Loudspeaker monitoring APS-178

AutroVoice BR-200
Product datasheet

Features

- Digital interruption free 100 V loudspeaker line monitoring with integrated DSP-technology
- 16/32 100V loudspeaker lines monitored for short circuit / discontinuity / earth fault without music interruption
- APS-system - or menu driven user guidance
- Individual setting of the tolerance level for each loudspeaker line
- Automatic line-isolation in case of short circuit

Principle

User guidance via integrated display for:

- individual deactivation of unused zones or in case of maintenance
- detailed failure analysis
- automatic calibration of each loudspeaker line

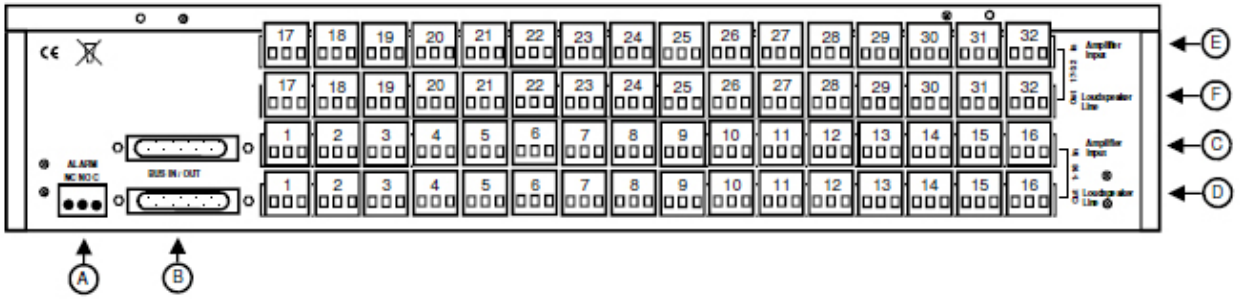
Individually failure indication for each monitored line with detailed failure analysis via integrated display or data communication to the Main Processor Module for system surveillance. (EN 60849 - Module / APS-177-EV).

Versions

Part number	Description
116-BRG-APS178-16-EV	Loudspeaker Line Monitoring Module for 16 Lines
116-BRG-APS178-32-EV	Loudspeaker Line Monitoring Module for 32 Lines

Technical specifications	
Bus connection	2 connectors DB25 (in/out)
Mains power infeed	17 VDC / max 250mA with APS-system or ext. power supply
Weight	4,5 kg
Dimensions (W/D/H)	425 / 320 / 89 mm

Rear wiew



A potential free error contact
B Socket D-SUB-25 for APS bus cable
(Bus connection with other APS system casings)
C Input terminals for the loudspeaker lines 01 to 16
D Output terminals for the loudspeaker lines 01 to 16
E Input terminals for the loudspeaker lines 17 to 32
F Output terminals for the loudspeaker lines 17 to 32

Diagram for the terminals of connector block A:
1 = Normally closed contact
2 = Normally open contact
3 = Change-over contact

Diagram for the terminals C/E:
1 = ext. (0/100V)
2 = 100V
3 = 0V

Diagram for loudspeaker output terminals D/F:
1 = ext. (0/100V)
2 = 100V
3 = 0V

Connections

Monitoring of

- Short circuits (with automatic deactivation)
- Interrupt
- Short-to-ground
- Loudspeaker failure

Operating mode

If the installation of a loudspeaker-zone is finished, a manual measurement of the zone is necessary to be able to set the values for the positive and the negative tolerances.
As the next step, the calibration must be made. The value of this measurement will be the reference for the automatically measurements. If the difference of the result of this measurement is bigger as the tolerances, then the error LED on the front will be visible, the error prompt contact becomes active and an entry into the error list will be made.
Then the zone will be activated for the automatic measurements. If the device is on the position Ready, then the measurement of all active zones will be made in periodical intervals. Measurements are made for the impedance, which is shown as power (on the left side), and for the angle, which is shown as difference of the phase between current and voltage (on the right side). All values, including the tolerances, are not certain quantities, they are just steps in the particular range.

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