

# UniStream™ Uni-I/O™ Modules

## Technical Specifications

UID-0808R, UID-0016R, UID-0808T,  
UID-0016T, UID-1600

This guide provides specifications for Unitronics' Uni-I/O™ Modules.

Uni-I/O modules are compatible with UniStream™ Programmable Logic Controllers. They may be either snapped onto the back of a UniStream™ HMI Panel next to a CPU-for-Panel to create an all-in-one HMI + PLC controller, or installed on a standard DIN Rail using a Local Expansion Kit.

Installation Guides are available in the Unitronics Technical Library at [www.unitronics.com](http://www.unitronics.com).

This specification sheet refers to the models in the following table:

| Part no.  | UID-0808R                           | UID-0016R | UID-0808T                         | UID-0016T | UID-1600                          |
|-----------|-------------------------------------|-----------|-----------------------------------|-----------|-----------------------------------|
| Inputs    | 8                                   | -         | 8                                 | -         | 16                                |
| Type      | Sink (pnp) or Source (npn), 24VDC   | -         | Sink (pnp) or Source (npn), 24VDC | -         | Sink (pnp) or Source (npn), 24VDC |
| Outputs   | 8                                   | 16        | 8                                 | 16        |                                   |
| Type      | Relay, 24VDC (power supply)         |           | Transistor, Source (pnp), 24VDC   |           |                                   |
| Isolation | All inputs and outputs are isolated |           |                                   |           |                                   |

| Inputs                      | UID-1600  | UID-0808R, UID-0808T        |
|-----------------------------|---|-----------------------------|
| Number of inputs            | 16  | 8                           |
| Type                        | Sink or Source  |                             |
| Isolation groups            | Four groups of 4 inputs each                                      | Two groups of 4 inputs each |
| Isolation voltage           |   |                             |
| Group to bus                | 500VAC for 1 minute   |                             |
| Group to group              | 500VAC for 1 minute   |                             |
| Input to input within group | None  |                             |
| Nominal voltage             | 24VDC @ 6mA   |                             |
| Input voltage               |   |                             |
| Sink/Source                 | On state: 15-30VDC, 4mA minimum<br>Off state: 0-5VDC, 1mA maximum |                             |
| Nominal impedance           | 4kΩ   |                             |
| Filter                      | Settable between 1 to 32 ms (individually per group)              |                             |

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| Outputs                        | UID-0808R                              | UID-0016R                     | UID-0808T  | UID-0016T               |
|--------------------------------|--|-------------------------------|--|-------------------------|
| Number of outputs              | 8                                      | 16                            | 8  | 16                      |
| Output type                    | Relay, SPST-NO (Form A)                |                               | Transistor, Source   |                         |
| Isolation groups               | Two groups of 4 outputs each           | Four groups of 4 outputs each | One group of 8 outputs   | One group of 16 outputs |
| Isolation voltage              |  |                               |  |                         |
| Group to bus                   | 1,500VAC for 1 minute                  |                               | 500VAC for 1 minute  |                         |
| Group to group                 | 1,500VAC for 1 minute                  |                               | -  |                         |
| Output to output within group  | None                                   |                               | None   |                         |
| Output power supply to bus     | None                                   |                               | 500VAC for 1 minute  |                         |
| Output power supply to output  | 1,500VAC for 1 minute                  |                               | None   |                         |
| Current                        | 2A maximum per output (Resistive load) |                               | 0.5A maximum per output.<br>UID-0016T: total cumulative output current for O4-O7 and O12-O15 cannot exceed 2A. |                         |
| Voltage                        | 250VAC / 30VDC maximum                 |                               | See Outputs Power Supply specification   |                         |
| Minimum load                   | 1mA, 5VDC                              |                               | -  |                         |
| ON state voltage drop          | -                                      |                               | 0.5V maximum   |                         |
| OFF state leakage current      | -                                      |                               | 10µA maximum   |                         |
| Switching times                | 10ms maximum                           |                               | Turn-on/off: 80µs max. (Load resistance < 4kΩ)   |                         |
| Short-circuit protection       | None                                   |                               | Yes  |                         |
| Life expectancy <sup>(1)</sup> | 100k operations at maximum load        |                               | -  |                         |

