

Coaxial Two Way Switch (DPDT) || BN 512690C0001



Radio frequency characteristics

Interface type (4 connections)	7-16-f (50 Ω)					
Characteristic impedance	50 Ω					
Frequency range	0 to 1 GHz	1 to 2 GHz	2 to 3 GHz	3 to 4 GHz	4 to 5 GHz	5 to 6 GHz
VSWR, max.	1.04	1.08	1.08	1.12	1.20	1.35
Isolation, min.	80 dB	80 dB	80 dB	60 dB	50 dB	40 dB
Insertion loss, max.	0.05 dB	0.05 dB	0.10 dB	0.10 dB	0.10 dB	0.20 dB
Average power capability * at ambient temperature -10 to +45°C	2.0 kW	1.4 kW	1.1 kW	1.0 kW	0.9 kW	0.8 kW
Peak voltage capability *	4.0 kV					

Electrical and mechanical characteristics

Switch type	Two way switch, DPDT	
Actuator type	Solenoid drive, latching, self cutoff	
Connector J1 ** for operating voltage, control, interlock contacts and signaling	25 pole connector according to DIN 41652 / IEC 807-2	
Operating	Operating voltage	12 V DC ± 10%
	Operating current, typ. ***	2 A
	Stand by current, max. ***	25 mA
	Nominal fuse	The switch must be externally fused by time-delay, 2 A
Control	Control voltage	U In LOW = 0 to 4 V DC / -0.7 mA ( 0 - active ) U In HIGH = 8 to 32 V DC
	Nominal fuse	The circuit must be externally limited to 0.5 A
Interlock contacts Signal contacts	Lead time typ.*** (only interlock contacts)	5 ms (the interlock contacts open 5 ms before and close 2 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
Switching time, typ.***	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	
Life, min.	500,000 operations	
Weight, approx.	1.2 kg	

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**Environmental conditions**

<b>Operational conditions</b>	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>Percentage</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]	Percentage	0	100%	500	100%	1000	98%	1500	96%	2000	94%	2500	92%	3000	90%	3500	88%	4000	85%		
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Max. altitude above sea level	4,000 m or 13,120 ft according to IEC EN 60664-1																						
Protection class	III according to IEC EN 61140																						
IP protection level	IP40 according to IEC EN 60529 (all interfaces terminated)																						
Installation position	Any																						

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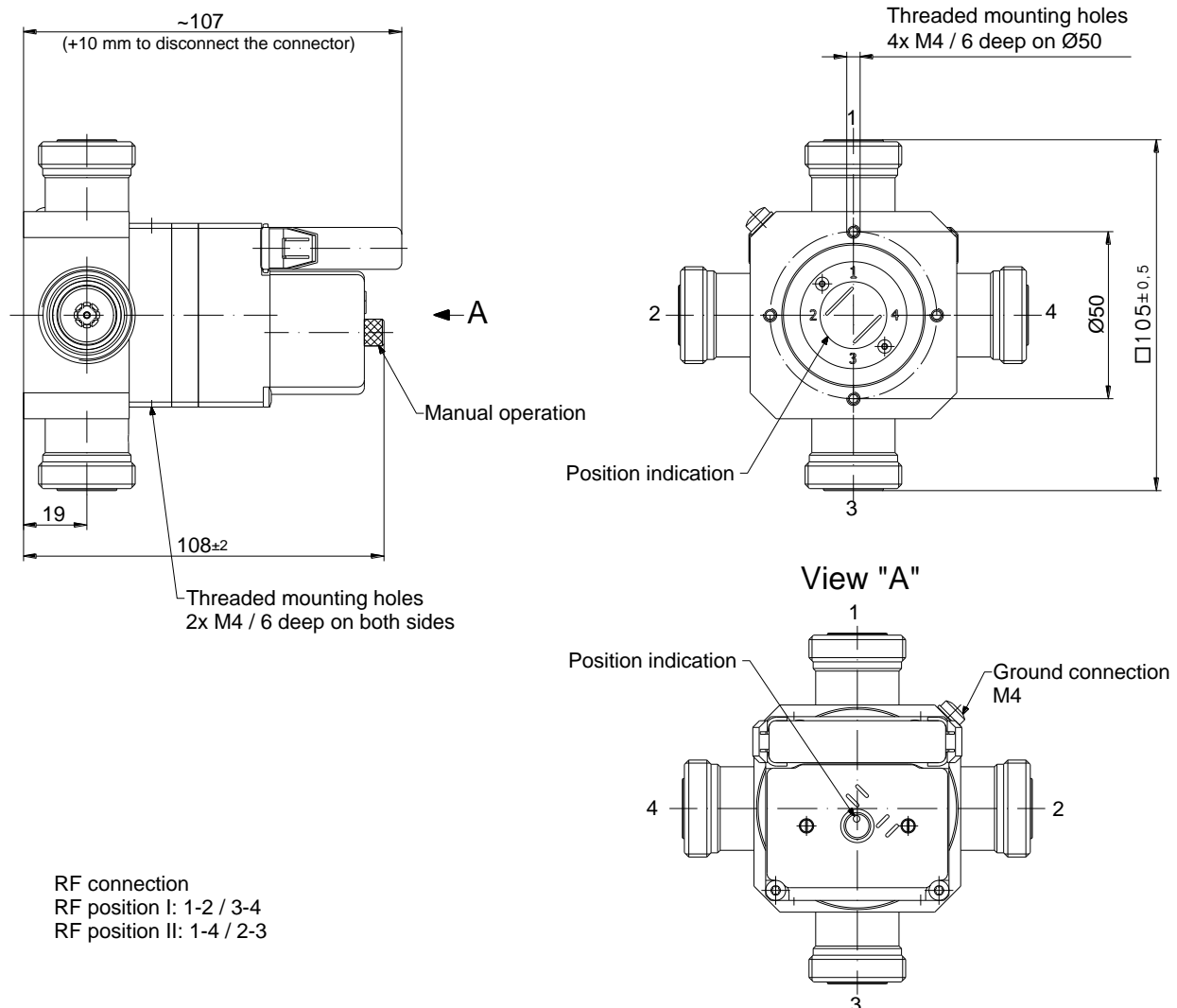
<b>Transport conditions</b>	ETSI EN 300 019-1-2 V2.1.4 (2003-04) class 2.2
Ambient temperature	-25 to +70°C
Rain, condensation, icing	Not allowed
<b>Storage conditions</b>	ETSI EN 300 019-1-1 V2.1.4 (2003-04) class 1.2
Ambient temperature	-10 to +60°C
Rain, condensation, icing	Not allowed

- \* 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 12 V DC
- \*\*\*\* Extended temperature range on request

Applicable documents

Product manual	M36311
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Outline drawing (all dimensions in millimeter)



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

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Circuit diagram

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