

# Digital Message Module<sup>1</sup>

## Model SIGA-MDM

### Overview<sup>2</sup>

The SIGA-MDM Digital Message Module provides the ability to add custom prerecorded voice messaging to EDWARDS's Network and Non-network systems. A microphone/line-level audio input stereo jack along with an audio output stereo jack for monitoring with headphones or amplified speakers are provided. Creating and reviewing messages is straightforward using MDM's onboard record and playback switches. Programming in the Signature Data Controller provides all control instructions. Extra wiring for monitoring or controlling circuits is not required.

The SIGA-MDM is shipped with two factory recorded messages. These standard messages can be changed on-site using the MDM's recording capabilities.

**EVAC** *Attention ...Attention... An emergency has been reported in this building. Please cease operations and leave the building utilizing the nearest exit or fire stairway. Do not use the elevator. Repeat, do not use the elevator.*

**ALERT** *Attention, please, an emergency has been reported in this building. While this report is being verified, please proceed to the corridor outside the nearest fire exit and standby for further instructions. Do not enter the fire exit. Do not use the elevators.*

The SIGA-MDM is part of the UIO family of plug-in Signature Series modules. It takes advantage of the modular flexibility and easy installation that characterizes all UIO modules. Two- and six-module UIO motherboards are available. These can accommodate individual risers for each on-board module, or shared risers in any combination with their UIO modules. All wiring connections are made to terminal blocks on the motherboard. UIO assemblies may be mounted in either EDWARDS cabinets, or standard electrical enclosures.

### Standard Features<sup>7</sup>

- **Includes two pre-recorded messages**  
Factory recorded EVACUATE and ALERT messages included.
- **Custom voice quality**  
Record, review and program custom messages in any language with onboard record and playback switches.
- **60 second capacity**  
Store two 30 second messages in non-volatile EEPROM; cascade multiple modules for almost unlimited capacity.
- **Integral microphone input and audio output jacks**  
Up front jacks allow convenient recording and reviewing messages.
- **Minimum wiring requirements**  
Integral jumpers between modules allow sharing of risers to reduce installation wiring.
- **Automatic device mapping**  
UIO module transmits information to the loop controller regarding its circuit location with respect to other Signature devices on the wire loop.
- **Electronic addressing**  
Programmable addresses are downloaded from the loop controller, a PC, or the SIGA-PRO Signature Program/Service Tool. There are no switches or dials to set.
- **Intelligent device with microprocessor**  
All decisions are made at the module to allow lower communication speed with substantially improved control panel response time and less sensitivity to line noise and loop wiring properties; twisted or shielded wire is not required.

## Application 1

The SIGA-MDM provides storage for two 30 second messages in its non-volatile EEPROM memory. On-site recording capability make it easy for programming messages in any language or local dialects. Dual message capability lends itself to bilingual applications or sending Alert and/or Evacuation messages to different areas of the building using a single module. When more capacity is required, up to 47 MDM modules can be cascaded together providing 97 different message outputs. Pre-amp level audio output is fed from the UIO module board terminals into the 2-AAC Audio Controller.

**Electronic Addressing** - The loop controller electronically addresses each module saving valuable time during system commissioning. Setting complicated switches or dials is not required. Each module has its own unique serial number stored in its on-board memory. The loop controller identifies each device on the loop and assigns a “soft” address to each serial number. If desired, the modules can be addressed using the SIGA-PRO Signature Program/Service Tool.

## Warnings & Cautions 4

This module will not operate without electrical power. As fires frequently cause power interruption, we suggest you discuss further safeguards with your fire protection specialist.

## Compatibility 6

The Signature Series modules are compatible only with EDWARDS's Signature Loop Controller.

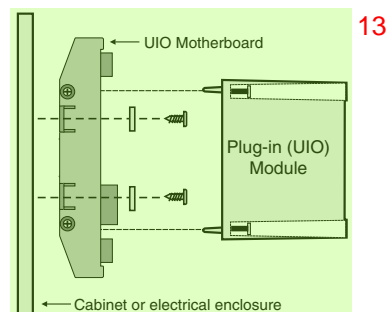
## Testing & Maintenance 8

The module's automatic self-diagnosis identifies when it is defective and causes a trouble message. The user-friendly maintenance program shows the current state of each module and other pertinent messages. Single modules may be turned off (de-activated) temporarily, from the control panel.

Scheduled maintenance (Regular or Selected) for proper system operation should be planned to meet the requirements of the Authority Having Jurisdiction (AHJ). Refer to current NFPA 72 and ULC CAN/ULC 536 standards.

