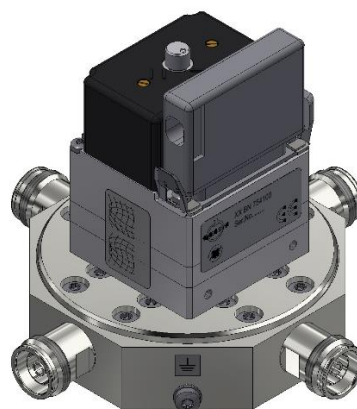


Coaxial Two Way Switch (DPDT) with low Intermodulation | BN 754100



Typical illustration

Radio frequency characteristics

Interface type (4 connections)	4.3-10 female (50 Ω) according to IEC 61169-54		
Characteristic impedance	50 Ω		
Frequency range	0.617 to 2.69 GHz	3.4 to 4.2 GHz	5.15 to 5.925 GHz
Return loss, min.	20 dB	20 dB	18 dB
Isolation, min.	55 dB	35 dB	35 dB
Insertion loss, max.	0.1 dB	0.1 dB	0.2 dB
Average power capability ^{RFC1)} at ambient temperature -10 to +45°C	300 W supports hot switching		
Peak voltage capability ^{RFC1)}	1.0 kV		
Intermodulation (IM3) at 2x 20 W, max. / typ.	-165 dBc / -168 dBc		

*RFC1) 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*

Electrical and mechanical characteristics

Switch type	Two way switch, DPDT	
Actuator type	Solenoid drive, latching, self cutoff	
Connector 1 ^{EMC1)} for operating voltage, control and signaling	25 pole connector according to DIN 41652 / IEC 807-2	
Operating	Operating voltage	21.6 to 28 V DC
	Operating current, typ. ^{EMC2)}	1.1 A
	Standby current, max. ^{EMC2)}	25 mA
	Nominal fuse	The switch must be secured externally by a time-delay fuse, 2 A
Control	Control voltage	$U_{In \text{ LOW}} = 0 \text{ to } 4 \text{ V DC} / -0.7 \text{ mA}$ (0 - active) $U_{In \text{ HIGH}} = 8 \text{ to } 32 \text{ V DC}$
	Current limiting	The circuit must be limited externally to 0.5 A
Signal contacts	Maximum ratings	ES1 circuits according to EN 62368-1, 42.4 V ACpk / 60 V DC / 0.5 A
	Current limiting	The circuit must be limited externally to 0.5 A
Switching time, typ. ^{EMC2)}	100 ms	
Command hold time, min.	100 ms (during this time, the voltage at control input must not change)	
Switching frequency, max.	30 operations per minute	



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Lifetime, min.	500,000 operations
Weight, approx.	1.75 kg

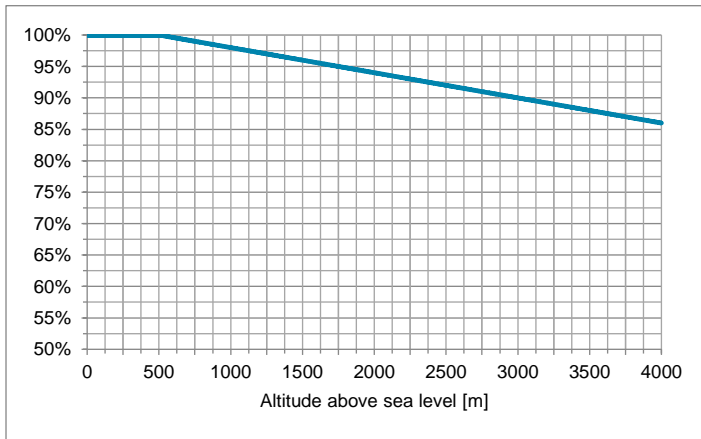
EMC1) Suitable mating connector included
 EMC2) At room temperature and nominal voltage 24 V DC

Environmental conditions

Operational conditions	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N
Ambient temperature ^{EC1)}	-10 to +60°C
Condensation	Not allowed
Relative humidity, max.	95%

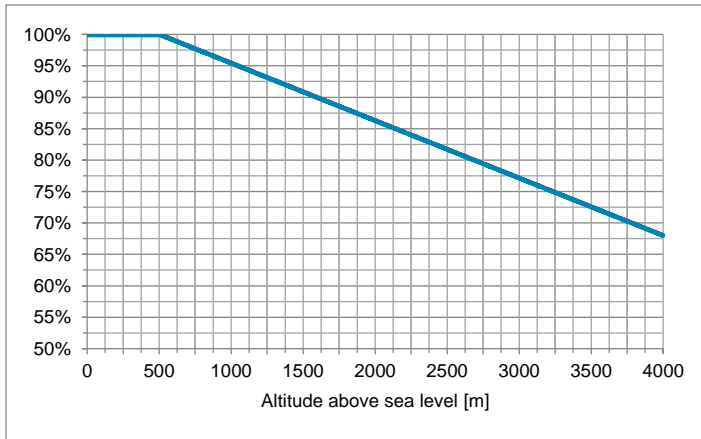
The maximum input power can be applied up to 500 m or 1600 ft above sea level unless noted otherwise in the data sheet. Above this height the maximum input power must be reduced as shown in the diagram.

