

#### Description

The Velocity ZT-MNS-100BAS is a modular, voice evacuation system ideally suited as an extension to an existing fire alarm system.

The ZT-MNS-100BAS accommodates virtually any host alarm system, integrating as quickly and easily as a single primary connection to a NAC output from the FACP. Many of the pre-set configurations will provide a complete voice evacuation capability right out of the box. Additional activation is by a single supervised input from a dry contact closure.

Numerous audio inputs are provided for maximum control flexibility and system access. A supervised remote microphone input is provided for central placement for emergency personnel.

A high priority supervised audio input is provided that overrides lower priority activations. The system also provides a 25 VRMS speaker-level input to allow power booster operation (see below). An additional non-supervised audio input provided; this lowest-priority input can be used for paging or background music as application needs dictate.

A highly efficient, Class D, 100 Watt digital audio power amplifier drives four selectable power-limited speaker circuits in the standard configuration. All speaker circuits are continuously supervised, even while activated. Each speaker can be configured for Class A or B wiring without loss of speaker circuits. Amplifier output voltage is 25 VRMS standard.

An optional transformer can be configured for 70 VRMS output for longer speaker runs with low signal loss.

An audio power boost option is also available for additional output power in multiples of 100 Watts.

The ZT-100BAS provides simple field programming of a variety of its features. These can be as simple as its response to contact closure inputs, or to the setting of internal SIP switch banks.

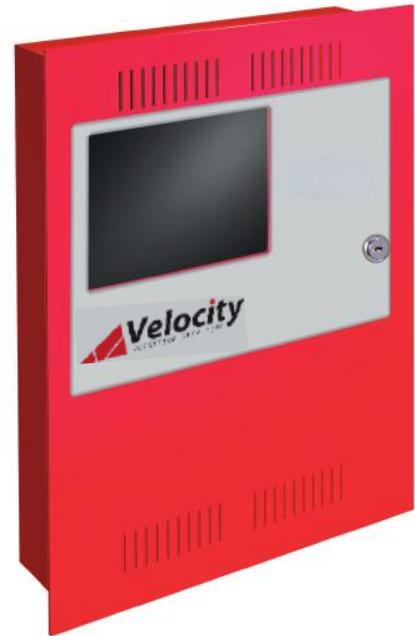
It meets the stringent requirements of NFPA 72, UL864 9th edition, and UFC 4-021-01.

#### Applications

The power supply, battery back-up and charger are provided internally to the ZT-MNS-100BAS. LED indicators are provided for POWER (green), ACTIVE (red), and SYSTEM FAULT (yellow).

The ZT-MNS-100BAS is housed in a 14-3/16"W x 18-5/8"H x 4"D surface or semi-flush mounted painted steel enclosure.

Available options for the ZT-MNS-100BAS include a remote microphone, a 70 VRMS transformer, common alarm and trouble



#### Features

- 100 Watt, highly efficient Class D digital audio amplifier
- 4 Speaker Circuits (Class A or B wiring)
- Reverse polarity supervised FACP-NAC primary input
- Supervised dry contact primary activation input
- 2 standard messages preloaded, ready to go
- Prioritise contact closure activation inputs
- Remote microphone input
- Aux audio inputs for paging, background music and remote system control

#### Other Optional Accessories

<b>ZT-70V-XMFR</b>	70 Volt Transformer Kit
<b>ZT-MNS-3-REL</b>	Common Alarm and Trouble 3-Relay Card
<b>ZT-MNS-100APB</b>	Audio Power Booster
<b>ZT-DVS-RM/B</b>	Supervised Remote Microphone

## Description of Other Optional Accessories

### 70 VRMS Speaker Output

Compensate for audio power loss due to long speaker runs by installing the **ZT-MNS-70V-XFMR** 70 Volt Transformer.

The transformer is contained in a small external cabinet that connects to the **ZT-MNS-100BAS**. All speaker circuits maintain active supervision and provide full output power.

(For more information, refer to the **ZT-MNS-70V-XFMR** data sheet.)

### Common Alarm and Trouble Relays

The **ZT-MNS-3-REL** 3-Relay Card provides 3 Form-C relay contact outputs to signal external devices in the system.

The three outputs are typically used as Active and Trouble indicators, with the third used for other applications.

(For more information, refer to the **ZT-MNS-3-REL** data sheet.)

### Audio Power Booster

Need more power?

The **ZT-MNS-100APB** Audio Power Booster panel can be added to act as a supervised remote 100 Watt power amplifier with its own 4 speaker outputs. As many **ZT-MNS-100APB** cabinets may be connected to the **ZT-MNS-100BAS** as needed to provide full facility coverage. In this configuration, the supervised audio input accepts a 25 VRMS typical speaker-level input, and broadcasts it to its speaker outputs.

(For more information, refer to the **ZT-MNS-100APB** data sheet.)

## Specifications

Standard Configuration; no options installed. For specifications on options, please refer to their individual data sheets. Specifications are subject to change without notice due to product improvements.

