

Coaxial Two Way Switch (DPDT) || BN 941934



Typical illustration

Radio frequency characteristics

Interface type (4 connections)	4 1/16" ¹⁾			
Characteristic impedance	50 Ω			
Frequency range	1 MHz	10 MHz	100 to 230 MHz	230 to 800 MHz
VSWR, max.	1.04	1.04	1.04	1.06 ²⁾
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			

- 1) Interface compatible e.g. to Myat
- 2) Valid up to 700 MHz

Electrical and mechanical characteristics

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. ***	1.5 A
	Nominal fuse	The switch must be externally fused by time-delay, 2 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.	12 mA at control voltage 24 V DC
	Current limiting	The circuit must be externally limited to 0.5 A

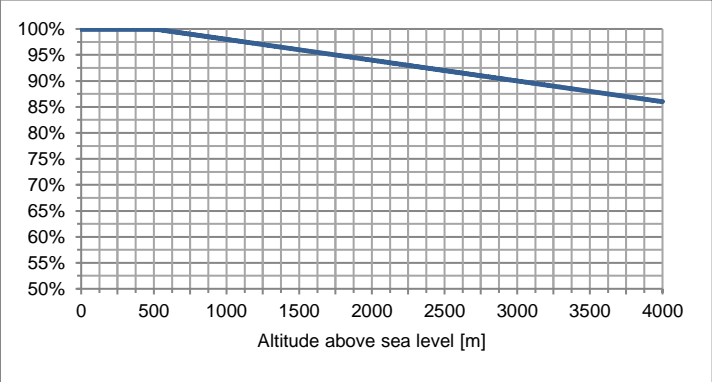
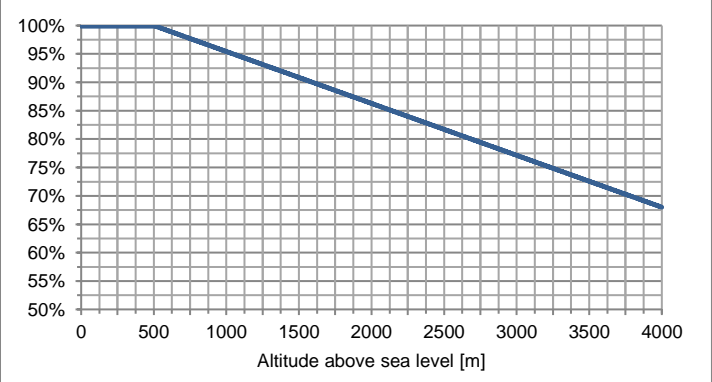
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Signal contacts Interlock contacts	Lead time, typ.***	200 ms (the interlock/signal contacts open 200 ms before and close 200 ms after switching of the RF contacts)
	Maximum ratings	SELV circuits according to IEC EN 60950-1, 42.4 V ACpk / 60 V DC / 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

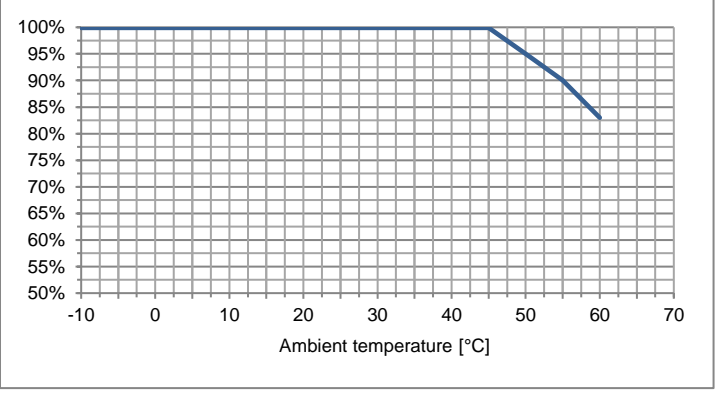
Environmental conditions

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>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 [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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<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
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-10	100																						
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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 mating connector included*
- *** *At room temperature and nominal voltage 230 V AC, 50 Hz*
- **** *Extended temperature range on request*

