BVRISO

Operating Instructions

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BALDWIN BOXALL
COMMUNICATIONS

BVRISO – Dual Line Circuit Isolation Module.

The BVRISO enables an alternative to the more traditional one amplifier per loudspeaker line installation by splitting a single amplifier output into two circuits.

Both of these circuits are continually monitored for a short circuit condition, and if a short circuit is detected then the BVRISO isolates the affected line from the amplifier output therefore allowing the remaining circuit to function correctly. The BVRISO also monitors the affected circuit to reconnect it if and when the short is removed.

When used in conjunction with BEL1 'End of Line' surveillance modules the BVRISO will alert the BVR20 that one of the circuits has a short circuit.

When the short circuit is removed then the BVRISO detects this and automatically reconnects the affected line to the amplifier and the surveillance fault will be removed from the BVR20.

The BVRISO will detect a short and restore a connection whenever there is an output signal on the loudspeaker line.

Specification

JP1 should be set according to the total loudspeaker load of both circuits connected to the BVRISO.
For total loads up to 100W JP1 should be fitted in the position marked '< 100W'.
For total loads from 100W to 333W JP1 should be fitted in the position marked >100W.
We do not recommend that the BVRISO be used on circuits with a total load exceeding 333W.

Supply Voltage : 20 – 30V DC

Supply Current (quiescent) : 14mA

Supply Current (max) : 100mA (both relays energised)

Current threshold (*100V line current below which no attempt to detect a short is made*)
JP1 fitted <100W : 100mA @ 30 hz
JP1 fitted >100W : 300mA @ 30 hz

Voltage Threshold for Trip (*100V line voltage below which the line is considered to be overloaded when a current greater than the current threshold is flowing*)
: 10V @ 30 hz

Voltage Threshold for Restoration (*when isolated the line is in series with a 560R load, and the voltage after this resistor is monitored. When the voltage across the line exceeds this the overload is considered to have been removed*)
: 3V @ 30hz.

BVRISO CONNECTION SCHEMATIC