

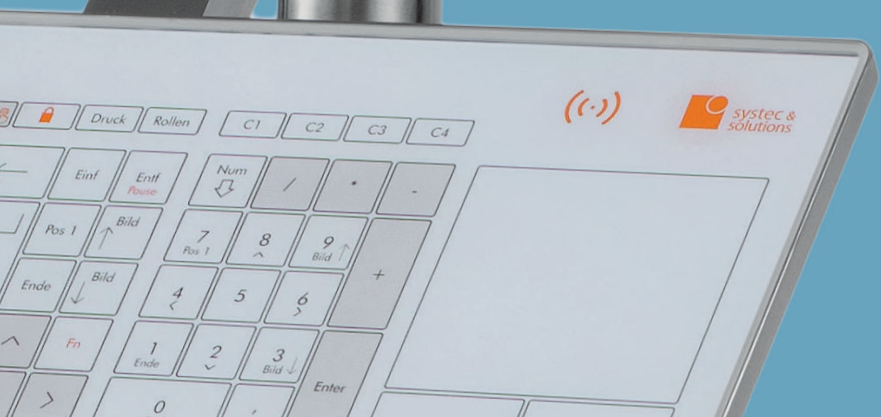


HMI systems for
the life sciences

LIFE
SCIENCE
READY®



systemec & solutions



systemec & solutions

HMI Systems

Systemec & Solutions' Human Machine Interfaces (HMIs) provide intuitive, reliable and efficient interaction between operators and industrial systems. Designed to meet the demands of modern automation environments, our HMI solutions combine user-friendly operation with robust performance and seamless system integration.

Whether for process visualization, machine control or data monitoring, Systemec & Solutions HMIs support optimized workflows, increased productivity and enhanced operational safety. With flexible configurations and modern design standards, our interfaces can be tailored to a wide range of industrial applications and customer requirements.

By focusing on usability, durability and technological innovation, Systemec & Solutions delivers HMI solutions that enable smarter and more efficient industrial operations.



TYDORA

The HMI that changes everything

Experience a new generation of HMI with TYDORA – combining ultra-slim design, premium stainless-steel construction and optimized ergonomics, easily to adapt. Developed for demanding industrial and life science environments, TYDORA delivers intuitive user interaction, advanced device functionality and seamless integration.

Monitor size



Ergonomic design



Multitouch screen



Fanless cooling



Double-battery super charger



Presence recognition



1.4404/316L stainless steel

Accessory connector

Screen lock and soft key



Ergonomic perfection

- Ultra-modern, ultra-slim HMI design with seamless edge-to-edge appearance
- Despite its integrated 27" display, the TYDORA 127 housing dimensions are nearly identical to the WAVE 224 with a 24" display
- Life Science Ready design with screwless rear surface for maximum cleanability and hygienic operation
- Ergonomically optimized arrangement of the HMI and keyboard with individually adjustable display height and ergonomic keyboard tilt for maximum user comfort and flexibility
- Integrated and user-replaceable LiFePO4 battery system with one or two battery modules for up to 12 or 24 hours of mobile operation respectively

Supported standards

WINDOWS
IoT Enterprise LTSC



Körber Ecosystem Partner
PAS-X HMI Device
Ready

IGEL | Ready



THINMANAGER
A ROCKWELL AUTOMATION TECHNOLOGY

nymi
Technology Partner

Available as **ENDPOINT**, **ALLROUND**, **PERFORMANCE** and **MONITOR** version

See page 27 for tech specs.

Datasheet and further infos

For all configurations and technical specifications see: <https://en-tydora.systec.solutions>



PILOT

Developed as slim and sleek as possible

PILOT combines an ultra-slim and sleek design with maximum functionality in an exceptionally compact footprint. Engineered for modern industrial and life science environments, it delivers outstanding mobility, ergonomic usability and seamless integration. Its refined appearance and space-saving concept make PILOT the ideal solution for flexible and efficient workflows.



Designed for cleanrooms

- Ultra-slim and compact design with minimal footprint for maximum flexibility in modern cleanroom environments.
- Premium electropolished stainless-steel 316L housing designed especially for demanding industrial and life science applications.
- High-quality optical bonded multitouch touchscreen with seamless glass surface, optimized for reliable operation with gloves and easy cleaning.
- Integrated capacitive function keys for power, touch-screen lock, cleaning mode and one customizable user button.
- Optional: Certified for use in Zone 2 + 22 (ATEX/IECEX) or Class I, Division 2 und Class II, Division 2 (NEC 500) und Class I, Zone 2 sowie Class II, Zone 22 (NEC 505)

Supported standards

WINDOWS



Körber Ecosystem Partner
PAS-X HMI Device
Ready

IGEL Ready



THINMANAGER
A ROCKWELL AUTOMATION TECHNOLOGY

nymi
Technology Partner

Datasheet and further infos

For all configurations and technical specifications see:
<https://en-pilot.systemec.solutions>





Easy cleaning



Multitouch screen



Fanless cooling



Modular flexibility



Long-term availability

Monitor sizes

18.5"

23.8"

Optical bonding for sharper imagery

Ergonomic keyboard

1.4404/316L stainless steel

Accessory connector

Built-in RFID

Fixed and mobile mounting solutions

From mobile trolley systems to fixed installations, our HMI workstations fit perfectly into cleanroom and GMP environments. Flexible, ergonomic and hygienic.

See page 24



All configurations

Available in three performance configurations – ENDPOINT, ALLROUND and PERFORMANCE: precisely tailored to individual application requirements and computing demands.

See page 27



WAVE

The proven standard for industrial and cleanroom applications

WAVE combines reliable industrial performance, ergonomic design and intuitive multi-touch operation in a robust HMI platform for pharmaceutical, biotech and industrial environments. Available in multiple display sizes and performance configurations, WAVE offers a flexible and proven solution for a wide range of applications.



