

Coaxial Two Way Switch (DPDT) || BN 754067



Radio frequency characteristics

Interface type (4 connections)	N-f (50 Ω)	
Characteristic impedance	50 Ω	
Frequency range	0 to 1 GHz	1 to 2 GHz
VSWR, max.	1.04	1.15
Isolation, min.	80 dB	75 dB
Insertion loss, max.	0.05 dB	0.05 dB
Average power capability *	0.75 kW	0.50 kW
Peak voltage capability *	2.3 kV	

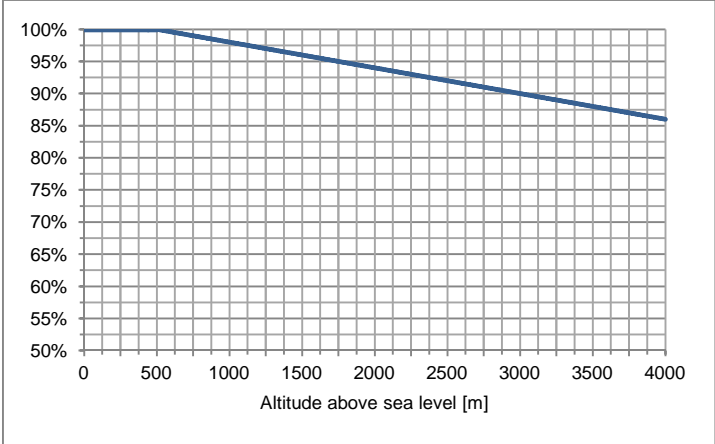
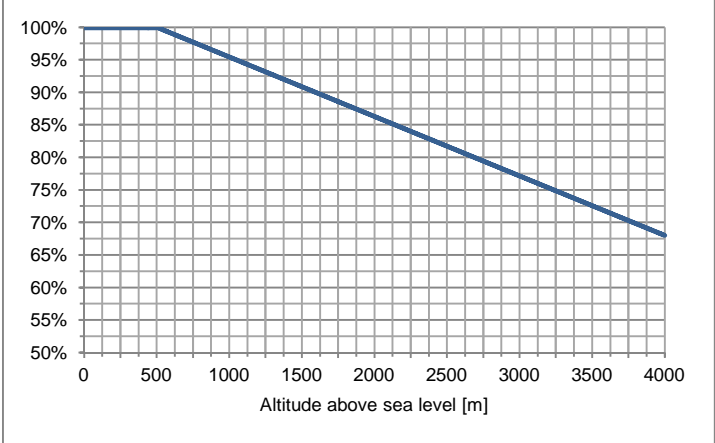
Electrical and mechanical data

Switch type	Two way switch, DPDT	
Actuator type	Solenoid drive, latching, self cutoff	
Connector J1 ** for operating voltage and signaling	9 pole connector according to DIN 41652 / IEC 807-2	
Operating	Operating voltage	24 V DC ±10%
	Operating current, typ. ***	0.8 A
	Stand by current, max. ***	12 mA
	Nominal fuse	The switch must be externally fused with 1 A time-delay by the user
Signal 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 by the user
Switching time, typ.***	80 ms	
Command hold time, min.	80 ms (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.	0.45 kg	

Template TD-00002P

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Environmental conditions

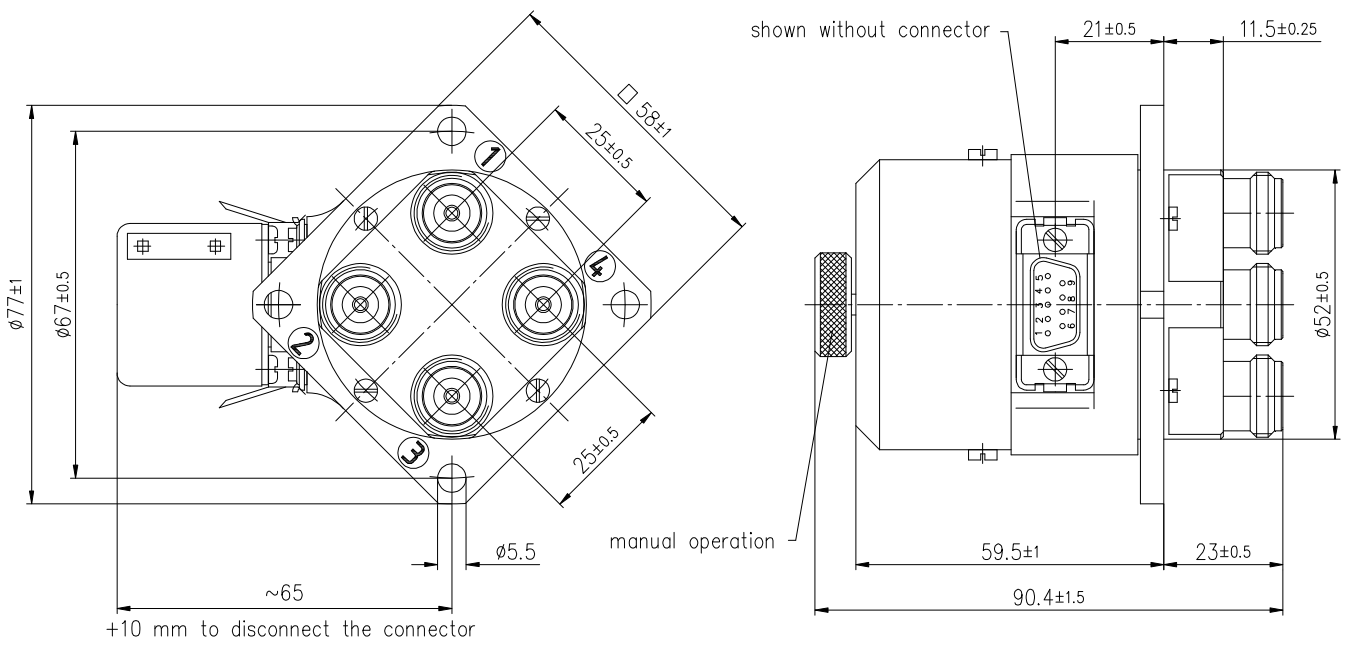
Operational conditions	ETSI EN 300 019-1-3 V2.3.2 (2009-1) class 3.1 N																				
Ambient temperature ****	-10 to +45°C																				
Condensation	Not allowed																				
Relative humidity, max.	95%																				
Derating of input power with increasing altitude	<p>The maximum 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>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]	Power (%)	0	100	500	100	1000	98	1500	96	2000	94	2500	92	3000	90	3500	88	4000	85
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Protection class	III according to IEC EN 61140																				
IP protection level	IP40 according to IEC EN 60529 (all interfaces connected with appropriate gaskets)																				
Installation position	Optional																				
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																				

