

UCU8

The **UCU8** is low-cost unitary controller, with 3 inputs and 5 outputs, and is ideally suited to controlling single items of equipment.



- **3 Universal Inputs**
can be used as analog or digital inputs

- **5 Triac Digital Outputs**
can switch up to 24 Vac

- **Up to 63 controllers per fieldbus**

- **190 strategy blocks**

- **4 datalogs with up to 102 entries per datalog**

- **Data security**
Strategy and setpoints backed up in EEPROM

The **UCU8** controller is part of the **UnitronUC32** range of products, which offers the following benefits:

Unique Flexibility with UniPuts™

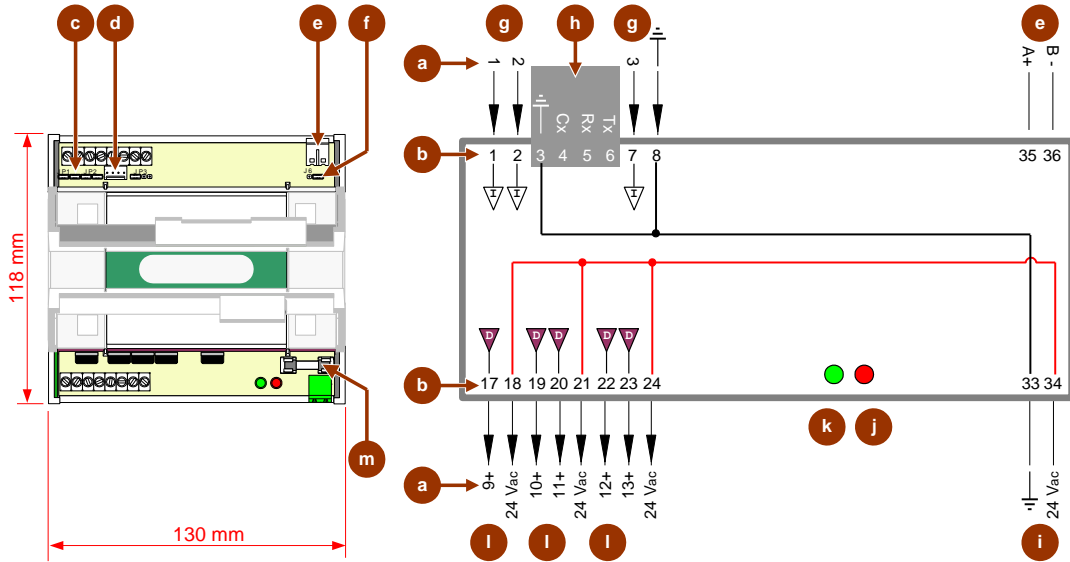
The **UnitronUC32** range uniquely presents **UniPuts™** - a revolutionary answer to flexible point configuration, offering maximised utilisation of controller capacity along with flexibility in strategy changes. Built on a modern web-based architecture, the **UnitronUC32** range has a wide application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



Note: Terminals 18, 21, 24 and 34 are connected internally. When a controller is powered, 24 V AC is available for low current devices at terminals 18, 21 and 24. The total combined current must be less than 1.8 A.

	Common		Universal Input
	Unused terminal		Service Port (screw terminal)
	Point Numbers		Power 24 V AC Important: Earth this controller by connecting the common wire (G ₀) on the secondary side of the 24 V _{ac} transformer to Earth at one point.
	Terminal Numbers		Power LED • Red = on
	Universal Input Configuration Jumpers		Watchdog LED • When GREEN, this LED indicates the CPU status.
	Volt-free contacts		Digital Outputs
	Passive input		Fuse
	0-20 mA input		
	0-10 V input		
	Service Port (Molex header)		
	Fieldbus Port Important: In order for the Fieldbus to operate reliably, the common power connection (terminal 33) of the Communications Controller to which the Unitary Controller is connected must be Earthed.		
	Fieldbus Terminator		
	IN (fieldbus terminated at this controller)		
	OUT (fieldbus not terminated at this controller)		
	OUT (fieldbus not terminated at this controller)		

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 	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.
5 Digital Outputs 	24 V AC Triac @ 500 mA maximum. Switch neutral only.
24 V AC output terminals	Total current drawn from 24 V AC terminals is limited to 1.8 A.

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 Cylon Engineering Centre WebLink
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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	190
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