Easy cleaning



Multitouch screen



Fanless cooling



Modular flexibility



Long-term availability



Monitor sizes



The cleanroom specialist

- High-quality IPS panels with viewing angles up to 178° and projected capacitive multi-touch technology.
- User-friendly operation combined with reliable industrial performance.
- Configurable as a monitor, Thin Client or industrial PC
- Fully encapsulated IP65 design, optimized for pharmaceutical, biotech and demanding industrial environments
- Unique modular accessory ecosystem with seamlessly integrated extensions such as RFID/NFC readers, scanner solutions, speaker modules, emergency stop boxes and customized interfaces for maximum application flexibility



Supported standards

WINDOWS



Datasheet and further infos

For all configurations and technical specifications see: <https://en-wave.systemec.solutions>



Fixed and mobile mounting solutions

From mobile trolley systems to fixed installations, our HMI workstations fit perfectly into cleanroom and GMP environments. Flexible, ergonomic and hygienic.

See page 24



All configurations

Available in three performance configurations – ENDPOINT, ALLROUND and PERFORMANCE: precisely tailored to individual application requirements and computing demands.

See page 27



CONTROL

Flush-mounted integration for into cleanroom walls

CONTROL is a high-performance built-in HMI solution designed for seamless flush integration into cleanroom walls and industrial environments. Combining an ultra-slim design, frameless installation concept and advanced multi-touch technology, CONTROL delivers elegant aesthetics, optimized cleanability and reliable industrial performance.



Easy cleaning



Multitouch screen



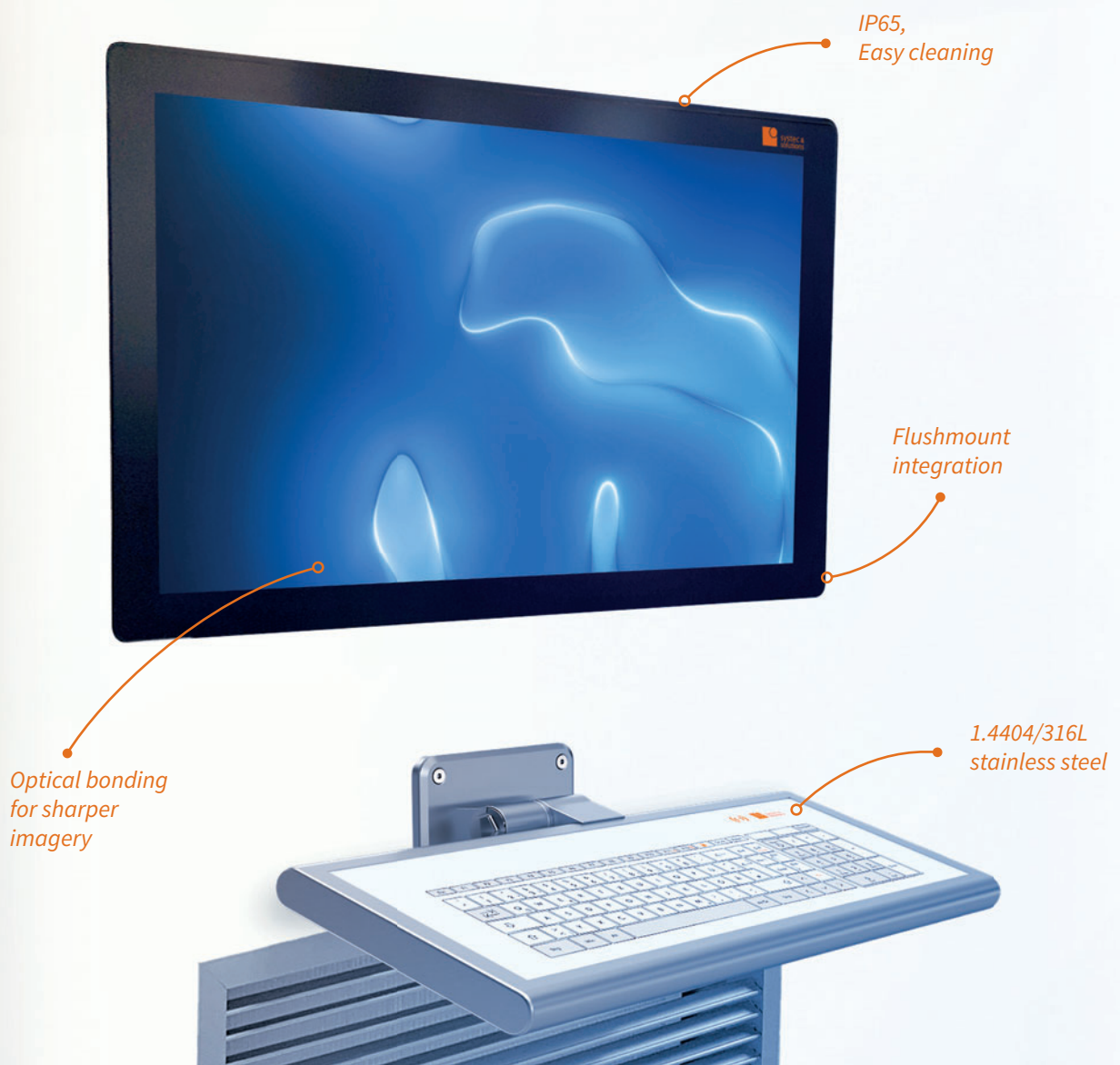
Fanless cooling



Modular flexibility



Long-term availability



Monitor sizes



Easy to clean with all cleaning agents



EASY-CLICK magnetic mount

Optimized for cleanroom applications

- Seamless flush wall integration for optimal hygiene, cleanability and modern design
- Available as monitor, thin client or integrated industrial PC for flexible applications
- IPS displays with optical bonding, anti-glare PCT multi-touch and up to 178° viewing angles
- Ultra-slim installation depth of approx. 40 mm for compact wall integration
- Frameless Easy Click Magnetic Mount system for fast, secure, hygienic installation
- IP65-protected front for reliable use in pharmaceutical, biotech and industrial environments.

Supported standards



Datasheet and further infos

For all configurations and technical specifications see: <https://en-control.systemec.solutions>

All configurations

Available in three performance configurations – ENDPOINT, ALLROUND and PERFORMANCE: precisely tailored to individual application requirements and computing demands.

See page 27





MODI + LSL

MODI & LSL – digital information and labeling solutions

Smart visualization and digital labeling solutions are essential for efficient and compliant cleanroom operations. MODI dashboards and LSL e-paper labels, fully integrated into the VEYA platform, enable centralized, audit-compliant digital information management and paperless labeling for life science and GMP environments.



