WINMATE
www.winmate.com

OIL & GAS, ATEX GRADE

RUGGED AND MOBILE DEVICE TO STREAMLINE FIELD WORKERS EFFICIENCY

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.

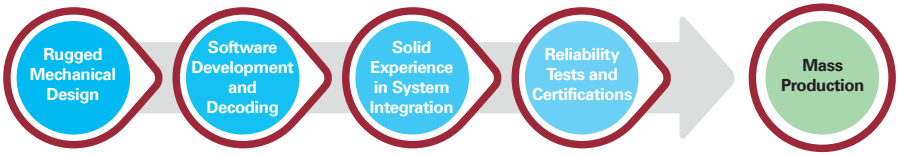
From product design to accessories, our engineering team designs and support the system integration process.

- 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

Oil & Gas

Overview

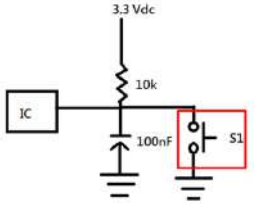
Oil rigs and remote pipeline locations are the most dangerous and challenging work environments anywhere. Winmate rugged computers are designed for the harsh environments of an oil refinery or a drilling rig and come with ATEX Zone 2 and Class 1 Division 2 (C1D2) certifications. By employing automated processes, oil and gas companies can increase production wells, improve production control, and reap the benefits of modern technologies.

Technology

Winmate has technology know-how for the production and development of explosion-proof devices:

Intrinsic Safety Schematic Design

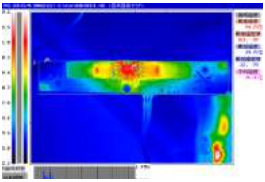
Our engineers design the intrinsic safety schematics for the explosion-proof product line. Our engineers design the electronic system to ensure that the temperature under all fault conditions can never rise to a value that may cause explosive gasses' ignition.



Intrinsically safe design

Non-Sparking Device

Our design guarantees that the ignition of a hazardous atmosphere does not occur. It is achieved by ensuring that only low voltages and currents enter the hazardous area and that no significant energy storage is possible.



Thermal design

Application Story

Operator Control HMI for Oil Drilling Rig

Background

In the Oil & Gas industry, complex process control is required at all stages, from exploration, extraction, and transportation, to the refinement and the distribution of fossil fuels. These processes occur in harsh environments with the constant threat of dangerous substances in the air, where combustion can occur when proper precautions are ignored.

Core products

- ATEX Aluminum Panel PC
- ATEX Stainless Display
- ATEX DIN-Rail Box PC

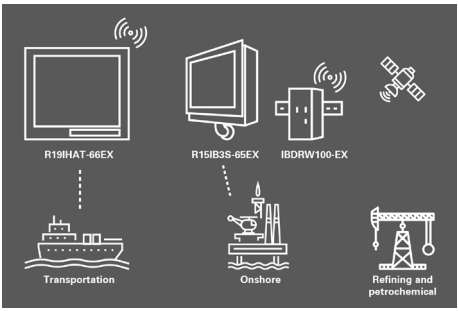
Main Challenges

- Hazardous working environment
- Wide operating temperature
- Explosion-proof solution

Why Winmate

- Certified for C1D2, ATEX Zone 2
- Large, high-brightness display with optical bonding technology
- Wide operating temperature

Winmate's ATEX HMI Panel PC



Application Diagram: Hazardous Locations

WE DELIVER ENTERPRISE MOBILITY SOLUTIONS FOR FIELD SERVICE OPERATIONS.

ATEX GRADE RUGGED TABLETS

The Winmate ATEX Grade rugged tablet series showcases the benefits of ATEX grade rugged tablets in hazardous environments. With an intrinsically safe design, compliant with ATEX, IECEx Zone 2, and C1D2 (Class 1 Division 2) standards, these tablets can be safely used in both hazardous and non-hazardous settings. This versatility makes them suitable for various applications, including chemical plants, distilleries, and petroleum facilities.

ATEX GRADE PANEL PC

ATEX Grade Panel PCs are essential in industries where explosive atmospheres are a constant risk, such as oil and gas, petrochemical, and refining industries. These environments require equipment that not only complies with rigorous safety standards but also ensures operational efficiency and reliability.

