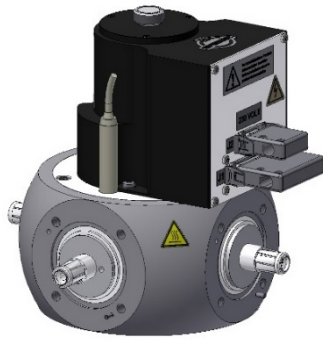


Coaxial Two Way Switch (DPDT) || BN 640082C0001



Radio frequency characteristics

Interface type (4 connections)	1 5/8" 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	860 MHz to 1.6 GHz	1.6 to 2.0 GHz
VSWR, max.	1.03	1.03	1.05	1.08	1.08
Isolation, min.	80 dB	80 dB	80 dB	70 dB	60 dB
Insertion loss, max.	0.05 dB	0.05 dB	0.05 dB	0.10 dB	0.10 dB
Average power capability * at ambient temperature -10 to +45°C	19.0 kW	12.7 kW	6.6 kW	4.8 kW	4.3 kW
Peak voltage capability *	5.1 kV				

Electrical and mechanical data

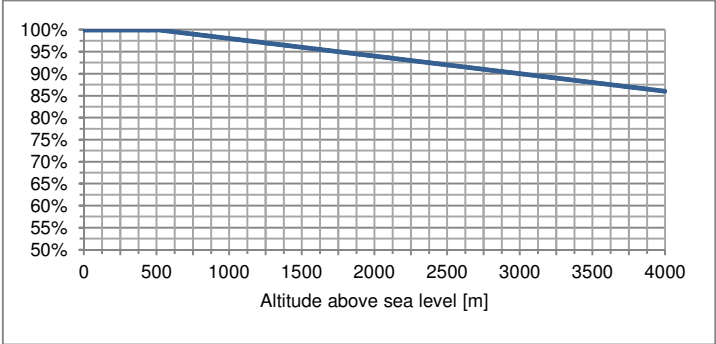
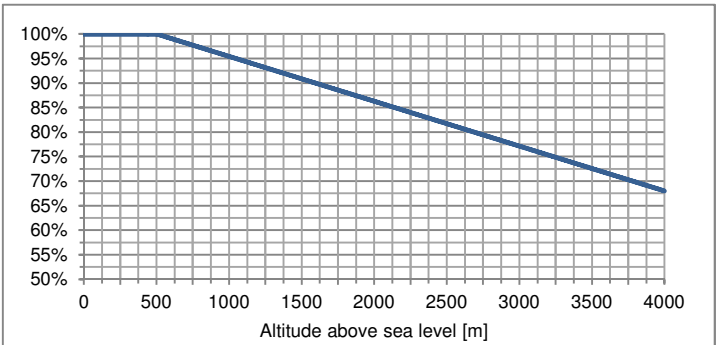
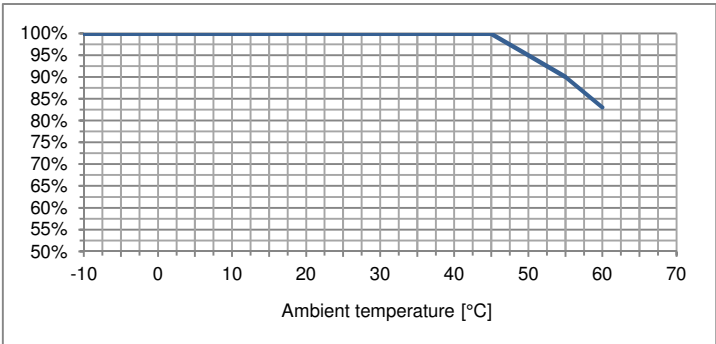
Switch type	Two way switch, DPDT	
Actuator type	Motor drive, latching, self cutoff	
Connector J2 ** for mains connection	5 pole SPINNER connector BN 126920, certified according to VDE-Reg. No. B687, DIN EN 61984: 2009-11; EN 61984: 2009	
Mains connection	L, N, PE, TN-System	
Operating	Operating voltage	187 to 253 V AC 50/60 Hz
	Current, typ. ***	0.5 A
	Nominal fuse	The switch must be externally fused by time-delay, 1 A
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 to 0.5 A
Signal contacts Interlock contacts Switching time, typ.***	Lead time typ.***	9 ms (the interlock/signal contacts open 9 ms before and close 9 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
Command hold time, min.	0.12 s (during this time, the voltage at control input must not change)	