Applicable documents

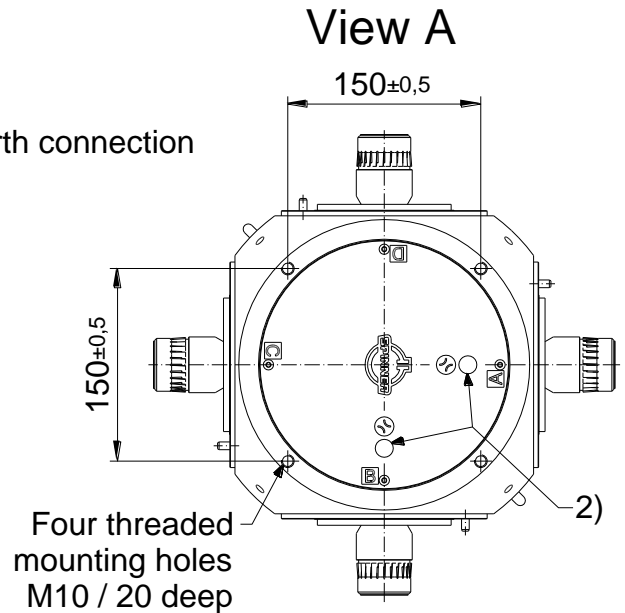
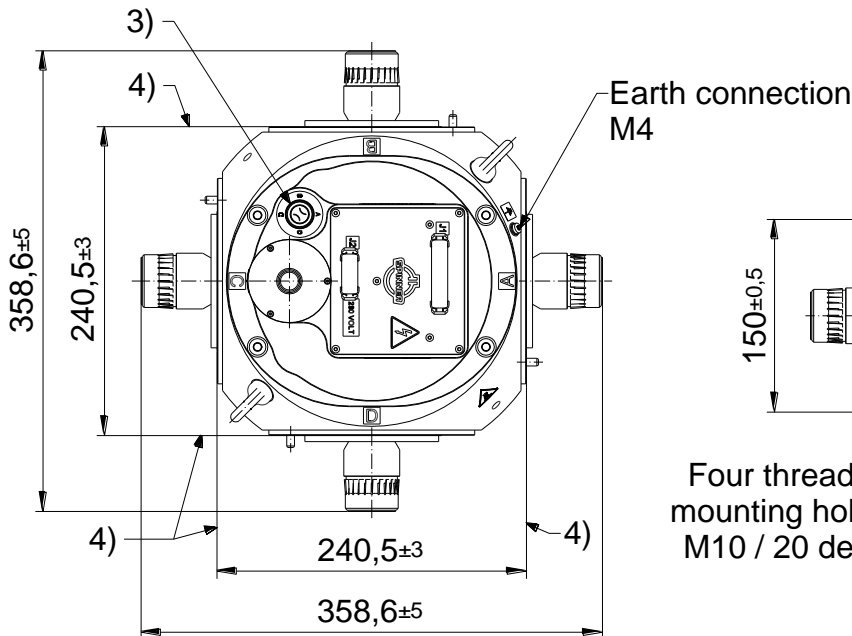
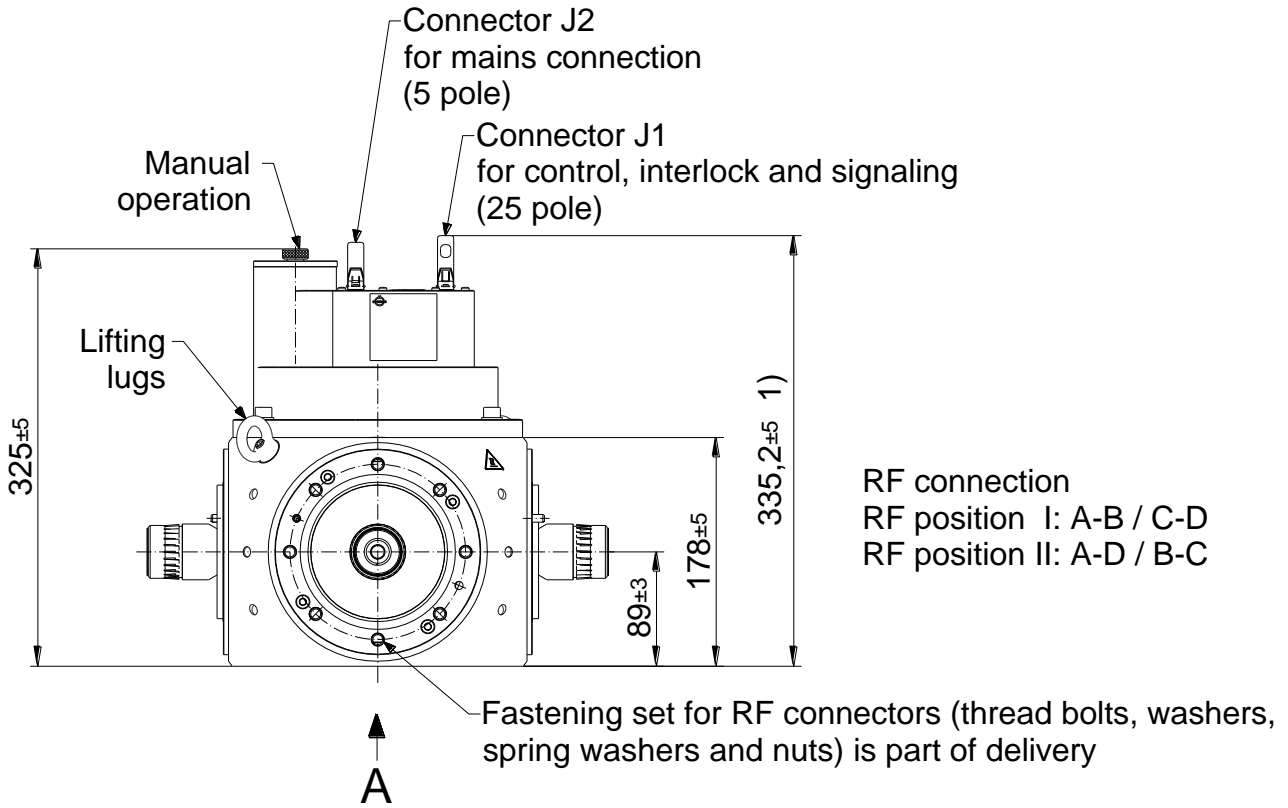
Product manual	M36393
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Outline (all dimensions in millimeter)



