

This guide provides specifications for Unitronics' Uni-I/O™ module UIA-0006. This module comprises:

- 6 analog outputs, 13/14 bit

Uni-I/O modules are compatible with UniStream™ family of 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 Adapter.

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

Analog Outputs				
Number of outputs	6			
Output range <sup>(0)</sup>	Output Type	Nominal Values	Over-range Values	Overflow Values
	0 ÷ 10VDC	0 ≤ Vout ≤ 10VDC	10 < Vout ≤ 10.15VDC	Vout > 10.15VDC
	-10 ÷ 10VDC	-10 ≤ Vout ≤ 10VDC	-10.15 ≤ Vout < -10VDC 10 < Vout ≤ 10.15VDC	Vout < -10.15VDC Vout > 10.15VDC
	0 ÷ 20mA	0 ≤ Iout ≤ 20mA	20 ≤ Iout ≤ 20.3mA	Iout > 20.3mA
	4 ÷ 20mA	4 ≤ Iout ≤ 20mA	20 ≤ Iout ≤ 20.3mA	Iout > 20.3mA
Isolation voltage				
Output to bus	500 VAC for 1 minute			
Output to output	None			
Output power supply to bus	None			
Output power supply to output	None			
Resolution	0 ÷ 10VDC – 14 bit -10 ÷ 10VDC – 13 bit + sign 0 ÷ 20mA – 13 bit 4 ÷ 20mA – 13 bit			
Accuracy (25°C / -20°C to 55°C)	±0.3% / ±0.5% of full scale (Voltage) ±0.5% / ±0.7% of full scale (Current)			
Load impedance	Voltage – 2kΩ minimum Current – 600Ω maximum			
Settling time (95% of new value)	0 ÷ 10VDC – 1.8ms (2kΩ resistive load), 3.7ms (2kΩ + 1uF load) -10 ÷ 10VDC – 3ms (2kΩ resistive load), 5.5ms (2kΩ + 1uF load) 0 ÷ 20mA and 4 ÷ 20mA – 1.7ms (600Ω load), 1.7ms (600Ω + 10mH load)			
Cable	Shielded twisted pair			
Diagnostics <sup>(2)</sup>	Voltage – The outputs are short-protected but there isn't software indication Current – Open circuit indication			

### Power Supply

Nominal operating voltage	24VDC
Operating voltage	20.4 ÷ 28.8VDC

Maximum current consumption	150mA @ 24VDC
Diagnostics <sup>(2)</sup>	Supply level: Normal / Low or missing.

**IO/COM Bus**

Bus current consumption	70mA maximum
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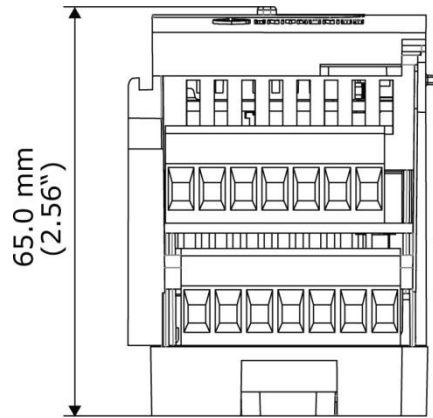
**LED Indications**

Output LEDs	Red	On: Open Circuit (when set to Current mode)		
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	Supply voltage is low or missing	
		Slow blink	No IO exchange	
		Rapid blink	Communication error	
Orange	Rapid Blink	OS Upgrade		

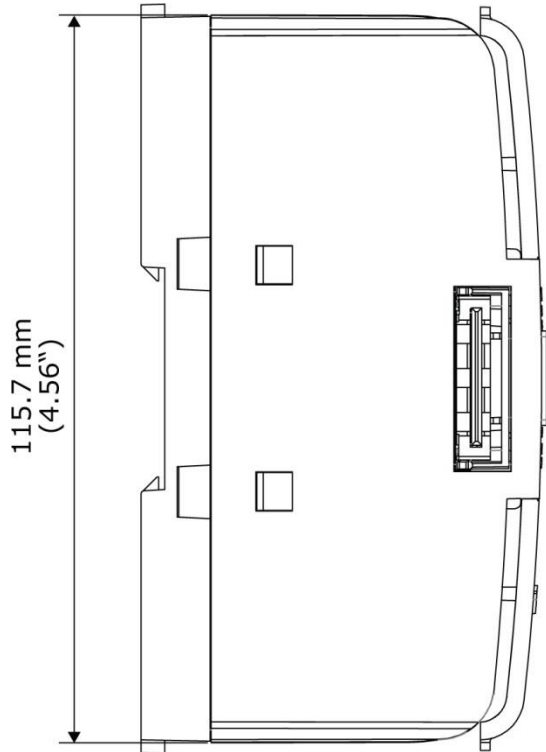
**Environmental**

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	2,000 m (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

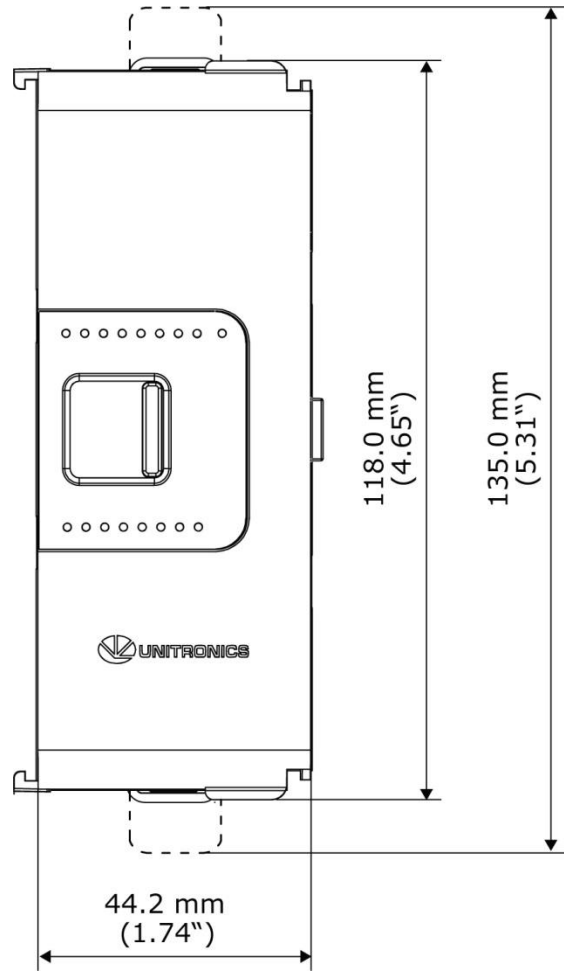
Dimensions	
Weight	0.17 Kg (0.375 lb)
Size	Refer to the images below



Top View



Side View



Front View

**Notes:**

1. The UIA-0006 will be able to output values that are up to 1.5% higher than the nominal output range (Output Over-range).
2. See LED Indications Table above for description of the relevant indications. Note that the diagnostics results are also indicated in the system tags and can be observed through the UniApps™ or the online state of the UniLogic™.

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