

# PRODUCTS

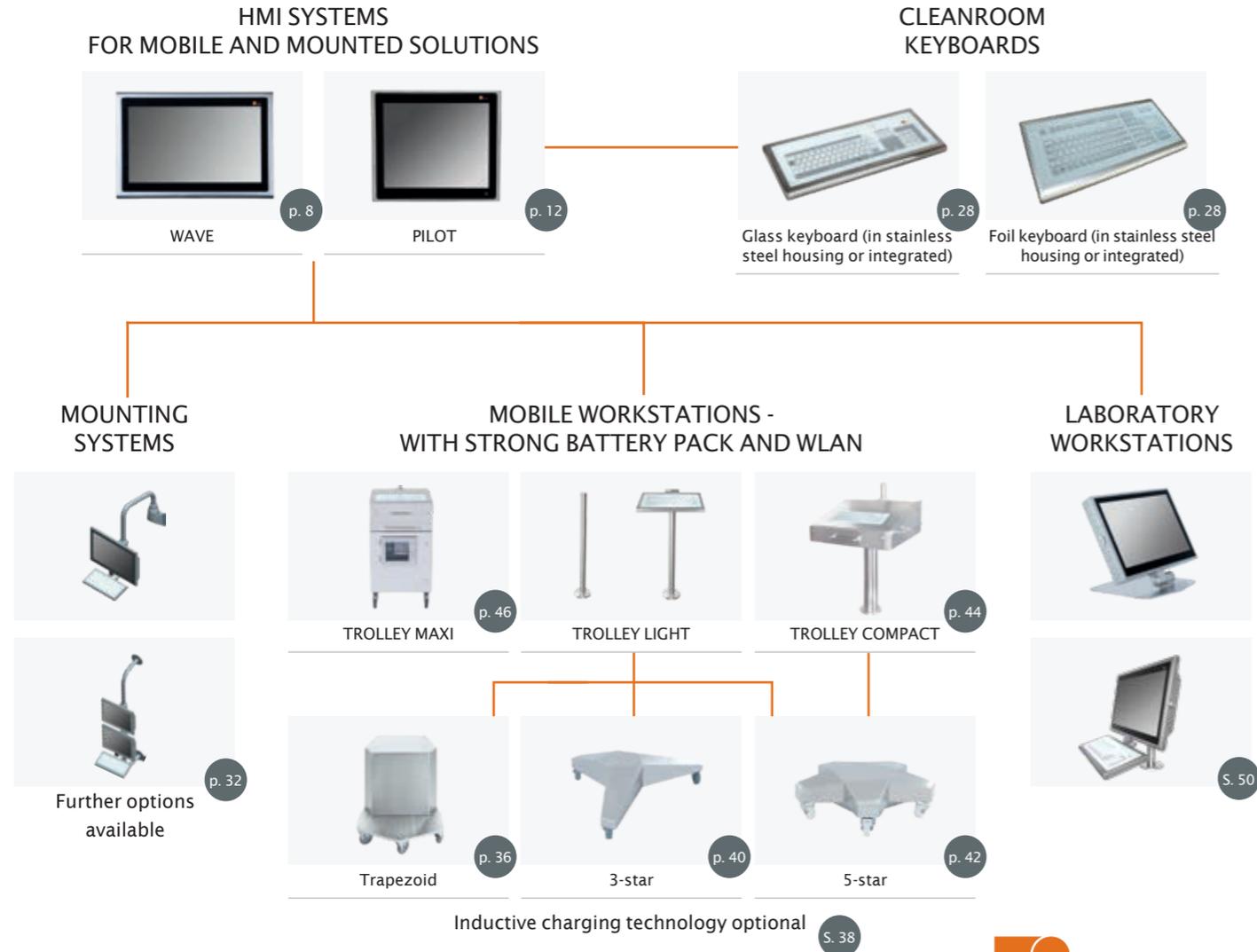


systemec &  
solutions

DRIVEN BY INNOVATION

# PRODUCT OVERVIEW

## HMI SYSTEMS FOR CLEANROOMS AND HYGIENIC PRODUCTION - CUSTOMIZED COMBINATIONS AND CONFIGURATIONS



### HMI SYSTEMS FOR IN-WALL MOUNT

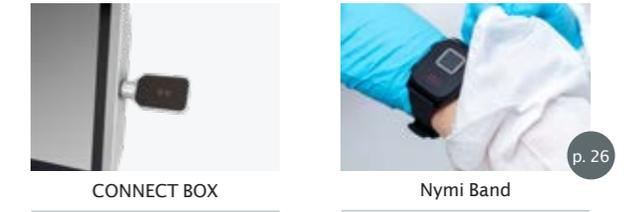


### TABLETS



### (BIOMETRIC) AUTHENTICATION

Simple and secure authentication  
Electronic authentication solutions, employing an RFID card or Nymi Band for example, permit efficient and secure working. User authentication then takes just a matter of seconds, reduces the risk of incorrect entries, and saves a significant amount of time.



### EX-PROTECTED SYSTEMS

### IP65 STAINLESS STEEL HOUSING



### SERVICES

All-round service for the commissioning, qualification, and maintenance of cleanroom IT systems  
Are you planning to use new IT systems in your cleanrooms and GMP environments? We would be pleased to provide you with a wide range of services to support your project. With our comprehensive package, you have everything you need to satisfy GMP standards when working with your new hardware.

Customized products and solutions  
