ETC

Response 0-10V Gateway

Specialty Gateway Series

Type(s)

Project

Date

Notes

GENERAL INFORMATION

The Response 0-10V Gateway accepts streaming ACN (sACN) and DMX control input to provide 24 outputs of 0–10 V control. It is ideal for both retrofit and new power control system installations that require four-wire LED drivers and fluorescent ballasts. The gateway also accepts a contact input to set each channel's output to a programmed level for use in UL 924 emergency lighting applications with UL 924 Listed Directly Controlled Emergency Luminaires (DCEL).

APPLICATIONS

- Houses of worship
- Hotels
- Convention centers
- Meeting rooms
- House lighting
- Museums
- Themed environments

FEATURES

- 24 independent 0–10 V control outputs
- DMX and/or sACN control input
- Configurable dimming curve per output
- Contact input for emergency lighting with local test button
- Onboard configuration using four-button interface
- Remote configurable using Concert software
- Onboard display for status and configuration
- Power, network, and emergency status indicators
- 12–24 VDC power input
- Power over Ethernet (PoE) power input for non-emergency applications
- UL 924 Listed for emergency lighting applications with UL 924 Listed Directly Controlled Emergency Luminaires (DCEL)

ORDERING INFORMATION

0–10 V Gateway

MODEL	DESCRIPTION	PART NUMBER
RSN-LV R3	Response 0-10V Gateway R3	4267A1202

Gateway Accessories

MODEL	DESCRIPTION	PART NUMBER
HDR-60-24	24 VDC DIN rail Gateway Power Supply	PS537

Mounting Accessories - Universal

MODEL	DESCRIPTION	PART NUMBER
DIN-RM	DIN rail Rack Mount Kit	4267A1015
DIN14-L	Small DIN rail Enclosure - Horizontal L Barrier	7180K1019-L
DIN28-H	Large DIN rail Enclosure - Horizontal	7180K1018-H

Mounting Accessories - PoE Powered Only‡

MODEL	DESCRIPTION	PART NUMBER
DIN8	Mini DIN rail Enclosure	7180K1030
DIN14	Small DIN rail Enclosure - Vertical	7180K1019
DIN14-H	Small DIN rail Enclosure - Horizontal	7180K1019-H
DIN28	Large DIN rail Enclosure	7180K1018

‡ Remove Enclosure's Voltage Barrier

Related Products

MODEL	DESCRIPTION	PART NUMBER
RSN-DMX4-DIN	Response MK2 4-port Gateway - DIN rail	4268A1244
RSN-DALI	Response DALI Gateway	4267A1203
RSN-IO-DIN	Response Analog IO Gateway	4267A1005
RSN-SB-DIN	Response SnapBack	4267A1010

SPECIFICATIONS

FUNCTIONAL
- Supports sACN control input (ANSI E1.31)
- Supports USITT DMX512-A control input (ANSI E1.11)
- Supports 0–10 V sink control (IEC60929 Annex E)
- Supports per-address- or per-universe sACN priority
- Configurable dimming curve per channel
  - Linear
  - Mod-Square
  - Custom

MECHANICAL
- Intuitive four-button interface
- Onboard display for identification, status, and configuration
- Extruded aluminum enclosure
- Network, power, and emergency activity indicators
  - Blue power indicator
  - Green and yellow network activity indicator
  - Red emergency indicator
- RJ45 receptacle for connection to lighting network
- Pluggable terminals provided for all wiring connections
- Selection switch for emergency input configuration
  - Normally Open, Normally Closed, or Off
- Local Push To Test button for emergency input
- Selection switch for DMX input termination
- 14 unit DIN enclosure width
- Mounting complies with DIN43880 (35/7.5 rail)

ENVIRONMENTAL
- Ambient operating temperature: 0°C to 40°C (32°F to 104°F)
- Operating humidity: 5%–95% non-condensing
- Storage temperature: -40°C to 70°C (-40°F to 158°F)

ELECTRICAL
- Compliant with IEEE 802.3i for 10BASE-T, 802.3u for 100BASE-TX and 802.3af for Power over Ethernet (PoE)
- IEEE 802.3af, Type 1, PD class 2 PoE input for non-emergency systems
- 12–24 VDC power input using three-pin pluggable connection for use with non-PoE systems
- Maximum 1 Amp current draw at 12–24 VDC
- 24 0–10 V outputs, each supporting voltage sink connections, 100 mA maximum current per output

DMX INPUT PORT
- Optically-isolated input from the gateway electronics
- Withstands fault voltages of up to 250 VAC
- Integrated DMX/RDM termination selection switch

