



*Think Automation and beyond...*

FT2J 7" PLC+HMI



Smart **AXIS**

**The All-in-One Solution for Seamless Solution**

# Cutting-Edge Technology

## Design-in More Function with Enhanced Features

The new 7" FT2J Series PLC+HMI expands the SmartAXIS touch family with a popular size and all-in-one form factor. Featuring built-in analog inputs, analog outputs, and expandable digital and analog I/O, temperature control, and PID control, this all-in-one solution provides seamless integration for space-limited applications. Combining a PLC and HMI into a single platform offers numerous benefits across diverse industries.



### Compact Design

One PLC+HMI consumes less panel space than separate PLC and HMI units.



### Simplified Installation

A combined PLC+HMI minimizes wiring time and the need for additional components because the PLC and HMI are internally connected, require only a single power supply, and share the same network connection to the outside world.



### Streamlined Programming

An intuitive and easy-to-use integrated development environment for both PLC and HMI functions cuts configuration and programming time, and the PLC+HMI is ready to use and communicate right out of the box.



### Advanced Capabilities

Flexible I/O options, discrete and analog I/O expansion cartridges, and capable PID loop control functionality ensure the PLC+HMI is adaptable for many applications.



### Cost-Effective

By minimizing the physical footprint, installation effort, and programming complexity, an expandable PLC+HMI can be the most cost-effective visualization and automation solution for many applications.



## Uncompromising Design for a Variety of Applications

Many small and medium laboratory, commercial, and industrial applications simply don't have the space or I/O content to justify larger and more complex individual PLC and HMI installations. An PLC+HMI unit is a popular-sized form factor to provide clear local visualization and comprehensive automation for a variety of cases.

With a wide range of operating temperature -20 to 55 °C, this PLC+HMI carries the highest industry standards IP66F/67F, UL61010, Type 4X, 12 and 13 approval ratings and is suitable for installation in Class I Division 2 hazardous locations.



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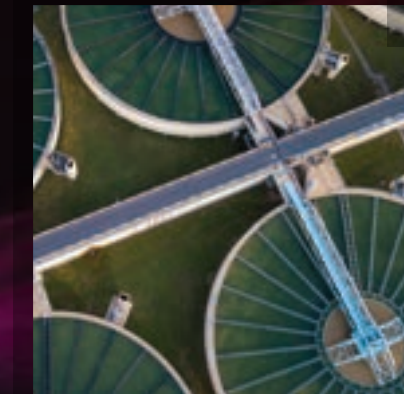
Food and Beverage



