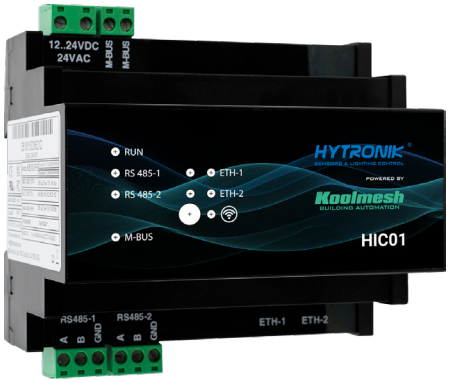
HIC01

Edge Integration Controller | Multi-Protocol Integration | FIN Framework



Benefits

Powerful: High-performance edge control

Integrative: BACnet, Modbus, M-BUS & KNX-IP in one controller

Future-ready: Remote firmware and FIN updates simplify maintenance

Applications

Building Automation Systems

Lighting, HVAC & Power Distribution

Commercial Buildings, Data Centres & Public Facilities

Check out the complete system solution on the website:

https://hytronik.com/product/hic01

Product Description

HIC01 is a high-performance edge integration controller designed for building automation and IoT applications. Built for FIN Framework, it provides local edge management of HVAC, metering, sensing, lighting and other connected building systems. BACnet MS/TP & IP, Modbus RTU & IP, M-BUS and KNX-IP support enables different field devices and systems to be integrated through a single controller. Remote firmware and FIN updates simplify ongoing maintenance, while its compact plug-and-play design makes installation and system expansion easier.

Properties

- FIN Framework platform: Runs FIN Framework applications on an optimized Linux system with a quad-core processor, 4 GB of RAM and 16 GB of eMMC storage.
- Multi-protocol connectivity: Supports BACnet MS/TP, BACnet/IP, Modbus RTU, Modbus IP, M-Bus and KNX IP.
- Network setup: Two Ethernet ports support daisy-chain wiring. A built-in Wi-Fi hotspot provides local access for configuration.
- System capacity: Supports up to 5,000 points and connects to NEXIO I/O expansion modules via Modbus RTU.
- Local and remote updates — The controller firmware and the FIN Framework Docker image can both be updated locally or remotely.

Specifications

Hardware Specifications	
RS-485 ports	2
M-Bus port	1
C-BUS port	1 (unused)
Ethernet ports	2
USB port	1 (unused)
Indicator LEDs	10
Wi-Fi activation button	1
Processor	Quad-core Cortex-A72 (ARMv8), 64-bit, 1.5 GHz
Memory	4 GB LPDDR4
Onboard flash storage	16 GB eMMC, 8-bit interface

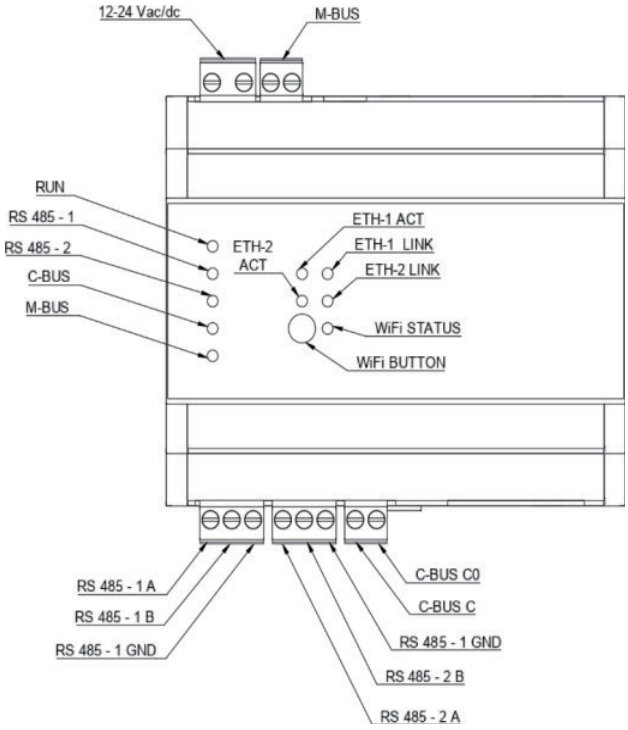
Power and radio	
Power supply	12–24 V AC/DC
Maximum power consumption	10 W
IP rating	IP20

Mechanical Specifications	
Operating temperature	0 to + 60 °C
Storage temperature	-10 to + 80 °C
Weight	185 g
Dimensions	6 DIN modules, 90 × 105 × 71 mm (height × length × depth)