ATEX GRADE DISPLAY

Winmate's industrial ATEX Display is tailored for hazardous environments like oil refineries and drilling rigs. Certified with ATEX Zone 2 and Class 1 Division 2 (C1D2), it ensures safe operation in potentially explosive atmospheres.

Custom Configuration

Up to 32 GB
Memory

Up to 2 TB
Storage

Barcode Reader

WWAN
WWAN

RFID
HF RFID Reader

Application

Built Tough for Industrial Mobility

The M101AD-EX Rugged Tablet is designed to function safely in hazardous and explosive environments. It holds the Ex Certificate for Class I Division 2 (CID2) and ATEX/IECEx Zone 2. This certification ensures the tablet can be used confidently across different hazardous zones.

10.1" Windows ATEX Rugged Tablet
M101AD-EX

"CERTIFIED FOR SAFE OPERATIONS IN HAZARDOUS ZONES"

- Intel® Core™ i5-1235U Alder Lake processor
- 10.1" 1920 x 1200 IPS LED Panel with direct optical bonding

Sunlight readable with antiglare solution
Allows cross-zone operations in hazardous and explosive environments
Ex Certificate: Class I Division 2 (CID2), ATEX/IECEx Zone 2
USB Type C port support PD 3.0 and ALT mode

10.1" ATEX Windows Rugged Tablet

M101S-EX

"ROBUST TABLET TO WITHSTAND INDUSTRIAL USE."

- 10.1" 1920 x 1200 IPS LED Panel with direct optical bonding
- 7th Gen Intel® Core™ i5-7200U Kaby lake processor
- Ex Certificate: Class I Division 2 (CID2), ATEX/IECEx Zone 2

Allows cross-zone operations in hazardous and explosive environments

Sunlight readable with anti-glare solution, fully ATEX tablet

IP65 waterproof and dustproof, MIL-STD-810G shock, vibration and drop resistance

Custom Configuration

Up to 16 GB — Memory

Up to 512 GB — Storage

Barcode Reader

WWAN

HF RFID Reader

Application

Mobility in the harshest environments

Winmate's ATEX Windows tablet is designed with simplicity for a challenging job. Not only can it be effortlessly held in one hand. It also features a wide range of networking options and numerous interfaces.

Custom Configuration

Up to 32 GB
Memory

Up to 512 GB
Storage

WLAN
WLAN

HDMI

Application

Ultimate Productivity for Field Work

MULTI VIDEO OUTPUT

Features a powerful multi-video output function and supports various combinations of portrait and landscape screens to perfectly fit your digital signage applications.

C1D2 Box PC

ITMH100-EX

“CLASS 1 DIVISION 2, GROUP A-D, T5 CERTIFICATION.”

- Intel® Tiger Lake UP3 Core™ i5 1135G7
- Multi Video Output , HDMI/Display Port, Intel® Core™ i5 C1D2 Box PC

Auto detection of the connected display, no settings necessary
Quick & easy replaceable hard disk design, no tools required
Support wide range 9-29V DC input
Optional with modular front display as a Panel PC
Expansion slot for PCIex4
Class 1, Division 2, Compliance with ATEX grade zone 2 and IECEx certified for hazardous area applications

ATEX DIN Rail Box PC (C1D2)

IBDRW100-EX/ IBDRW100-EX-P

“COMPACT FOR HAZARDOUS LOCATIONS.”

- Class 1, Division 2 device certified for hazardous area application
- DIN Rail design for industrial automation applications
- Intel® Celeron® N2930 Bay Trail-M Processor (EX)
- Onboard Intel® Atom® Processor E3950 1.6 GHz, up to 2.0 GHz (EX-P)

1 x RS232 / 422 / 485 communication, select thru BIOS (EX-P)
1 x SO-DIMM, DDR3L 1866 MHz, 4GB
Fanless design
4 x Giga LAN, 3 x USB 3.2 Gen 1, 1 x USB 2.0, 1 x VGA, 1 x Line out, 1 x line in, 1 x Mic in, 1 x Power Jack (EX-P)
Fanless, streamlined enclosure for highly efficient heat Dissipation
AWS IoT Greengrass Certified, ATEX rugged box pc
- 40˚C~70˚C wide operation temperature range

Custom Configuration

Up to 8 GB — Memory

Up to 512 GB — Storage

WLAN — WLAN

Application

Petrochemical Processing Plant

STABLE PERFORMANCE IN A COMPACT RUGGED DESIGN

Winmate's compact fanless DIN-Rail Box PC IBDRW100-EX-P serves as the system controller of a monitoring system in a petrochemical plant to control and monitor on-site data.

