UniStream™ Uni-I/O™ Modules

Technical Specifications
UIA-0006

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

Analog Outputs				
Number of outputs	6			
Output range (0)	**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 (2)	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

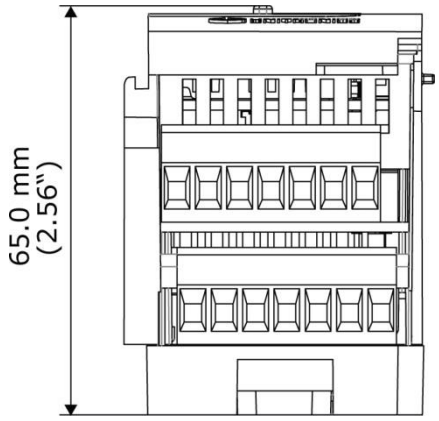
Maximum current consumption	150mA @ 24VDC
Diagnostics (2)	Supply level: Normal / Low or missing.

IO/COM Bus	
Bus current consumption	70mA maximum

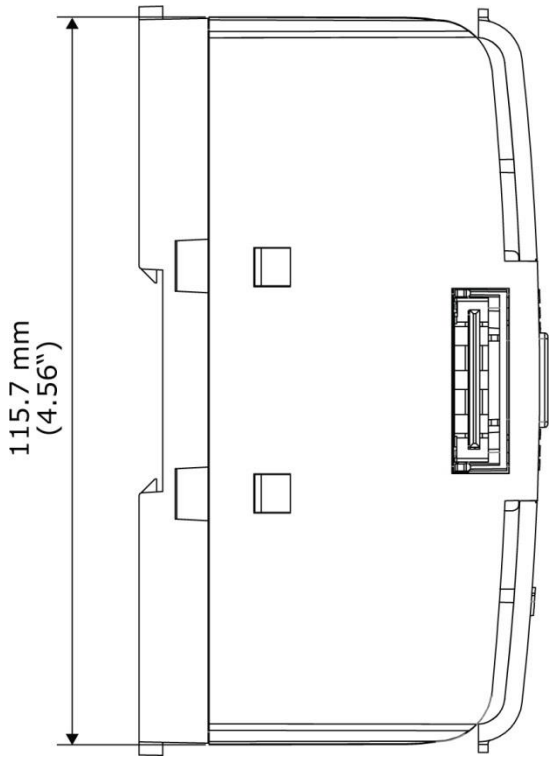
LED Indications			
Output LEDs	Red	On: Open Circuit (when set to Current mode)	
Status LED	A triple color LED. Indications are as follows:		
	Color	LED State	Status
	Green	On	Operating normally
		Slow blink	Boot
		Rapid blink	OS initialization
	Green/Red	Slow blink	Configuration mismatch
	Red	On	Supply 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

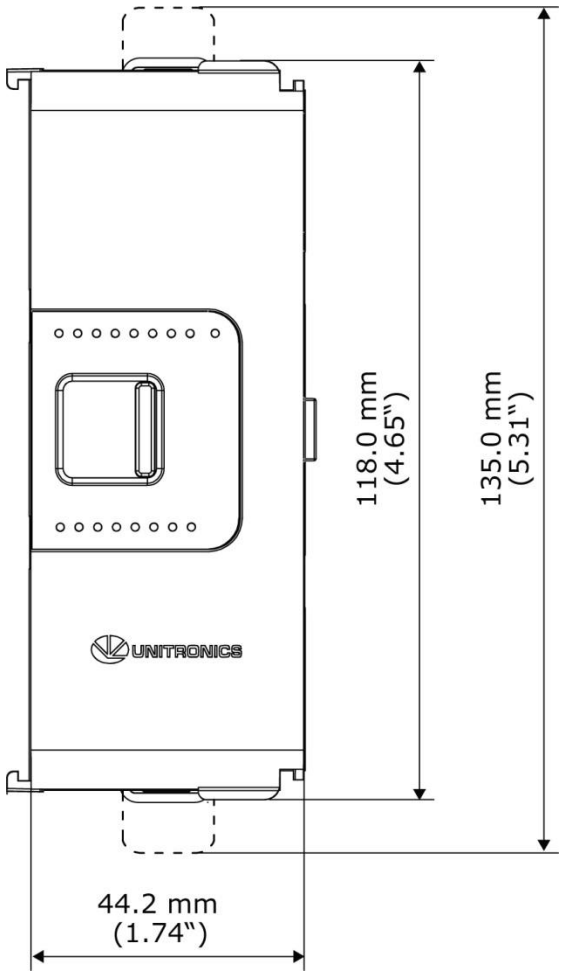
Dimensions	
Weight	0.17 Kg (0.375 lb)
Size	Refer to the images below



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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