

FOOD & HYGIENIC INDUSTRIAL

Food & Beverage Safety/
Hygienic Packaging/
Chemical

TAILORED FOR OPERATIONS
IN HYGIENIC ENVIRONMENTS

Q1 - 2024

About Winmate

Founded in 1996, Winmate Inc. is a pioneer in rugged computing technology. Winmate has provided business leaders worldwide with reliable, robust solutions for the most challenging industrial conditions for over two decades. From R&D to manufacturing to in-house testing, Winmate Inc. manages the entire product development process with ready-made products available for quick deployment. Today Winmate's innovative approach has helped countless enterprises at every level with equipment automation and seamless Industrial Internet of Things (IIoT) integration.

From the industrial display, panel PC, HMI, embedded systems to rugged mobile devices, Winmate caters to industries ranging from transportation and logistics to marine and military, railway, oil, and gas, and provides customization services to create a unique solution for specific customer requirements.

The Winmate Difference

Innovation and Ruggedness

With innovation and ruggedness, our products are designed to meet the requirements of vertical markets' environmental standards.

Engineering Intelligence

We are committed to maintaining the highest standards in engineering excellence to ensure our products deliver reliability, durability, and optimized performance.

Quality Commitment

Quality assurance and entire engineering processes are conducted in-house. It is why we invested significantly in our state-of-the-art testing facility with additional global support.

“ **INNOVATIVE
TECHNOLOGY FOR
OPERATIONAL
EXCELLENCE.** ”

Efficiency

Our team is committed to efficiency and maintaining the shortest possible development cycles. The whole development process is conducted in-house to achieve the market advantage in speed and quality from design to testing.

Reliability

Reliability, service, and support are part of our foundation. Every product scrutinizes industrial standards testing to verify electrical, mechanical, thermal, and firmware design performance.

Customized Solutions

Years of experience allow Winmate to offer customized solutions for different applications.

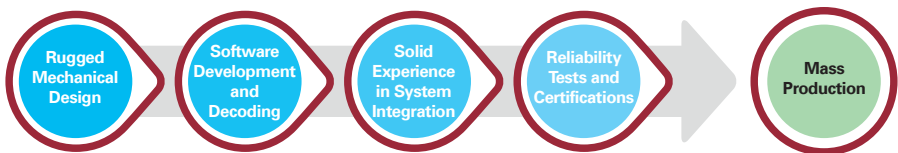
From product design to accessories, our engineering team designs and support the system integration process.

- CUSTOMIZED CONFIGURATION
- CUSTOM OS IMAGE
- CUSTOM BIOS
- ENCLOSURE DESIGN
- PERIPHERALS AND OPTIONS
- CUSTOM-DESIGNED ACCESSORIES

Technical Know-How

We understand that access to cutting-edge solutions purposely built for their applications is imperative for enterprises operating in rugged or potentially hazardous environments. As a result, Winmate locates its resources from project research and design, software development and customization, product verification and validation, and in-house testing to research and implement the latest technologies available.

The latest technologies we deploy for our rugged products:



- Dry and wet optical bonding
- Panel enhancement for sunlight readability
- Anti-reflection (AR) and anti-glare (AG) glass protection coating
- Light sensor
- Hyper dimming
- Electronic potting
- Touch screen integration: projected capacitive, resistive, or SAW touch
- Waterproof enclosure
- Military EMI and mesh coating
- Wireless capabilities
- Data capture devices integration
- Defroster for ultra-low temperature environments
- Stainless steel SUS 316/ AISI 316
- Shock and vibration resistance
- Wide-range operation temperature

Food & Hygienic Industry

Overview

Whether it is the actual processing of the food or the packaging of the food, automation is everywhere in today's modern food plants. Plant floor automation helps keep costs down and food quality up. The stainless series was developed for food processing, packaging, and pharmaceutical industries. There is a need for water-resistant devices that can withstand daily washdowns to keep a clean food production facility.

Industrial Challenges

- **Rigors of factory floor operations**

Devices for the operations at the factory floor should work in changing conditions such as dust, water splashes, and humidity.

- **High hygienic requirements of specific industries**

Some industries have strict hygienic requirements. Devices and factory floors must be cleaned with high-temperature water or chemicals.

- **High pressure and high-temperature washdowns**

Due to the high hygienic requirements of the food industry specifically, devices are subject to high pressure and high-temperature washdowns.