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Storage conditions	ETSI EN 300 019-1-1 V2.1.4 (2003-04) class 1.2
Ambient temperature	-10 to +45°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 24 V DC
- **** Extended temperature range on request

Outline (all dimensions in millimeters)



RF connection
 RF position I: 1-2, 3-4
 RF position II: 1-4, 2-3

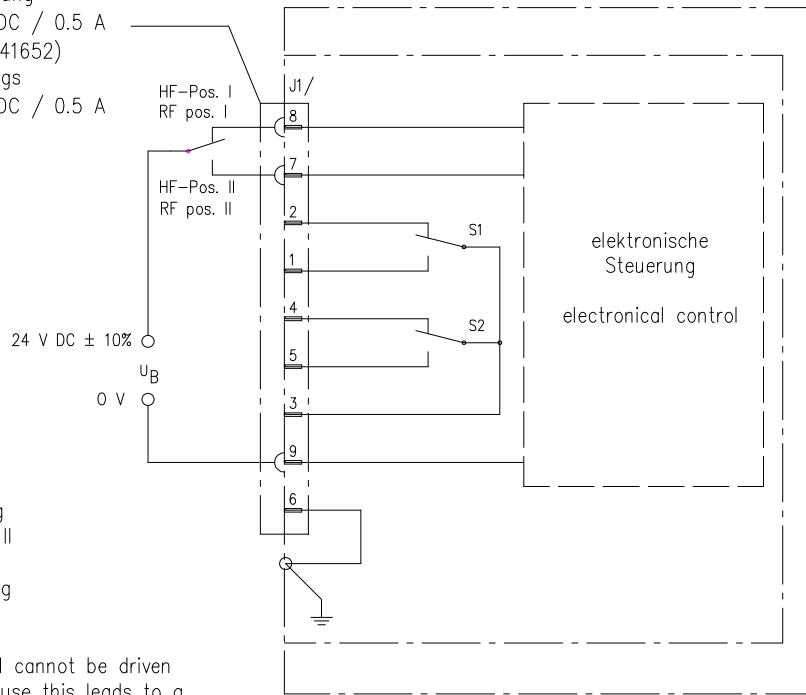
switch shown in RF position I

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Circuit diagram (49116-00, Issue F)

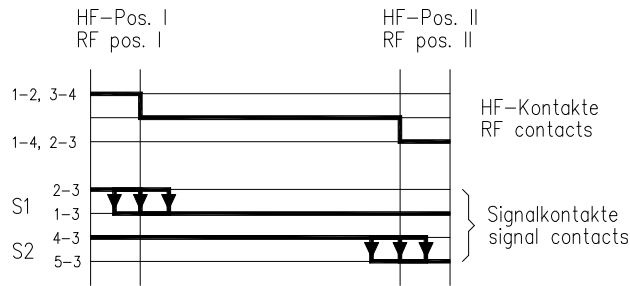
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9-poliger Stecker (DIN 41652)
 maximale Kontaktbelastung
 42,4 V AC pk / 60 V DC / 0.5 A
 9 pole connector (DIN 41652)
 maximum contact ratings
 42.4 V AC pk / 60 V DC / 0.5 A



Es darf nicht gleichzeitig
 HF-Pos. I und HF-Pos. II
 angesteuert werden,
 da dies zur Beschädigung
 des Schalters führt.

RF pos. I and RF pos. II cannot be driven
 at the same time, because this leads to a
 damage of the switch.



HF-Durchgang
 HF-Position I: 1-2, 3-4
 HF-Position II: 1-4, 2-3

connection
 RF position I: 1-2, 3-4
 RF position II: 1-4, 2-3

Darstellung in HF-Position I
 shown in RF position I

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 Know-hows an Dritte nur mit unserer ausdrücklichen Genehmigung.

Nicht tolerierte Maße nach DIN ISO 2768-m Teil 1		Datum	Name	Bezeichnung:	Format	Maßstab
Erstellt	29.11.1989	Mueller	Stromlaufplan	49116-00	A4	1:1
Bearbeitet	02.12.2009	Hartmann	Circuit diagram for			
Geprüft	29.01.2010	Hartmann	coaxial-two-way-switch, solenoid drive			
F	CAD14upd.	02.12.2009	Hartmann	Zeichnungs-Nr.:		
E	- - - -	09.03.2008	Marek	Spinner GmbH Elektrotechnische Fabrik Erzgießereistraße 33 D-80335 München		
Ind.	Änd.-Nr.	Datum	Geändert			