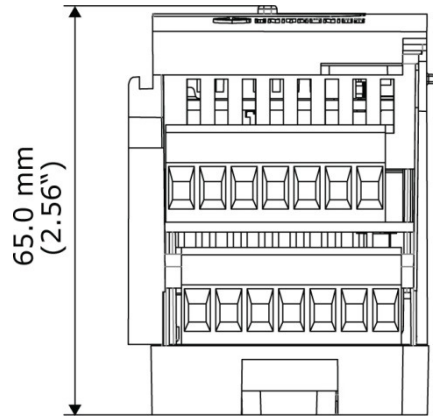
| Outputs Power Supply        | UID-0808R      | UID-0016R  | UID-0808T                 | UID-0016T                 |
|-----------------------------|----------------|------------|---------------------------|---------------------------|
| Nominal operating voltage   | 24VDC          |            |                           |                           |
| Operating voltage           | 20.4 – 28.8VDC |            |                           |                           |
| Maximum current consumption | 40mA@24VDC     | 80mA@24VDC | 30mA@24VDC <sup>(2)</sup> | 60mA@24VDC <sup>(2)</sup> |

| IO/COM Bus                      | UID-0808R | UID-0016R | UID-0808T | UID-0016T | UID-1600 |
|---------------------------------|-----------|-----------|-----------|-----------|----------|
| Bus maximum current consumption | 100mA     | 90mA      | 110mA     | 120mA     | 100mA    |

