

Coaxial Two Way Switch (DPDT) || BN 754098



Radio frequency characteristics

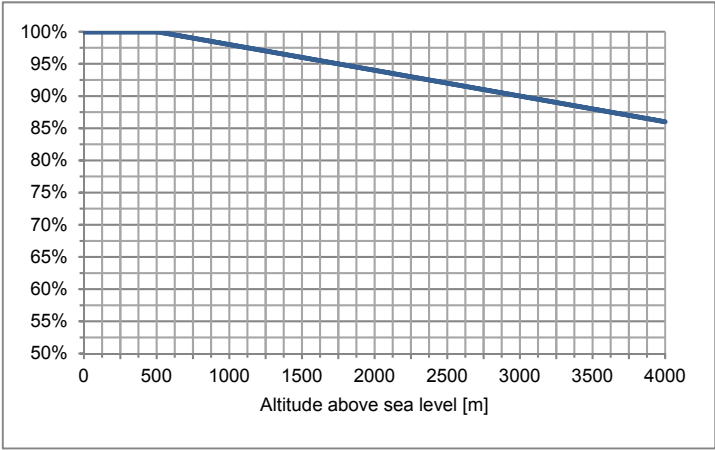
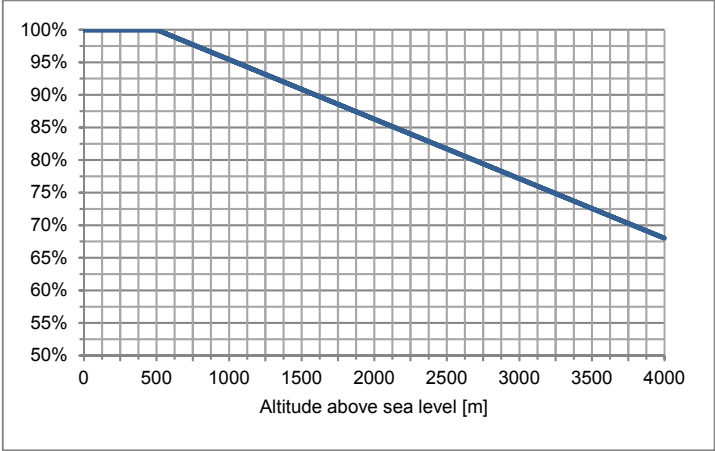
| | | | | |
|--------------------------------|------------|------------|------------|------------|
| Interface type (4 connections) | N-f (50 Ω) | | | |
| Characteristic impedance | 50 Ω | | | |
| Frequency range | 0 to 1 GHz | 1 to 2 GHz | 2 to 3 GHz | 3 to 5 GHz |
| VSWR, max. | 1.03 | 1.13 | 1.13 | 1.22 |
| Isolation, min. | 75 dB | 60 dB | 60 dB | 50 dB |
| Insertion loss, max. | 0.04 dB | 0.04 dB | 0.06 dB | 0.06 dB |
| Average power capability * | 790 W | 560 W | 450 W | 350 W |
| Peak voltage capability * | 3.0 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 | 12 V DC ±5% |
| | Operating current, typ. *** | 0.9 A |
| | Stand by current, max. *** | 20 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.*** | 40 ms | |
| Command hold time, min. | 40 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. | 0.6 kg | |

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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>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% |
| Altitude above sea level [m] | Percentage | | | | | | | | | | | | | | | | | | | | |
| 0 | 100% | | | | | | | | | | | | | | | | | | | | |
| 500 | 100% | | | | | | | | | | | | | | | | | | | | |
| 1000 | 98% | | | | | | | | | | | | | | | | | | | | |
| 1500 | 96% | | | | | | | | | | | | | | | | | | | | |
| 2000 | 94% | | | | | | | | | | | | | | | | | | | | |
| 2500 | 92% | | | | | | | | | | | | | | | | | | | | |
| 3000 | 90% | | | | | | | | | | | | | | | | | | | | |
| 3500 | 88% | | | | | | | | | | | | | | | | | | | | |
| 4000 | 85% | | | | | | | | | | | | | | | | | | | | |
| 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 maximum input power 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>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>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>68%</td></tr> </tbody> </table> | Altitude above sea level [m] | Percentage | 0 | 100% | 500 | 100% | 1000 | 95% | 1500 | 90% | 2000 | 85% | 2500 | 80% | 3000 | 75% | 3500 | 70% | 4000 | 68% |
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| 3500 | 70% | | | | | | | | | | | | | | | | | | | | |
| 4000 | 68% | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | |

