

COMMUNICATIONS

Note: The default Fieldbus baud rate is 38400. The baud rate may be changed using the Unitron Palmtop program (DOS)

Local RS232 TTL port @ 9600 Baud
Max cable length 4m

Fieldbus port RS485 @ 1200, 9600, 19200 or 38400 Baud

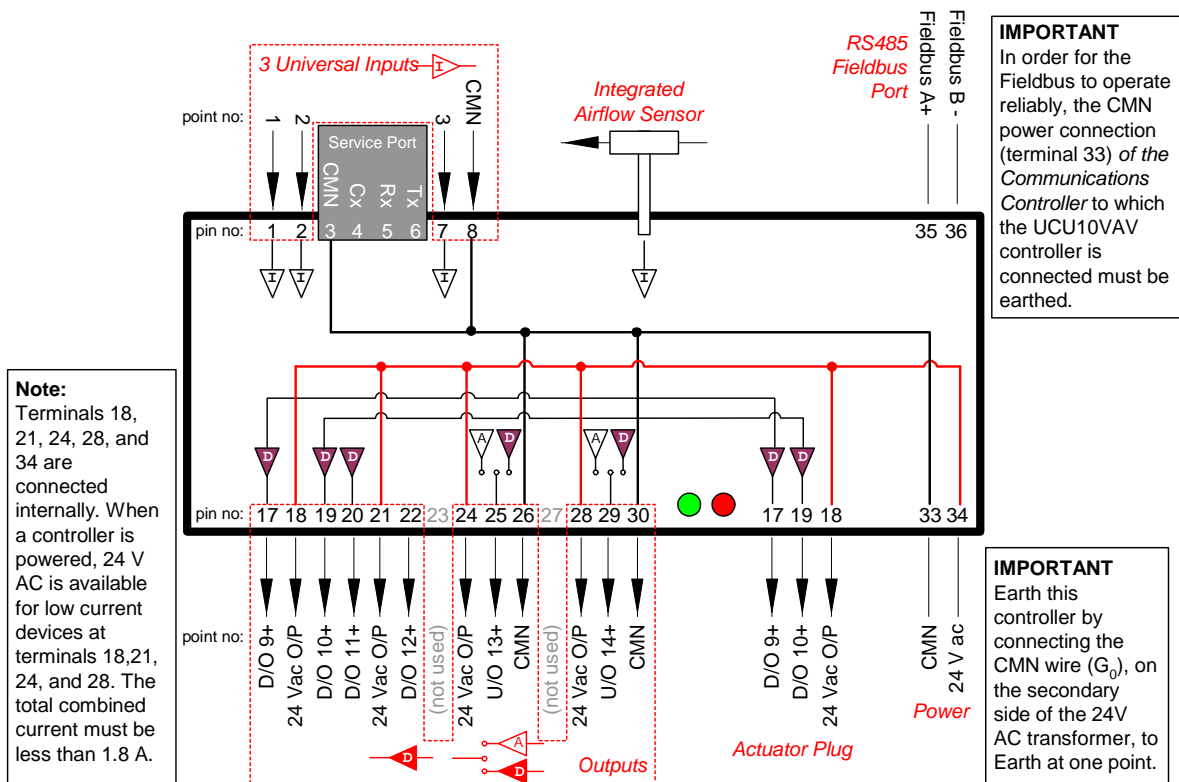
INTERFACE

Software Unitron Command Centre
Unitron Engineering Centre
WebLink

SOFTWARE FEATURES

Note: The controller's Fieldbus address is set by Unitron Command Centre's CCView software module (Windows), or Unitron Palmtop program (DOS)

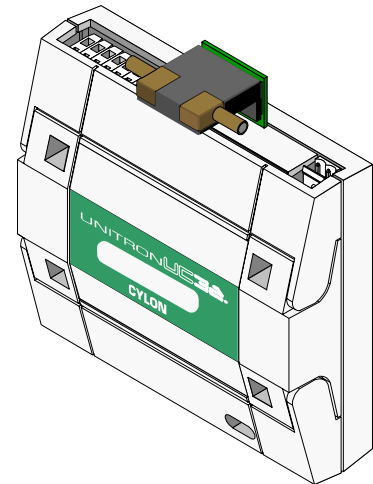
Maximum Controller Address	63
Maximum number of Strategy Blocks	255
Maximum number of Datalog Modules	4
Maximum Datalog capacity (standard)	102
Data Security	Strategy and Point numbers 200 – 255 analog and digital backed up in EEPROM



CYLON

UCU10VAV

The **UCU10VAV** is low-cost unitary controller, with 4 inputs and 6 outputs, designed for use with a single Variable Air Volume unit.



- **Integrated Airflow Sensor**
can measure air flow rate directly without need for an additional sensor
- **3 Universal Inputs**
can be used as analog or digital inputs
- **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**
- **255 strategy blocks**
- **4 datalogs with up to 102 entries per datalog**
- **Data security**
Strategy and setpoints backed up in EEPROM

The **UCU10VAV** 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.