CONFIGURATION
- Onboard configuration using intuitive four-button interface
- Configuration provided using Concert software
- Configurable starting address
- Configurable inclusion in emergency behavior
- Up to four sources may be combined to the network with each source or address allowed an independent priority

REGULATORY AND COMPLIANCE
- cETLus Listed
- CE compliant
- UKCA compliant
- RoHS compliant
- WEEE
- UL 924 Listed for emergency lighting applications using UL 924 Listed Directly Controlled Emergency Luminaires (DCELs)

ADDITIONAL INFORMATION

DMX512
Often shortened to DMX (Digital Multiplex), this communication protocol is used mainly to control dimmers and multi-parameter fixtures. A universe of DMX is defined as 512 channels. DMX sends a nearly continuous stream of level information for each control channel. It is a form of RS-485 digital serial communication.

sACN
Streaming ACN (ANSI E1.31), sends DMX-style control over TCP/IP networks. It provides a fast and efficient mechanism to transport the well-understood DMX protocol over Ethernet using an industry-standard protocol.

ACN
Architecture for Control Networks (ANSI E1.17) is a standard for high-speed bidirectional communication over TCP/IP on Ethernet network infrastructure. ACN is an open suite of protocols used between network devices for the purposes of greater and more adaptive control.
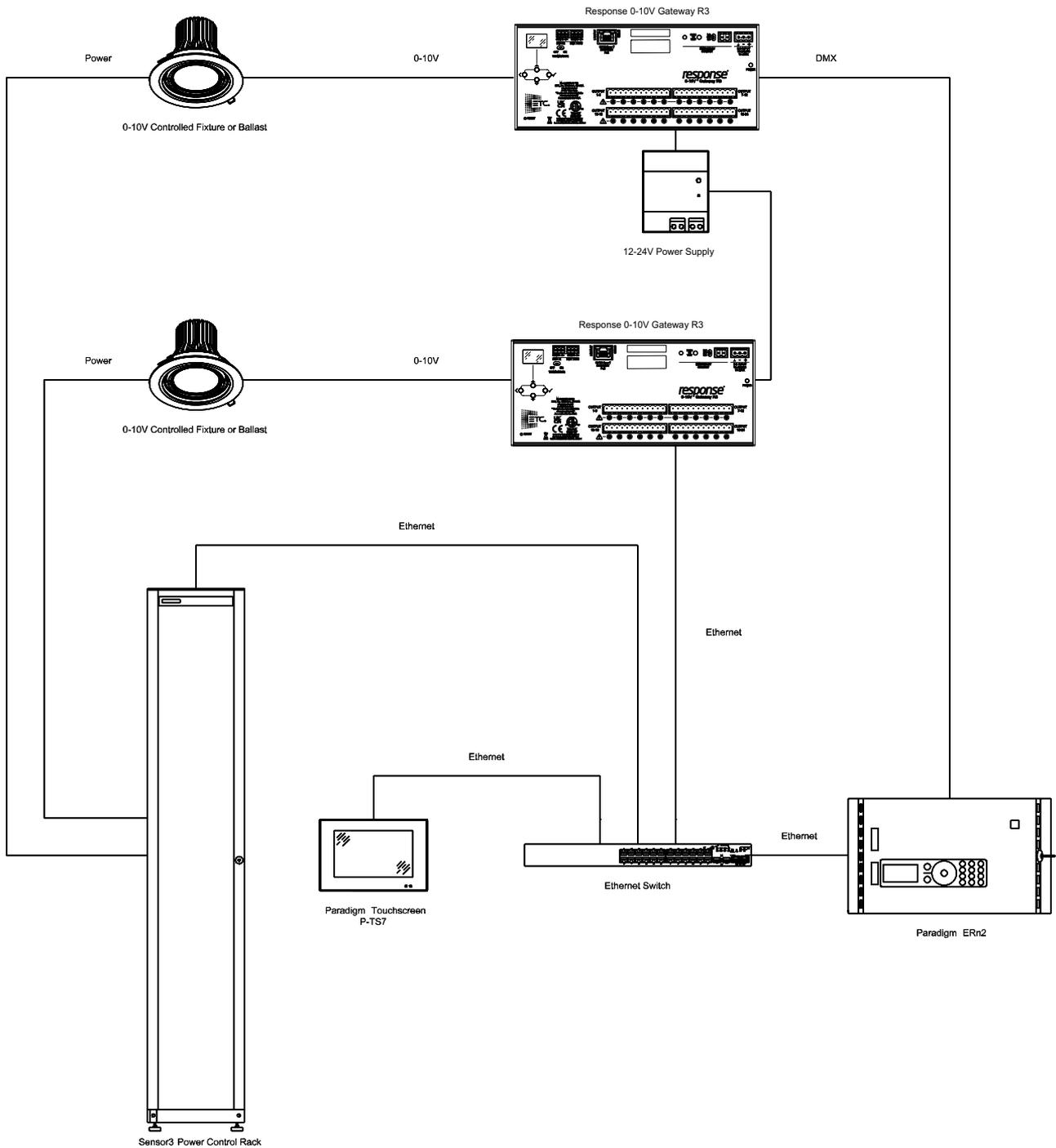
UL 924 COMPLIANCE
The Response 0-10V Gateway offers an emergency capability that complies with the UL 924 standard. To comply with UL 924, the following must be true:
- The Response 0-10V Gateway must be powered by auxiliary power and not PoE
- Aux power must be wired to a normal/emergency power source
- The emergency circuit labels (provided) must be adhered to the gateway and the enclosure housing the gateway
- 0–10 V output wiring used for emergency are separately bundled and labeled in accordance with the NEC
- All emergency outputs are terminated on the same 6-circuit output connector(s)
- Luminaires must be UL 924 Listed Directly Controlled Emergency Luminaires (DCELs)

