SIEMENS

Desigo® Fire Safety Modular System

Audio Level Conversion Card
Model ALCC

Architect & Engineer Specifications

- ☐ Converts speaker-level audio at 70VRMS from a Desigo Fire Safety Modular system — Model ZAC-40 amplifiers to line-level audio
- ☐ Supports input from two (2) audio sources with built-in prioritization
- ☐ Supports 'Class A' or 'Class B' wiring
- ☐ Quantity 63 conversion cards (Model ALCC) supported on one (1) audio riser
- ☐ Single-channel output at 0.775 VRMS
- ☐ ±6dBu output adjustment capability, independent for each channel
- ☐ Audio path supervision for both channels
- ☐ Built-in, diagnostic light-emitting diodes (LEDs)
- ☐ UL 864 Listed, ULC Listed

Product Overview

The Audio Level Conversion Card (Model ALCC) converts speaker-level audio at 70VRMS from a Model ZAC-40 amplifier (or via a Model ZAC-30 with a Siemens legacy panel) to line-level audio on a Desigo Fire Safety Modular (Desigo Modular) control panel. Audio can be provided between the legacy Siemens panel (via Model ZAC-30) and a Desigo Modular system (ZAC-40) by also adding one (1) Model ALCC into the Desigo Modular system.

The line-level audio output of a Model ALCC can subsequently be inputted into a Siemens Audio Input Card (Model AIC) of the remote Desigo Modular system.

Specifications

Model ALCC provides the capability of conducting a global-emergency page across multiple, remote and networked Desigo Modular system nodes with each audio riser holding a maximum of 63 nodes. The emergency page originates at a Desigo Modular system, where it is broadcast at 70VRMS over an audio riser by a Model ZAC-40 on a Desigo Modular system. Model ALCC plugs into one (1) slot in Models CC-2 or CC-5, and can occupy any slot within either card cage.

A single, remote Desigo Fire Safety Modular system node contains one (1) Model ALCC, which steps the incoming speaker-level audio down to line-level audio that is compatible with the AIC audio input (0.775 VRMS, independently adjustable to ±6dBu).

Model AIC digitizes the audio, which is subsequently transmitted by a Model DAC-NET to local amplifier(s) for broadcast over the local speaker zones. Model ALCC is capable of supporting two (2) global-paging stations, since Model ALCC incorporates (2) two, independent audio channels.

In cases where simultaneous paging should occur, Model ALCC automatically prioritizes the signal on the primary channel over the secondary channel. On-board, audio-detection circuitry monitors the audio risers for incoming audio, while supervision circuitry reports any issues with the audio path, via front-accessible LEDs. If necessary, supervision circuitry disconnects its output from the Model AIC input, causing a trouble command to be reported to the system.

Model ALCC relies on the originating amplifier for supervision of the audio risers and on Model AIC for supervision of the connection to Model ALCC.

Since Model AIC monitors the presence of signal on its audio input, Model AIC is responsible for reporting audio path faults to the Desigo Modular control panel.

Model ALCC
Audio Level Conversion Card

Controls and Settings

LED	COLOR	NOTES FOR "ON" STATE	NOTES FOR "OFF" STATE
Power	GREEN	ALCC is powered	Model ALCC is not powered. Make certain the card is properly plugged, then check for failure on PSC-12 | CC-5 / CC-2
Primary Active	GREEN	Indicates presence of audio on the primary riser	Indicates absence of audio on the *primary* riser – check riser wiring if audio is intended
Secondary Active	GREEN	Indicates presence of audio on the secondary riser	Indicates absence of audio on the *secondary* riser – check riser wiring, if audio is intended
Primary Selected	GREEN	Output of the ALCC is sourced from the primary user	ALCC output is sourced from the secondary riser
Secondary Selected	GREEN	Output of the ALCC is sourced from the primary user	ALCC output is sourced from the primary riser
Primary Fault	YELLOW	A fault is present on the primary audio channel – try cycling the power on the card	Primary audio channel is fully functional
Secondary Fault	YELLOW	A fault is present on the secondary audio channel – try cycling the power on the card	Secondary audio channel is fully functional

Electrical Ratings

INPUT POWER	
24V Back Plane Current	110mA
Screw Terminal (24V, max.)	0
6.2V Back Plane Current	10mA
24V Standby Current	95mA

NOTE: The Back Plane and Screw Terminal currents represent the absolute maximum currents consumed by Model ALCC in the worst-case operating condition. Back Plane and Screw Terminal currents are only used for loading calculations of the power supply to Model ALCC.

The Standby current represents the current consumed from the 24V battery by Model ALCC in the quiescent standby mode, and is used in the battery-size calculation.

Details for Ordering

MODEL OR TYPE	PART NUMBER	PRODUCT
ALCC	500-650127	Audio Level Conversion Card

NOTICE – The information contained in this data-sheet document is intended only as a summary, and is subject to change without notice. The product(s) described here has/have a specific instruction sheet(s) that cover various technical, limitation and liability information.

Copies of install-type, instruction sheets – as well as the *General Product Warning and Limitations* document, which also contains important data, are provided with the product, and are available from the Manufacturer.

Data contained in the aforesaid type of documentation should be consulted with a fire-safety professional before specifying or using the product.

Any further questions or assistance concerning particular problems that might arise, relative to the proper functioning of the equipment, please contact the Manufacturer.

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