Our products are scalable and can be configured to suit individual requirements. Customer-specific product modifications and special designs are no problem - even if only small quantities are involved.

To find out more:  
[talk@systemec-solutions.com](mailto:talk@systemec-solutions.com)  
[systemec-solutions.com](http://systemec-solutions.com) (p. 72)



# PRODUCTS

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# DRIVEN BY INNOVATION

YEARS OF EXPERIENCE, HIGHEST QUALITY, LATEST TECHNOLOGIES - OUR PRODUCTS ARE USED BY NEARLY ALL TOP-20-PHARMACEUTICAL COOPERATIONS

## Systec & Solutions GmbH,

with headquarters in Karlsruhe (Germany), is a specialized manufacturer of hardware solutions for the pharmaceutical, cosmetics and food industry as well as for hospitals to name a few. Our products have been utilized by nearly all established pharmaceuticals companies for years.

## GMP-IT - Industry-compatible & durable

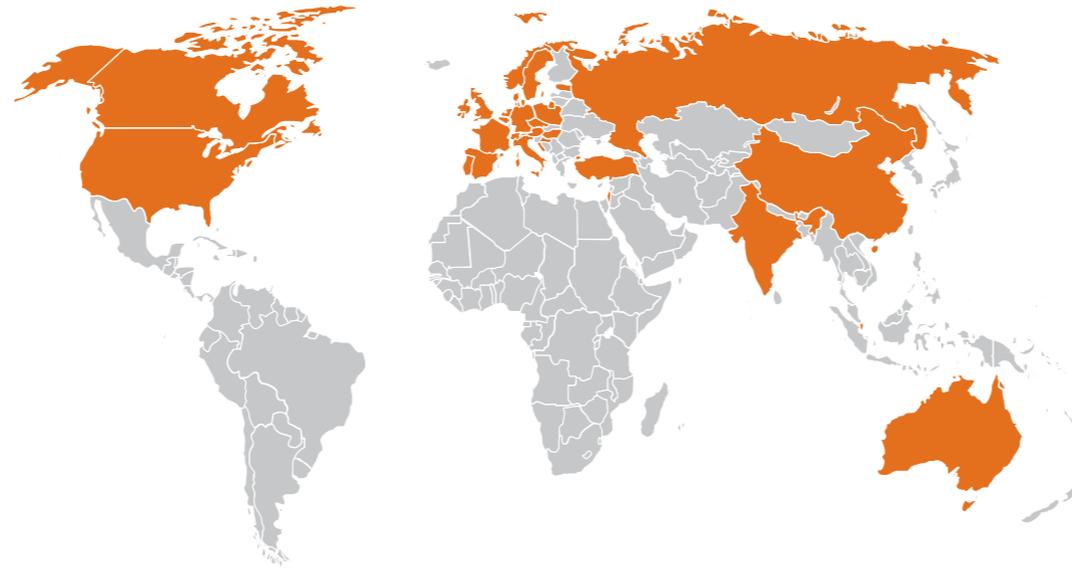
Regulated industries comply to GMP standards and our GMP-IT hardware systems are fully equipped to meet the challenges. An uncompromising industrial design, employing only industry-grade components, guarantees highest quality and long-term availability.