### Interface

#### Inputs

##### Primary activation, supervised

1; reverse polarity NAC; 9-30 V<sub>DC</sub>, 10 mA; steady, non-coded, or 1; supervised dry contact closure rated for 24 V<sub>DC</sub>, 10 mA

##### Secondary activation

8; dry contact closure rated for 24 V<sub>DC</sub>, 10 mA

##### Auxiliary audio

600 to 3600 Hz frequency response  
1; supervised, with override priority (control station), 1 V<sub>RMS</sub> audio input  
1; unsupervised, lowest priority (paging and background music), 1 V<sub>RMS</sub> audio input

##### Remote microphone

1; 1 V<sub>RMS</sub> audio input; power-limited 24 V<sub>DC</sub>, 100 Ohms max line resistance

#### External control/communications

RS-232/RS-485, selectable

#### Outputs

##### Audio

100 W; 25 V<sub>RMS</sub> (70 V<sub>RMS</sub> Optional)

##### Speaker circuits

1; power-limited to 60 W  
3; power-limited to 25 W each with total power not exceeding 100 W  
10 KOhm EOLR continuously monitored

### Indicators

#### LED

power (green)  
active (red)  
system fault (yellow)  
audio level; yellow 4-segment

#### LED bar graph

#### Power Supply

##### Primary Power

120 V<sub>AC</sub>, 60 Hz; 5 A nominal

##### Internal Power Supply

24 V<sub>DC</sub> regulated

##### External Power Supply

24 V<sub>DC</sub> regulated; Listed for Fire Alarm Use

#### Internal Battery Backup

##### Capacity

10 A-Hr

##### Standby Mode

24 hours

##### Alarm Mode

15 minutes

##### Recharge Time

48 hours

#### Installation

surface or semi-flush mount; between 16" O.C. studs

#### Enclosure

indoor; 18-5/8" h x 14-3/16" w x 4" d; painted steel

#### Temperature Range

32°F to 120°F (0°C to 49°C)

#### Humidity

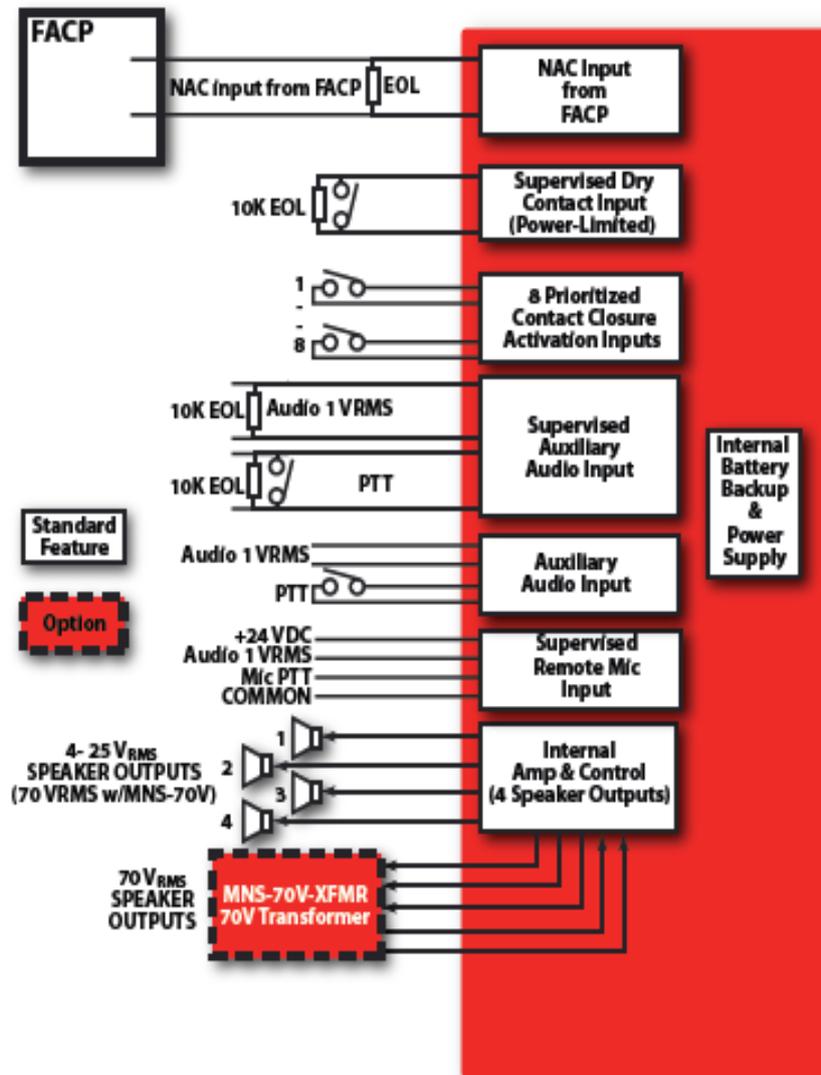
90% maximum, non-condensing;

#### Approvals/Listings

ETL Listed for UL 864 9<sup>th</sup> Edition (Control Units and Accessories for Fire Alarm Systems) and UL 1711 4<sup>th</sup> Edition (Amplifiers for Fire Protective Systems)

# ZT-MNS-100BAS

## Panel Layout



All specifications are subject to change without any notice. For more information, contact Velocity website.

Distributed By:



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