The **D1 Series** features SMA connectors and a frequency range of DC to 22 GHz.

This series is available with fail-safe, latching self-cut-off or pulse latching functions.

**RF Impedance:** 50 ohms nominal  
**Temperature Range:** -35°C to +85°C ambient  
**Operating Life:** 1,000,000 cycles min.  
**Switching Time:** 15 mSec max.  
**Switching Sequence:** Break Before Make  
**Environmental:** Designed in Accordance to MIL-DTL-3928 (Testing and Operation Modes)

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Frequency</th>
<th>VSWR (max)</th>
<th>Insertion Loss (dB max.)</th>
<th>Isolation (dB min.)</th>
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</thead>
<tbody>
<tr>
<td>DC-3 GHz</td>
<td>1.20</td>
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<td>3-8 GHz</td>
<td>1.30</td>
<td>0.30</td>
<td>70</td>
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<td>8-12.4 GHz</td>
<td>1.40</td>
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<tr>
<td>12.4-18 GHz</td>
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<td>18-22 GHz</td>
<td>1.60</td>
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<td>55</td>
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<table>
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<tr>
<th>Actuator Current (typical)</th>
<th>12 Vdc</th>
<th>12-15 Vdc</th>
<th>20-24 Vdc</th>
<th>24-30 Vdc</th>
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<tr>
<td>Fail-safe</td>
<td>480 mA</td>
<td>600 mA</td>
<td>400 mA</td>
<td>280 mA</td>
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<td>Latching</td>
<td>282 mA</td>
<td>353 mA</td>
<td>218 mA</td>
<td>175 mA</td>
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* If reduced coil current is required, please contact Factory.

### AVAILABLE OPTIONS

**OPTION 1**  
**Series**

**OPTION 2**  
**RF Connectors**

- 1 - SMA  
- 2 - 6 Vdc +/- 10%  
- 3 - 12 Vdc +/- 10%  
- 4 - 24-30 Vdc  
- 5 - 48 Vdc +/- 10%  
- 6 - 110 Vac +/- 10%

**OPTION 3**  
**Terminals**

- 1 - Solder Terminals  
- 2 - Sub M miniature D-Shell Connector  
- 6 - 12-15 Vdc  
- 7 - 18-20 Vdc  
- 8 - 20-24 Vdc

**OPTION 4**  
**Voltage**

- 1 - 6 Vdc +/- 10%  
- 2 - 12 Vdc +/- 10%  
- 3 - 24-30 Vdc  
- 4 - 48 Vdc +/- 10%  
- 5 - 110 Vac +/- 10%

**OPTION 5**  
**Actuator**

- 1 - Standard  
- 2 - Diodes  
- 3 - Diodes, Indicators  
- 4 - Indicators  
- 5 - Diodes, Indicators

**OPTION 6**  
**Frequency**

- 1 - DC to 22 GHz  
- 2 - 700 mHz  
- 3 - 15 mSec max.

**OPTION 7**  
**Polarity**

- 1 - Normally Open  
- 2 - Standard  
- 3 - Diodes  
- 4 - Diodes, Indicators  
- 5 - Indicators

**OPTION 8**  
**Special Options**

- 1 - TTL (High)  
- 2 - TTL (Low)  
- 3 - External Termination  
- 4 - Internal Termination

---

High quality microwave and millimeter wave components and subsystems. Visit Ducommun RF Products online at www.ducommun.com or contact us at 310.513.7200. All specifications are subject to change without notice.
DC TERMINAL FUNCTION

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<th>M</th>
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<th>B</th>
<th>Q</th>
<th>B, Q w/ TTL</th>
<th>C, Y</th>
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<th>E</th>
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</tbody>
</table>

SCHEMATICS
Pages 139-143

FIG. 5 5 6 5 5 6 17 18 11 12 11 12 13 18 23 23 24 23 23 24

OUTLINE DRAWING DIMENSION “A”

1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98" 1.98"

D1 SERIES
SPDT 50 OHM TERMINATED SWITCH
DC-22 GHz  SMA