Template TD-00002J

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Switching frequency, max.	10 operations per minute
Life, min.	250,000 operations
Weight, approx.	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>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>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 above sea level [m]	Input Power (%)	0	100%	500	100%	1000	98%	1500	96%	2000	94%	2500	92%	3000	90%	3500	88%	4000	85%
Altitude above sea level [m]	Input Power (%)																				
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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 above sea level [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>65%</td></tr> </tbody> </table>	Altitude above sea level [m]	Voltage (%)	0	100%	500	100%	1000	95%	1500	90%	2000	85%	2500	80%	3000	75%	3500	70%	4000	65%
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3500	70%																				
4000	65%																				
Derating of input power with increasing ambient temperature	<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>60</td><td>85%</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%	60	85%
Ambient temperature [°C]	Input Power (%)																				
-10	100%																				
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Template TD-00002J

Coaxial Two Way Switch (DPDT) || BN 640082C0001

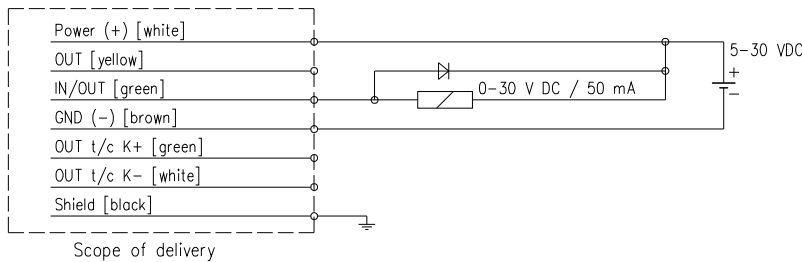
Max. altitude above sea level	4,000 m or 13,120 ft according to IEC EN 60664-1
Protection class	I according to IEC EN 61140
IP protection level	IP40 according to IEC EN 60529 (all interfaces equipped with appropriate gaskets)
Installation position	Any
Transport conditions	ETSI EN 300 019-1-2 V2.1.4 (2003-04) 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 ($p = 1013 \text{ hPa}$)
 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

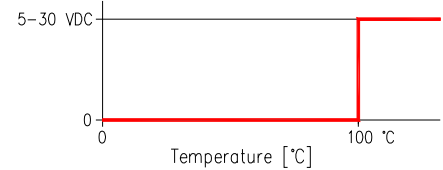
Temperature sensor

Power supply	5 to 30 V DC, 100 mA
Alarm output	5 to 30 V / 50 mA (open collector) NC
Cable length	3 m
Current draw	10 mA

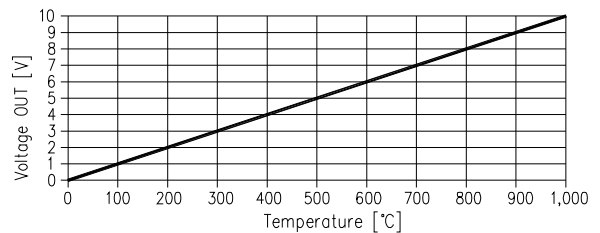
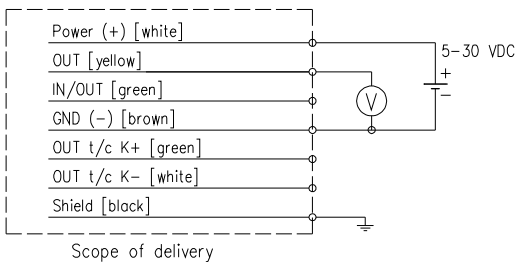
Temperature sensor alarm output



