



# DOUBLE D ELECTRONICS LTD

## BNC Coaxial Switches for IF Applications

- \* Wide range of configurations
- \* d.c. to 200MHz and higher
- \* 50Ω and 75Ω options
- \* Low loss - mechanical switches
- \* Latching relays
- \* Retain state with no power
- \* 5V, 12V or 24V d.c. control
- \* Position tellbacks
- \* BNC Connectors



Double D Electronics Ltd can offer a wide range of coaxial switches for IF applications. Most are based on single or multiple transfer switch configurations, although other configurations can be provided on request.

All switches use latching mechanical relays, minimising steady state power requirements and ensuring that the path is maintained in the absence of power. A range of control voltages is available, and all switches provide tellback contacts. All switches are fitted in screened aluminium cases.

The simplest configuration implements a single transfer switch. Other options include a 1 of 4 selector switch and a 1+4 standby chain. These multiple stage switches give enhanced performance, by eliminating inter-switch cables and connectors, as well as reduced cost, when compared with systems using individual transfer switches.

### Option Information

Control Voltage (v) is specified by a single digit:

- |   |                          |
|---|--------------------------|
| 0 | 5V d.c. common positive  |
| 1 | 12V d.c. common positive |
| 2 | 24V d.c. common positive |

### Other Configurations

Various other configurations of switches have been produced for specific requirements, including switch matrices, and complete RF subsystems (incorporating other RF components) operating at frequencies up to 2GHz. Custom designs can also be produced - please consult factory with your requirements.

## SPECIFICATION

Configuration:	Transfer	Transfer	1+4	1+4	1 of 4	1 of 4
Impedance	50	75	50	75	50	75
Connectors	BNC	BNC	BNC	BNC	BNC	BNC
Control Voltage (v)	5,12,24	5,12,24	5,12,24	5,12,24	5,12,24	5,12,24
Main path loss, 0-100MHz Typ Max	0.1dB 0.3dB	0.1dB 0.3dB	0.2dB 0.4dB	0.3dB 0.7dB		
Main path loss, 0-200MHz Typ Max	0.2dB 0.4dB	0.3dB 0.6dB	0.2dB 0.6dB	0.4dB 0.9dB		
Return Loss, 0-100MHz Typ Max	-28dB -23dB	-20dB -19dB	-22dB -19dB	-20dB*		
Return Loss, 0-200MHz Typ Max	-21dB -17dB	-20dB -18dB	-17dB -15dB	-18dB*		
Size (excluding connectors)	92 x 86.5 x 20mm		192 x 90 x 25.5mm			
Fixings (control connector is on opposite face to coaxial connectors)	Via BNC nuts on coax connector face (19.05mm centres)		Via BNC nuts on coax connector face (19mm centres) or 2 x M4 bush on control connector face 171.9mm FC			
Control Connector	9-way D-plug	9-way D-plug	20-way IDC	20-way IDC	20-way IDC	20-way IDC
Part number	DDS0510-v15	DDS1119-v17	DDS0408-v15	DDS1118-v17		
Compatible with earlier units**	DDS0306-v15 DDS9732-v15	DDS0812-v17 DDS0512-v17 DDS0305-v17 DDS9732-v17	DDS0019-v15	DDS0810-v17 DDS9823-v17		

\* Standby through path return loss typically 4dB more than figures stated.

\*\* Specification does not apply to earlier units; in general later units are of higher specification.

v = Control Voltage:

- 0 5V d.c. Common positive
- 1 12V d.c. Common positive
- 2 24V d.c. Common positive