Easy cleaning



Multitouch screen



Fanless cooling



Modular flexibility



Long-term availability

Monitor sizes MODI



More efficiency, less paper

- Fully integrated with the VEYA platform for centralized digital signage, room visualization and audit-compliant labeling workflows.
- MODI dashboards with intuitive multi-touch operation, optical bonding technology and reliable glove-compatible usability for GMP environments.
- LSLs (e-papers) replace conventional paper labels with energy-efficient, always up-to-date digital labeling directly on equipment and containers.
- Cleanroom-optimized design with IP65 protection, excellent cleanability and flexible mounting concepts for demanding life science applications.
- Flexible connectivity via Ethernet, Wi-Fi, Bluetooth and wireless access points for seamless integration into existing infrastructures.



Datasheet and further infos

For all configurations and technical specifications see:
<https://en-modi.systemec.solutions>

Supported standards

WINDOWS LINUX ANDROID



VEYA: Paperless Cleanroom Communication

VEYA by Stormbit digitalizes labeling and information management in GMP-compliant cleanrooms. Relevant production and room data are displayed centrally in real time – improving safety, transparency and efficiency.

- Paperless labeling for cleanrooms and laboratories
- Real-time display of KPIs and status data
- Centralized control via the VEYA app
- Fewer errors through validated data sources

More at stormbit.com



TABLET

Maximum mobility for cleanrooms in a robust stainless steel design

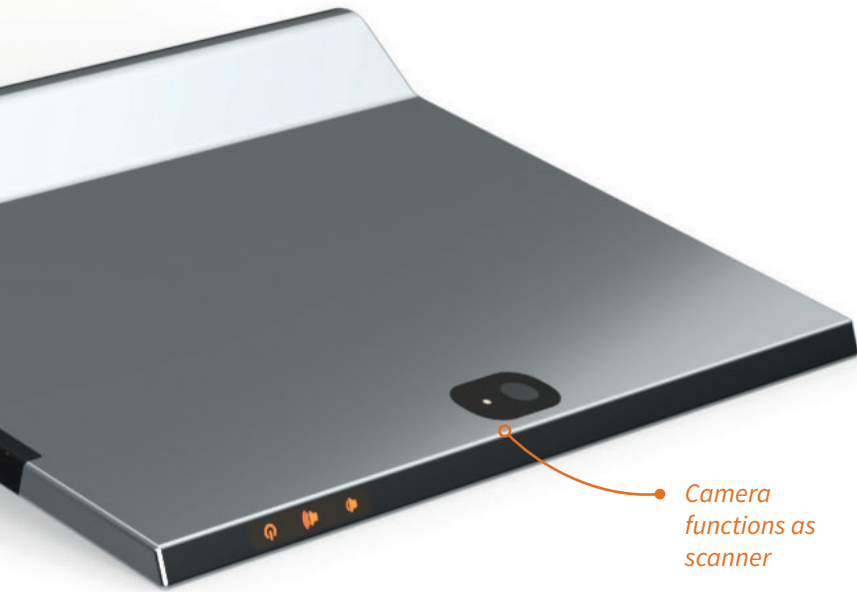
The cleanroom TABLET combines mobility with a robust stainless steel design for demanding cleanroom environments. It features protected multi touch functionality, cleanroom compliant charging and seamless integration into GMP workflows. Its compact hygienic design makes it ideal for mobile use in regulated production areas.

Optimized for mobile cleanroom applications

- Robust stainless steel housing for hygienic use in GMP and cleanroom environments
- Integrated CLEANROOM CONNECTOR with IP65 magnetic charging and data transfer
- Capacitive multi touch operation with gloves or cleanroom touch pen
- Compact mobile design with WiFi and battery for unrestricted use across production areas
- Compatible with docking, wall mounting and TROLLEY systems for flexible integration



CLEANROOM CONNECTOR for cleanroom-compliant charging and data transfer



Camera functions as scanner

Display sizes



iPad Pro Surface Pro



Easy cleaning



Multitouch with gloves



Unrestricted mobility



Easy to charge



Extendable with add-ons



Optional stainless steel holder for support arm systems, table or wall



Easy-to-clean MEDICAL KEYBOARD for medical environments



Surface Pro with pen handle



Power supply unit in IP65 stainless steel box



Tablet with CONNECT BOX

Fixed and mobile mounting solutions

From mobile trolley systems to fixed installations, our HMI workstations fit perfectly into cleanroom and GMP environments. Flexible, ergonomic and hygienic.

