UniStream™ CPU-for-Panel

Technical Specifications
USC-P-B10

The UniStream™ CPU-for-Panel is designed to be plugged onto the back of a UniStream™ HMI Panel. The CPU-for-Panel is powered directly from the HMI Panel. Uni-I/O™ or Uni-COM™ modules may be snapped next to the CPU to create an all-in-one HMI + PLC controller with an onboard I/O configuration.
You can expand the onboard I/O configuration of the all-in-one controller via a Local Expansion Kit [(1)].

Installation Guides are available in the Unitronics Technical Library at www.unitronics.com.

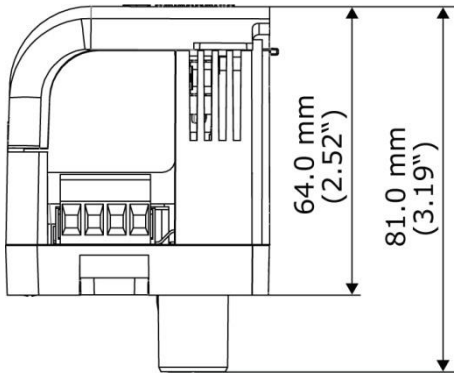
General	
I/O support	Up to 2,048 I/O points
Local Uni-I/O™ support [(2)]	Up to 8 I/O modules with no additional power supply Up to 16 I/O modules with a Local Expansion Power Kit
Local Uni-COM™ support [(3)]	Up to 4 Uni-COM™ modules
Ladder Memory	1 MB
Bit operation	0.13 µs
Battery	Model: 3V CR2032 Lithium battery [(4)] Battery lifetime: 4 years typical, at 25°C Battery Low detection and indication (via the HMI Panel and via System Tag).
Connectors	IO/COM Bus connector – internal bus interface to a Uni-I/O™, a Uni-COM™ or to the Base Unit of a Local Expansion Kit. System connector – interface to the Aux connector of the UniStream™ HMI Panel

Communication	
RS485	
Voltage limits	-7 to +12 VDC maximum, Common+Differential
Baud rate range	1,200 – 115,200 bps
Nodes	Up to 32
Isolation voltage	500VAC for 1 minute
Cable type	Shielded twisted pair, in compliance with EIA RS485
Cable length	Maximum 1,200 m (4,000 ft)
Termination	Set using DIP Switches [(5)]
CANbus	
Power requirement	None. The CANbus port is internally powered.
Isolation voltage	500VAC for 1 minute
Cable type	DeviceNet® shielded twisted pair

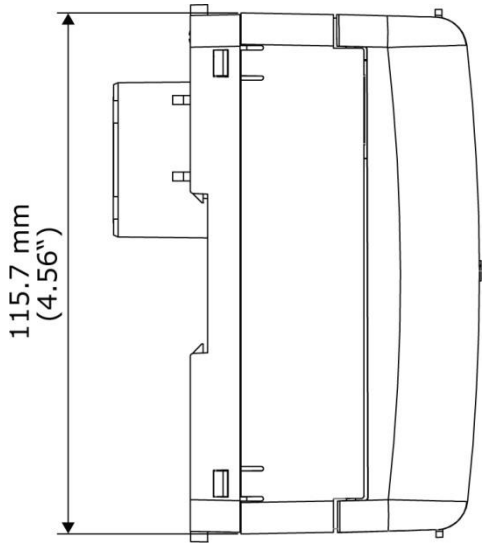
Baud rate and maximum trunk line length (at different DeviceNet ® cable thickness)	**Baud rate (bps)**	**Trunk line length (Thick cable)**	**Trunk line length (Mid cable)**	**Trunk line length (Thin cable)**
	1M	25m (82 ft)	25m (82 ft)	10m (32 ft)
	500k	100m (328 ft)	100m (328 ft)	100m (328 ft)
	250k	250m (820 ft)	250m (820 ft)	100m (820 ft)
	125k, 100k	500m (1,640 ft)	300m (1,640 ft)	100m (1,640 ft)
	50k, 20k,10k	1,000m (3,280 ft)	300m (3,280 ft)	100m (3,280 ft)
Maximum drop line (stub) length	The maximum cable distance from any device on a branching drop line to the trunk line is 2 m (6.5 ft) with any DeviceNet® cable thickness.			
Maximum cumulative drop line (stub) length	**Baud rate (bps)**	**Cumulative drop line length**		
	1M	5m (16 ft)		
	500k	25m (32 ft)		
	250k	60m (197 ft)		
	125k, 100k	100m (328 ft)		
	50k, 20k,10k	100m (328 ft)		
Nodes	Up to 64			
Termination	The trunk line must terminate at both ends with 121Ω, 1%, 1/4W terminating resistors. One CANbus termination resistor is included in every CPU-for-Panel kit.			

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 140°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

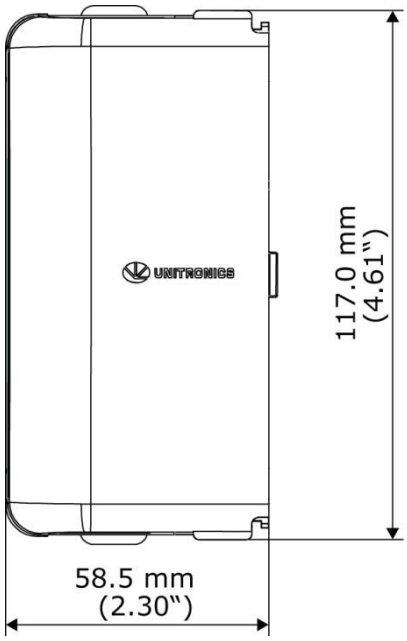
Dimensions	
Weight	0.175 Kg (0.386 lb)
Size	Refer to the images below



Top View



Side View



Front View

Notes

1. The Local Expansion Kit comprises a Base unit, an End unit, and a connecting cable. You must plug the Base Unit into the last element on the back of the UniStream™ HMI Panel. This may be a Uni-COM™ or Uni-I/O™ module.
   If the CPU-for-Panel is the only element that is plugged onto the back of the HMI Panel, plug the Base unit into it.
2. The CPU-for-Panel, without any additional power supply, can support up to 8 Uni-I/O™ or Uni-COM™ modules, either on-board the HMI panel or via a Local Expansion Kit. If more Uni-I/O™ modules are required, you must use a Local Expansion Kit with a power supply, this enables a single CPU to support up to 16 modules.
   Note that the number of on-board Uni-I/O™ or Uni-COM™ modules is dependent on the HMI Panel model, please refer to the specification document of the corresponding HMI panel.
3. Uni-COM™ modules can only be mounted on an HMI panel. Uni-COM™ modules must be connected either directly to the CPU-for-Panel or to another Uni-COM™ module on the back of the HMI Panel. Please refer to the specification document of the corresponding HMI panel for the maximum amount of modules that can be phisically plugged on it.
4. When replacing the unit's battery, make sure that the new one has environmental specifications that are similar or better than the one specified in this document.
5. Please refer to the CPU-for-Panel installation guide.

DOC25002-A9 08/13