## Cleanroom-compatible & highly efficient

All of our systems are fully encapsulated and IP65 rated. They are easy to clean and satisfy the hygiene requirements of the pharmaceutical, cosmetics and food industry.

## Ruggedly constructed & compatible

Our systems and platforms are specifically developed for long-term operation in demanding production environments. They prove themselves in practice daily, dealing with vibration, shock, humidity, water or dust. They are retrofittable and upgradable, compatible with established hard- and software systems and are easy to integrate into the existing IT landscape. Our GMP-IT products are ideally suited to applications such as workstations for MES software, Distributed Control Systems (DCS) and ERP software, room status displays and the presentation of KPI and OEE figures.



OUR PRODUCTS ARE USED IN MORE THAN 25 COUNTRIES

## Pharmaceutical industry

Stainless steel hardware solutions from Systec & Solutions are modeled after GMP guidelines, easy to clean and disinfect, making them especially suitable for use in cleanrooms in the pharmaceutical production. Modern touchscreens make the systems easy to operate. The operation of the multi-touchscreens works impeccably with cleanroom gloves. Numerous interfaces, an enclosed stainless steel housing with no edges, and an IPS display offering outstanding clarity are just some of the advantages of the systems from Systec & Solutions.

## Cosmetics industry

Systec & Solutions GMP-IT satisfies the IP65 requirements and is ideal for use in the production sector of the cosmetics industry. The HMI- and TROLLEY-systems as well as the keyboards are all of hygienic, edge-free design and resistant to aggressive cleaning agents and disinfectants. Displays with optical bonding and PCT multi-touch provide perfect clarity. We would be pleased to help you work out an individual solution to suit your production environment.

## Food industry

Fanless Systec & Solutions PC systems with industrial components in an IP65 rated stainless steel housing satisfy the hygiene requirements of the food industry – and in particular the dairy processing industry. The systems can be used in damp surroundings and dusty production environments. Cleaning with acid-based cleaning agents is also no problem. The PILOT HMI system and glass keyboards can optionally be provided with a laminated polyester film. This shatter-proof glass front then helps to ensure compliance with the HACCP safety requirements.



Systec & Solutions follows the EHEDG guidelines.

# WAVE

## THE IDEAL HMI SYSTEM FOR CLEANROOMS AND GMP ENVIRONMENTS IN THE PHARMACEUTICAL INDUSTRY

**Straight forward cleaning, cutting-edge technologies, and a modern design** - The WAVE HMI system was developed to make everyday working life in cleanrooms easier, safer and better.

Made with an **IP65 stainless steel housing**, the system permits rapid, thorough cleaning with almost all cleaning agents and disinfectants. It features operation by way of an optically bonded **PCT multi-touch display** or using suitable cleanroom keyboards. Equipped with a brilliant IPS display, the WAVE HMI system offers high color accuracy, distinct color presentation, and virtually unrestricted viewing angles. It provides an ideal display for **MES software, ERP and Distributed Control Systems (DCS)**.

The WAVE can be configured on **flexible support arm systems, on mobile GMP operating stations, or as a laboratory workstation** to suit requirements. The system can also be equipped with a keyboard and various other accessories, such as a scanner holder and speakers.

The HMI system WAVE is available in 19" - 55".



- \_\_\_\_\_
- Ideal for GMP conditions and cleanrooms in the pharmaceutical industry
- \_\_\_\_\_
- Less cleaning work required thanks to fully encapsulated design of stainless steel housing in accordance with protection class IP65
- \_\_\_\_\_
- Suitable for regular cleaning with disinfectants and cleaning agents
- \_\_\_\_\_
- 19"/21.5"/24"/27"/32"/55" LCD display with LED backlight technology
- \_\_\_\_\_
- Intuitive multi-touch display with optical bonding. Operable with cleanroom gloves.
- \_\_\_\_\_
- Non-reflecting PCT display. IPS panel with up to 178° viewing angle from all sides.
- \_\_\_\_\_
- Available as industrial PC, industrial monitor, thin client (e.g. IGEL)
- \_\_\_\_\_
- Wide range of mounting systems available for installation on walls, ceilings and stands
- \_\_\_\_\_
- Control elements and emergency stop switches can be added on request
- \_\_\_\_\_
- Customized solutions available on request
- \_\_\_\_\_

TECHNICAL DATA OF THE HMI SYSTEM WAVE CAN BE FOUND ON PAGE 10.