Custom Configuration

Up to 16 GB
Memory

Up to 512 GB
Storage

Application

Aerospace and Defense

SAFETY IN HIGH-STAKES OPERATIONS

ATEX Panel PCs are critical for monitoring data and controlling equipment in hazardous environments, ensuring operational safety in high-stakes applications.

15" ATEX Panel PC
R15IE3S-65EX

IP65 FC CE

“ATEX PANEL PC: SAFE, RUGGED, RELIABLE”

- Intel Atom® x6413E Processor 1.5M Cache, up to 3.00 GHz
- High Quality 15" Panel, 1024 x 768 resolution, 1000 nits
- P-cap multi touch screen Optical Bonding with Panel to increase the clarity and transparency

Compliance with ATEX / IECEx / CID2 Design

Fanless design with streamlined enclosure for highly efficient heat dissipation

Dust/ Water proof design with VESA mount Full IP65 Panel PC

Wide Range 9 to 36V DC Input with isolation

-20 to 60°C wide operating temperature

15" ATEX Panel PC

R15IB3S-65EX

“CERTIFIED SAFETY FOR HAZARDOUS ENVIRONMENTS”

- 15” 1024 x 768, PCAP touchscreen, ATEX Panel PCs
- Class 1, Division 2 & ATEX Zone 2 & IECEx Zone 2 device certified for hazardous area application

Stand-alone solution for use in Ex Zone 2 hazardous areas
Intel® Celeron® Processor N2930
Fanless design with streamlined enclosure for highly efficient heat dissipation

Custom Configuration

Up to 8 GB — Memory

Up to 512 GB — Storage

Application

Waste Management Facilities

RELIABLE MONITORING IN EXPLOSIVE AREAS

In waste processing plants dealing with combustible materials, ATEX Panel PCs provide safe and efficient control and monitoring, minimizing environmental and operational risks.

Custom Configuration

Up to 512 GB

Storage

Application

Automotive Manufacturing

ENSURING SAFETY IN HAZARDOUS ASSEMBLY LINES

ATEX Panel PCs support operations in automotive assembly lines, where flammable materials and volatile chemicals are used, ensuring precision and safety.

15" ATEX Panel PC

R15ID3S-65EX

IP65 · MIL-STD 810G · cULus LISTED · TD0700KL · FC CE

“DURABLE PERFORMANCE IN EXTREME CONDITIONS”

- 15" 1024x768 , LCD Panel PC
- Intel® Atom® N2600 Processor, ATEX Panel PC

Class1, Division 2 & ATEX Zone 2 device certified for hazardous area application

Fanless, streamlined enclosure for highly efficient heat dissipation

5 wire Resistive Touch Screen (Explosion-proof)

Stainless housing

19" ATEX Panel PC

R19IHAT-66EX-T

“EXPLOSION-PROOF DESIGN FOR INDUSTRIAL SAFETY”

- 19" 1000 nits LCD ATEX Panel PC
- Class 1, Division 2 & ATEX Zone 2 certified for hazardous area applications

Intel® 11th Tiger Lake Core™ i5-1135G7 Processor
Fanless design with streamlined enclosure for highly efficient heat dissipation
Intelligent Heater for working in extreme cold environments -40°C

Custom Configuration

Up to 64 GB — Memory

Up to 2 TB — Storage

VESA Mount

Application

Paint and Coating Industry

PROCESS CONTROL FOR FLAMMABLE ENVIRONMENTS

They ensure accurate process control in environments with flammable liquids and fumes, maintaining safety and operational efficiency.

12.1" C1D2 HMI Panel PC

R12ITWS-MHM2-EX

Custom Configuration

Up to 32 GB Memory

Up to 512 GB Storage

WLAN

HDMI 2.0

BT

“RELIABLE COMPUTING IN EXPLOSIVE ENVIRONMENTS”

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU HMI Panel PC
- Signature true flat display screen with edge-to-edge design
- Aluminum, anti-corrosion treated housing

Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless Design, C1D2 HMI Panel PC
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5” SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

Application

Food and Beverage Processing

HYGIENE AND SAFETY IN PRODUCTION

Designed to meet hygiene and safety standards, these PCs ensure smooth operations in facilities where combustible dust poses a risk.

