

Type(s)
Project
Date
Notes



GENERAL INFORMATION

Mosaic Input/Output Modules expand the advanced show-control capabilities of Mosaic allowing interaction with external triggers and systems. Remote I/O modules offer tri-mode inputs or relay outputs and an integrated, bidirectional serial port (RS-232/RS-485) for interfacing to third-party equipment. The module uses simple and reliable Ethernet topology with Power-over-Ethernet (PoE) to connect to supported controllers.

APPLICATIONS

- Integration with third-party products and systems

FEATURES

- Individually configurable tri-mode inputs with support for digital, analog, or contact closure
- Multiple protocol serial port including RS-232/485 serial, or output for 96 DMX channels
- Up to 200 modules supported in a single control system
- Power-over-Ethernet (PoE) powered
- Programmed and configured using Mosaic Designer Software

REGULATORY AND COMPLIANCE

- cETLus Listed
 - Conforms to UL-60950-1
 - Certified to CAN/CSA-C22.2 No. 60950-1
- CE Compliant
- California Title 20/24 compliant

ORDERING INFORMATION

Remote I/O Modules

MODEL	DESCRIPTION
MRIO-80	I/O Module with 8 inputs and 0 outputs
MRIO-44	I/O Module with 4 inputs and 4 outputs
MRIO-08	I/O Module with 0 inputs and 8 outputs

Note: Up to 200 of each Remote I/O module can be connected to a single system.

Related Show Controllers

MODEL	DESCRIPTION
MTPC	Tessera Panel Controller
MSC_1	Mosaic Show Controller
MSCX	High-capacity Show Controller
MALC	Mosaic Atlas
MALCP	Mosaic Atlas Pro

¹ Available with one(1), two(2) or four(4) DMX universe output(s)

Related Products

MODEL	DESCRIPTION
M108-__	Button Station
M-TS	Mosaic Touchscreen
MRIO-A	Audio/Timecode Remote Device
MRIO-D	DALI Remote Device
MSC-NET	Five-port Ethernet Switch w/ PoE



SPECIFICATIONS

FUNCTIONAL

- MRIO 80 - Eight configurable tri-mode inputs configurable for digital, analog, or contact closure
- MRIO 44 - Four configurable tri-mode inputs and four relay outputs
- MRIO 08 - Eight fully isolated relay outputs
- RS-232/485 serial output, or up to 96 channels of DMX output
- Tri-mode inputs support:
 - Digital In - Presence of voltage between input and ground. supports active-high and active-low
 - Analog In - Uses voltage range as a trigger.
 - Contact Closure - Uses a voltage free switch between input and ground
- Relay outputs generate outputs to external systems.
- Five year warranty

MECHANICAL

- Four-unit wide DIN enclosure complies with DIN43880 and EN60715 (35/7.5 rail)
- Rugged aluminum enclosure
- Rotary switch for selecting network address
- All connections use lug-able rising clamp terminals

ELECTRICAL

- RJ45 connection supports 10/100Base-TX Ethernet
 - Link and data LEDs
 - Static and DHCP addressing support
- PoE powered (IEEE 802.3af, Class 1) 1.5W typical draw
- Isolated tri-mode inputs are rated for:
 - Digital - 24 VDC maximum, internal 2 MOhm pull down
 - Analog - 0–24 VDC range configurable in software
 - Contact Closure - Voltage free with internal 2.2 kOhm pull-up to 5 VDC
- Isolated relay outputs are rated for:
 - 1 KV isolation per relay
 - 250 mA at 48V AC/DC
- RS-232 or RS-485 bidirectional serial with support for free syntax ASCII, HEX or Decimal formats
 - May be used for DMX output of up to 96 addresses
- Wiring connections made using plug-able 0.2 in (5.08 mm) rising clamp terminals

THERMAL

- Ambient temperature: 0°–50° C (32°–122° F)
- 10–50% relative humidity, non-condensing

PHYSICAL

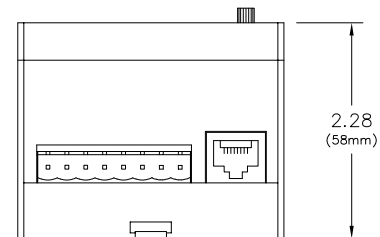
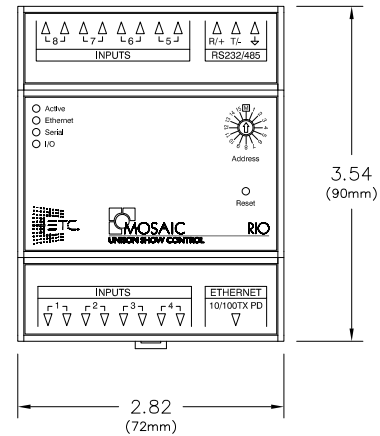
Remote Module Dimensions*

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
MRIO-80	3.54	90	2.82	72	2.28	58
MRIO-44	3.54	90	2.82	72	2.28	58
MRIO-08	3.54	90	2.82	72	2.28	58

Remote Module Weights*

MODEL	WEIGHT		SHIPPING WEIGHT	
	lb	kg	lb	kg
MRIO-80	1.0	0.23	1.1	0.50
MRIO-44	1.0	0.23	1.1	0.50
MRIO-08	1.0	0.23	1.1	0.50

*Weights and dimensions typical



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