See page 24



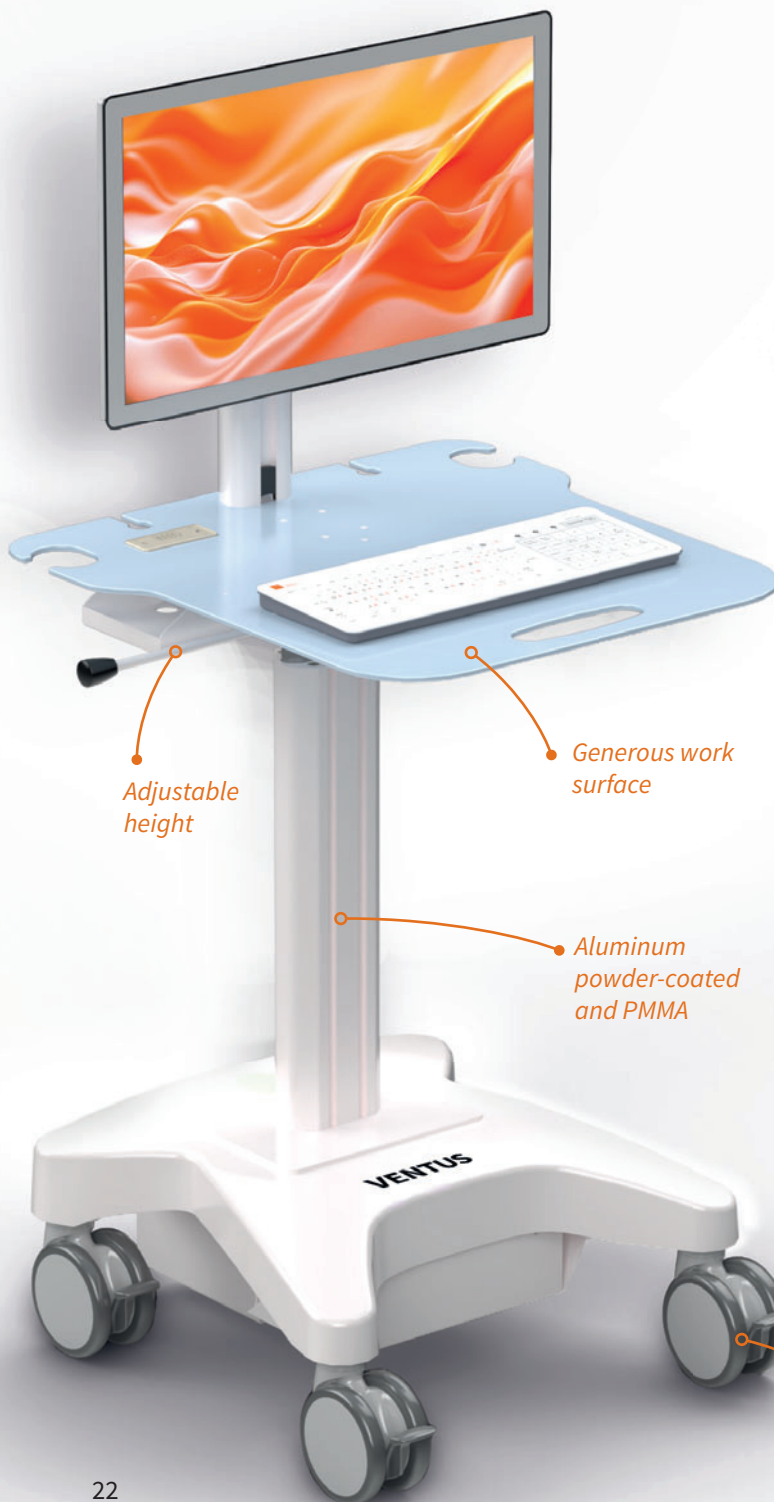
Datasheet and further infos

For all configurations and technical specifications see:
<https://en-tablet.systemec.solutions>



VENTUS

Flexible mobile workstation for efficient workflows outside the cleanroom – in the gray area, like packaging or warehouse



VENTUS is a clinical grade mobile workstation developed for life science and healthcare environments beyond the cleanroom. Combining ergonomic mobility, flexible display configurations and reliable industrial technology, VENTUS supports efficient digital workflows in packaging, laboratories, logistics and clinical areas.

Optimized for life science environments

- Mobile all-in-one workstation with ergonomic height adjustment and integrated battery system
- Available in single, double or stacked display configurations with Full-HD touchscreen
- Fanless industrial design with IP65 protected monitor front for reliable hygienic operation
- Flexible connectivity with WiFi, Bluetooth and accessories such as barcode scanners and medical keyboards
- Designed for packaging, laboratories, logistics and healthcare applications outside the cleanroom

Supported standards

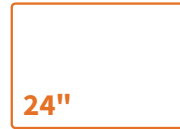
WINDOWS

IGEL | Ready

THINMANAGER
A ROCKWELL AUTOMATION TECHNOLOGY



Monitor size



Datasheet and further infos

For all configurations and technical specifications see:
<https://en-ventus.systemc.solutions>