15" modular design HMI Panel PC

R15ITWS-MHB1-EX

“SEAMLESS PERFORMANCE, ATEX-CERTIFIED SAFETY”

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU,HMI Panel PC
- Signature true flat display screen with edge-to-edge design
- Aluminum, anti-corrosion treated housing

Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless with modular design
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5” SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

Custom Configuration

Up to 32 GB — Memory

Up to 512 GB — Storage

WLAN

HDMI 2.0

BT

Application

Mining Operations

ROBUST CONTROL IN EXPLOSIVE MINES

In explosive-prone underground mines, ATEX Panel PCs provide robust machinery control and data collection, ensuring operational safety and efficiency.

Custom Configuration

Up to 32 GB
Memory

Up to 512 GB
Storage

WLAN
WLAN

HDMI 2.0

BT

Application

Power Generation

MONITORING IN EXPLOSIVE FACILITIES

ATEX Panel PCs are vital for monitoring and controlling power plant operations, especially in facilities with explosive risks like coal or gas plants.

17" HMI Panel PC

R17ITWS-MHA1-EX

C US TD0700KL

“BUILT TOUGH FOR HAZARDOUS AREA OPERATIONS”

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU HMI Panel PC
- Signature true flat display screen with edge-to-edge design

Aluminum, anti-corrosion treated housing
Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless Design
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5” SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

19" HMI Panel PC

R19ITWS-MHA3-EX

"RUGGED AND SAFE FOR EXTREME ENVIRONMENTS"

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU HMI Panel PC
- Signature true flat display screen with edge-to-edge design

Aluminum, anti-corrosion treated housing
Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless Design
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5" SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

Custom Configuration

Up to 32 GB — Memory

Up to 512 GB — Storage

WLAN

HDMI 2.0

BT

Application

Chemical Processing Plants

RELIABLE CONTROL FOR HAZARDOUS ZONES

These devices are engineered for hazardous zones, offering reliable process control and automation in chemical manufacturing, ensuring compliance with safety standards.

Custom Configuration

Up to 32 GB
Memory

Up to 512 GB
Storage

WLAN
WLAN

HDMI 2.0

BT

Application

Pharmaceutical Manufacturing

PRECISION AND SAFETY IN CLEANROOMS

ATEX Panel PCs facilitate precise monitoring and control of production lines in cleanrooms and hazardous areas, enhancing quality assurance and safety.

21.5" C1D2 HMI Panel PC

W22ITWS-MHB1-EX

C US TD0700KL

“ATEX-CERTIFIED FOR ULTIMATE RELIABILITY”

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU,HMI Panel PC
- Signature true flat display screen with edge-to-edge design

Aluminum, anti-corrosion treated housing
Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless Design, C1D2 HMI Panel PC
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5” SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

24" HMI Panel PC

W24ITWS-MHA2-EX

“SAFETY MEETS PERFORMANCE IN HAZARDOUS ZONES”

- Intel® 11th Generation Tiger Lake UP3 Core™ i5 CPU HMI Panel PC
- Signature true flat display screen with edge-to-edge design

Aluminum, anti-corrosion treated housing
Superior sealing with front IP65 protection against dust and water
Projected Capacitive Multi-Touch Screen (PCAP)
Fanless Design
Support wide range 9-29 V DC input
Quick & Easy Removable 2.5” SSD Bay Slot
Support PCIe x4 Card
C1D2 & IECEx certificated, Compliance with ATEX grade zone 2

Custom Configuration

Up to 32 GB — Memory

Up to 512 GB — Storage

WLAN

HDMI 2.0

BT

Application

Oil and Gas Exploration

ENSURING SAFETY IN EXPLOSIVE ENVIRONMENTS

ATEX Panel PCs play a crucial role in monitoring drilling operations and ensuring safety in explosive offshore and onshore environments, reducing risks and improving efficiency.

Custom Configuration

1000
Brightness

Application

Oilfield Drilling Monitoring System

THE HIGHEST STANDARD IN RELIABILITY AND SERVICE

The 15" aluminum display was installed as part of an oilfield drilling monitoring system that now allows for better control over operations.

