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

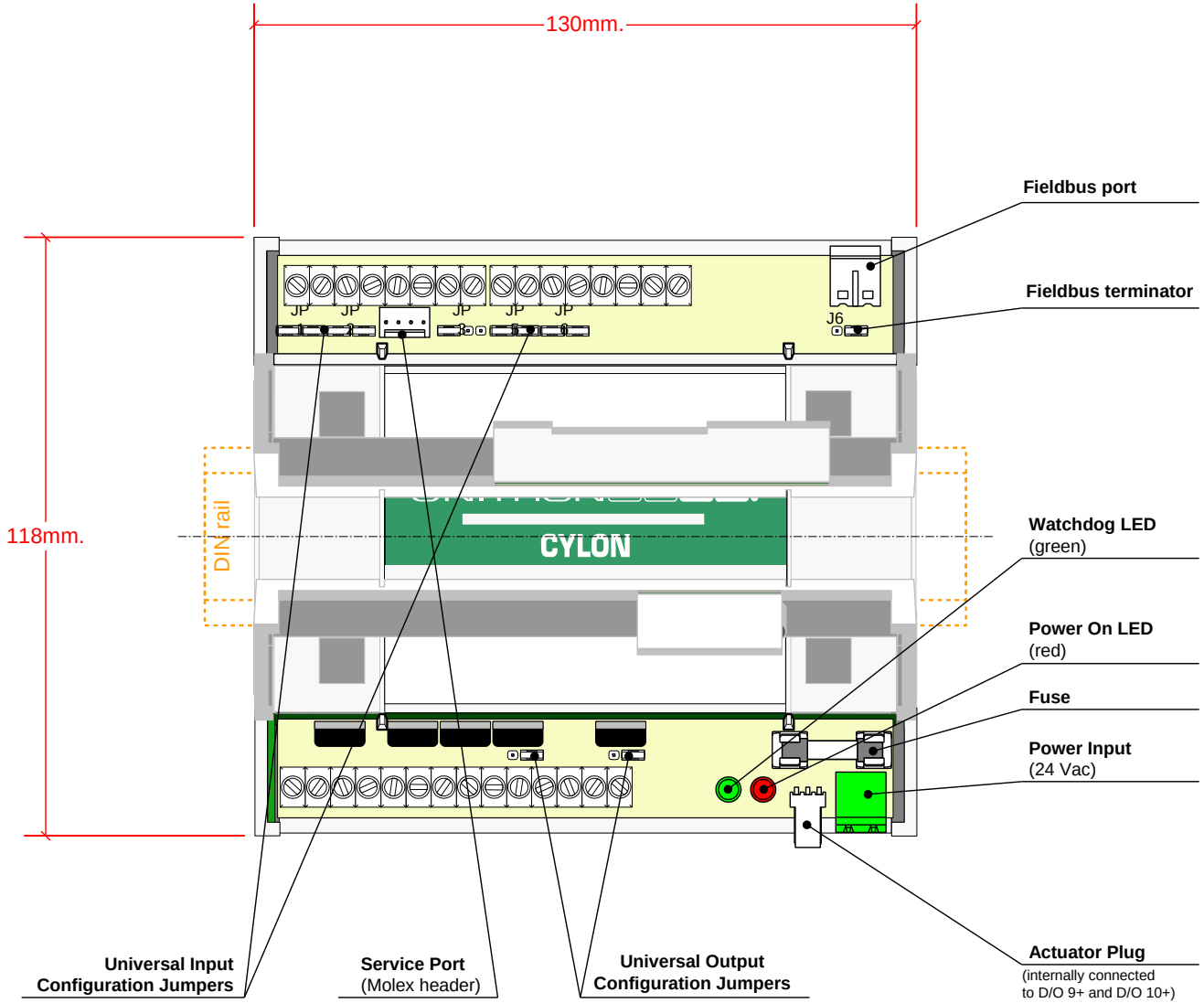
The **UnitronUC32** range offers reduced costs in terms of training, implementation, rollout and maintenance. Modular, extendible packages along with low installation costs mean a low entry point for building control. The future-proof **UnitronUC32** range provides forward & backward compatibility, meaning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