IN/OUT



Temperature sensor analog output



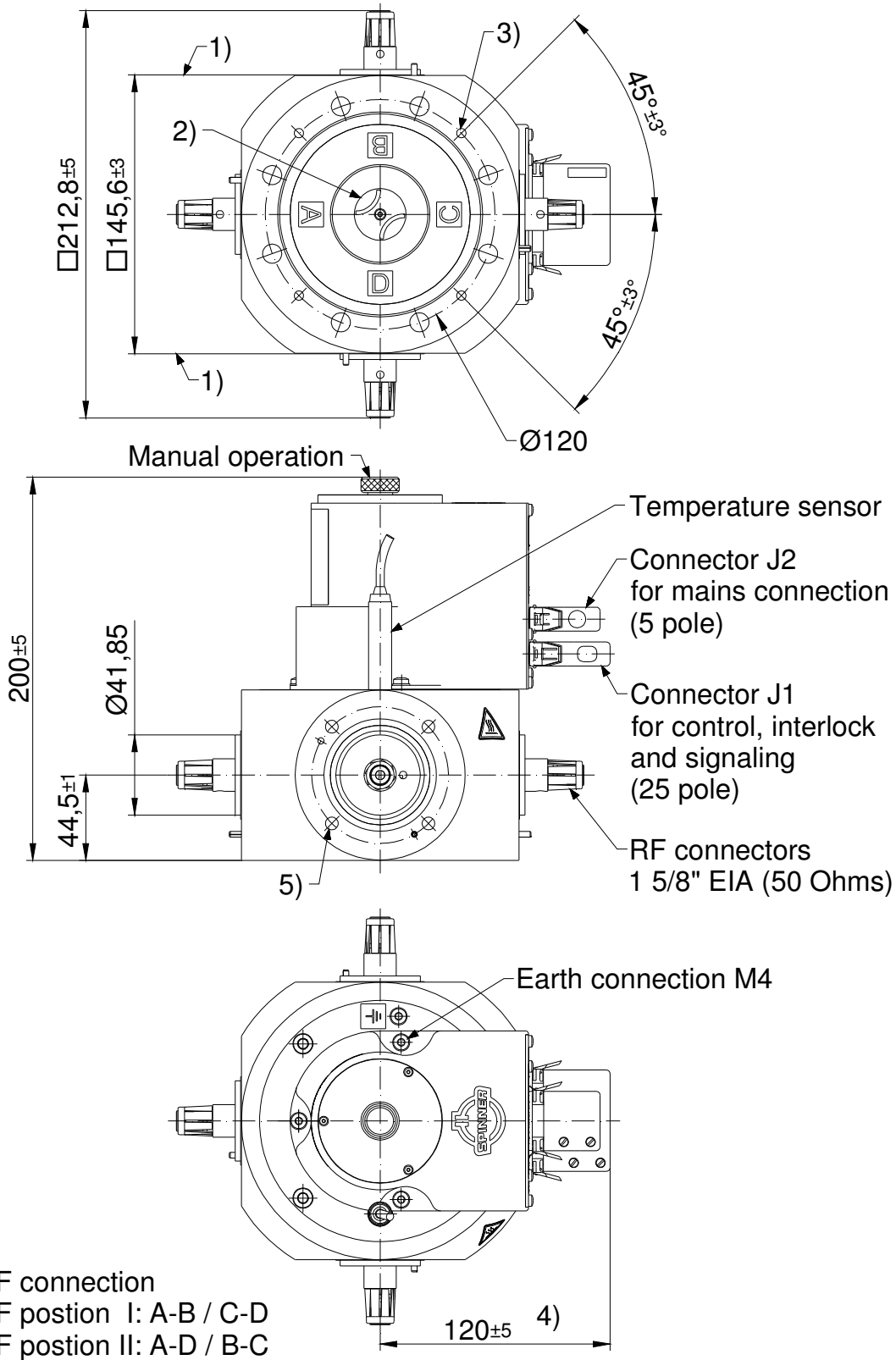
Example: $T = 95 \text{ °C} \rightarrow U = 0.95 \text{ V}$

Internal adjustment of the temperature sensor

- Minimum temperature: 0 °C
- Maximum temperature: 1,000 °C
- Maximum voltage: 10,000 mV
- Gradient: 10 mV/K