Note: Installation must follow all national and local codes for electrical equipment. Use of Class 2 wiring methods for emergency circuits must be in accordance to NEC section 700.11 and local jurisdiction requirements.

RISER DIAGRAM

Response 0-10V Gateway R3

Power

0-10V

DMX

0-10V Controlled Fixture or Ballast

12-24V Power Supply

Response 0-10V Gateway R3

Power

0-10V

0-10V Controlled Fixture or Ballast

Ethernet

Ethernet

Ethernet

Ethernet

Paradigm Touchscreen
P-TS7

Ethernet Switch

Ethernet

Paradigm ERn2

Sensor3 Power Control Rack

For emergency applications, additional equipment may be required. Please see the ETC Emergency Lighting Design Guide for more information.
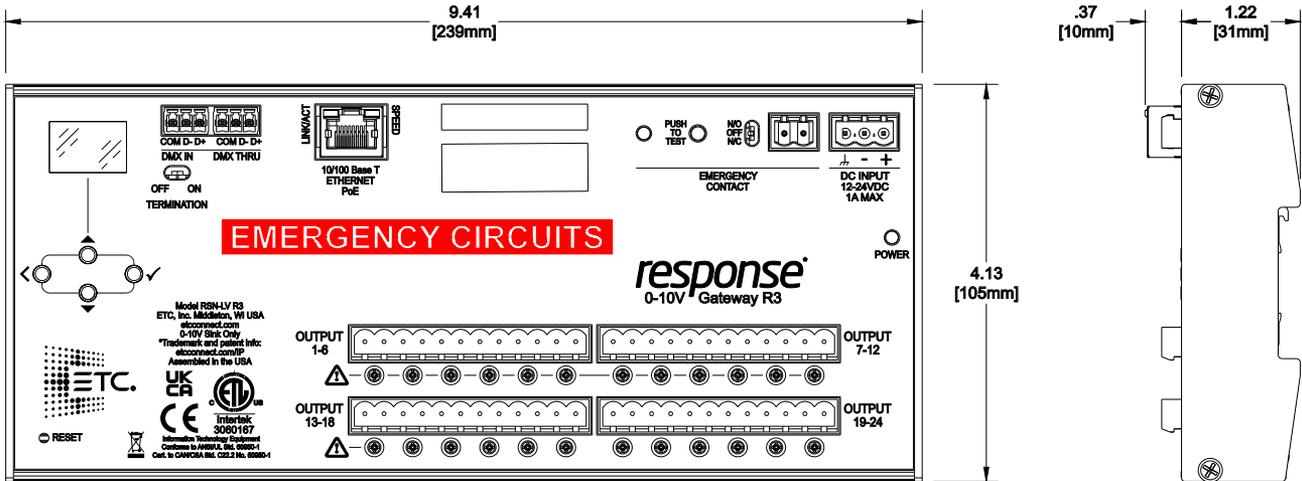
P H Y S I C A L

0-10V Gateway Dimensions

MODEL	HEIGHT		WIDTH		DEPTH	
	in	mm	in	mm	in	mm
RSN-LV R3	4.13	105	9.41	239	1.22	31

0-10V Gateway Weights

MODEL	WEIGHT		SHIPPING WEIGHT	
	lb	kg	lb	kg
RSN-LV R3	1.38	0.62	2.63	1.19

FRONT VIEW

SIDE VIEW