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And much more



Agriculture



# Versatility and Adaptability

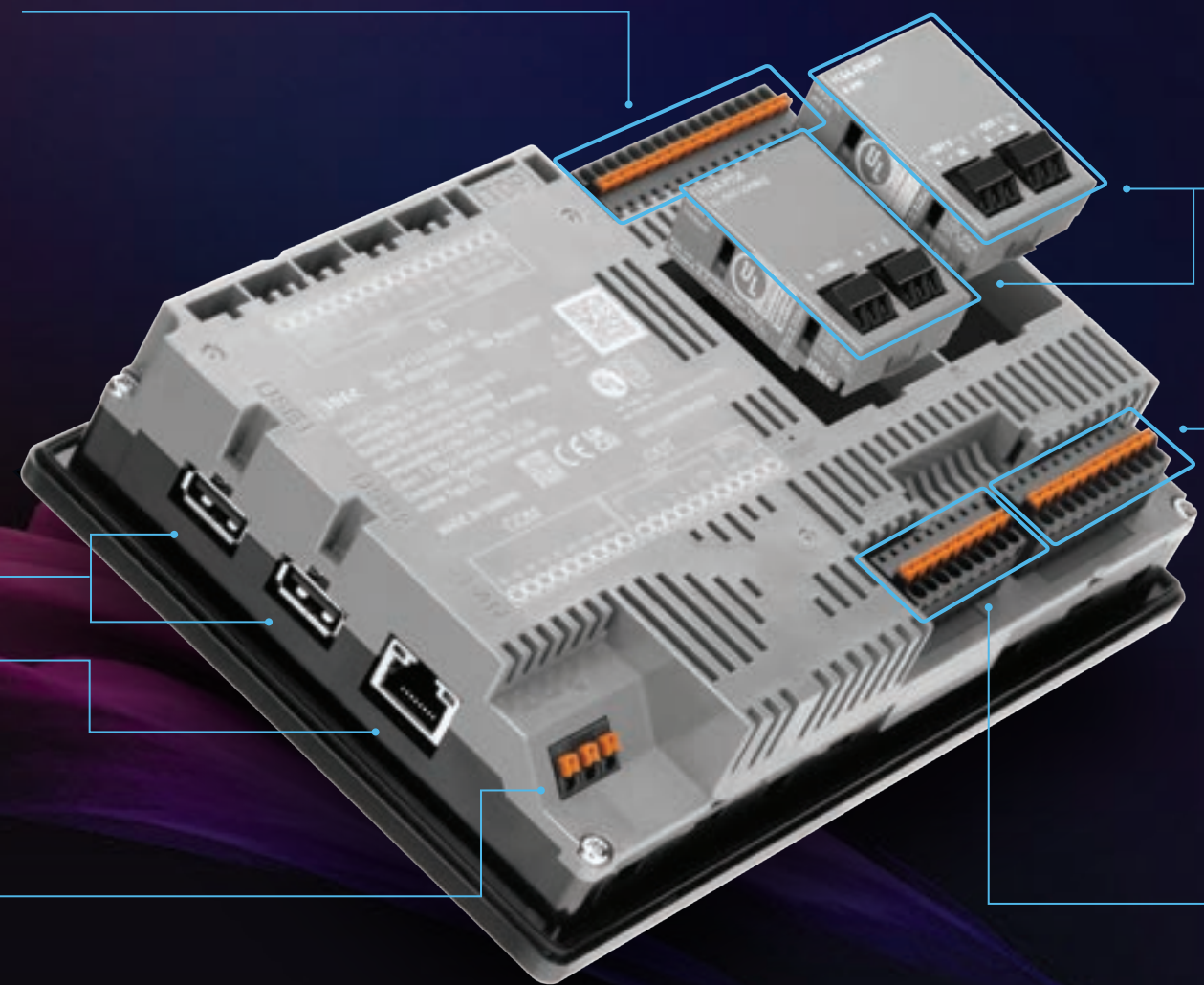
## Powerful PLC features

**14-points of Digital, Analog, and High-speed Inputs**  
 5 inputs are configurable as high-speed counters up to 20kHz.  
 4 inputs are configurable as 0-10V DC or 4-20mA, 12-bit resolution analog inputs.

**Two USB-A Ports**  
 Connection of flash drives for data logging, recipe data, program transfer, and dongles for speakers, Wi-Fi and Bluetooth.

**RJ45 Ethernet Port**  
 Supports Modbus TCP, for communications with other intelligent devices and remote monitoring.

**Push-in type Power Connector**  
 Used for providing easy installation and service



**Expansion I/O Cartridges**  
 Supports up to two expansion cartridges of discrete or analog I/O.  
 RTD/thermocouple 2-points of analog input module (12-bit resolution).

**Relay or Transistor Outputs**  
 Relay version provides 8-points of discrete relay outputs.  
 Transistor versions provide 6-points of sinking or sourcing discrete outputs.

**Analog Outputs (Transistor versions only)**  
 2-points built-in analog output configurable as 0-10V or 4-20mA, 12-bit resolution.

**RS232 and RS485 ports**  
 Supports serial communication (including Modbus RTU).



## Leading-Edge HMI Design

**Projected Capacitive (PCAP) Touch Panel Display**

- Less layers provide improved display performance for color, brightness, and overall visibility.
- Prevent accidental input due to particles and water droplets.