Derating of input power with increasing altitude



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.

Derating of voltage with increasing altitude



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Coaxial Two Way Switch (DPDT) with low Intermodulation | BN 754100

<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>90</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	90	60	83
Ambient temperature [°C]	Input Power (%)																						
-10	100																						
0	100																						
10	100																						
20	100																						
30	100																						
40	100																						
45	100																						
50	95																						
55	90																						
60	83																						
<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>III according to IEC EN 61140</p>																						
<p>IP protection level</p>	<p>IP40 according to IEC EN 60529 (all interfaces terminated)</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>																						

EC1) Extended temperature range on request

Applicable documents

<p>Product manual</p>	<p>M36562</p>
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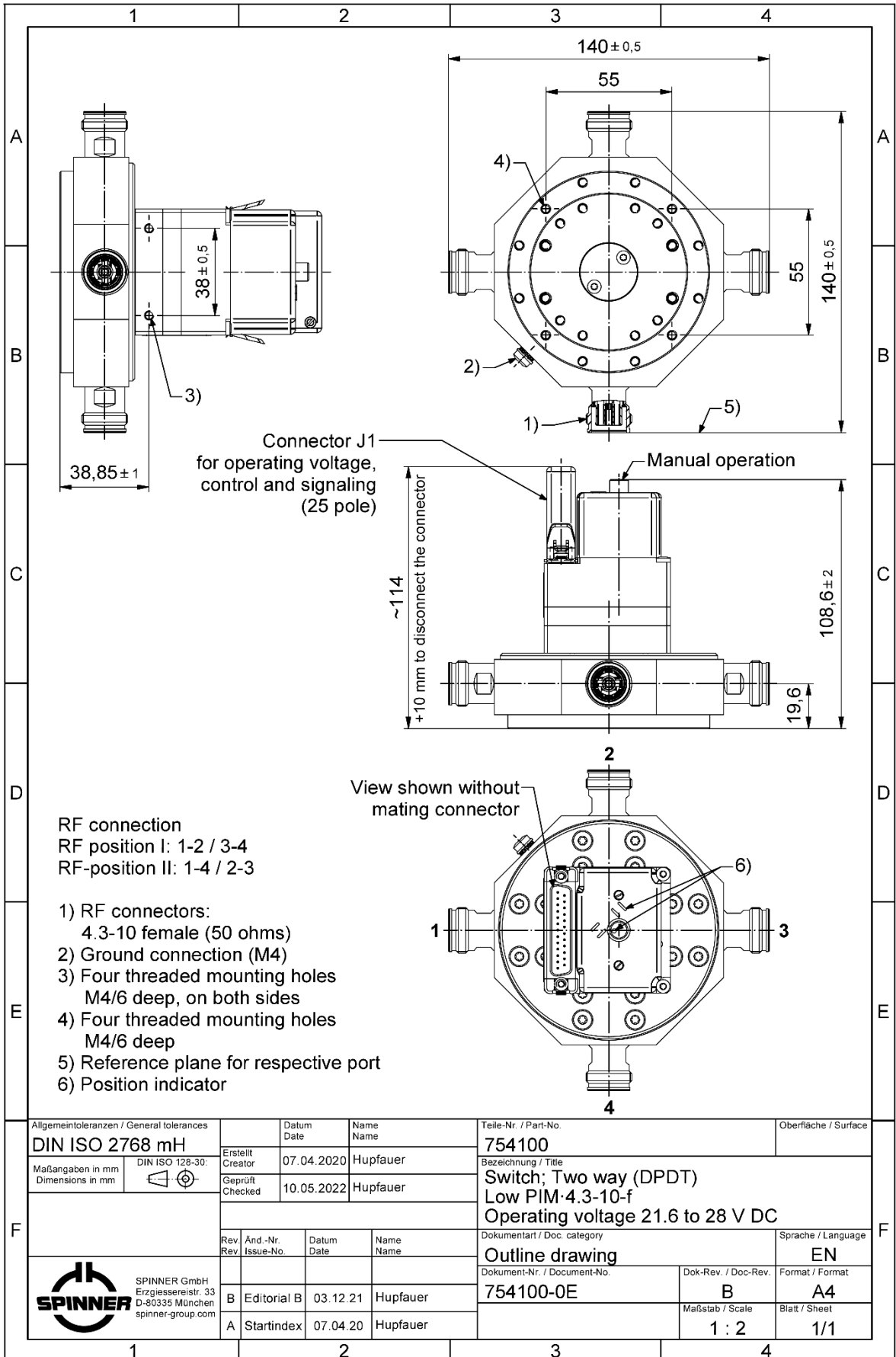
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Outline (all dimensions in millimeter)

