *Extended temperature range on request*

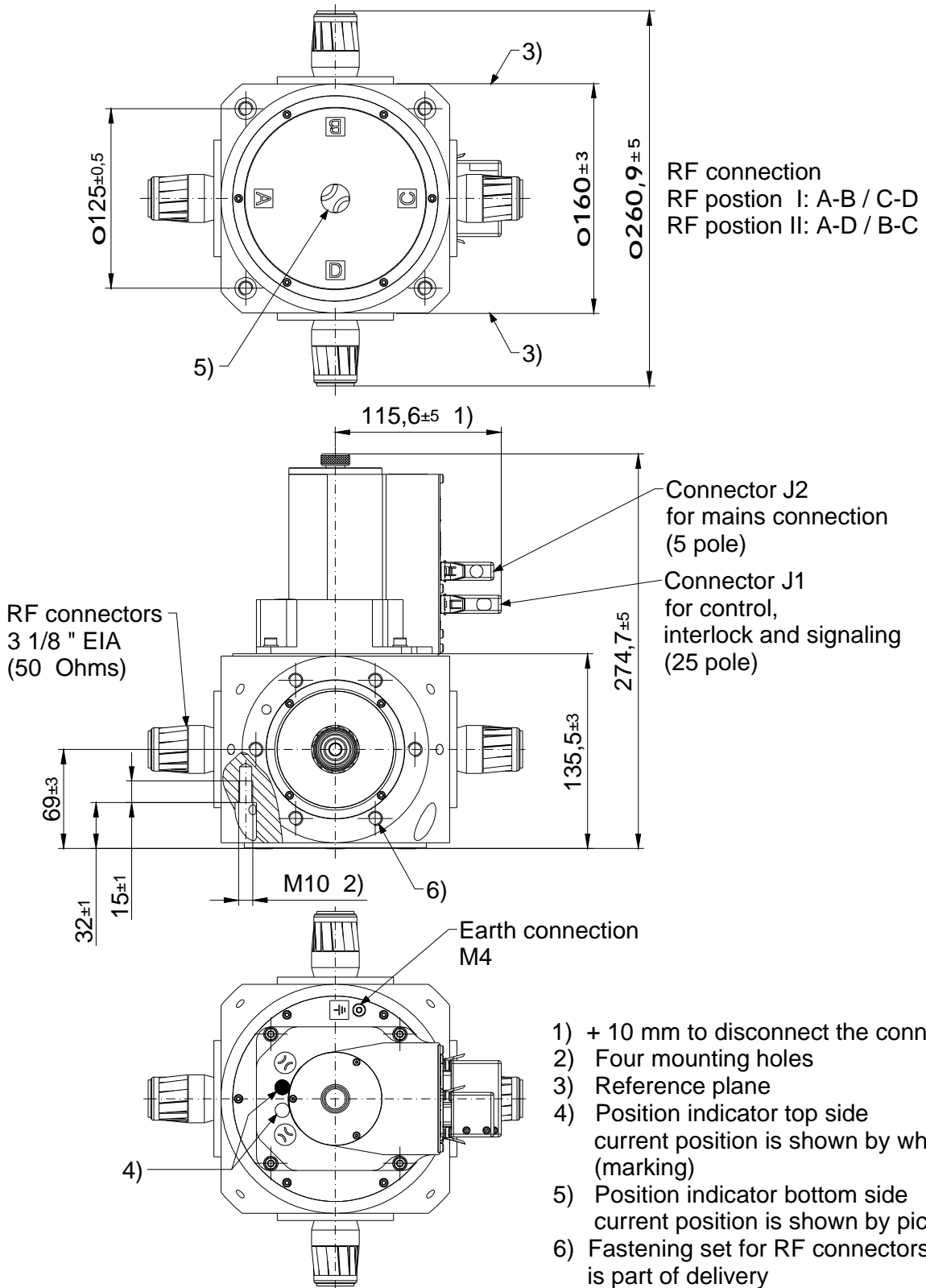
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Typical diagrams



