# Desigo® Fire Safety Modular system

## Zone-Indicating Cards

## Model ZIC-8B (with Model ZIC-2C mounted)

### Architect & Engineer Specifications

- ☐ Operates audible or visual notification appliance circuits (NACs)
- ☐ Three (3) unique signals from each circuit
  - Operates 25V or 70VRMS audio speakers
- ☐ One (1) or (2) two-channel voice operation
- ☐ Eight (8) `Class B' (Style Y) circuits
- ☐ Fully programmable
- ☐ Coded audibles available
- ☐ On-board microprocessor
- ☐ Automatic / manual control
- ☐ Selectable degrade operation
- ☐ March time / Uniform `Code 3'
- ☐ Built-in strobe synchronization
- ☐ Built-in, ground-fault detection
- ☐ Circuits power limited, per NEC 760
- ☐ Silence / non-silence option
- ☐ Output power rated 2.0 Amps @ 24 VDC per circuit
- ☐ UL 864 9th Edition Listed & ULC Listed

### Product Overview

The Zone-Indicating Card (Model ZIC-8B) provides eight (8) fully-supervised, programmable output circuits for use on each Desigo Fire Safety Modular system fire-alarm control panel (FACP).

Model ZIC-8B supplies eight (8) 'Class B'-type (Style Y) output circuits; power limited to 2.0 amps maximum per circuit. Each circuit can be independently programmed for use with listed audible or visual notification appliances, or listed emergency-audio speakers.

With the use of the Model EBA2004-A1 booster amplifier, Model ZIC-8B can also send audio to additional speaker zones.

Model ZIC-8B plugs into one (1) slot in the Model CC-5 or Model CC-2 Card Cage, and has on-board light-emitting diodes (LEDs) for system status and troubleshooting. Model ZIC-2C mounts directly onto Model ZIC-8B, and allows each of the Model ZIC-8B output circuits to be used for (2) two-channel voice applications.

Indication of power, communication, internal operation, and ground-fault conditions are provided, as well as indication of circuit activation or trouble conditions. All system status conditions are also reported to the system Operating Interface (OI).

Each circuit or output may be time-based, as well as controlled automatically with Desigo Modular system logic via the programmable custom-configuration tool, *ZEUS-D*. Manual setting is accomplished from the OI keypad found at the front of the Desigo Fire Safety Modular system.

Automatic control may also be time based. Each circuit or output can be manually `Armed' or `Disarmed' through the keypad of the OI.

**Model ZIC-8B**
**Zone Indicating Card**

When any circuit or output has been 'Disarmed,' the display for the OI will indicate the affected circuit or output, and the 'Partial-System Disable' LED will illuminate, until the circuit or output has been returned to the `Armed' condition. Model ZIC-8B circuits can also be manually energized or de-energized when in the `Disarmed' state, via use of the OI.

**Model ZIC-2C**

## Product Overview – (continued )

Model ZIC-8B contains an on-board microprocessor, which allows notification-circuit outputs to function in a degrade mode – even if the main Desigo Modular processor or the local-network-communication link has failed.

In degrade mode, Model ZIC-8B will respond to an `Alarm' or `Trouble' command from any intelligent, addressable initiating device or conventional-zone initiating device connected in the same local enclosure.

**Standard NAC Zone** – Each of the eight (8) circuits on ZIC-8B can be configured for use as a standard NAC. The NAC output can be used as a steady, coded, horn / strobe synchronized, horn / strobe synchronized with silence-able horn, strobe synchronized, or unsynchronized strobe output.

The available coding includes ANSI Temporal, March Time 120 pulse per minute (PPM), March Time 60 PPM, March Time 30 PPM, Canadian Two-stage 30 PPM, Canadian Two-stage 120 PPM and custom coding.

Using the horn / strobe synchronized setting for the outputs allows Siemens horns, strobes and horn / strobes to synchronize all horns in a temporal pattern. The horn / strobe synchronized setting for the outputs also allow all strobes to flash simultaneously. The silenceable setting will allow the operator to silence the horns, while keeping the strobes active.

