

Nexus.io™ AC

Automation Controllers

Powerful Controller

The Nexus.io™ AC automation controller is powered by a quad-core 2GHz Cortex-A53 processor with 2GB RAM and 16GB internal storage, making it one of the most powerful controllers on the market. It is programmable in IEC 61131 compliant ladder logic and/or Python, making customization and feature extensions simple and easy. Programs and configuration can easily be copied to a replacement controller by moving an SD card.



Beautiful Display

It includes a HMI rendering engine that allows creation of a beautiful and intuitive user interface that is fully customizable. Its 1280x800 10.1” cap touch LCD is easy to read in bright sunlight, and the cap touch and front bezel are IP65/66 rated waterproof, ensuring a long operating life of harsh outdoor use.

Security As A Feature

Programs are protected with industry-standard digital signatures and a private certificate authority unique to your organization, so only authorized engineers using approved tools can deploy code to your controllers. Signing keys are safeguarded in the operating system's secure key store, and every controller verifies the full chain of trust before running any program — blocking tampered, counterfeit, or unauthorized code from ever reaching the field.

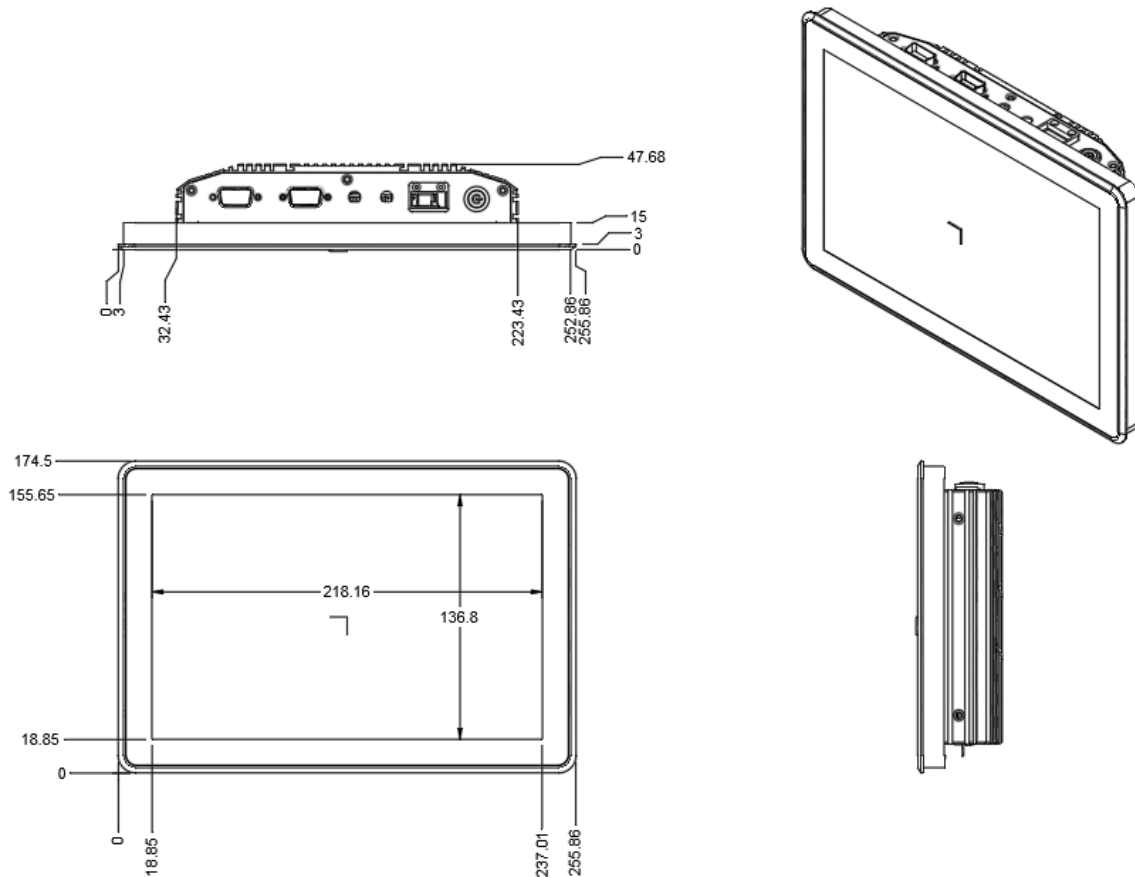
Expandable I/O

Nexus.io™ AC can be expanded with our **m.Smart** Universal I/O™ modules (Modbus RTU), and field I/O system that supports Modbus TCP, our PulsarQ™ level detection radar, and our m.Chem™ line of smart water chemistry sensors.

Key Features

- Powerful – Quad 2GHz CPU, 2GB RAM
- Beautiful – Sunlight readable 10.1” IP65/66 rated LCD with cap touch
- Programmable – IEC 61131 ladder and Python
- Secure – Encrypted programs and configurations ensure only authorized code can run
- Cloud connected – secure, reliable cellular connection to our Whisker.io® Cloud SCADA platform; works with AT&T, T-Mobile and Verizon, switching between them automatically for best signal.
- Simple development – build ladder and python programs, design HMI screens, debug applications, and manage revisions with WhiskerIDE development environment.
- Integration – supports Modbus RTU/TCP communication
- Historian – stores 60 days history for every tag, viewable on HMI

Mechanical Drawing



Technical Specifications

Power Supply	<ul style="list-style-type: none">• 8-30V DC, 2A
Communications	<ul style="list-style-type: none">• Ethernet• 2xRS485• Optional Cellular CatM1
Processor	<ul style="list-style-type: none">• Quad core 2GHz• 2 GB RAM
Storage	<ul style="list-style-type: none">• SD Card• 16GB SSD
I/O	<ul style="list-style-type: none">• Up to 254 Universal I/O Modules• 1,524 maximum digital inputs• 508 maximum digital outputs• 1,016 maximum analog inputs• 254 maximum analog outputs
Protocols	<ul style="list-style-type: none">• SCADA – Modbus RTU/TCP, EthernetIP• Whisker.io® Cloud (optional) – remote monitoring and management
Programmability	<ul style="list-style-type: none">• WhiskerIDE – ladder, python, HMI
Environmental	<ul style="list-style-type: none">• -20 to +70C operating range• IP65/66 waterproof front bezel
LCD	<ul style="list-style-type: none">• 1280x800 pixel resolution• 1000 nits brightness• 10 point cap touch• Optically bonded glass
Data Logging	<ul style="list-style-type: none">• 60 days, all tags