- **Corrosion resistance**

Devices installed in a food processing or chemical factory floor are often cleaned with aggressive chemicals in wet and dusty environments that cause corrosion. That is why SUS304 stainless steel material is the first choice for product design.

- **User-friendly intuitive interface**

The interface of HMI devices should be simple and user-friendly for the operator.

Innovative Technology

- **Water and dust protection IP69K / IP67 / IP65**

The IP Code, International Protection Marking, IEC Standard 60529, sometimes interpreted as Ingress Protection Marking, classifies and rates the degree of protection provided by mechanical casings and electrical enclosures against intrusion, dust, accidental contact, and water. Ingress Protection (IP) rating notifies that the unit is water and dust-resistant. For example, the IP65 level indicates that the device's enclosure has no ingress of dust, complete protection against contact (dust-tight), and is protected from water jets. While IP69K withstands extensive wash downs with corrosion resistance against cleaning agents, especially against close-range high-pressure (up to 30 Bar), high temperature (up to 80°C) wash downs.

- **Mechanical design**

Winmate designs its products in-house and always comes up with innovative product design solutions. The P-Series Panel PC features a waterproof conduit pipe with extra protection. The custom-built watertight conduit pipe is preinstalled to give an additional layer of protection for the peripheral cables connected to the device.

- **Operational safety**

The included air vent valve comes with an automatic mechanical system to act as a safety device that controls and maintains pressure without the user's assistance to avoid air-related problems.

- **Signature true flat design**

Easy to clean and prevent liquid droplets from penetrating any openings in the device.

Stainless Series with Push-Buttons

Winmate develops the solutions using cutting-edge technologies that help overcome different automation challenges you may encounter in food, chemical, pharmaceutical industries.

Adjust 3 Touch Modes Easily by Turning the Knob

Hand Mode

Thanks to the PCAP technology, the series delivers excellent responsive performance by supporting multi-touch and allowing anyone to operate it efficiently with fingers.

Rain Mode

The Rain Mode is not affected by water and allows users to continue working in wet environments and inclement weather.

Glove Mode

This mode works not only with thin gloves but also with heavy work gloves.



Push-Button Front Panel

Push-buttons bring control and indication directly to the work area, eliminating wasted movement and increasing productivity. In addition, the physical buttons are especially needed for critical tasks like emergency shutdowns. When an emergency occurs, we don't want to waste time navigating through HMI screens but a quick and straightforward way to shut down the process.



Waterproof USB Type-A Connector on Front Panel

The device is pre-built with a handy and waterproof USB Type-A connector on the front panel to allow users to plug-in peripherals easily.

Full IP65 Rated SUS 316/ AISI 316 Stainless Steel Enclosure

The device features a SUS 316/ AISI 316 Stainless Steel housing with full IP65 compliance to be water and dustproof, meaning it can withstand overall splashing conditions, suitable to be deployed in food, pharmaceutical industries, or harsh environments with strict hygiene demands.



Application Story

Beverage Packaging System



In the packaging industry, machine builders must select HMIs with correct functionality, intuitive control, comfortable screen size, and robust housing for various applications that are taking place in environments with high sanitary standards. A bottle packaging company was looking for stainless steel panel PCs to serve as a factory automation control terminal that improves production efficiency while enhancing the operator's safety. The organization wanted to have several flat buttons and a large emergency stop button on the front panel to define the functions. As a result, the buttons will directly connect to the sensors for fast response to authorized user controls or emergencies.

Core products

- 10.1"~21.5" IP65 Stainless B Series Panel PC

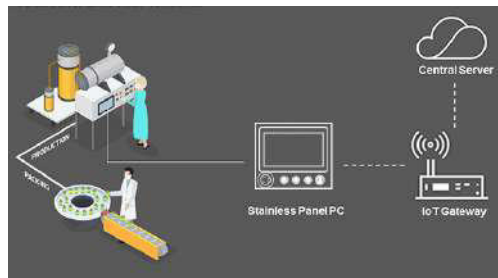
Main Challenges

- User-defined function buttons
- Corrosion-resistant, water, and dustproof enclosure
- WLAN antenna unique customization user-friendly interface

“ THE STAINLESS HMI WITH PHYSICAL BUTTONS TO DELIVER INTUITIVE OPERATION AND EFFORTLESS CONTROL. ”