Outputs may be programmed through logic to transmit – up to three (3) different signal types – depending on event priority. For instance, the same circuit can be programmed to transmit the ANSI Temporal pattern for evacuation, March Time 120 PPM for tornado notification, and a custom code for recall.

**Standard Speaker Zone** – Each of the eight (8) circuits on Model ZIC-8B can be configured for use as a standard-speaker circuit in single or dual-channel systems. Dual-channel operation requires the optional Model ZIC-2C module, which is mounted to a connector directly on Model ZIC-8B.

No additional mounting space is required for the ZIC-2C. Model ZIC-8B can be used with the Model ZAM-80/180 bulk amplifier or the Model ZAC-40 amplifier card. Model ZIC-8B is limited to 25 Watts max. / zone at 25V (when the zone is active.)
At 70V, Model ZIC-8B is limited to 30 Watts max. / zone.

## Controls and Indicators

| | |
|---|---|
| **RESET** SWITCH | Re-initializes only Model ZIC-8B |
| **POWER** LED | Indicates power is applied to the Model ZIC-8B card |
| **CARD-FAIL** LED | Illuminates when the card microprocessor has failed |
| **HNET-FAIL** LED | Illuminates when the HNET communication fails, and Model ZIC-8B is in degrade mode. |
| **GND-FAULT** LED | Indicates the detection of a ground-fault condition (either negative or positive) on Model ZIC-8B's field wiring. |
| **ZONE-ACTIVE** LEDs | Illuminates to indicate that the zone has been activated either automatically or manually. There is one (1) LED for each zone. |
| **TROUBLE** LEDs | Indicates the presence of a `Trouble' condition (either an open circuit or a short circuit) on the zone. There is one (1) LED for each zone. |

## Electrical Ratings (Model ZIC-2C)

| | |
|---|---|
| **24V CURRENT DRAW:** [Back Plane] | 17mA, per active output |
| | 0mA |
| | (ZIC-8B S1 in "BP POWER" position) |
| | (ZIC-8B S1 in "EXT POWER" position) |
| **24V CURRENT DRAW:** [Screw Terminal] | 17mA, per active output |
| | 0mA |
| | (ZIC-8B S1 in "EXT POWER" position) |
| | (ZIC-8B S1 in "BP POWER" position) |
| **24V CURRENT DRAW:** [Back Plane] | 0mA |
| **24V CURRENT DRAW:** [Standby] | 0mA |

## Electrical Ratings (Model ZIC-8B)

| | |
|---|---|
| **24V BACK PLANE OR CURRENT DRAW:** [External Power] | (See Note Below) |
| **24V CURRENT DRAW:** [Screw Terminal] | Total Device Current |
| **6.2V CURRENT DRAW:** [Back Plane] | 0 |
| **24V CURRENT DRAW:** [Standby] | 105mA |

**NOTE**: The 24V current is dependent on the usage and wiring type of each ZIC circuit. Listed in the left hand column of the next page are the required current draws for each zone's usage and wiring type:

| ZIC-8B Current Requirements Per Output Zone | |
|---|---|
| **ZONE USAGE** | **OUTPUT CURRENT REQUIREMENT** |
| NOT USED | 0 |
| NAC | 17mA |
| STROBE – SYNC. | 17mA |
| STROBE – UNSYNC. | 17mA |
| TWO (2) CHANNEL SPEAKER ZONE | 34mA |
| ONE (1) CHANNEL SPEAKER ZONE | 17mA |
| NAC – CODED | 17mA |

**ZIC-8B Standby Current = 91mA**

## Temperature and Humidity Range

Products are UL 864 9th Edition Listed for indoor dry locations within a temperature range of 120 + /-3°F (49+/-2°C) to 32+/-3°F (0+/-2°C) and a relative humidity of 93+/-2% at a temperature of 90+/-3°F (32+/-2°C).

## Details for Ordering

| MODEL OR TYPE | PART NUMBER | PRODUCT |
|---|---|---|
| ZIC-8B | 500-648670 | (8) Eight-Circuit Zone Indicating Card |
| ZIC-2C | 500-648671 | (2) Two-Channel Adapter 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.

SIEMENS

## Desigo® Fire Safety

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