MIL-STD-1553 DATA BUS RELAY DEVICES

The DBR 5000 series developed by Compupower are designed for switching LRUs or RTs from one Bus or Stub to another or reconfigure a Bus. These switchers are Double Pole Double Throw (DPDT) relay devices, which act as ON-OFF Bus switchers to disconnect individual RTs or entire Bus segment from a Bus Network eliminating the task of manually disconnecting cables. Reconfiguring of a Bus is accomplished by applying 28VDC to the relay devices using D-subminiature connector. The Bus switching relays are energized just prior to separation by the aircraft or launcher controller.

A problem that occur in separable stages in launch vehicles is an open Bus or Stub at the time of separation. One solution to this problem is use of Data Bus Relay Devices. The idea is reconfigure the critical Bus(s) into valid Bus configurations by physically disconnecting from the exposed open leads and switching in a proper termination.

Applications:

- Switching between two Buses.
- Switching an RT ON or OFF from a Coupler Stub.
- Segmenting a Bus between a controller and two RTs allowing either terminal to be addressed by the controller.

Benefits:

- · Ideal for test and simulation
- No cable changing
- Easy to use

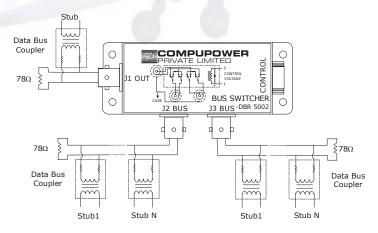
Specifications:

Connectors:	
BUS/STUB	BJ 77 (High/White to Centre)
CONTROL	DE 09P (PIN1 : Positive of control voltage, PIN5 : Negative of control voltage)
Coil:	
Coil Voltage	
Minimum	16VDC
Nominal	28VDC
Maximum	48VDC
Coil Resistance	2880Ω
Dielectric withstanding voltage	500Vac
Case:	
Material	CRCA steel with Tin plating.
Thickness	1.0mm bottom plate 0.8mm Body and top cover
Finish	Smoke gray epoxy painting.

MIL-STD-1553 BUS SWITCHER - DBR 5002

SCHEMATIC DIMENSIONS: -99.0 3.5⊕ AT 91.0 4 PLACES Ö COMPUPOWER J1 IN CONTROL 38.0 0 VOLTAGE BUS SWITCHER J3 BUS-DBR 5002 0 0 0 0 | -22.8→ 6 CASE 25.4 10∮] 0 J2 BUS J3 BUS 1.20 CONTACTS SHOWN IN DE-ENERGIZED POSITION 1. All dimensions are in mm 2. Tolerance = ± 1 mm 3. Hole to hole dimensions tolerance: ± 0.1 mm

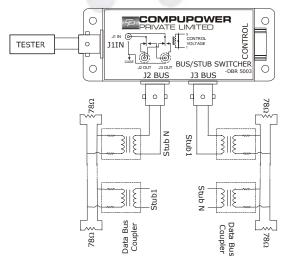
TYPICAL APPLICATION:



MIL-STD-1553 BUS/STUB SWITCHER - DBR 5003

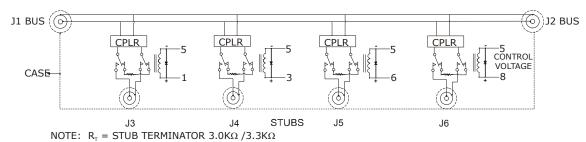
DIMENSIONS: 99.0 3.5⊕ AT 91.0 4 PLACES SCHEMATIC: COMPUPOWER J1 IN 38.0 0 25.4 CONTROL **VOLTAGE** BUS/STUB SWITCHER 0 J2 BUS J3 BUS 0 0 6 CASE J2 OUT J3 OUT 10φ 0 25.4 CONTACTS SHOWN IN DE-ENERGIZED POSITION **NOTE :** 1. All dimensions are in mm 2. Tolerance = ± 1 mm 3. Hole to hole dimensions tolerance: $\pm 0.1 \text{mm}$

TYPICAL APPLICATION:



MIL-STD-1553 FOUR STUB DATA BUS RELAY COUPLER - DBRC 5004

SCHEMATIC:



CONTACTS SHOWN IN DE-ENERGIZED POSITION

