



Type(s)
Project
Date
Notes

GENERAL INFORMATION

The Mosaic Input/Output Module expands the show control capabilities of Mosaic allowing interaction with external triggers and systems. The RIO attaches directly to DIN rail and connects over a single network connection to the Mosaic system, allowing the device to be placed wherever is convenient. The RIO offers eight (8) tri-mode inputs, four (4) relay outputs, and an integrated multi-protocol serial port for interfacing to third-party equipment.

APPLICATIONS

- Integration with third-party products and systems

FEATURES

- 8 Individually configurable tri-mode inputs with support for digital, analog, or contact closure
- 4 low-voltage relay outputs
- Multiple protocol serial port including RS-232/485 serial, or can be configured as a DMX input or output
- Up to 200 modules are supported in a single control system
- Power-over-Ethernet (PoE) powered
- Programmed and configured using Mosaic Designer Software v2.16 or later

REGULATORY AND COMPLIANCE

- cULus Listed
- UKCA Compliant
- CE Compliant

ORDERING INFORMATION

Remote I/O Modules

MODEL	DESCRIPTION
MRIO-84	I/O Module with 8 inputs and 4 outputs

Note: Up to 200 of each Remote I/O module can be connected to a single system with per-controller limitations.

Mosaic Controllers

MODEL	DESCRIPTION
MSC	Mosaic DIN rail Controller
MSC X Mk3	Mosaic High Output Rack-mount Controller
MALC Mk2	Mosaic Atlas Controller
MALCP	Mosaic Atlas Pro Controller

Mosaic RIOs

MODEL	DESCRIPTION
MRIO-A	Mosaic Audio/Timecode Remote Device
MRIO-D4	Mosaic DALI Remote Device
MRIO-84	Mosaic 8 Input 4 Output Remote Device

Mosaic Accessories

MODEL	DESCRIPTION
M-TS5-__	Mosaic 5-inch Touchscreen
M-TS8-__	Mosaic 8-inch Touchscreen
M108-__	Mosaic 8-button Station
MSC-NET Mk3	Mosaic DIN rail Network Switch
MSC-PS24	Mosaic 24 V DIN rail Power Supply



SPECIFICATIONS

FUNCTIONAL

- 8 Individually configurable inputs
- 4 individually isolated low-voltage relay outputs
- Multiple protocol serial port including:
 - RS-232 Serial
 - RS-485 Serial
 - DMX Input
 - 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

MECHANICAL

- Six-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 pluggable 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 2) 7 W max draw
- Isolated tri-mode inputs are rated for:
 - Digital - 24 VDC maximum, internal 2 MOhm pull down to 0 V (software configurable low/high threshold)
 - Analog - 0–24 VDC range configurable in software
 - Contact Closure - Voltage-free switch with internal 2.2 kOhm pull-up to 5 VDC
- Isolated relay outputs are rated for:
 - 1 KV isolation per relay
 - 250 mA at 48 VAC/VDC (0.25 A)
 - An external power supply is required to power relay outputs
- RS-232 or RS-485 bidirectional serial with support for free syntax ASCII, HEX or Decimal formats
 - May be used for DMX input or output of up to 512 channels (USITT E1.11-2008)
- Wiring connections made using pluggable 0.2 in (5 mm) rising clamp terminals

THERMAL

- Ambient temperature: 0°C to 50°C (32°F to 122°F)
- 10%–90% relative humidity, non-condensing

WARRANTY

- See etconnect.com/warranty/ for details.

PHYSICAL

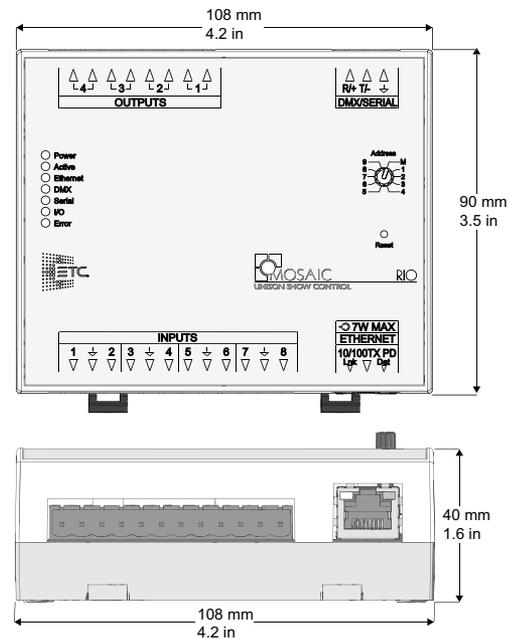
Remote Module Dimensions†

MODEL	HEIGHT		WIDTH		DEPTH	
	mm	in	mm	in	mm	in
MRIO-84	90	3.5	108	4.2	40	1.6

Remote Module Weights†

MODEL	WEIGHT		SHIPPING WEIGHT	
	kg	lb	kg	lb
MRIO-84	0.2	0.5	0.4	0.9

†Weights and dimensions typical



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