

# CYLON

## UCU12

The **UCU12** is low-cost unitary controller, with 6 inputs and 6 outputs, ideally suited to controlling single items of equipment.



- **3 Universal Inputs**  
can be used to monitor passive, analog or digital sensors
- **2 Active Inputs**  
can be used to monitor analog or digital sensors
- **1 Fixed Digital Input**  
24VAC or Voltfree Digital Inputs only
- **2 Universal Outputs**  
can be used as analog or digital outputs
- **4 Triac digital outputs**
  - can switch up to 24 Vac
- **Up to 63 controllers per fieldbus**
- **4 datalogs with up to 102 entries per datalog**
- **Data security**  
Strategy and setpoints backed up in EEPROM

The **UCU12** controller is part of the **UnitronUC32** range of products, which offers the following benefits:

### Unique Flexibility with UniPuts™

The **UnitronUC32** range uniquely presents **UniPuts™** - a revolutionary answer to flexible point configuration, offering maximised utilisation of controller capacity along with flexibility in strategy changes. Built on a modern web-based architecture, the **UnitronUC32** range has a wide application scope with the flexibility of being stand-alone or network enabled.

### Cost Effective, low entry point for building control

The **UnitronUC32** range offers reduced costs in terms of training, implementation, rollout and maintenance. Modular, extendible packages along with low installation costs mean a low entry point for building control. The future-proof **UnitronUC32** range provides forward & backward compatibility, meaning an effortless upgrade path for existing **Unitron** Systems.

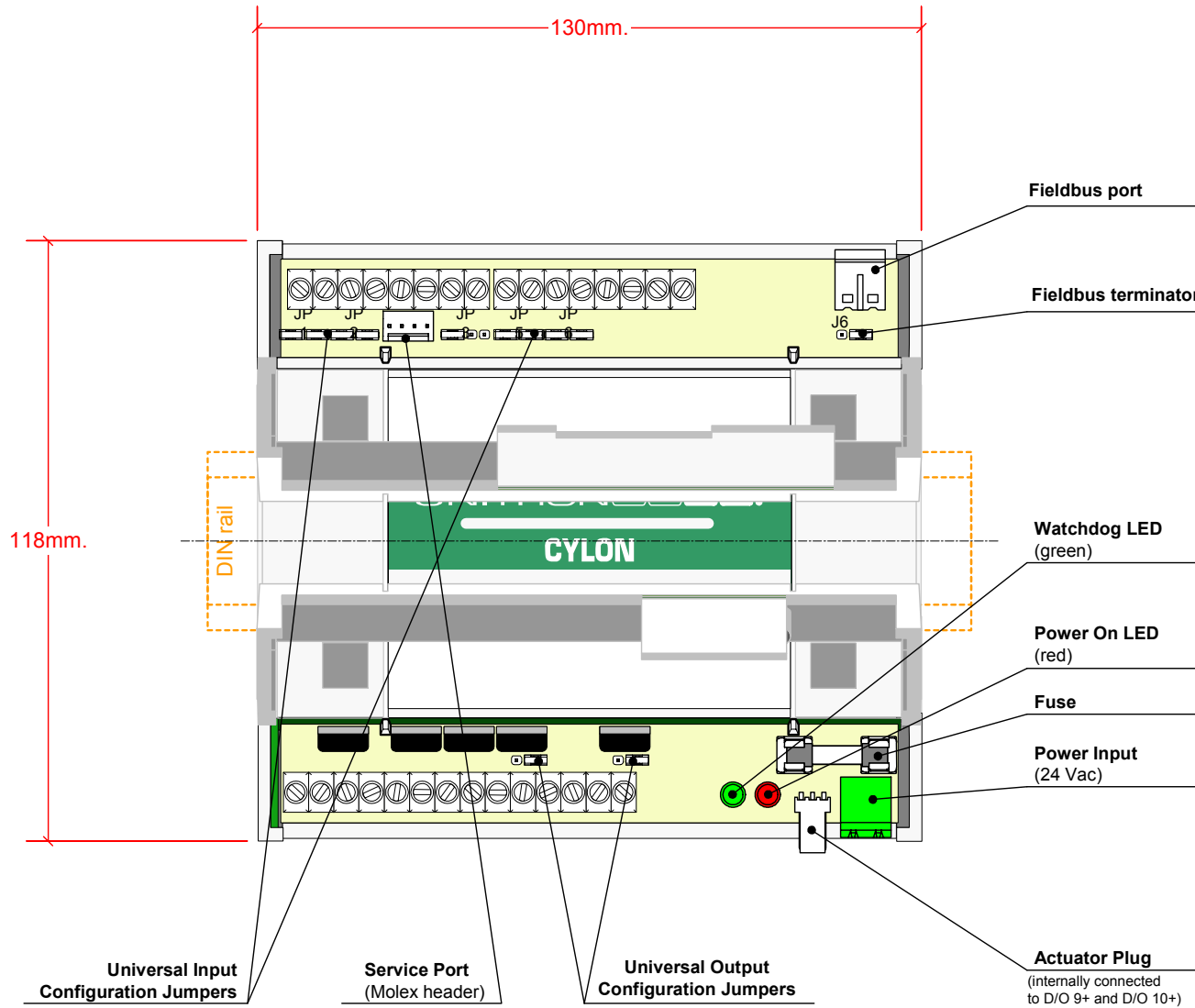
### Highly programmable and extendable through web-enabled HVAC technology