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Allgemeintoleranzen / General tolerances DIN ISO 2768 mH		Datum Date	Name Name	Teile-Nr. / Part-No. 754100	Oberfläche / Surface
Maßangaben in mm Dimensions in mm	DIN ISO 128-30: 	Erstellt Creator	07.04.2020 Hupfauer	Bezeichnung / Title Switch; Two way (DPDT) Low PIM-4.3-10-f Operating voltage 21.6 to 28 V DC	
		Geprüft Checked	10.05.2022 Hupfauer	Dokumentart / Doc. category Outline drawing	
		Rev. Rev.	And.-Nr. Issue-No.	Datum Date	Name Name
				Dokument-Nr. / Document-No. 754100-0E	Sprache / Language EN
				Dok.-Rev. / Doc.-Rev. B	Format / Format A4
				Maßstab / Scale 1 : 2	Blatt / Sheet 1/1

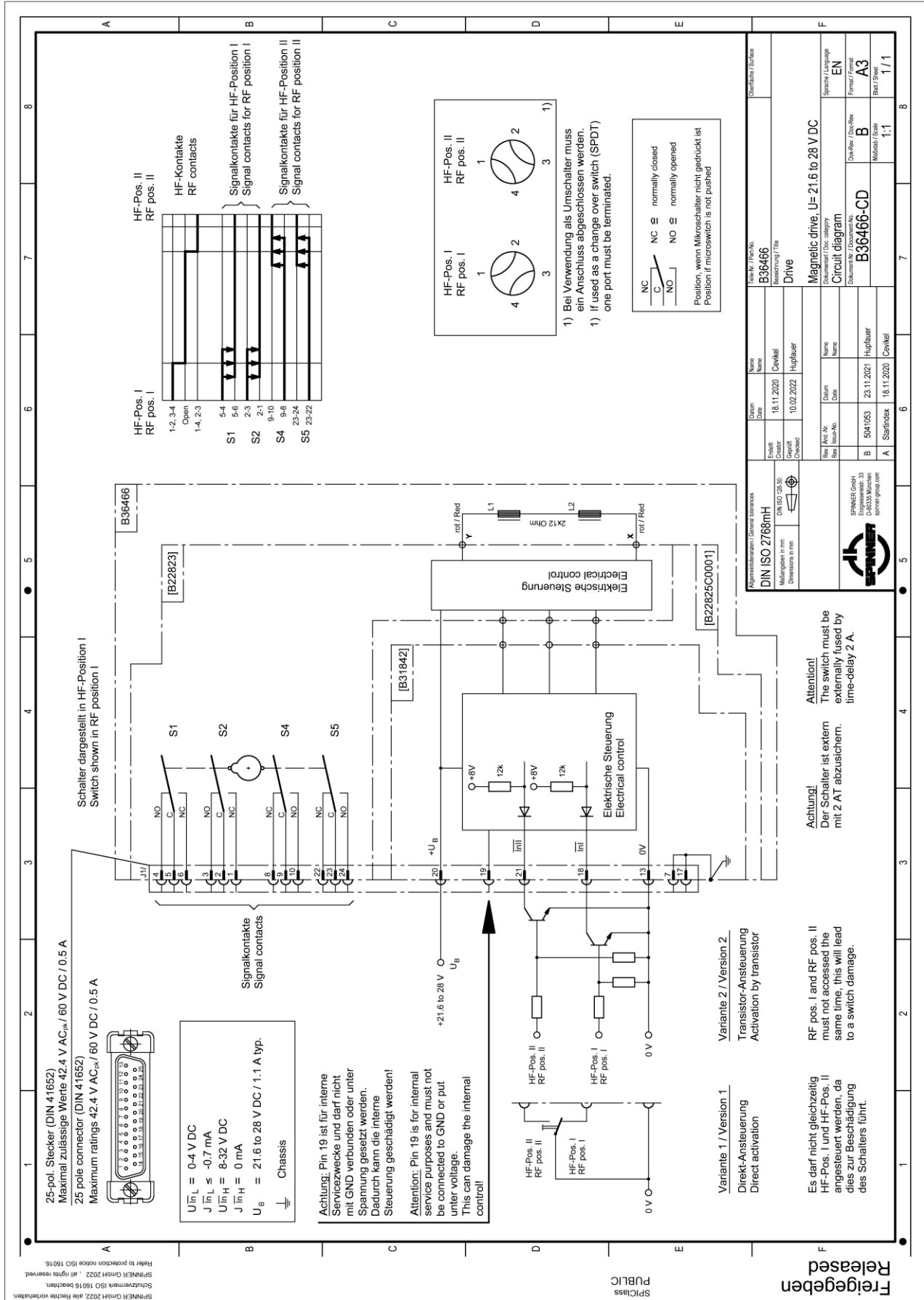


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Circuit diagram



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File No./Part No. B36466		Name Cervikal		Date 18.11.2020	
Drawing No. Drive		Name Hüpfbauer		Date 10.02.2022	
Title Magnetic drive, U = 21.6 to 28 V DC		Name Hüpfbauer		Date 23.11.2021	
Document No. B36466-CD		Name Hüpfbauer		Date 18.11.2020	
Document No. B36466-CD		Name Hüpfbauer		Date 18.11.2020	
Document No. B36466-CD		Name Hüpfbauer		Date 18.11.2020	

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