Areas of deployment in the life sciences



Packaging of pharma products



Manufacturing zones



Storage and distribution



Hospitals and clinics



Diagnostic & testing labs

Available configurations

VENTUS single



VENTUS double



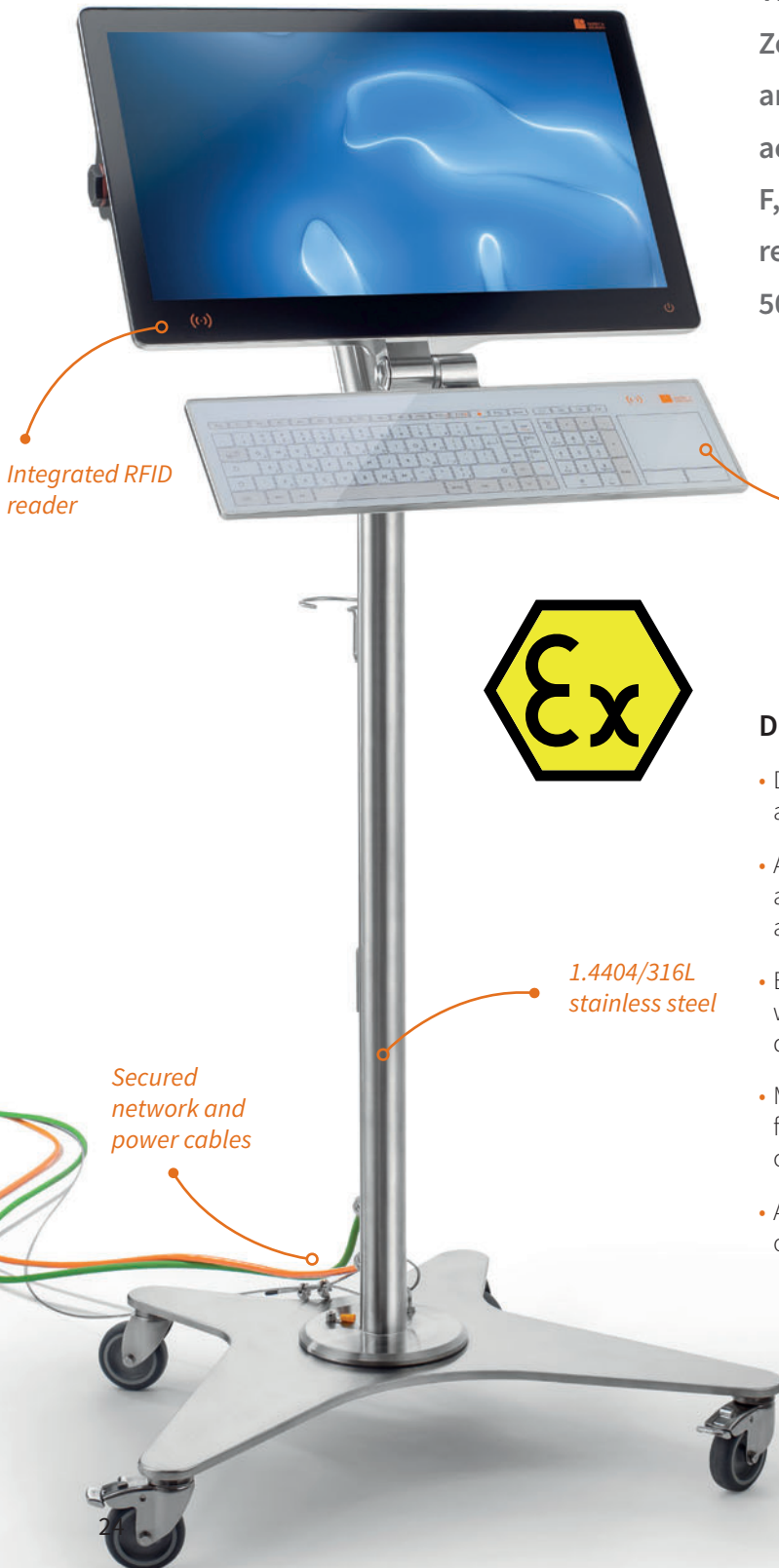
VENTUS stacked



PILOT EX

Our innovative HMI for explosive atmospheres

This device is certified for use in ATEX/IECEX Zone 2 (gas) and Zone 22 (dust) hazardous areas, as well as for the North American market according to Class I & II, Division 2 (Groups A–D, F, G) and Class III. Additionally, it meets the requirements for Zone 2 (Group IIC) per NEC 505 and Zone 22 (Group IIIB) per NEC 506.



Integrated RFID reader

EX-certified keyboard with RFID reader

1.4404/316L stainless steel

Secured network and power cables

Designed for explosive atmospheres

- Developed specifically for pharma and biotech applications in regulated cleanroom environments.
- ATEX, IECEx and HazLoc certified for Class I, Division 2 and Class II, Division 2 (NEC 500) and Class I, Zone 2 and Class II, Zone 22 (NEC 505).
- Electropolished stainless steel 1.4404/316L housing with IP66/67 protection for easy cleaning and maximum durability.
- Modular HMI concept with Full-HD multitouch display, flexible mounting options and scalable performance configurations.
- Available as Industrial PC, Thin Client or monitor with optional RFID, WiFi and EX-certified keyboard solutions.



For pharma
and biotech



Modular
design



Stainless steel
1.4404/316L



GMP and FDA
compliant



ATEX/IECEX and
HazLoc certified



Monitor sizes

18.5"

23.8"

Supported standards

WINDOWS



Körber Ecosystem Partner
PAS-X HMI Device
Ready

IGEL | Ready



THINMANAGER
A ROCKWELL AUTOMATION TECHNOLOGY

nymi
Technology Partner

Datasheet and further infos

For all technical specifications and configuration possibilities
visit: systemec-solutions.com/en/hmi-systems/ex-solutions



All configurations

Available in three performance configurations
– ENDPOINT, ALLROUND and PERFORMANCE:
precisely tailored to individual application
requirements and computing demands.

See page 27

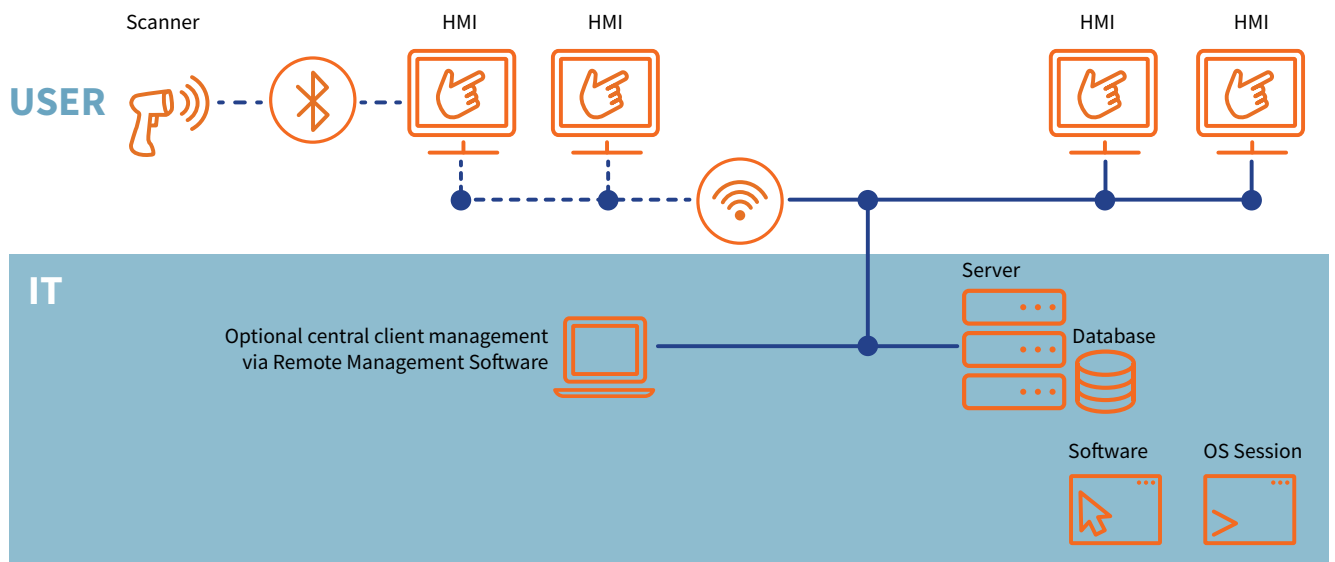


Tuned to perfection

Our four HMI performance versions are designed for different GMP requirements and production environments. From compact entry level systems to powerful high performance solutions, each version offers the right balance of functionality, performance and cost efficiency for your application.

Endpoint/Thin Client Systems. Centralized remote administration with low maintenance.