Why Winmate

- User-defined function buttons and a large emergency button
- PCAP touch panel with a rotary switch for effortless touch mode selection
- Full IP65-rated and corrosion-resistant SUS 3166/ AISI 316 stainless steel enclosure



Application Diagram: Production Line HMI Terminal

10.1" ~ 21.5" Stainless Panel PC IP65 B Series with Push Buttons



“**SPEED UP RESPONSE TIME IN
EMERGENCY SITUATIONS.**”

- 10.1" ~ 21.5", PCAP touchscreen
- Intel® Celeron® N2930 Processor (IB Series)
- Intel® Celeron® Elkhart Lake N6211 Processor (IE Series)
- Windows 11 IoT Enterprise, Ubuntu 22.04 (IE Series)
- Windows 10 IoT Enterprise, Ubuntu 20.04 (IB Series)

Fanless cooling system

Full IP65 waterproof enclosure, good corrosion resistance

A true flat, easy-to-clean front surface with an edge-to-edge design

Supports VESA mount

Rotary switch adjust different touch mode for hand/
rain/ glove application

Emergency and flat buttons for automation device control

Stainless steel housing

Custom Configuration

Up to
8 GB

Memory

Up to
512 GB

Storage

**9~36V
DC**

Wide Power
Input



WLAN

Application



Factory Automation

**CORROSION RESISTANT,
STYLISH HMI
CONTROLS IN HARSH
ENVIRONMENTS**

Winmate's all-new 17" panel PC with push buttons was installed inside machine-control terminals in the factory operating in the food and beverage industry. Push buttons on the HMI terminal provide excellent tactical feedback necessary for emergencies.

15" ~ 23.8" Stainless Panel PC IP69K P Series with Conduit Pipe

Custom Configuration



Memory



Storage



WLAN



BT



Application



Pharmaceutical Packaging Automation

**CORROSION RESISTANT,
HYGIENIC,
HIGH-PERFORMANCE**

HMI control terminals for packaging machines to improve processes, capping, labeling, and collation systems and monitor the operation on a supervisory level, checking for low hopper levels, fallen bottles, and low-level supplies.

“ **PERFECT TERMINAL FOR
STRICT HYGIENE DEMANDS.** ”

- 15" ~23.8"; PCAP touchscreen
- 11th Gen. Intel® Core™ i5-1135G7 2.4GHz (up to 4.2GHz)
- Windows 11 IoT Enterprise SAC (64 bit) (Optional)
Linux Ubuntu 22.04 (Optional)

Fanless cooling system

Stainless steel for food and chemical industries

Full IP69K waterproof enclosure, good corrosion resistance

A true flat, easy-to-clean front surface with an edge-to-edge design

Waterproof sealed conduit pipe for cable protection

Supports VESA/Yoke mount

10.4"~ 23.8" Stainless Panel PC

IP69K Stainless PCAP Chassis



“ WITHSTANDS HIGH PRESSURE WASHDOWNS ”

- 10.4" ~ 23.8" PCAP touchscreen
- Intel® Core™ i5-1135G7 Processor (IT Series)
- Intel® Celeron® N2930 Processor (IB Series)
- Intel® Celeron® Elkhart Lake N6211 Processor (IE Series)
- Windows 10 IoT Enterprise, Ubuntu 20.04 (IB Series)
- Windows 11 IoT Enterprise, Ubuntu 22.04 (IT and IE Series)

Stainless steel for food and chemical industries

Full IP69K

A true flat, easy-to-clean front surface with an edge-to-edge design

Plenty of I/Os, including USB 2.0, RS232, and RJ45-10/100/1000 LAN

Waterproof ports with adapter cables for external connectivity

Supports VESA/Yoke mount

Supports glove/ rain mode

Custom Configuration



Memory



Storage



BT



WLAN

Application



Production Line Machine Controller

FAST PRODUCT DEPLOYMENT IN THE FACTORY

Sealed to IP69K, Winmate's 15" stainless panel PC was deployed as a machine controller in the biscuit production line to boost operation efficiency and improve internal process control.