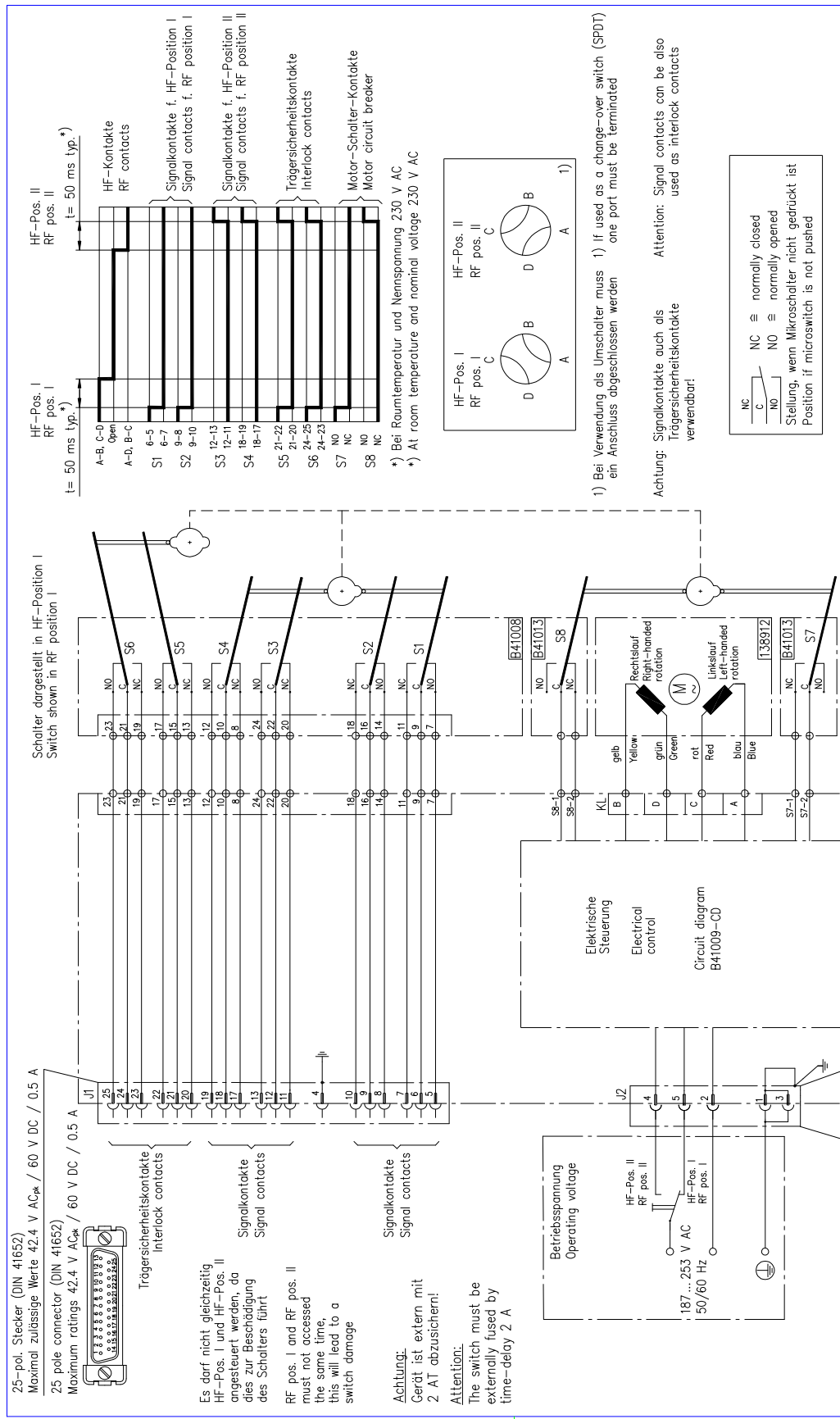
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Outline (all dimensions in millimeters)



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Circuit diagram (B41000-CD, Issue H)