Software-based endpoint/thin client solutions such as IGEL OS or ThinManager provide a flexible and cost-efficient alternative to traditional thin-client hardware. They enable secure and reliable access to various IT infrastructures and support protocols including RDP, ICA, VDI and VNC. The systems offer strong graphical performance and broad peripheral compatibility, including USB devices, WLAN, Bluetooth, RFID, NFC, smart card readers, audio, scanners, printers and touch screens.



Supported standards




Further information

Find out more at
<https://en-thin.systemc.solutions>




Choose from these standard configurations




ENDPOINT

For virtualized server-based solutions via Microsoft TSE/RDP, Citrix, etc.




Ideal for use with IGEL OS (IGEL Ready), ThinManager (ThinManager Ready) or similar endpoint solutions.

LIFE SCIENCE READY® The perfect solution for high-performance work with virtualized applications in the cleanroom.




For use as an MES/DCS system, KPI/status displays or cloud applications (e.g. Microsoft Azure).

Available for the following products:
TYDORA | WAVE | PILOT | CONTROL




ALLROUND

For virtualized server-based solutions via Microsoft TSE/RDP, Citrix, etc.




Fat client/PC solution for Windows applications, expandable with extensive interfaces and bundles.

LIFE SCIENCE READY® All applications are based on Windows 11 IoT Enterprise LTSC with the required interfaces. RFID/NFC authentication solutions (optional CONNECT BOX required).



For use as an MES/DCS system, KPI/status displays or cloud applications (e.g. Microsoft Azure).

Available for the following products:
TYDORA | WAVE | PILOT | CONTROL




PERFORMANCE

Meets all the requirements for an MES system in the life science sector




Fat client/PC solution for Windows Windows 11 IoT Enterprise LTSC applications. Can be expanded with extensive interfaces and bundles.

LIFE SCIENCE READY® All applications are based on Windows 11 with the required interfaces. RFID/NFC authentication solutions (optional CONNECT BOX required).




The best equipment/performance ratio for an HMI system based on Windows 11.

Available for the following products:
TYDORA | WAVE | PILOT | CONTROL




CUSTOM

Designed to meet your individual requirements



Can't find the right PC configuration for your requirements? Don't worry, we can always offer you a customized solution. Our HMI systems are optionally available with features such as loudspeakers, an emergency shut-off function and function keys, as well as customer-specific interfaces. We are happy to advise you.



MONITOR

All HMIs are available as monitor versions for flexible system integration.



Mounting systems ...

From mobile trolley systems to fixed mounting solutions: Our HMI workstations adapt perfectly to your cleanroom and GMP environment. Whether flexible, height-adjustable and mobile or permanently integrated into walls, ceilings or support arms – always ergonomic, hygienic and efficient.



... mobile
workstations



Mobile workstations

All our HMIs can be combined with a TROLLEY solution for more mobility



Combine your HMI with our mobile TROLLEY workstations for maximum flexibility in cleanroom environments. From compact solutions to fully equipped mobile operating stations with battery and WiFi, our TROLLEY systems enable ergonomic, cable-free operation where you need it.



Easy cleaning



Battery power for days



Maximum mobility



Modular flexibility



Inductive charging

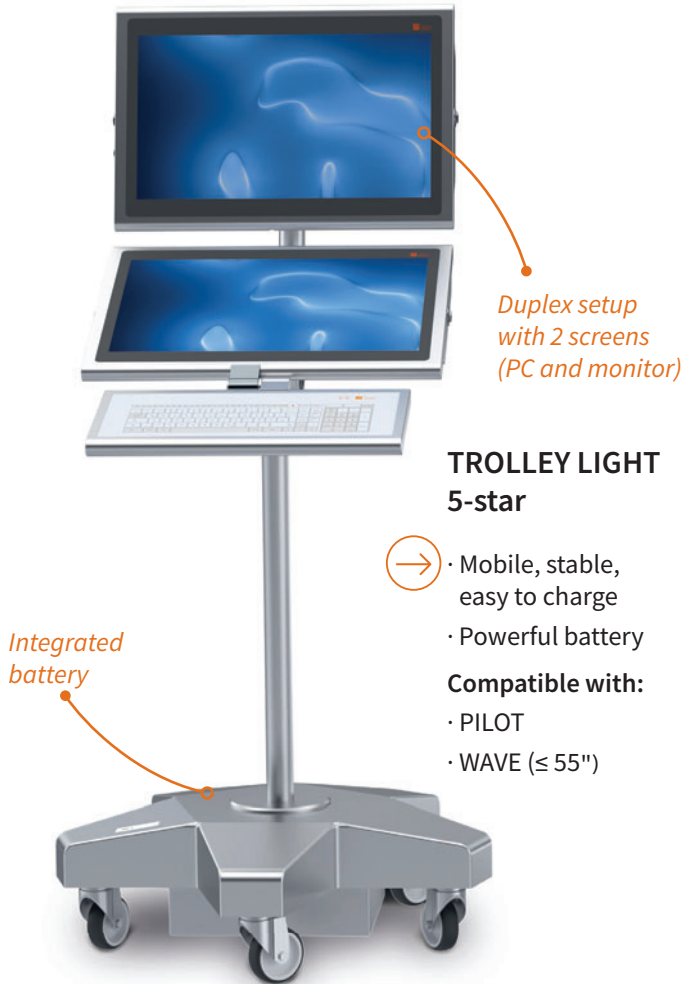


Find out more

For an overview of all our mobile solutions go to:
<https://en-trolleys.systemsolutions>



Inductive charging station for TROLLEY LIGHT Trapezoid



**TROLLEY LIGHT
5-star**

- · Mobile, stable, easy to charge
 - Powerful battery
- Compatible with:**
- PILOT
 - WAVE (≤ 55")



TROLLEY SLIM

- · Light-weight, flexible, made for lab work.
 - Battery optional
- Compatible with:**
- PILOT
 - WAVE (≤ 24")
 - All tablets



**TROLLEY LIGHT
Trapezoid**

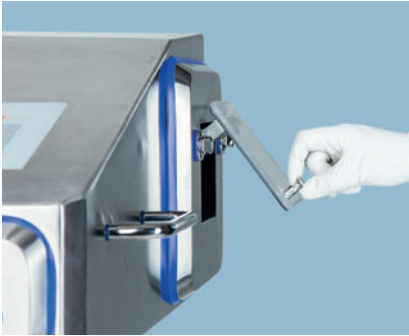
- · Mobile, stable, easy to charge
 - Powerful battery
- Compatible with:**
- PILOT
 - WAVE (≤ 27")



