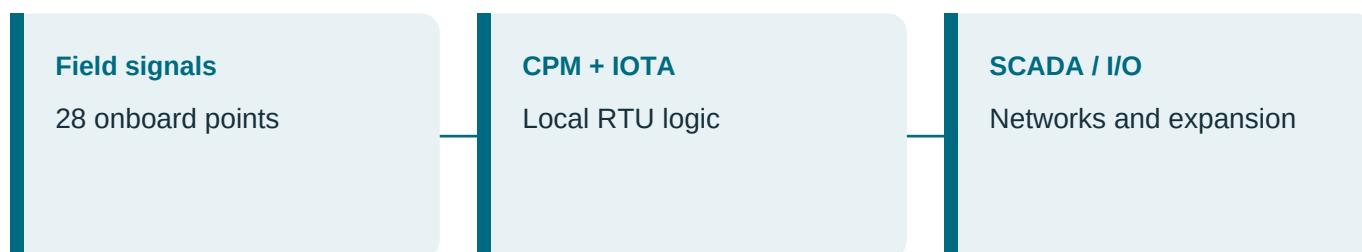


SC-UCMX02 51307195-276

Nonredundant ControlEdge RTU controller

Honeywell SC-UCMX02 is a nonredundant ControlEdge RTU controller with mixed onboard I/O. It combines local control, data logging and SCADA communications in one modular controller assembly.

- Mixed analog, digital and pulse signal handling
- HART digital access with the required I/O license
- Flash or removable-SD data logging
- Ring-network expansion through dedicated end plates



SYSTEM POSITION

The onboard I/O connects analog transmitters, discrete signals and pulse sources to the local RTU application. RS232, RS485 and Ethernet links connect the controller to approved local devices and the supervisory system.

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Configuration	Nonredundant CPM and IOTA
Onboard I/O	28: 8 AI, 2 AO, 10 DI, 6 DO, 2 PI/DI
Processor	Dual-core 32-bit ARM Cortex-A9, 667 MHz
RAM / flash	256 MB / 256 MB
Nonvolatile memory	4 Mbits; 20+ year data life without battery
Rated input	24 Vdc +/-25%; 18-30 Vdc
Maximum ripple	120 mVpp
Maximum input current	1.20 A at 30 Vdc; controller plus 9 IOMs
Ethernet	2 shielded RJ45 ports; 10/100BaseTx

INTEGRATION RECORD

Select the current or voltage input mode in software, document each pulse/digital assignment, and size controller and field-instrument power separately. Plan expansion rows with the designated end plates and ring cabling; verify protocol settings, log intervals and HART licenses before downloading the application and testing the complete remote station.

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Serial ports	2 RS232 and 2 RS485; 300-115200 baud
AI modes	8 channels; 4-20 mA or 1-5 Vdc, software-selectable
PI modes	2 channels; pulse or digital input; 0-10 kHz
Expansion capacity	30 IOMs; 5 rows; maximum 9 IOMs per row
SD media	32 GB; Class 6 or Class 10
Execution cycle	20 ms or longer
Power, minimum	1.7 W at 24 Vdc; all onboard I/O active, no serial, only Ethernet 2 active
Power, no expansion	2.9 W at 24 Vdc; onboard I/O and 4 serial ports active; Ethernet 1/2 active
Power, expansion	3.4 W at 24 Vdc; onboard I/O, 4 serial ports, Ethernet 1/2/3 active; excludes IOMs/instruments

ENGINEERING NOTE

The 28 onboard points comprise 8 AI, 2 AO, 10 DI, 6 DO and 2 PI/DI. HART digital access requires SP-IHARTP for the onboard I/O module. Power figures exclude connected instruments and expansion IOM loads; retain the configuration conditions stated in the manufacturer specification.

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How are the 28 SC-UCMX02 onboard channels divided?

There are 8 HART-capable analog inputs, 2 HART-capable analog outputs, 10 digital inputs, 6 digital outputs and 2 channels configurable as pulse or digital inputs.

Can its analog inputs accept both current and voltage transmitters?

Yes. The standard analog-input mode is selected in software as 4-20 mA or 1-5 Vdc.

What signals can the two pulse-input channels process?

The sink-type pulse inputs accept 5-10 V peak-to-peak signals from 0 to 10 kHz. They support accumulator/rate functions and a configurable filter, or can be configured as digital inputs.

Which license enables digital HART access on the onboard I/O?

SP-IHARTP is required for each onboard or expansion I/O module on which HART digital access is needed.

Where can SC-UCMX02 save a data log?

The RTU can log to flash memory or an optional SD card. Supported SD media is 32 GB, Class 6 or Class 10.

Which data-log intervals can be selected?

Intervals are 1, 5 or 10 seconds; 1, 5 or 10 minutes; or 1 hour. Datalog timestamps have 1 ms resolution.

How far can its RS485 network extend?

The RTU specification permits 1200 m, up to 32 responders and 120-ohm termination on a two-wire half-duplex RS485 network.

Does the 3.4 W expansion-case power figure include field loads?

No. At 24 Vdc it covers active onboard I/O, four serial ports and Ethernet ports 1/2/3. Expansion IOM consumption and connected instrument loads must be budgeted separately.

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MANUFACTURER SOURCE

Honeywell ControlEdge RTU Specification Sheet, SC03-300-174, Version 1.0, December 2022, pp. 6-17, 23-25, 29

Related Honeywell catalog pages

Browse related automation products. These links do not establish interchangeability.

Honeywell 900CP1-0300

[View Honeywell 900CP1-0300](#)

Honeywell 900G02-0202

[View Honeywell 900G02-0202](#)

RELEASE BOUNDARY

Confirm the SC-UCMX02 label, installed IOTA, input modes and approved RTU application before commissioning or replacement.

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