10.4"~19" Stainless Panel PC IP67 Resistive Chassis

Custom Configuration



Memory



Storage



WLAN



Protection
Glass



BT



“ **SCRATCH-RESISTANT
TOUCH SCREEN.** ”

Application



Self-Order Kiosk

**SPEED UP ORDERS
AND INCREASE
CUSTOMER
SATISFACTION**

Sealed to IP67, Winmate's 19" panel PC now accept orders in a french fast food chain. After busy days, the operator uses water to clean the surface to meet food safety authorities' requirements.

- 10.4" ~ 19", resistive touchscreen
- Intel® Celeron® N2930 Processor (IB Series)
- Intel® Celeron® Elkhart Lake N6211 Processor (IE Series)
- Windows 10 IoT Enterprise, Ubuntu 20.04 (IB Series)
- Windows 11 IoT Enterprise, Ubuntu 22.04 (IE Series)

Fanless design

Full IP67 dust/ water resistant

Stainless housing with anti-corrosion treatment

Optical bonding with anti-moisture treatment

5 Wire resistive touch/ anti-reflection protection glass (Optional)

1x M12 waterproof connector for 2 x USB2.0

1 x waterproof Giga LAN RJ45 connector

1 x LED indicator for power and 1 x LED indicator for storage

100-240V AC to DC adapter with waterproof connector

10.4"~23.8" Stainless Panel PC

IP65 Stainless PCAP Chassis



“ **STAINLESS AND STURDY HOUSING.** ”

- 10.4" ~ 23.8", PCAP touchscreen
- Intel® Core™ i5-1135G7 Processor (IT Series)
- Intel® Celeron® N2930 Processor (IB Series)
- Intel® Celeron® Elkhart Lake N6211 Processor (IE Series)
- Windows 10 IoT Enterprise, Ubuntu 20.04 (IB Series)
- Windows 11 IoT Enterprise, Ubuntu 22.04 (IT and IE Series)

Full IP65 dust / water resistant

Fanless cooling system and ultra low power consumption

SUS 316 / AISI 316 stainless steel for food and chemical industries

Optical bonding (Optional)

1 x LED indicator for power and 1 x LED indicator for storage

100-240V AC to DC adapter with waterproof connector

Custom Configuration

Up to
32 GB

Memory



WLAN

Up to
4 TB

Storage



BT

Application



Automatic Sorting Line

MAKES SORTING FASTER AND MORE ACCURATE

New fully automated parcel sorting station now has a waterproof IP65-rated panel PC that helps the operator visualize the status and package distribution within the sorting station.

Custom Configuration



Memory



Storage



BT



WLAN

Application



Food Factory Solution

PANEL PCS DESIGNED TO MEET FOOD & BEVERAGE MANUFACTURING CHALLENGES

Embrace flexible mounting options, high performance, and IP69K/IP65 standards for ultimate water and dust resistance.

15" ~23.8" Stainless Panel PC IP65 Stainless R Series Panel PC



“ **STAINLESS, IP65,
RESISTIVE CHASSIS** ”

- 15" ~ 23.8", resistive chassis
- Intel® Core™ i5-1135G7 2.4GHz (turbo to 4.2 GHz)
- Windows 11 IoT Enterprise (Optional), Linux Ubuntu 22 (Optional)

Round corner design, IP65 Stainless Panel PC

A true flat, easy-to-clean front surface with an edge-to-edge design

Sealed to IP65 for protection against water and dust

Support glove/ rain mode

SUS 316/ AISI 316 stainless steel for food and chemical industries

Various mounting solutions

Optical bonding (Optional)

15"~23.8" Featured Display IP69K P Series with Conduit Pipe



“ **EXTRA PROTECTION WITH
CONDUIT PIPE.** ”

- 15" ~ 23.8" PCAP touchscreen
- Stainless steel housing SUS 316/ AISI 316
- Full IP69K

Fanless cooling system, IP69K stainless display with waterproof sealed conduit pipe

Full IP69K waterproof enclosure

A true flat, easy-to-clean front surface with edge-to-edge design

Waterproof sealed conduit pipe for cable protection

Supports VESA mount and Yoke mount stand

Optical bonding (Optional)

Custom Configuration



HDMI

Application



Pharmaceutical Packaging Automation

INTUITIVE TOUCH CONTROLS

Winmate P Series hygienic display as a part of operator control terminal system for beverage packaging machines and automation systems allow leveraging data and analytics to improve processes, capping, labeling, and collation systems and monitor the operation on a supervisory level.