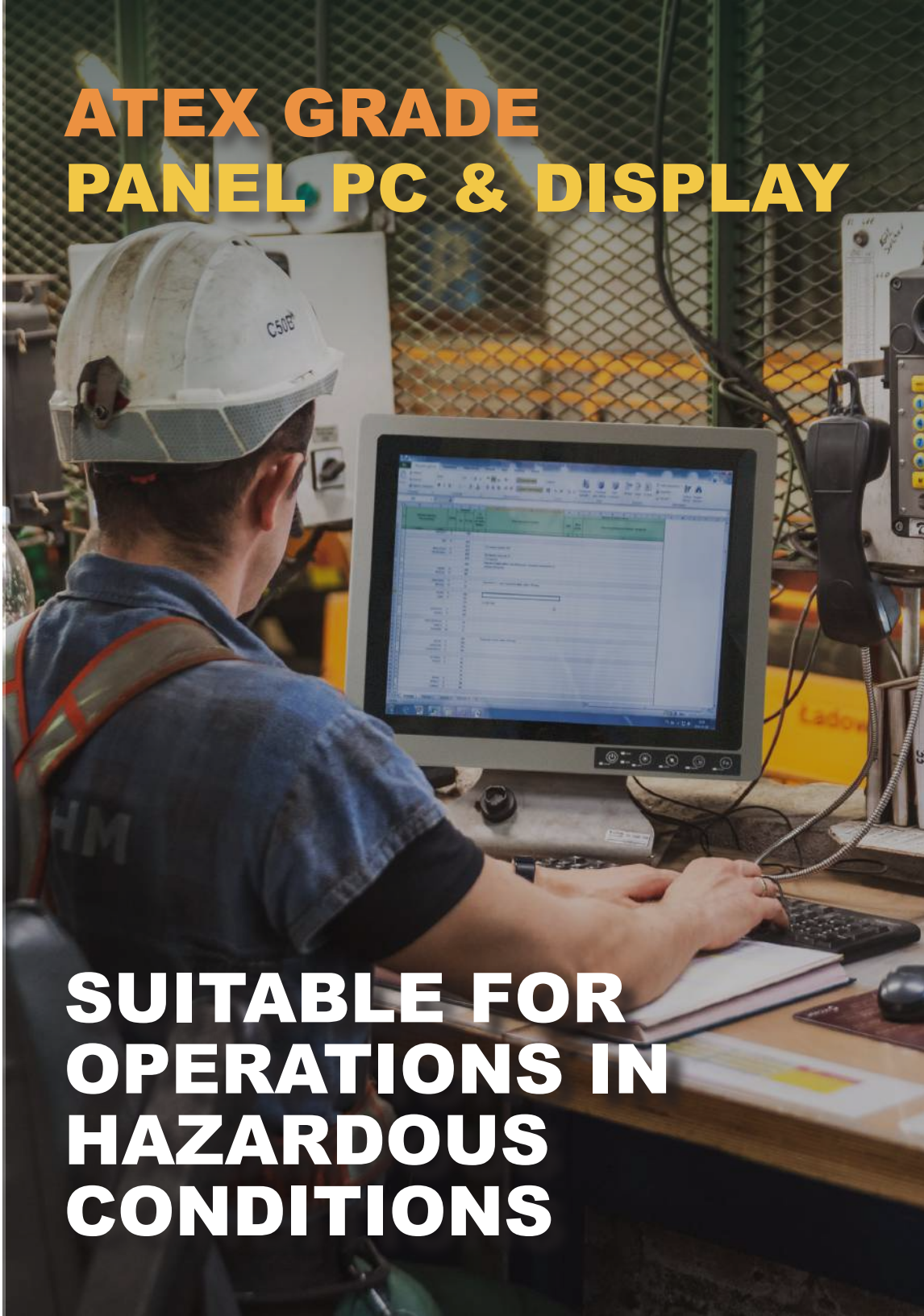
15" IP65 Stainless ATEX Display

R15L600-65EX

"EXPLOSION PROOF. FOR SAFE OPERATIONS."

