

The CR-39 Switch is a broadband, multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any of $3,4,5$, or 6 outputs. The characteristic impedance is 50 Ohms. The switches are small using the popular connector spacing on a 1.062 " dia. circle. Each position has an individual actuator mechanism allowing random position selection. This also minimizes switching time.

## Specifications

| RF Contacts: | Break before make |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Actuator | Voltage (VDC) $20^{\circ} \mathrm{C}$ | 12 | 15 | 28 |
|  | Latching Current (mA) | 255 | 205 | 90 |
|  | $\left\lvert\, \begin{aligned} & 0 \\ & 0 \\ & \frac{0}{7} \\ & \overline{\overline{0}} \\ & \vec{n} \\ & \text { n } \end{aligned}\right.$ |  |  |  |
|  | Reset Current (mA) 3 | 765 | 615 | 270 |
|  | 4 | 1020 | 820 | 360 |
|  | 5 | 1275 | 1025 | 450 |
|  | 6 |  | 1230 | 540 |
| Switching Time: | 20 msec max |  |  |  |
| Connectors: | SMA (f) |  |  |  |
| Weight: | 6 oz. max |  |  |  |
| Temperature Range: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$ (Operating) |  |  |  |  |

## Specifications



| VSWR (max) | $1.25: 1$ | $1.40: 1$ | $1.50: 1$ | $1.80: 1$ |
| :--- | :---: | :---: | :---: | :---: |
| Insertion Loss (min) | 0.20 dB | 0.40 dB | 0.50 dB | 0.80 dB |
| Isolation (max) | 70.0 dB | 60.0 dB | 60.0 dB | 50.0 dB |

$\square$

The CR-39 comes with a latching actuator. The latching switch remains in the last position selected when the switch is de-energized. STD dual command requires a reset pulse before a new selected position. A separate reset circuit allows all positions to be set to an open position. User must provide both reset (clear) and set (select new position) commands.

| Shock: | MIL-STD-202 Method 213, Condition D (500G <br>  <br> Non Operating) |
| :--- | :--- |
| Vibration: | MIL-STD-202 Method 214, Condition D (10G <br>  <br> RMS Non Operating) |
| Humidity: | Moisture Seal Available |

Typical Contact Life: 5 Million Cycles
Insertion Loss Repeatability (1 Million Cycles):
DC to $6 \mathrm{GHz}: 0.05 \mathrm{~dB}$
DC to $20 \mathrm{GHz}: 0.1 \mathrm{~dB}$
RF Power Handling



Analog



Part Numbering System for CR-39 (Latching)


## Connector

S: SMA Female

Actuator Voltage
6: 28 Vdc Latching
7: 15Vdc Latching
8: 12 Vdc Latching
For other options contact Factory

Number of Positions
3: SP3T
4: SP4T
5: SP5T
6: SP6T

Actuator Type
O: No Indicator Contacts
C: Indicator Contacts
D: Self Cutoff Only
E: Indicators and Self Cutoff

Options
T: TTL Drivers with Diodes
R: Positive + Common
TD: TTL Driver with Decoder
www.teledynecoax.com email: coax@teledyne.com