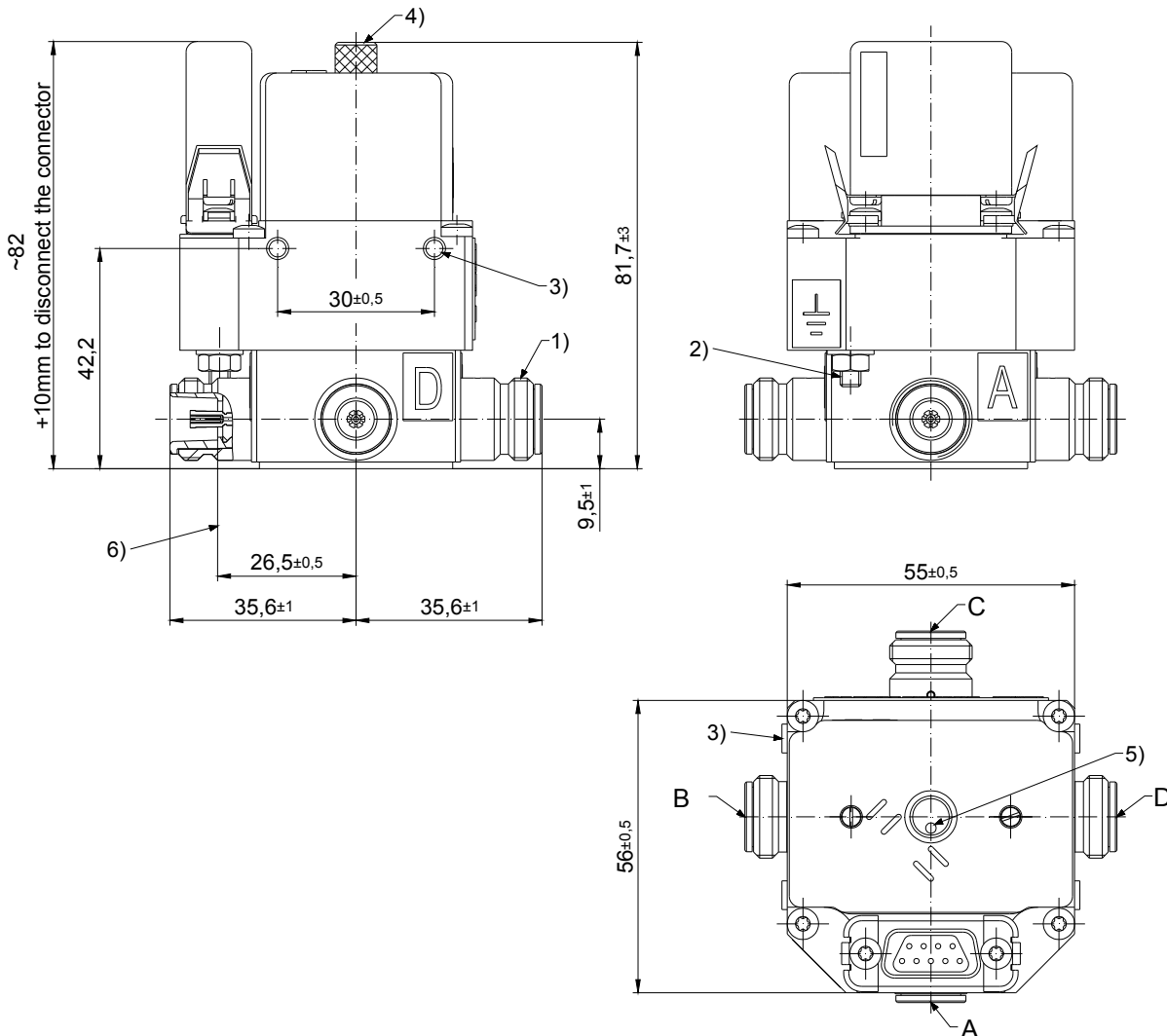
Template TD-00002P

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

Outline (all dimensions in millimeters)