<p>Projektion E: </p> <p>Maßstab: / Scale: 1:1</p>	<p>Bezeichnung: circuit diagram coaxial two way switch 187 to 253 V AC</p>
<p>Erstellt: / Created: MuellertS</p> <p>Geprüft: / Checked: Hupfauer</p>	<p>Zeichnungs-Nr.: B41000-CD</p> <p>Blatt: / Sheet: A3</p> <p>von: / of:</p>
<p>Form: / Format: A3</p>	<p>Form: / Format: A3</p>
<p>Erstellt: / Created: 27.01.2009</p> <p>Geprüft: / Checked: 29.07.2016</p>	<p>Zeichnungs-Nr.: B41000-CD</p> <p>Blatt: / Sheet: A3</p> <p>von: / of:</p>
<p>Erstellt: / Created: 27.01.2009</p> <p>Geprüft: / Checked: 29.07.2016</p>	<p>Zeichnungs-Nr.: B41000-CD</p> <p>Blatt: / Sheet: A3</p> <p>von: / of:</p>
<p>Erstellt: / Created: 27.01.2009</p> <p>Geprüft: / Checked: 29.07.2016</p>	<p>Zeichnungs-Nr.: B41000-CD</p> <p>Blatt: / Sheet: A3</p> <p>von: / of:</p>

Template TD-00002J

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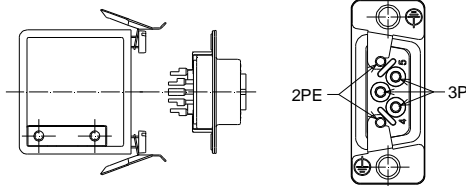
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Cable socket (126919-0E, Issue D)

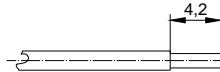
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Anleitung für den Kabelanschluss
Instructions for cable connection

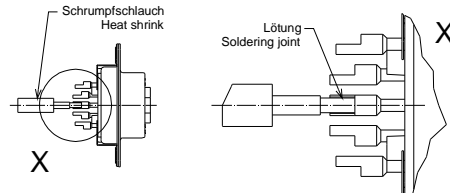
- Entfernen des Schutzgehäuses
 Removing of the protective housing



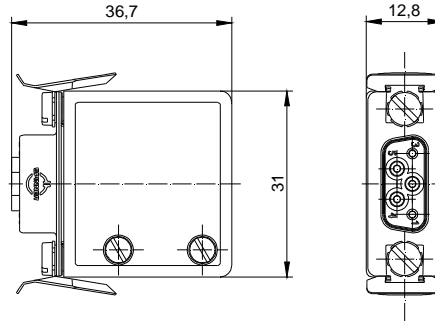
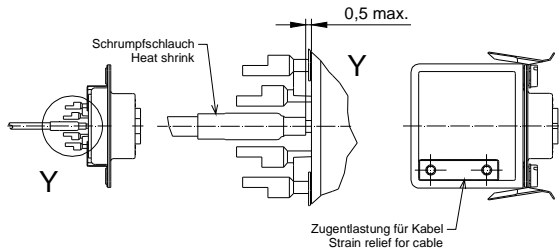
- Absetzen der Kabellitzen
 Trimming of the cable strands



- Anbringen der drei Schrumpfschläuche (PIN 2/4/5)
 Placing of the three heat shrinks (pins 2/4/5)
- Löten der fünf Kabellitzen
 Soldering of the five cable strands



- Aufschrumpfen der drei Schrumpfschläuche (PIN 2/4/5)
 Shrinking three heat shrinks (pins 2/4/5)
- Montage des Schutzgehäuses
 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 ² / min. 0.50 mm ²
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

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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:	And.-Nr.: Issue-No.:	Erstellt: Creator: 31.01.2011	Name: Name: Frank	5-polig / 5 pole, 250 VAC	
Datum: Date: 03.12.2013	Name: Name: Hartmann	Geprüft: Checked: 12.12.2013	Hartmann	Zeichnungs-Nr.: Drawing-No.: 126919-0E	
D 01-10772	03.12.2013	Spinner GmbH Erzgießereistr. 33 D-80335 München		Format: Format: A4	Blatt: Sheet: 1
C 01-09071	27.02.2013			von: of: 1	
B DIV.CORR	01.02.2011				
A Startindex	31.01.2011				