The **UnitronUC32** range offers an advanced web-based 32-bit architecture, with advanced programmability through the **Unitron Engineering Centre**.



Due to Cylon's policy of continuous improvements these specifications may be upgraded without notice.

**UNITRONUC32.**  
Building Management System



**Jumper settings** Pins covered by jumper Pins open

**Universal Output Configuration Jumpers**

- 0-10 V Output
- Triac Output

**Universal Input Selection Jumpers**

- Volt free contacts
- Passive input
- 0-20mA input
- 0-10v input

**Fieldbus (RS485 sub-network) Terminator**

- J6 Terminator IN
- J6 Terminator OUT
- J6 Terminator OUT

## Specifications:

### MECHANICAL

Size (excluding terminal plugs)	145 x 130 x 45 mm (5.7 x 5.12 x 1.78")
Enclosure	Injection moulded ABS
Mounting	DIN rail

### ENVIRONMENT

**Note:** This equipment is intended for field installation within another enclosure.

Ambient Temperature	0° - 50°C (32°-122°F) ambient.
Ambient Humidity	0% - 90% RH non-condensing
EMC Immunity	EN 50082-1
EMC Emission	EN 55011 Class B

### WIRING

**Note:** Use Copper or Copper Clad Aluminium conductors only.

Termination	I/O : PCB mounted screw terminal connections. Power and Fieldbus : PCB mounted plug terminal connections.
Conductor Area	Max: AWG 12 (3.09 mm <sup>2</sup> ) Min: AWG 22 (0.355 mm <sup>2</sup> )

### ELECTRICAL




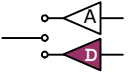

Supply Requirements	24 V AC +/- 20% 50/60 Hz
Transformer Rating	up to 55 VA (up to 10 VA internal power plus up to 45 VA supplied to Triac loads)
Fuse Rating	2 A 250 V anti-surge(250 Vac – 2 AT)

### PROCESSOR

Type	Motorola 68HC11
Clock Speed	8 MHz
Operating System Memory	128K
User Programmable Memory	32k x 8 RAM & 8k x 8 EEPROM backup for program. Maintenance free.

### INPUTS/OUTPUTS

**Note:** Screened cable is recommended for all input connections.

3 Universal Inputs (Points 1,2 & 3) 	Active voltage input 0-10 V @ 134 KΩ. Passive Input for a large range of temperature sensors, 10K3A1 sensors are recommended. Temperature input range: 0 – 50 °C Active current input 0-20 mA @ 120 Ω (screened cable). Digital Volt Free Contact. <b>Note:</b> UCU Universal inputs do not support pulse counting.
2 Active Inputs (Points 5 & 6) 	Active voltage input 0-10 V @ 134 K. Active current input 0-20 mA @ 120 Ω (screened cable). Digital Volt Free Contact. <b>Note:</b> Does NOT support passive temperature sensors or pots
1 Fixed Digital Input (Point 4) 	24VAC or Digital Volt Free Contact only
2 Universal Outputs 	Each Universal output is either one Analog 0-10 V, or one Digital. As analog, both Universal Outputs are 0-10 V, 10 mA, 3 second response. As digital, U/O 13 is rated at 500 mA maximum U/O 14 is rated at 200 mA maximum
4 Digital Outputs 	24 V AC Triac @ 500 mA maximum. Switch neutral only. Outputs D/O 9+ and D/O 10+ connected internally to actuator plug (beside power connector).
24 V AC output terminals	Total current drawn from 24 V AC terminals is limited to 1.8 A.