TROLLEY SLIM LAB

- · Light-weight, flexible, made for lab work.
 - Battery optional
- Compatible with:**
- All tablets

All-in-one workstations



Printer flap mounted on side for easy access to printed labels

TROLLEY COMPACT

- · Mobile, stable, easy to charge
- Powerful battery

Compatible with:

- PILOT
- WAVE (≤ 32")
- Printers



TROLLEY MAXI

- · Mobile, stable, easy to charge
- Powerful battery

Compatible with:

- PILOT
- WAVE (≤ 32")
- Printers



TROLLEY MAXI as a fixed installation

Further infos

<https://www.systemec-solutions.com/en/trolley-systems/overview-of-trolley-systems>

Mounting systems

Flexible support arm systems for all cleanroom environments



With a wide range of fixed and swivel-mounted options, you'll find the ideal solution for your application. Dual-display setups support vertical or horizontal configurations with wall, ceiling, floor or desk mounting. Seamless component integration simplifies cleaning, while all stainless steel installations are IP65-rated.

Configure your ideal HMI workstation

Configure your perfect cleanroom workstation in just a few clicks. Choose your device, mounting option or mobile trolley solution. Simple, fast and tailored to your needs.



Try it out!

<https://www.systemec-solutions.com/en/configurator>



Wall-mounted

Designed for demanding cleanroom applications, our stainless steel support arm systems combine flexibility, durability and hygienic design. With multiple mounting and display configurations, they provide a reliable solution for integrating monitors and equipment into controlled environments.

Hygienic mounting solutions

- Choose from fixed, swivel or rotating support arm systems to match your specific cleanroom requirements.
- Configure dual-display setups vertically or horizontally for optimal workspace efficiency and visibility.
- Install systems directly on walls, ceilings, floors or benches for maximum flexibility in equipment integration.
- Benefit from seamless component integration that supports fast, easy and hygienic cleaning procedures.
- Rely on durable stainless steel construction with IP65 protection for reliable performance in demanding cleanroom environments.



All systems are compatible with:

- PILOT
- WAVE
- Cleanroom keyboards

Datasheet and further infos

For all technical specifications and configuration possibilities visit: <https://en-fixed.systemec.solutions>



L-tube for wall mounting



2-point attachment for wall mounting



Horizontal duplex system
for two HMI systems



U-tube for wall mounting



Vertical duplex system
for two HMI systems



Direct wall mounting



Easy
cleaning



Ergonomic
design



Modular
flexibility



Tested
durability

Floor and ceiling mounting



Easy cleaning



Ergonomic design



Modular flexibility



Tested durability



Ceiling mounting as single or duplex system



Compatible with:

- PILOT
- WAVE



Stand/bench mounting with flange

Datasheet and further infos

For all technical specifications and configuration possibilities visit:
<https://en-mount.systemec.solutions>



Desktop solutions

GMP-compliant mounting systems

Our ergonomic workstation systems are designed for efficient operation in laboratories and cleanrooms, even in limited spaces. Hygienic design and flexible input options ensure reliable performance in regulated environments.

- Ergonomic workstation designs improve comfort and efficiency in daily operations.
- Compact layouts make the systems ideal for space-constrained laboratory and cleanroom environments.
- Operate systems via touch screens or dedicated cleanroom keyboards.
- Choose between integrated keyboards or separate desktop versions.
- Optional magnetic keyboard shelves attach directly to the HMI for added flexibility.



Tabletop with flange



Find out more at

<https://en-desktop.systemec.solutions>



Compatible with:

- PILOT
- WAVE (≤ 27")



Stand/table mounting with flange



Space-saving stainless steel stand with freely adjustable tilt angle



Accessories

From ergonomic input devices and mounting solutions to scanners and printers, our accessories are designed to improve usability, efficiency and hygiene in clean-room environments. Standardized patented connectors allow seamless integration into your individual workstation setup.



Cleanroom keyboards

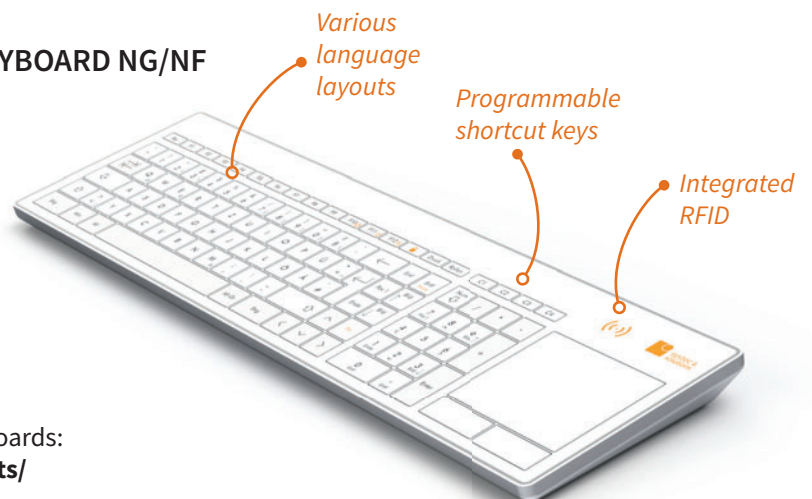
GMP-compliant keyboards

- Glass and membrane keyboards designed for reliable, hygienic operation in cleanroom environments.
- Smooth, easy-to-clean surfaces resistant to disinfectants and cleaning agents
- Protected internal cable routing with durable torque hinge integration
- Rear-printed glass surface for enhanced durability and longevity
- Membrane version ideal for sensitive areas where glass is unsuitable
- Capacitive glass keys with acoustic feedback or tactile membrane keys

KEYBOARD TNG/TNFA



KEYBOARD NG/NF



Further infos

Check out our website for all keyboards:
systemec-solutions.com/en/products/additions