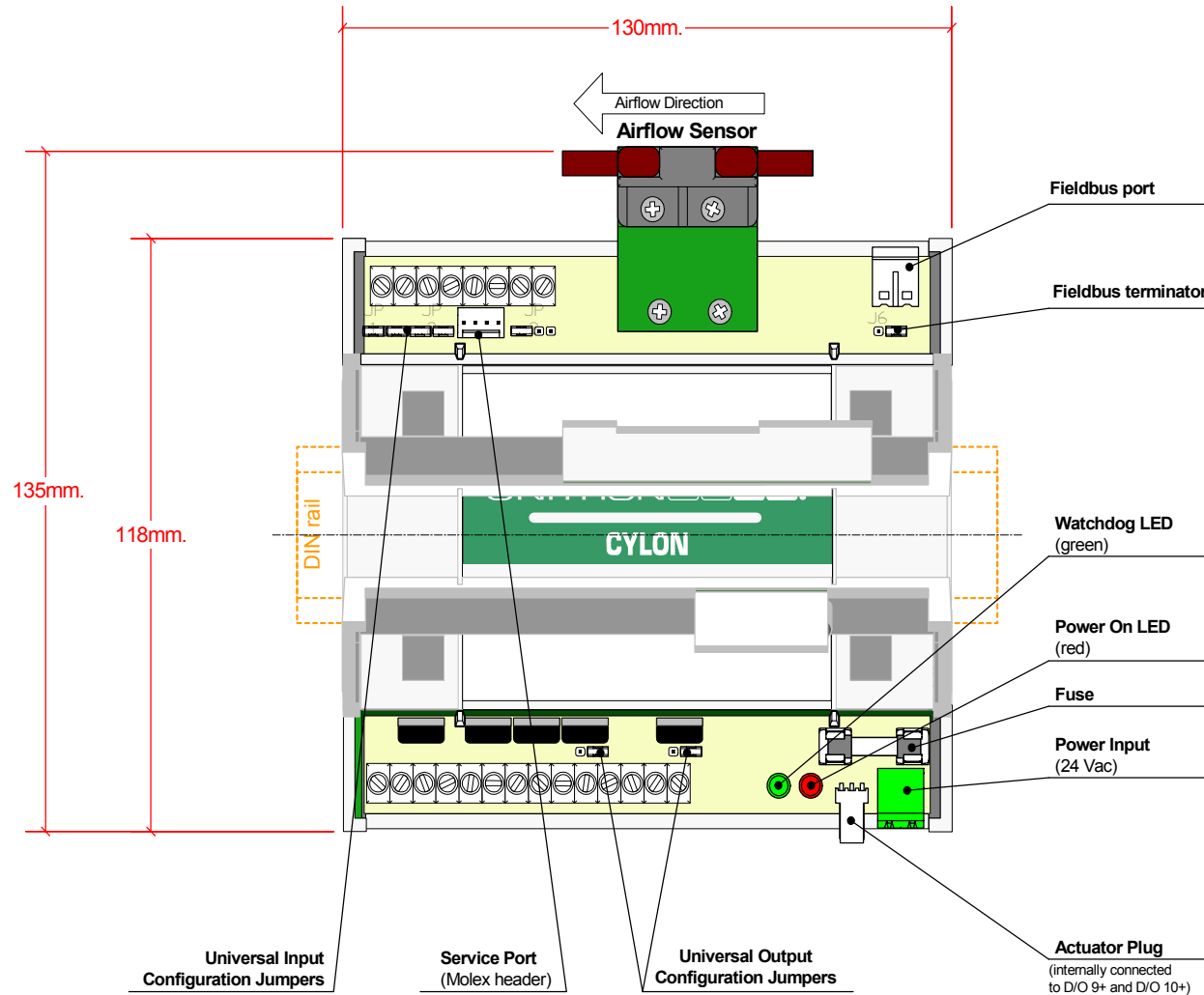
Highly programmable and extendable through web-enabled HVAC technology



The **UnitronUC32** range offers an advanced web-based 32-bit architecture, with advanced programmability through **the Unitron Engineering Centre**. Inbuilt diagnostics, along with expanded data logging and strategy storage, is further enhanced by **UniPuts™**, offering up to 8 Universal inputs, up to 8 **UniPuts™** (AI/DI/AO/DO) and up to 8 **UniPuts™** with relays.





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

-  Terminator IN
-  Terminator OUT
-  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
Airflow Sensor Connection	Use rubber hose suitable for a 5.1 mm (0.2") O.D. nozzle.

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 ²) Min: AWG 22 (0.355 mm ²)

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.

1 Airflow Sensor (Point 5) 0-650 sccm (0 – 0.023 ft³/m) airflow measurement using internal microbridge type airflow sensor.



3 Universal Inputs Active voltage input 0-10 V @ 134 K.
Passive Input for a large range of temperature sensors, 10K3A1 sensors are recommended.



Note: '10k option' controllers use 10k3A1 sensors only.

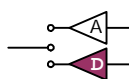
Temperature input range: 0 – 50 °C

Active current input 0-20 mA @ 120 Ω (screened cable).

Digital Volt Free Contact.

Note: UCU Universal inputs do not support pulse counting.

2 Universal Outputs Each A/T output is either one Analog 0-10 V, or one Digital.



As analog, both 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.