10.4"~23.8" Featured Display IP69K Stainless PCAP

Custom Configuration



Waterproof
DVI-D



Waterproof
HDMI



“ **WITHSTAND HIGH
PRESSURE WASHDOWNS,
EASY-TO-CLEAN** ”

- 10.4"~23.8" PCAP touchscreen
- Stainless steel housing SUS 316/ AISI 316
- Full IP69K with air venting valve

M12 waterproof connector for touch screen control

M12 waterproof connector VGA input

M12 waterproof connector power input 12 V DC

Air venting valve design

OSD control five keys

Support VESA mount and Yoke mount

Full IP69K waterproof and dustproof

Application



Food Production Plant

EASY TO CLEAN FOR HYGIENIC REQUIREMENTS

Sealed to IP69K, Winmate's Stainless Steel Display was installed in a food processing facility to withstand high-pressure washdowns every day.

10.4"~19" Featured Display IP67 Stainless Resistive Chassis



“ **RUGGED. WATERPROOF.
DUSTPROOF.** ”

- 10.4"~19", resistive touchscreen
- Stainless steel housing SUS 316/ AISI 316
- VESA mount

M12 waterproof connector for touch screen control

M12 waterproof connector VGA input

M12 waterproof connector power input 12 V DC

OSD control five keys

Support VESA mount and Yoke mount

Full IP67 waterproof and dustproof

Custom Configuration



Waterproof
DVI-D



Waterproof
HDMI



Protection
Glass (No
Touch)

Application



Pharmaceutical Manufacturing Control Systems

INCREASE PRODUCTIVITY AND PROFITABILITY

Real-time access and extended enterprise visibility to vital manufacturing data are now more comfortable with Winmate's IP67 stainless display designed to withstand corrosion and resist water and dust.

10.4"~32" Featured Display IP65 Stainless PCAP

Custom Configuration



Waterproof
DVI-D



Waterproof
HDMI



“ DURABLE IN ALL HARSH ENVIRONMENTS. ”

Application



Automotive Part Manufacturing Plant

RESISTS ANY
SUBSTANCE WITH
ROBUST STAINLESS
DESIGN

Winmate's IP65 Stainless Steel Displays installed in an automobile parts manufacturing facility where the corrosion-resistant housing can withstand the chemicals used.

- 10.4"~32", PCAP touchscreen
- Stainless steel housing SUS 316/ AISI 316
- VESA mount

M12 waterproof connector for touch screen control

M12 waterproof connector VGA input

M12 waterproof connector power input 12 V DC

OSD control five keys

Support VESA mount and Yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP65 waterproof and dustproof

8.4"~55" Featured Display IP65 Stainless Resistive Chassis



“ WATERPROOF AND CORROSION RESISTANT. ”

- 8.4"~55", resistive touchscreen
- Stainless steel housing SUS 316/ AISI 316
- VESA mount

M12 waterproof connector for touch screen control

M12 waterproof connector VGA input

M12 waterproof connector power input 12 V DC

OSD control five keys

Support VESA mount and Yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP65 waterproof and dustproof

Custom Configuration



Waterproof
DVI-D



Waterproof
HDMI



Protection
Glass (No
Touch)

Application



Packaging Automation System

IMPROVE PACKAGING FLEXIBILITY

Information display at the
bottling water on the plant
makes packaging machines
smarter.

15"~21.5" Featured Display Stainless Panel Mount

Custom Configuration



Protection
Glass



HDMI



DVI-D



USB Type-A



RS232



Resistive
Touch



“DURABLE LCD SOLUTION.”

- 15"~21.5", resistive chassis display
- Panel mount, VESA mount
- Front IP65

VGA and HDMI input

OSD control five keys

Panel mount, support VESA mount

Power input 12V DC

Stainless steel front bezel

Application



Chemical Factory

SCRATCH-RESISTANT SCREEN AND STAINLESS HOUSING

Winmate's 12.1" Stainless Display with IP65 water and dust protection rating was installed in a chemical factory's HMI terminal. Resistant to scratches screen combined with corrosion-resistant housing for best vaccine production facilities.



WinMATE



**IP65 STAINLESS
B SERIES
WITH PUSH BUTTONS**



**IP69K STAINLESS
P SERIES
WITH CONDUIT PIPE**

**WINMATE STAINLESS
SERIES FOR THE FOOD,
BEVERAGE AND
CHEMICAL INDUSTRY**