The patented **CLICK HINGE** is available for most HMI systems



Secure authentication via **RFID** and **Nymi Band**

Enhance your HMI

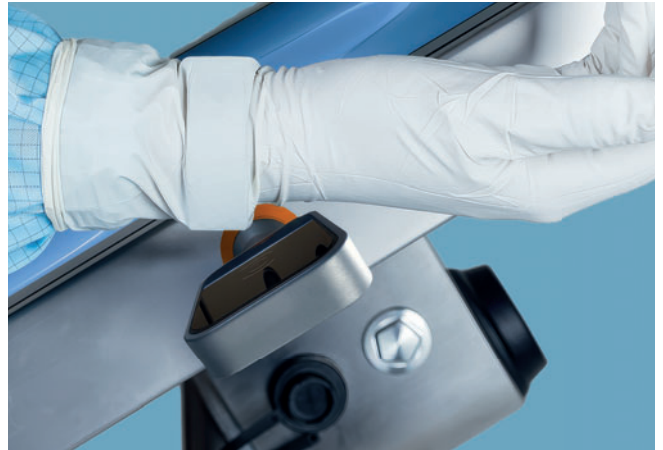
Cleanroom accessories for flexible workflows and authentication

Additional accessories for our HMI systems support ergonomic operation and adaptation to specific workflows and production environments. All components are optimized for cleanroom use, manufactured from stainless steel and other cleanroom-compatible materials and seamlessly integrated with our HMI systems.



For a full overview ...

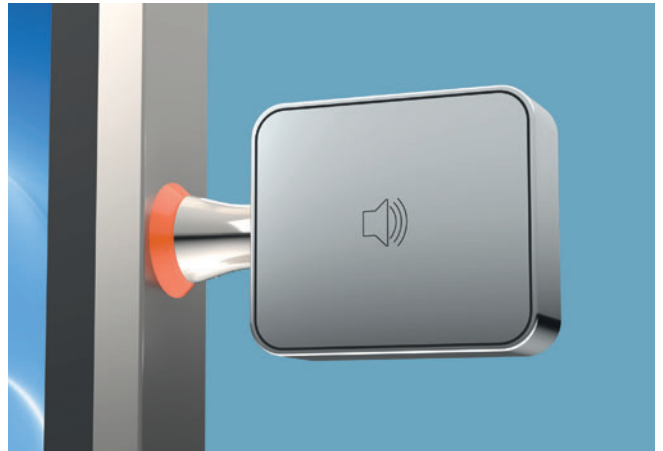
... check out our website:
systec-solutions.com/en/products/additions



CONNECT BOX – RFID reader for authentication etc.



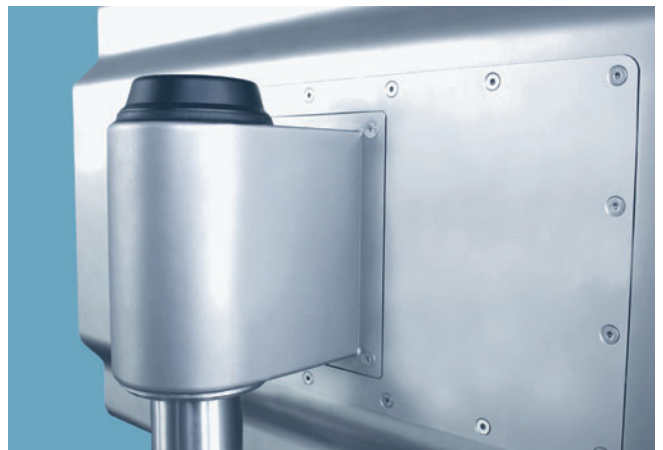
Tiltable keyboard tray



Speaker



Handle



WiFi antenna



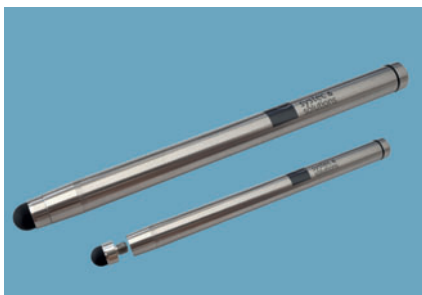
Scanner cradle mount



Scanner fork



Controls and emergency stop buttons



IP65 stainless steel touch pen



Pen holder with cable

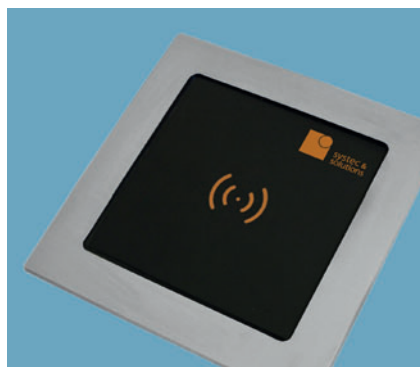


Cable manager

Secure authentication for cleanrooms

RFID cards and biometric wearables such as Nymi Bands enable secure authentication, confirmations and 21 CFR Part 11-compliant electronic signatures within seconds. This reduces login times, minimizes user errors and improves workflow efficiency in regulated environments.

The CONNECT BOX acts as a flexible authentication interface and can be installed wherever needed. All components are IP65-rated and specifically designed for cleanroom use, ensuring reliable operation under GMP conditions.



CONNECT BOX FM as wall installation



CONNECT BOX DESKTOP



TABLET CONNECT BOX



Nymi Band

Scanners and printers

Complete your cleanroom system with professional scanners and printers designed for reliable daily operation. Choose from 1D and 2D scanners with Bluetooth connectivity and long battery life, as well as high-performance thermal transfer printers with up to 600 dpi resolution.

All devices can be integrated seamlessly into existing environments and customized with stainless steel housings for cleanroom applications.

Zebra CS80-HC



PowerScan PM9600



PowerScan PD9531



Zebra DS3678



Zebra ZD621-HC



Zebra ZT220



Zebra ZT421



Find out more

Discover our range of printers and scanners:
<https://en-acc.systemec.solutions>



PRINTER BOX

Stainless steel printer housing for GMP-compliant cleanrooms with hygienic design, flexible integration and easy printer access.



**WAVE dual-display solution
with TROLLEY 5-Star in
the Systec & Solutions
showroom LSR.LAB**

**LIFE
SCIENCE
READY®**



LIFE
SCIENCE
READY®

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