- Class 1, Division 2 & ATEX Zone 2 application certification rugged touchscreen
- 15" 1024 x 768, 550 nits (Optional 1000 nits) LCD Panel

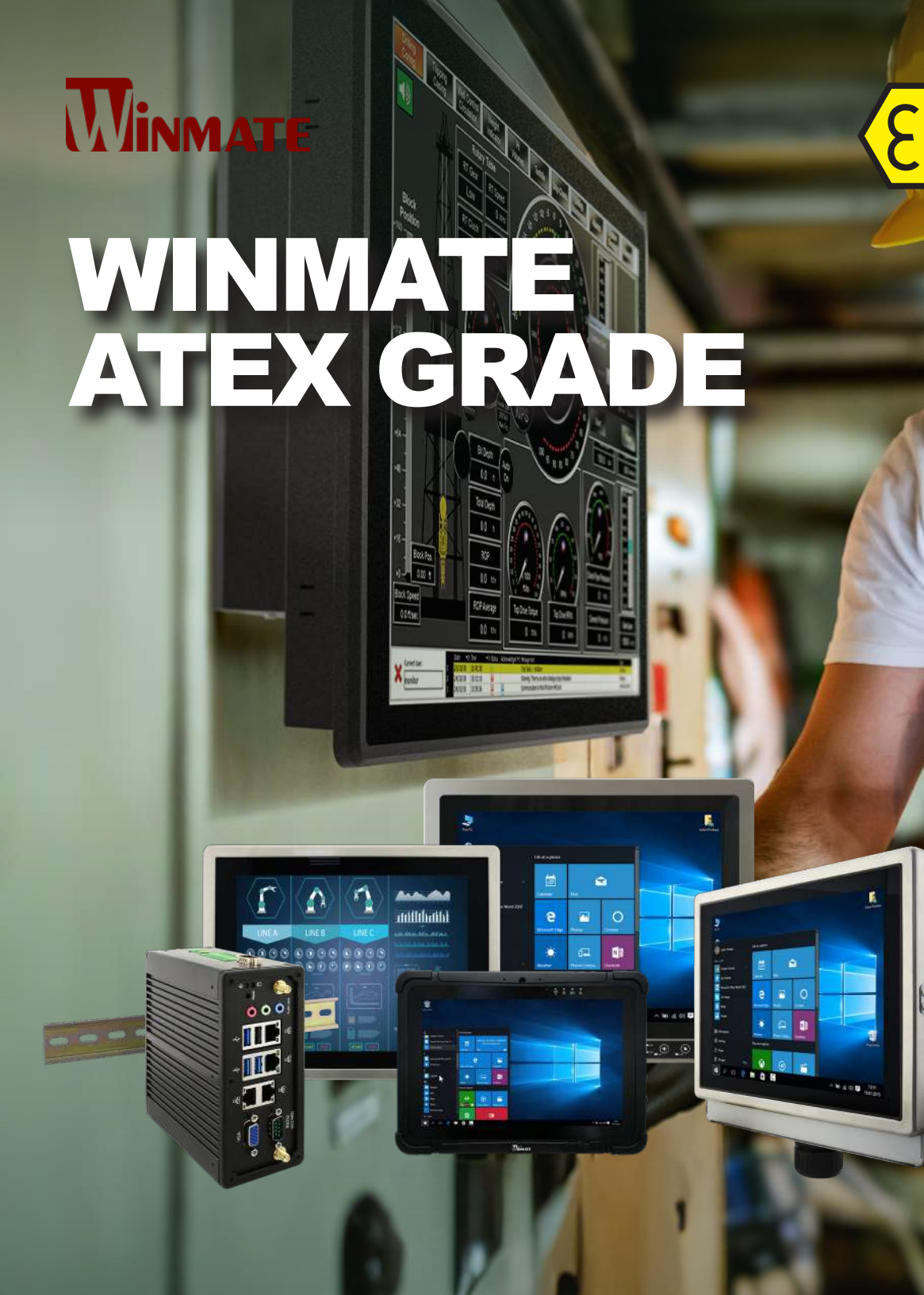
Explosion-proof 5-wire resistive touch
Stainless steel design
IP65 Certified, dust-proof and water-resistant



ATEX GRADE PANEL PC & DISPLAY

SUITABLE FOR OPERATIONS IN HAZARDOUS CONDITIONS

WINMATE ATEX GRADE



COMPLIANT
MIL-STD
810G
INGRESS
PROTECTION
IP65
LISTED
TD0700KL

INGRESS PROTECTION
IP66
INGRESS PROTECTION
IP65
INGRESS PROTECTION
IP54
COMPLIANT
MIL-STD
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TD0700KL
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Winmate
RUGGED AND SAFE
FOR EXTREME
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