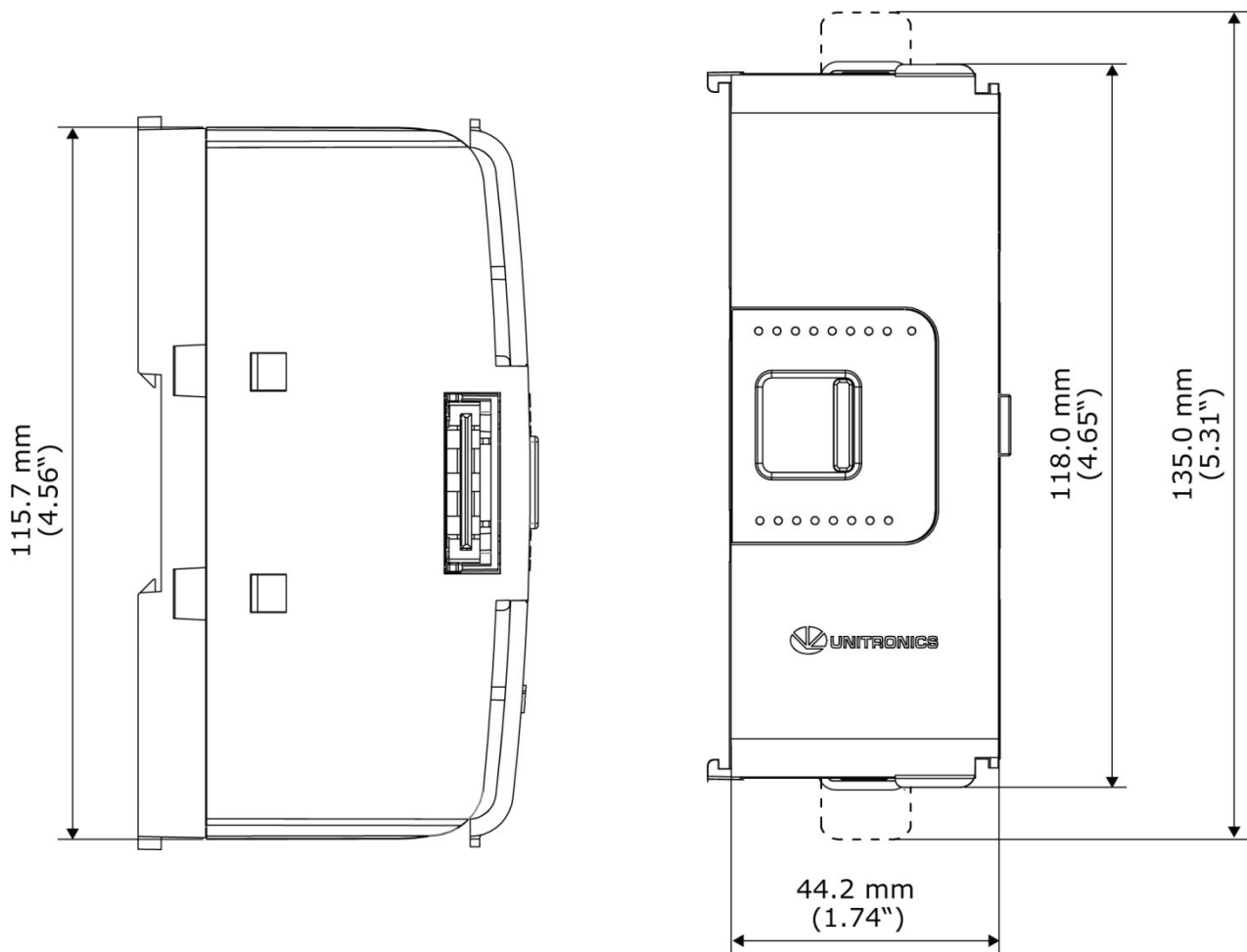
| LED Indications |   |              |  |
|-----------------|---|--------------|--|
| Input LEDs      | Green   | Input state  |  |
| Output LEDs     | Green   | Output state |  |
| Status LED      | A triple color LED. Indications are as follows: |              |  |
|                 | Color   | LED State    | Status   |
|                 | Green   | On           | Operating normally                                       |
|                 |   | Slow blink   | Boot   |
|                 |   | Rapid blink  | OS initialization  |
|                 | Green/Red                                       | Slow blink   | Configuration mismatch                                   |
|                 | Red   | On           | Output short-circuit<br>(models with transistor outputs) |
|                 |   | Slow blink   | No IO exchange   |
|                 |   | Rapid blink  | Communication error                                      |
| Orange          | Rapid blink                                     | OS Upgrade   |  |

| Environmental          |   |
|------------------------|---|
| Protection             | IP20, NEMA1   |
| Operating temperature  | -20°C to 55°C (-4°F to 131°F)   |
| Storage temperature    | -30°C to 70°C (-22°F to 158°F)  |
| Relative Humidity (RH) | 5% to 95% (non-condensing)  |
| Operating Altitude     | 2,000m (6,562 ft)   |
| Shock                  | IEC 60068-2-27, 15G, 11ms duration  |
| Vibration              | IEC 60068-2-6, 5Hz to 8.4Hz, 3.5mm constant amplitude, 8.4Hz to 150Hz, 1G acceleration. |

| Dimensions | UID-0808R  | UID-0016R             | UID-0808T             | UID-0016T             | UID-1600              |
|------------|--|-----------------------|-----------------------|-----------------------|-----------------------|
| Weight     | 0.15 Kg<br>(0.331 lb)                                  | 0.17 Kg<br>(0.374 lb) | 0.13 Kg<br>(0.287 lb) | 0.13 Kg<br>(0.287 lb) | 0.13 Kg<br>(0.287 lb) |
| Size       | Identical for all models, as shown in the images below |                       |                       |                       |                       |



Top View



Side View

Front View

## Notes

1. Life expectancy of the relay contacts depends on the application that they are used in. The product's installation guide provides procedures for using the contacts with long cables or with inductive loads.
2. Current consumption does not include load current.

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