Standards & Compliance	
Standards & Compliance	CB, CE, EMC, RED, RCM

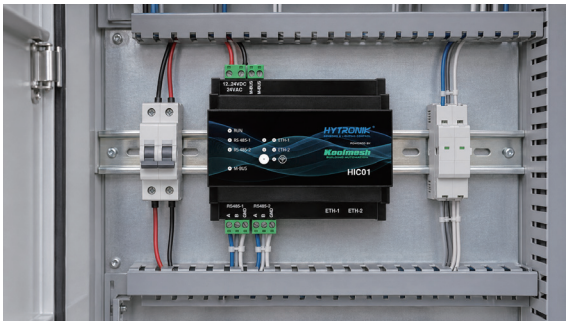
Electrical connections and LEDs

Each LED signals a precise activity/status of the device. Below is a summary image. The RUN LED lights up if the device is powered and flashes during device start-up. The serial port LEDs indicate activity on the serial ports (in both Modbus and BACnet configurations) by flashing. There is also an indication for Wi-Fi activation, which turns off when Wi-Fi is no longer available. Finally, the LEDs on the Ethernet ports are the standard Activity & Link LEDs on any RJ45 port.



It is good practice for the installer to check the cross-section and type of cable used for the connection, so that the national and local regulations in force are complied with. If a cable is damaged, it must be replaced by the manufacturer, the service department or any similarly qualified person in order to avoid possible damage.
ATTENTION: A specific RS-485 cable (e.g. Belden 9842 or equivalent) must be used for connection to field devices via the RS-485 bus.

Installation and Placement

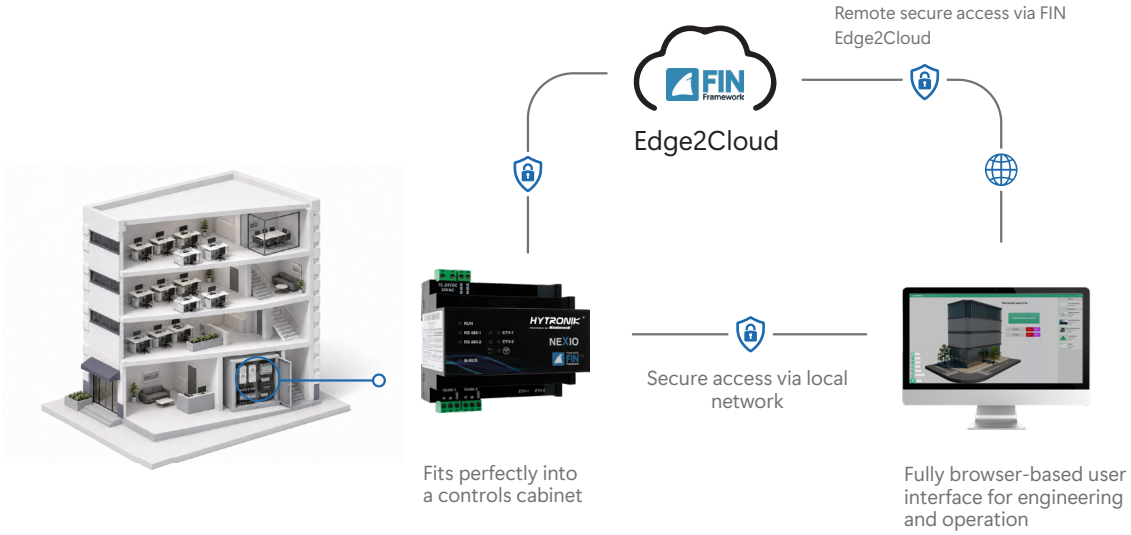


35 mm DIN-rail Mounting

Clip the edge controller securely onto a standard 35 mm DIN rail inside a control panel or distribution

Secure Access Operational Support

FIN-based Engineering & Operation



Embedded Software Licences - select one CAP tier per controller

Each hardware controller must be paired with a corresponding software licence for operation. Please contact us for pricing of different software licence options.

Point packages can be upgraded to a maximum of 5,000 CAPs. Historical capacity, cloud services and analytics can be expanded as project requirements grow.

Product Model	CAPs	History Points	Charging Basis	Application Scenarios
KM-00100-EMB	100	20	One Licence / Controller	Koolmesh supervisory projects sized from the approved point list. Select one suitable licence tier per controller; one field device may require several CAPs.
KM-00200-EMB	200	40		
KM-00500-EMB	500	100		
KM-0001K-EMB	1000	200		
KM-0002K-EMB	2000	400		
KM-0005K-EMB	5000	1000		

Reference Directives and Technical standards

- EMC Directive and subsequent amendments: 2014/30/EU EMC
- General Product Safety Directive: 2001/95/EC
- Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS): 2011/65/EU
- Technical standards
- EN 61326-6-1:2013
- EN 61010-1:2010+A1:2019

Registration in the Register of Producers of Electrical and Electronic Equipment with number IT17030000009747.