- 1) + 10 mm to disconnect the connectors
- 2) Position indicators bottom side - current position is shown by white dot (marking)
- 3) Position indicator top side - current position is shown by pictogram
- 4) Reference plane

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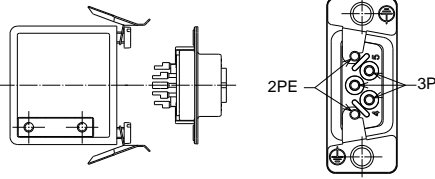
Coaxial Two Way Switch (DPDT) || BN 941934

Cable socket

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Anleitung für den Kabelanschluss Instructions for cable connection

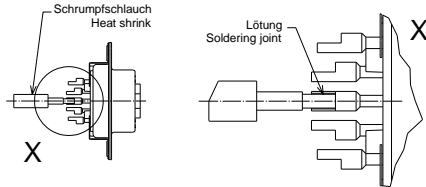
- Entfernen des Schutzgehäuses
Removing of the protective housing



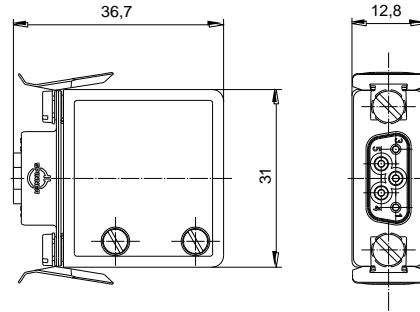
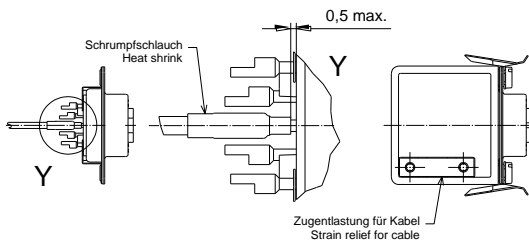
- Absetzen der Kabellitzen
Trimming of the cable strands



- Anbringen der drei Schrumpfschläuche (PIN 2/4/5)
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



- 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 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:	Name: Name:
Index: Revision:	Erstellt: Creator:	31.01.2011	Frank
Änd.-Nr.: Issue-No.:	Geprüft: Checked:	12.12.2013	Hartmann
Datum: Date:	Name: Name:	Bezeichnung: Title: Kabelkupplung cable socket 5-polig / 5 pole, 250 VAC	
Startindex: Start index:	Zeichnungs-Nr.: Drawing-No.:		Format: Format:
01-1077203.12.2013Hartmann	126919-0E		A4
01-0907127.02.2013Hupfauer	Spinner GmbH Erzglösserstr. 33 D-80335 München		Blatt: Sheet: 1
DIV.CORR01.02.2011Frank			von: of: 1
A Startindex01.01.2011Frank			

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Accessories (optional)
 Installation kit BN 941934C3000

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Installation kit BN 941934C3000:

Identification marking

250 ± 1

226 ± 0.2

17 (width across flats)

4x mounting holes
4x Ø10,6 thru

Ø195 ± 1

□ (150)

226 ± 0.2

250 ± 1

Installation instructions for BN 941934C3000-installation kit:

Coaxial two way switch
 BN 941934XXXXX (4 1/16")
 or BN 941944XXXXX (4 1/2")

Magnification in mm
 Dimensions in mm

Projection E
 Projection E

Mounting plate
 Washer B10.5
 Screw M10x30 (4x):
 use a torque wrench to tighten the
 bolted connections to 46 Nm

X (1:1)

18

20,5 ± 0,5

10 ± 0.5

18

8.4

36.4

1x mounting plate (aluminum)
 4x washer B10.5 DIN125 - A2-70 (stainless steel)
 4x screw M10x30 DIN933 - A2-70 (stainless steel)

Freigegeben

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Maßstab / Scale 1 : 2,5	Berechnung: Name: Datum: 28.08.2019	Projekt: Hupflauer	Installation kit for coaxial two way switch (DPDT) 4 1/16" (50 ohms) / 4 1/2" (50 ohms)	Blatt: Format: Sheet: 1 von: of: 1
Erstellt: Created: 03.09.2019			Zeichnungs-Nr.: Drawing No.: 941934C3000-0E	
Geprüft: Checked: Hupflauer			Spinner GmbH Egidienstraße 33 D-90035 Nürnberg	
DIN ISO 2768mH			A3	
Do not use the installation kit to support additional mechanical loads.				