



Food, Beverage and Chemical Industry

TAILORED
FOR
OPERATIONS
IN HYGIENIC
ENVIRONMENTS



About Winmate

Founded in 1996, Winmate Inc. is a pioneer in rugged computing technology. For over two decades, Winmate has provided business leaders worldwide with reliable, rugged solutions made for the most challenging industrial conditions. 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 industrial display and panel PC, HMI, embedded systems, and IoT gateways to rugged tablets and handheld devices, Winmate caters to industries ranging from transportation and logistics to marine and military, railway, oil and gas, and also provides customization services to create a unique solution for specific customer requirements.

The Winmate Difference

Innovation and Ruggedness

Blending 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. This 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. From design to testing, the whole development process is conducted in-house to achieve the market advantage in speed and quality.

Reliability

Reliability, service and support are part of our foundation. Every product undergoes the scrutiny of 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.

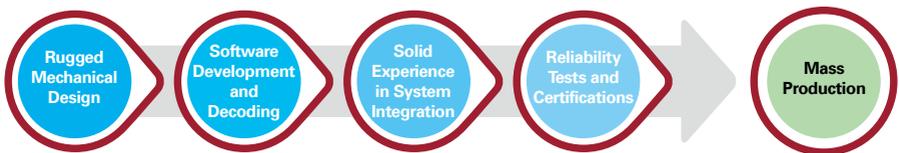
From product design to accessories, our engineering team designs and support the system integration process.

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

Technical Know-How

We understand that, for enterprises operating in rugged or potentially hazardous environments, the access to the cutting-edge solutions purpose-built for their applications is imperative. As a result, Winmate locates its resources from project research and design, software development and customization, product verification and validation, to testing all in house in order to gain maximized freedom 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, Beverage and Chemical 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 where there is a need for water resistant devices that can withstand daily wash-downs 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 floor must be cleaned with high temperature water or chemicals.
- **High pressure and high temperature wash downs**
Due to high hygienic requirements of the food industry specifically, devices are subject to high pressure and high temperature wash downs.
- **Corrosion resistance**
Devices installed in a food processing or chemical factory floor are subject to often cleaning with aggressive chemicals, wet and dusty environments that causes corrosion. That is why SUS304 stainless steel material is the first choice when it comes to 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, 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 design its products in-house and always come up with innovative product design solutions. The new P-Series Panel PC features waterproof conduit pipe that offers extra protection. The custom-built waterproof 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 in order to avoid air related problems.

- **Signature true flat design**

Easy to clean and prevent liquid droplets 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 for anyone to operate it easily with fingers.

Rain Mode

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

Glove Mode

This mode works not only with thin gloves like some inferior devices, but also with heavy work-gloves.



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 dust proof , meaning it can withstand overall splashing conditions, suitable to be deployed in Food, Pharmaceutical Industries or harsh environments with strict hygiene demands.

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 situation occurs, we don't want to waste time navigating through HMI screens but a simple and quick 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 in an easy way.



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 standard. 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 operator's safety. The organization wanted to have several flat buttons and a large emergency stop button on the front panel for them to define the functions, and as a result, the buttons will directly connect to the sensors for fast response when it comes to authorized user controls or emergency situations.

Core products

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

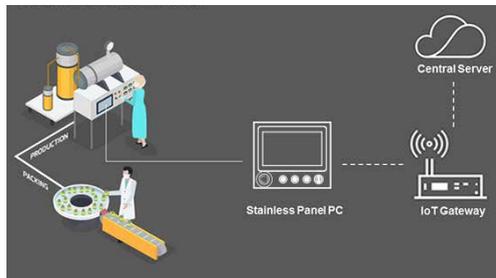
Main Challenges

- User-defined function buttons
- Corrosion resistant, water and dust proof enclosure
- Wi-Fi antenna special 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 316/ 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 (2M Cache, up to 2.16 GHz)
- Windows 10 IoT Enterprise (Optional),
Ubuntu 18.04 (Optional)

Fanless cooling system

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

Full IP65 waterproof enclosure, good corrosion resistance

A true flat, easy-to-clean front surface with 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 SUS 316/ AISI 316

Full IP65 waterproof and dustproof

Custom configuration



Memory



Wide Power
Input

Application



Factory Automation

“VANDAL RESISTANT,
STYLISH HMI
CONTROLS IN HARSH
ENVIRONMENTS”

Winmate's all-new 17" panel PC with push buttons were 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 that is necessary for emergencies.

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

Custom configuration



Memory



Storage



HDMI



Wide Power Input



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

- 15"~23.8", PCAP touchscreen
- Intel® Core™ i5-8265U 1.6 GHz (turbo to 3.9 GHz)
- Windows 10 IoT Enterprise (Optional),
Linux Ubuntu 18.04 (Optional)

Fanless cooling system

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

Full IP69K waterproof enclosure, good corrosion resistance

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

Waterproof sealed conduit pipe for cable protection

Supports VESA mount, and optional Yoke mount stand

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.