Coaxial Two Way Switch (DPDT) || BN 640082C0001

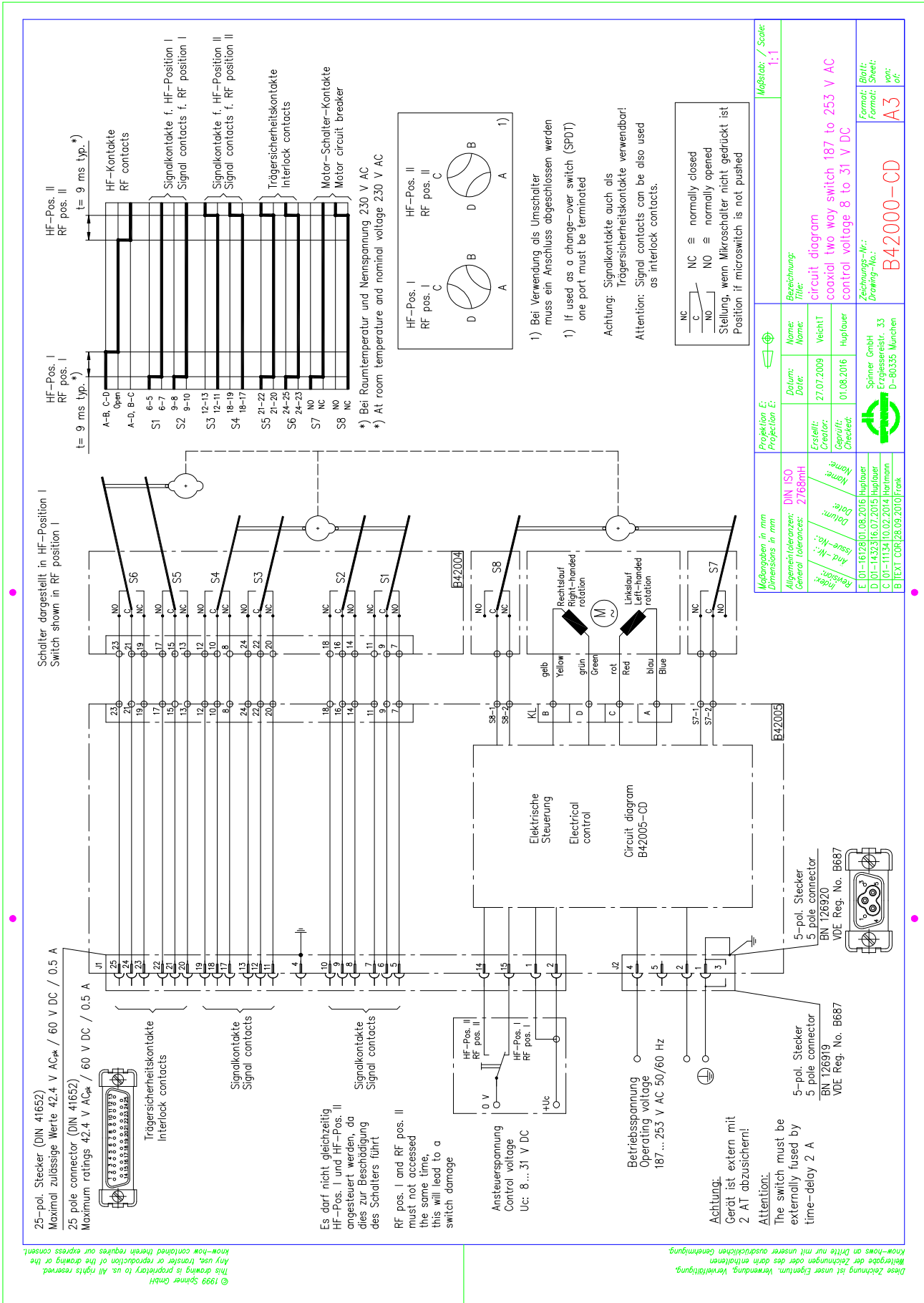
Outline (all dimensions in millimeters)