## Installation 11

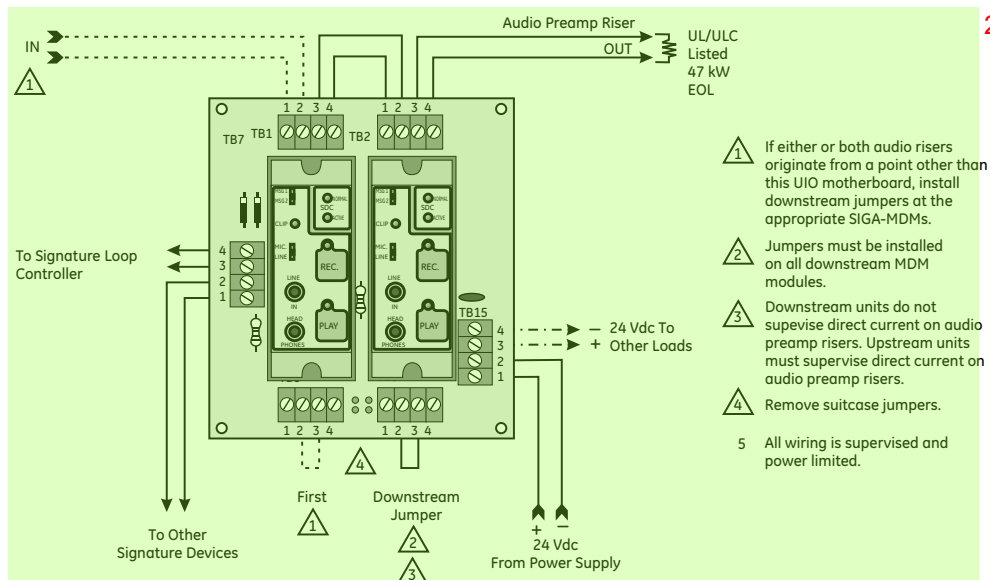
The SIGA-MDM mounts to a UIO motherboard inside a suitable EDWARDS enclosure with screws and washers provided. Plug the module into any available position on the motherboard and secure the module to the motherboard with the captive screws. Wiring connections are made to the terminals on the motherboard (see wiring diagram). UIO motherboard terminals are suited for #12 to #18 AWG (2.5 mm<sup>2</sup> to 0.75 mm<sup>2</sup>) wire size.



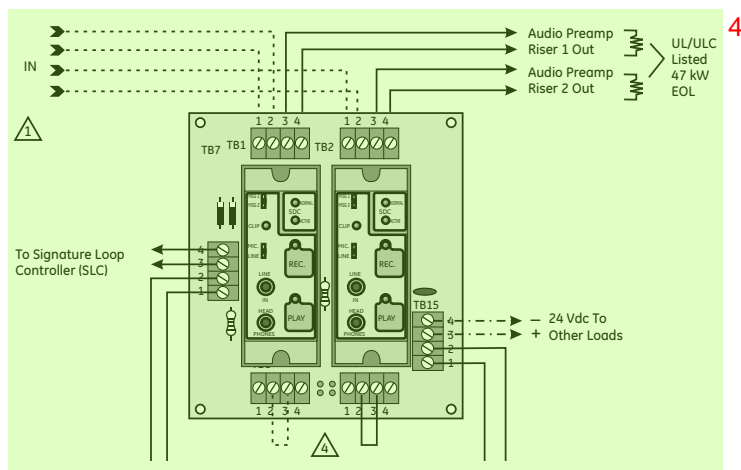
EDWARDS recommends that these modules be installed according to latest recognized edition of national and local fire alarm codes.

## Typical Wiring

Modules will accept #12 AWG (2.5mm<sup>2</sup>), #18 AWG (0.75mm<sup>2</sup>), #16 (1.0mm<sup>2</sup>), and #14 AWG (1.50mm<sup>2</sup>) wire sizes. Note: Sizes #16 AWG (1.0mm<sup>2</sup>) and #18 AWG (0.75mm<sup>2</sup>) are preferred for ease of installation. See Signature Loop Controller catalog sheet for detailed wiring requirement specifications.



Single Cascaded Audio Riser 3



Separate Audio Risers 5

## Specifications <sup>1</sup>

Power Requirements	Standby: 8 mA @ 18 to 26.4 Vdc Remote Playback: 20 mA Local Record/Playback: 20 mA
Message Capacity	2 @ 30 seconds each
Audio Characteristics	Bandwidth: 400 Hz to 2.8 kHz +3/-6 dB @ 1 kHz Distortion: <2% @ 1 kHz
Audio Input (via front panel stereo jack)	Microphone: 20 mVrms max; Line-Level: 200 mVrms max.
Audio Output	Riser: 1 Vrms into 600 ohms 5000 ft of #18 AWG max. Riser Supervision: DC Supervision from upstream MDM (47 Kohm EOL) Front Panel: 1 Vrms 16 ohms 3.5 mm stereo jack Multi-Unit Cascade Priority: Active downstream has priority
Remote Control Functions	Playback and Message Select via Signature Data Controller (SDC)
Local Control Functions	Message Select, Input Level Select, Record, and Local Playback
LED Indicators	Record Mode, Play Mode, and Excessive Record Volume
Address Requirements	Uses 2 Module Addresses Low Address = Off/Play; High Address = Msg #1/Msg #2
Type Code	Personality Code (factory set; emulates SIGA-CC2)
Mounting	Plugs into UIO2R, UIO6R or UIO6 Motherboards
Construction and Finish	High Impact Engineered Polymer; White
Operating and Storage Environment	Operating Temperature: 32°F to 100°F (0°C to 38°C) Storage Temperature: -4°F to 140°F (-20°C to 60°C) Operating and Storage Humidity: 0 to 93% RH
Agency Listing	UL, ULC

## Ordering Information <sup>3</sup>

Catalog Number	Description	Ship Wt. - lb. (kg)
SIGA-MDM	Intelligent Digital Message Module	0.18 (0.08)
<b>Related Equipment</b>		
SIGA-UIO2R	Universal Input-Output Module Board w/Riser Inputs - Two Module Positions	0.32 (0.15)
SIGA-UIO6R	Universal Input-Output Module Board w/Riser Inputs - Six Module Positions	0.62 (0.28)
SIGA-UIO6	Universal Input-Output Module Board - Six Module Positions	0.56 (0.25)