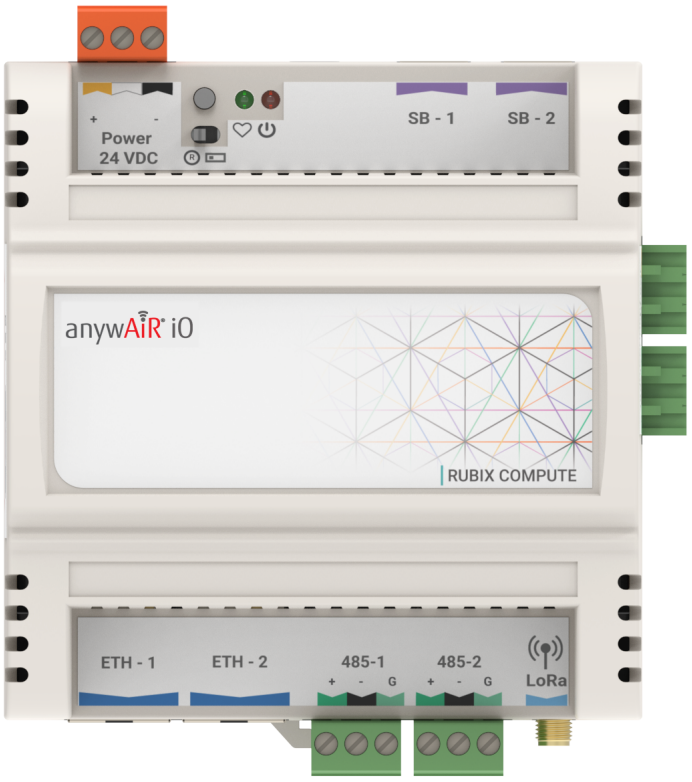
anywAiR® iO

anywAiR iO Rubix Compute 5
Data and Specifications



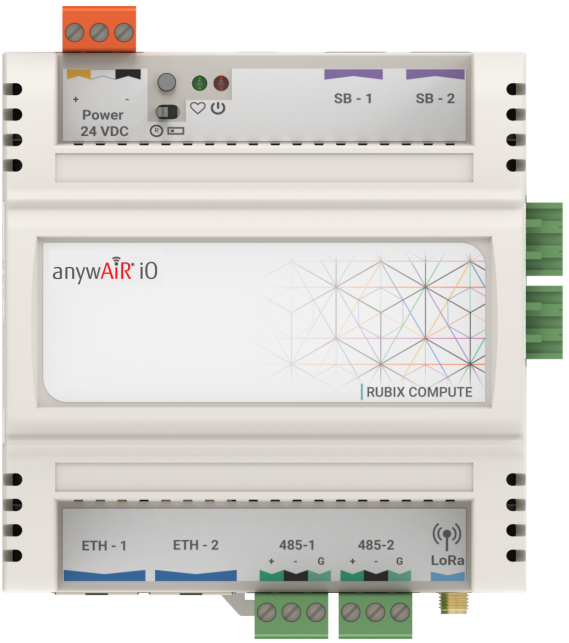
The Rubix Compute is anywAiR iO's fully programmable IoT gateway controller. It is perfect for developing BMS solutions and aggregating all types of building data.

Data collected from wired and wireless peripherals can be easily exported to local/cloud databases, ported to other protocols, or used as inputs to onboard programmable logic.

The Rubix Compute is easy to integrate with BACnet, Modbus, LoRa and LoRaWAN. It supports services like MQTT, Rest APIs, Database Services and more.

Onboard browser based configuration and live programming means you can program from any locally or remotely connected computer, with no software downloads or licensing required.

Rubix IO modules can be connected wirelessly, using wired RS485, or plugged directly into the side of the Rubix Compute. Onboard logic programming allows for complex control of physical outputs based on all types of input data and other cloud resources.



Technical Data

General	
Dimensions	112mm x 107mm x 56mm or 4.41in x 4.21in x 2.2in (H x W x D)
Operating Temperature	0°C to 60°C
Enclosure	ABS Plastic, DIN Rail Mount, IP40 Rated.
Power	
Power Supply	24V DC ±10%
Consumption	**Base**: 9.6W (400mA at 24 VDC), **Max**: 15W (625mA at 24 VDC)
Recommended Transformer Size	625mA / 15VA (Transformer should be sized based on Base Current plus the power requirements of all connected output devices)
Physical Ports	
Ethernet	2x RJ45 Ethernet Ports for LAN Connection.
RJ12	2x RJ12 for power and breakout for USB, UART for add on modules.
RS485	2x RS485 ports available for Modbus RTU. **Speeds:** 9.6K, 19.2k, 38.4K, 57.6K, 115.2K bit/s **Data Bits:** 8 bits **Parity:** None, Even, Odd
LoRa RAW	**Supported Frequencies:** AU915, US915, AS232, EU863 **Spreading Factor:** 7 **Bandwidth:** 250 kHz
LoRaWAN (optional) *Add on radio module	**Supported Frequencies:** AU915, US915, AS232, EU863

Processing	
Hardware (Memory)	**Processor:** Broadcom BCM2837 @600Mhz 32-bit **RAM:** 1GB DDR2 **Memory:** 8GB (Upgradable)
Hardware (Processor)	**Processor:** Broadcom BCM2837B0, Cortex-A53 64-bit @1.2Gh **RAM:** 1GB DDR2 **Memory Options:** 4GB/8GB/16GB/32GB
Software	Debian Linux Based OS. Java, NodeJS, Go, and Python.
Communication/Protocols	
BACnet/IP Master	Read/Write BACnet IP devices.
BACnet/IP Server/Gateway	Expose all Rubix Compute points to other networked BACnet IP devices.
BACnet/IP Gateway	Expose data points (Modbus, BACnet, LoRa, LoRaWAN, Rest API, etc) to other networked BACnet IP devices.
Modbus TCP Client	Read/Write points on Modbus TCP Server devices.
Modbus RTU (RS485) Master *via optional 2x RS485 ports	Read/Write points on Modbus RTU Slave devices via RS485.
LoRaWan End Node	Uplink/Downlink to a LoRaWAN gateway.
LoRaWan	Uplink/Downlink between devices without the use of a LoRaWAN gateway.
LoRaWan Gateway	Enabled via the onboard mPCIe slot or via the RJ12 expansion module.
anywAiR-iO LoRa Raw	Read anywAiR iO LoRa Devices
SSH over IP	Rubix Compute can have ssh port (22) exposed for remote access.
DHCP Server or Client	Rubix Compute can be configured as a DHCP server or client.
REST API HTTP Server	On board HTTP server available for programmatic management of the Rubix Compute via REST APIs. Add/delete points, write/update point values and perform device configuration like installing and updating modules.
MQTT Broker and Client	Publish and Subscribe to MQTT topics from local or remote MQTT Brokers.
Configuration and Programming	
Rubix Platform - Onboard GUI	Our browser-based graphical user interface is pre-installed on the Rubix Compute for configuring the device, monitoring and controlling physical IO and other protocol points.
Rubix Wires - Onboard Logical Programming	Our browser-based function block flow editor is pre-installed on the Rubix Compute for implementing custom logical programming. Advanced pre-built function blocks provide extensive control capabilities.
Node-Red - Onboard Logical Programming	Node-Red runs as a native service on the Rubix Compute. Node-Red is an alternative/complementary programming platform that can be used to make efficient workflows with built in JavaScript programming and a wide selection of community built modules.

Ordering Information

Device Models