15"~21.5" Stainless Panel PC

IP69K Stainless PCAP Chassis



“ **WITHSTANDS HIGH PRESSURE WASHDOWNS.** ”

- 15"~21.5", PCAP touchscreen
- Intel® Core™ i5 -8265U (6M Cache, 1.6 up to 3.9 GHz)
- Windows 10 IoT Enterprise (Optional), Linux Ubuntu 18.04 (Optional)

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

Full IP69K waterproof enclosure, good corrosion resistance

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



Protection
Glass



BT



WLAN
WLAN



“**SCRATCH RESISTANT
TOUCH SCREEN.**”

- 10.4"~19", resistive touchscreen
- Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
- Windows 10 IoT Enterprise (Optional),
Linux Ubuntu 18.04 (Optional)

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)

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"~21.5" Stainless Panel PC

IP65 Stainless PCAP Chassis



“ STAINLESS, RUST PROOF HOUSING. ”

- 10.4"~19", PCAP touchscreen
- Intel® Celeron® N2930 (2M Cache, up to 2.16 GHz)
- Windows 10 IoT Enterprise (Optional), Linux Ubuntu 18.04 (Optional)

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

Sealed to IP65 for protection against water and dust

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

Flat multi-touch panel pc with superior readability and P-Cap technology

Various mounting solutions, Yoke mount and VESA mount

Plenty of I/O s including USB 2.0, RS232 serial port and RJ45-10/100/1000 LAN ports

Waterproof ports with adapter cables for external connectivity

Support Glove / Rain mode

Custom configuration



Memory



Protection Glass

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



HDMI



Wide Power
Input

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.

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



FC CE

“ EXTRA PROTECTION WITH
CONDUIT PIPE. ”

- 15"~23.8", PCAP touchscreen
- Stainless steel housing SUS 316/ AISI 316
- Full IP69K with air venting valve

USB type-A for touch screen control

VGA output

I/O cover with waterproof conduit pipe

Air venting valve

OSD control 5 keys

Support VESA mount, yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP69K waterproof and dustproof

Power input 12 V DC

10.4"~23.8" Featured Display IP69K Stainless PCAP



FCCE

“ **WITHSTANDS HIGH
PRESSURE WASH DOWNS,
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

OSD control 5 keys

Support VESA mount, yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP69K waterproof and dustproof

Custom configuration



Waterproof
DVI-D

M21 Type
HDMI

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.

Custom configuration



Waterproof
DVI-D



M21 Type
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"~19" Featured Display IP67 Stainless Resistive



FCCE

“ **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 5 keys

Support VESA mount, yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP67 waterproof and dustproof

10.4"~23.8" Featured Display IP65 Stainless PCAP



FCCE

“**DURABLE IN ALL HARSH ENVIRONMENTS.**”

- 10.4"~23.8"; 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 5 keys

Support VESA mount, yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP65 waterproof and dustproof

Custom configuration



Waterproof
DVI-D



M21 Type
HDMI



Protection
Glass (No
Touch)

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.

8.4"~42" Featured Display IP65 Stainless Resistive

Custom configuration



Waterproof
DVI-D



M21 Type
HDMI



Protection
Glass (No
Touch)



“ **WATERPROOF AND
CORROSION RESISTANT.,,** ”

- 8.4"~42", resistive touchscreen
- Stainless steel housing SUS 316/ AISI 316
- VESA mount

Application



Packaging Automation System

“IMPROVE PACKAGING
FLEXIBILITY”

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

M12 waterproof connector for touch screen control

M12 waterproof connector VGA input

M12 waterproof connector power input 12 V DC

OSD control 5 keys

Support VESA mount, yoke mount

Stainless steel housing SUS 316/ AISI 316

Full IP65 waterproof and dustproof

15"~21.5" Featured Display Front IP65 Stainless



FCCE

“DURABLE LCD SOLUTION.”

- 15"~21.5" resistive touchscreen
- Stainless steel housing SUS 316/ AISI 316
- Panel mount, VESA mount

VGA input

OSD control 5 keys

Panel mount, support VESA mount

Power input 12 V DC

Stainless steel SUS 316/ AISI 316 front bezel

Front IP65 waterproof and dustproof

Custom configuration



Protection
Glass (No Touch)



HDMI



DVI-D



USB Type-A
(Touch
Control)



RS232
(Remote Control)

Application



Chemical Factory

“SCRATCH-RESISTANT
SCREEN AND STAINLESS
HOUSING”

Winmate's 15" 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**

WWW.WINMATE.COM



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



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