**Compact**

- Saves space while providing the greatest amount of display area.
- Results in a very thin mounting depth.

**Multi-touch**

- Multi-touch capable.
- Compatible with thin gloves.

**Easy Configuration**

- Project program files can easily be transferred between a USB memory stick and FT2J.
- All-in-one design means fewer parts, fewer connections, a smaller footprint and greater convenience.






**Glass-top Touch Panel**

- Wear-resistant, scratch resistant, and provides a long life.
- Easily cleaned using chemical washdown or simple wipes and has a high tolerance for dirt deposits.





# Technologically Advanced Design

## Robust Additions Features and Highlights

- 
**Dual CPU Structure**  
 Scan times are optimized because the PLC and HMI in the PLC+HMI unit each has its own CPU and memory.
- 
**Low Maintenance**  
 Battery-free MRAM and hyper-capacitor design eliminate the need for battery-replacement.
- 
**PID Controls**  
 Essential closed-loop functionality for optimal control of flow, level, pressure, temperature, and other common processes.
- 
**Built-in Analog Inputs/Outputs**  
 Having this option to configure the analog inputs/outputs on the CPU saves you time, space, and money.
- 
**Wide Operating Temperatures**  
 -20 to 55°C. This makes it tough enough for challenging environments like oil and gas and water/wastewater applications.

## All-in-one Intuitive WindO/I-NV4 Software

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**Single Integrated Software**  
 Accessing all PLC and HMI configuration through one mastered interface provides greater convenience.
- 
**Multilingual Capabilities**  
 Makes it easy to deploy easily-used applications to multiple worldwide locations, or sites with multinational workers.
- 
**Program Conversion**  
 Projects can automatically be converted from one HMI screen size to another within seconds using the same software.
- 
**Trend Chart**  
 Allows users to closely monitor critical data points and understand how operations are changing over time.
- 
**Drag & Drop UI**  
 Simple and intuitive drag-and-drop functionality for objects such as buttons, lamps, charts, and more.
- 
**Data/Alarm Logging**  
 Critical data can be saved and logged.

# Seamless Connectivity Solutions

## Enabling Industrial Internet of Things (IIoT) Operation

- Remote Monitor and Control**  
 Distance isn't an issue with this combined PLC+HMI. Users with a network/internet connection can access HMI displays as if standing in front of the unit on the factory floor.
- FTP Protocol**  
 The FT2J can be configured as an FTP Client or Server for local or remote transfer of programs and logged data between client and server.
- Email and Text Messaging**  
 Up to 255 email templates—incorporating dynamic values in the email body, and logged files as attachments—can be sent to multiple recipients.
- Custom Web Pages**  
 A built-in Web Page Editor makes it simple to create professional and dynamic webpages for monitoring and controlling the FT2J, with no HTML programming required.
- iOS and Android Apps**  
 Smartphone and tablet apps provide convenient on-the-go connectivity enabling users to: upload and download programs; monitor and update status; access logged data and manage files in a USB flash drive.

WindEDIT Lite



iOS



Android

## Optimizing Industrial Communication





# Hands-On PLC & HMI Training Seminars

Looking to improve your knowledge of PLCs and HMIs? IDEC's training course combines hands-on and real-world applications examples. Some of the covered topics include:

- PLC fundamentals such as hardware, numbering systems and how a PLC works.
- Basic functions and advanced functions including EtherNet/IP, Math Instructions, Subroutines, Scripting, Web page setup, Email and Text Notifications, Modbus Communications, PID and so much more.
- Programming on the super bright, high-performance HMI.
- Demonstrations on the MicroSmart FC6A and HMI.

The training course includes Q&A session with our experts to discuss your specific controls applications.



For detailed information, our current schedule and to signup for a class, please visit [training.idec.com](https://training.idec.com).

For general information, contact [training@idec.com](mailto:training@idec.com) or call 408.745.5214.

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