Cylon CONTROLS

DATASHEET



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

UK Patent GB 2 400 991
Irish Patent 84413

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^2) Min: AWG 22 (0.355 mm^2)

ELECTRICAL

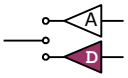
Supply Requirements	24 V AC +/- 20% 50/60 Hz
Transformer Rating	up to 55 VA (up to 10 VA internal power plus up to 45 VA supplied to Triac loads)
Fuse Rating	2 A 250 V anti-surge(250 Vac – 2 AT)

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.*

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. ***Note:** 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. ***Note:** 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.

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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

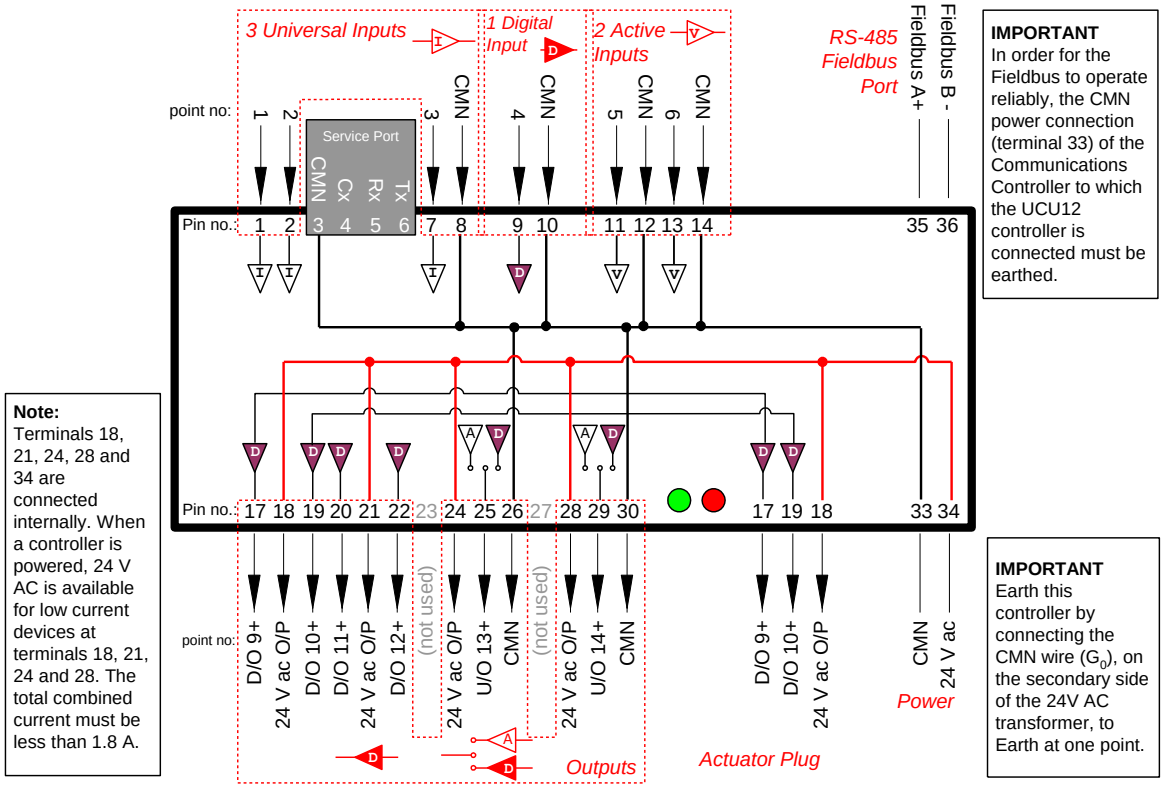
INTERFACE

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



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