- 1) RF connectors: N female (50 Ohms)
- 2) Ground connection (M4)
- 3) Two threaded mounting holes M4/5 deep on both sides
- 4) Manual operation
- 5) Position indication
- 6) Reference plane

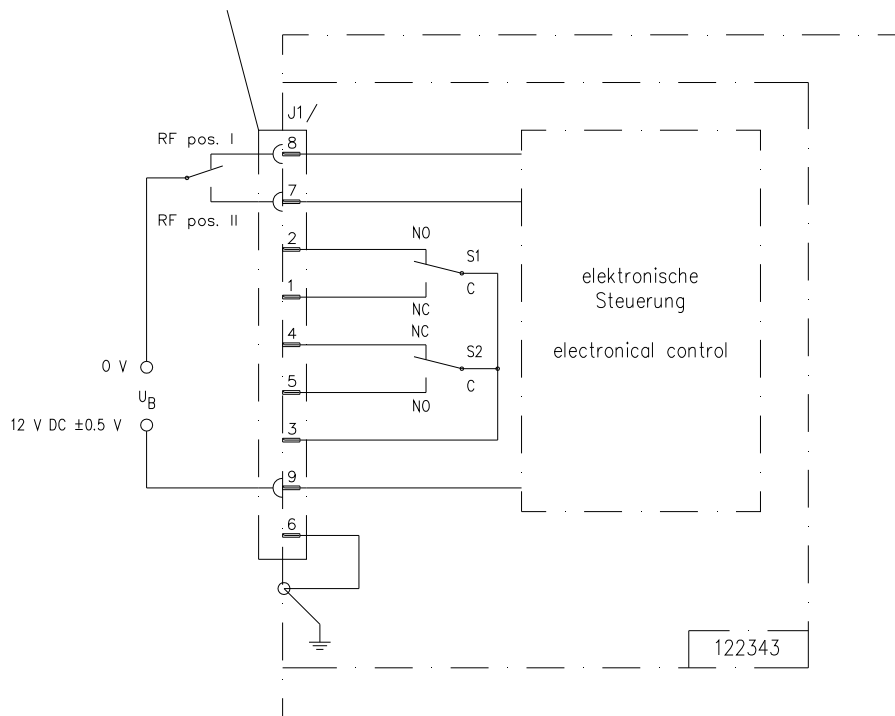
RF connection
 RF position I: A-B / C-D
 RF position II: A-D / B-C

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Circuit diagram (49157-0E, Issue C)

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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



HF-Position I dargestellt
 shown in RF position I

HF-Durchgang A-B / C-D
 RF-connection A-B / C-D

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 Know-hows an Dritte nur mit unserer ausdrücklichen Genehmigung.

| DIMENSIONS WITHOUT TOLERANCES ACCORDING DIN ISO 2768-m PART 1 | | | | DATE | NAME | DESIGNATION: |
|--|----------|------------|----------|---|------------|--------------|
| | | | | DRAWN | 10.02.1998 | Somusch |
| | | | | WROUGHT | 02.12.2009 | Hartmann |
| | | | | CHECKED | 15.12.2009 | Hupfauer |
| C | CAD14upd | 02.12.2009 | Hortmann | Spinner GmbH Erzgiessereistr. 33 80335 München Germany | | DRAWING-NR.: |
| B | 69780 | 08.09.1999 | Loth | 49157-0E | | FORMAT |
| ISS. | MOD.NR. | DATE | NAME | A4 | | SCALE |
| | | | | 1:1 | | |