AI Edge Controller

XNC Standard Series

Overview

The XNC Standard Series AI edge controllers are advanced IP programmable controllers which are part of Adveco LUBAN solutions. The controllers are designed for a wide variety of complex applications, such as cooling, heating, water supply and drainage, lighting, air handling unit and ventilation systems, etc. These devices feature RS485 ports for BACnet™ MS/TP, Modbus RTU, Ethernet ports for MQTT, BACnet™ IP and Modbus TCP devices.
The controllers continue to perform time-based operations even when disconnected from the system network.
The controllers can be mounted on a DIN rail in horizontally orientations.

Features

- Delivers high performance with ARM Cortex-M4 32-bit MCU.
- BTL tested BACnet communication on BACnet IP or MS/TP, conforms to BACnet™ Standard ANSI/ASHRAE 135 protocol version 1.20 (ISO 16484-5).
- BACnet Auto-Discovery enables seamless integration of new devices with no manual configuration.
- Adaptable to Open Harmony operating system for diverse market requirements.
- Engineering and commissioning with the XControl tool using graphical function charts.
- Support standard or custom complex applications downloading from XControl.
- Integration of Modbus data points via RTU and / or TCP.
- End-of-Line (EOL) switch enables the controller to act as termination device on the communication bus.
- Pluggable terminal blocks for easy installation and maintenance.
- Modern design LED to show the operational status of the controller.
- Standard DIN rail mounting.

Ordering Information

Product Number	Point Capacity (Max)	Ethernet Port	RS485↓Port	Onboard I/O
BAC-3541-100	300	2	1	2UI 6DI 2DO
BAC-3541-460	300	2	1	4UIO 6DI
BAC-3441-020	300	2	2	N/A
BAC-3531-081	300	2	1	8UI
BAC-3531-082	300	2	1	6DI 2DO

Remark: RS485↓Port means the connected extension port of the controller.

Product Specification

Processor	ARM Cortex-M4 32-bit
Memory	2MB RAM and 10MB flash memory
Operating System	Open Harmony
Power Requirement	24 VAC±20%, 50/60Hz; 24 VDC (-10%~+20%)
Power Consumption	12 VA (Typical)
Environment	**Operating:** -4°F to 122°F (-20 to +50 °C); 10 to 90% RH non-condensing **Storage:** -40°F to 158°F (-40 to +70 °C); 5 to 95% RH non-condensing
Communications Protocol	MQTT, BACnet IP, BACnet MS/TP, Modbus TCP, Modbus RTU
Terminations and Ports	**I/O:** Pluggable terminal blocks **Power Supply & RS485:** 2-wire or 3-wire pluggable terminal blocks **Ethernet:** RJ45 ports
Protection	IP20(IEC529)
Housing Material	ABS+PC
Certification	CE, RoHS, REACH, BTL(B-ASC)
Mounting	35mm DIN rail mounting (horizontal orientation)
Dimensions (W×H×D)	120mm ×149mm × 50 mm
Weight	0.45kg

Input/Output	
UI	0-10VDC, 4-20mA, Resistance, Dry contact
AO	0-10VDC, 4-20mA
DO	TRIAC output 24 VAC (requires external power supply)
DI	Dry Contact, Pulse counting (Max.50Hz)
UIO	**Input:** 0-10VDC, 4-20mA, Resistance, Dry contact **Output:** 0-10VDC, 4-20mA
UI Resolution	24 bit
AO Resolution	16 bit
UIO Resolution	**Input:** 16 bit; **Output:** 13 bit

Dimensions (mm)