- 1) Reference plane
- 2) Position indicator bottom side, current position is shown by pictogram
- 3) Four threaded mounting holes M6/12 deep
- 4) + 10 mm to disconnect the connectors
- 5) Fastening set for RF connectors is part of delivery

Coaxial Two Way Switch (DPDT) || BN 640082C0001

Circuit diagram (B42000-CD, Issue E)



Maßstab: / Scale: 1:1	
Projection E: Name: Datum: VechT: Erstell: Creator: Check: Huplauer	Bezeichnung: Title: circuit diagram coaxial two way switch 187 to 253 V AC control voltage 8 to 31 V DC
Maßangaben in mm Dimensions in mm Allgemeine Toleranzen: 2768µmH General tolerances:	Zeichnungs-Nr.: Drawing-No.: B42000-CD
Name: Datum: Issue-No.: Huplauer 01.08.2016 10.02.2014	Ersteller: Creator: Huplauer
K101-6128101.08.2016 Huplauer D 101-1432316.07.2015 Huplauer C 101-1113410.02.2014 Huplauer B TEXT GER128.09.2010 Huplauer	Spinner GmbH Engleerslestr. 33 D-80338 München
Form: Blatt: Format: Sheet: von: of:	A3 1

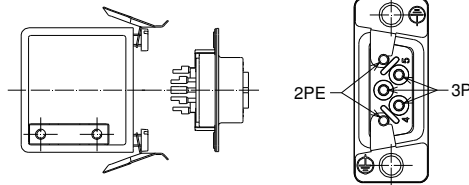
Coaxial Two Way Switch (DPDT) || BN 640082C0001

Cable socket (126919-0E, Issue D)

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

Anleitung für den Kabelanschluss
Instructions for cable connection

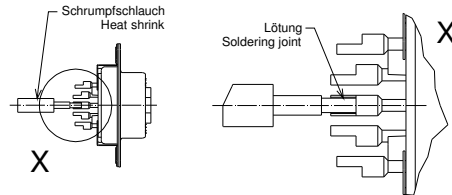
- Entfernen des Schutzgehäuses
 Removing of the protective housing



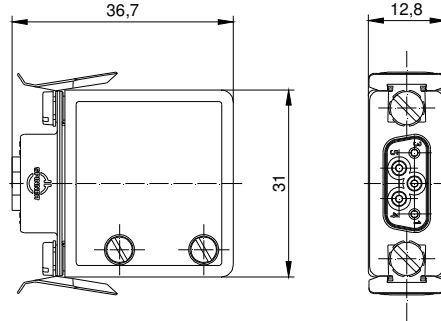
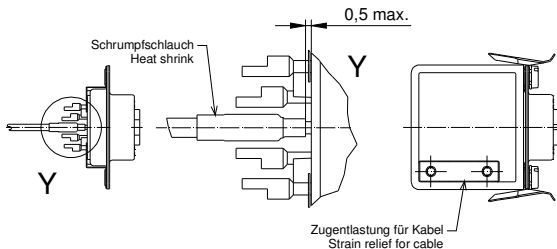
- Absetzen der Kabellitzen
 Trimming of the cable strands



- 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

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

Maßangaben in mm Dimensions in mm	Projektion E: Projection E:		Maßstab: / Scale: —
Allgemeintoleranzen: General tolerances:	DIN ISO 2768mH	Datum: Date:	Name: Name:
Index: Revision:	And.-Nr.: Issue-No.:	Erstellt: Creator:	31.01.2011 Frank
Datum: Date:	Name: Name:	Geprüft: Checked:	12.12.2013 Hartmann
D 01-1077203.12.2013	Hartmann	Bezeichnung: Title: Kabelkupplung cable socket 5-polig / 5 pole, 250 VAC Zeichnungs-Nr.: Drawing-No.: 126919-0E	
C 01-0907127.02.2013	Hupfauer		
B DIV_CORP01.02.2011	Frank		
A Startindex31.01.2011	Frank		
Spinner GmbH Erzgläserreistr. 33 D-80335 München		Format: Format:	Blatt: Sheet: 1 von: of: 1
		A4	