WAVE 255 with brilliant 55" UHD display



WAVE mounted on 10 degree tilted device adapter



Speaker



WAVE can also be mounted in portrait orientation



Secure authentication via CONNECT BOX and Nymi Band

# TECHNICAL DATA

## WAVE

MODEL	WAVE 219	WAVE 221	WAVE 224	WAVE 227	WAVE 232	WAVE 255
<b>Variants</b>	Industrial PC, Thin Client, Monitor					
<b>Design</b>	Compact, enclosed stainless steel housing					
DISPLAYS AND CONTROLS	WAVE 219	WAVE 221	WAVE 224	WAVE 227	WAVE 232	WAVE 255
<b>Display</b>	19" IPS LCD display (5:4) with approx. 178° viewing angle, LED backlight	21.5" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	24" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	27" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	32" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	55" LCD display (16:9) with approx. 178° viewing angle, LED backlight
<b>Resolution</b>	1280 x 1024 SXGA	1920 x 1080 Full HD	1920 x 1080 Full HD	3840 x 2160 UHD	1920 x 1080 Full HD	1920 x 1080 Full HD, 3840 x 2160 UHD
<b>Touchscreen</b>	Analog resistive	Analog resistive or anti-glare PCT (projected capacitive) multi-touch with optical bonding		Anti-glare PCT (projected capacitive) multi-touch with optical bonding		Anti-glare PCT (projected capacitive) multi-touch
<b>Keyboard (optional)</b>	Keyboard with glass or foil surface, mounted on torque hinge with concealed cabling, with touchpad					
CONFIGURATIONS	WAVE 219	WAVE 221	WAVE 224	WAVE 227	WAVE 232	WAVE 255
<b>Industrial PC</b>	Intel® Celeron® N2930 1,83 GHz / Burst 2,16 GHz, quad-core* Intel® Core™ i3-5010U 2.1 GHz, Dual-Core* Intel® Core™ i5-5350U 1,8 GHz / Turbo 2,9 GHz, Dual-Core* Intel® Core™ i5-7300U (7th gen.) 2,6 GHz / Turbo 3,5 GHz, Dual-Core Intel® Core™ i7-5650U 2.2GHz / Turbo 3,1 GHz, Dual-Core* Intel® Core™ i7-7600U (7th gen.) 2,8 GHz / Turbo 3,9 GHz, Dual-Core *this does not apply for WAVE 227					
<b>Operating system</b>	Windows® 10; (Android; Linux; Windows 10 Enterprise LTSB/LTSC and others upon request)					
<b>System memory</b>	4 GB DDR3 up to 16 GB DDR3 (DDR4 at 7th Gen.)					
<b>Storage capacity</b>	128 GB mSATA SSD; additional memory sizes and types upon request					
<b>I/O Interfaces</b>	1-4x USB 3.0, 1-6x USB 2.0, 1-2x Gigabit Ethernet, 1-3x RS 232, additional interfaces upon request					
<b>Equipment PC (optional)</b>	WLAN, Bluetooth®, RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone					
<b>Thin Client</b>	Thin Client (e.g. IGEL) for sessions of Microsoft (RDP), VMware, Citrix, VNC and others					
<b>Industrial monitor</b>	DisplayPort (optional: VGA, HDMI)			DisplayPort (optional: HDMI)		DisplayPort (optional: HDMI, VGA with Full HD)
<b>Equipment monitor (optional)</b>	RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone					
PHYSICAL CHARACTERISTICS	WAVE 219	WAVE 221	WAVE 224	WAVE 227	WAVE 232	WAVE 255
<b>Power supply</b>	100 - 240 V AC, 50 - 60 Hz, or 9 - 36 V DC					
<b>Power consumption</b>	40 W (industrial monitor) 55 - 70 W (IPC, depending on configuration)	30 W (industrial monitor) 65 - 80 W (IPC, depending on configuration)	45 W (industrial monitor) 65 - 80 W (IPC, depending on configuration)	40 W (industrial monitor) 55 - 70 W (IPC, depending on configuration)	50 W (industrial monitor) 65 - 90 W (IPC, depending on configuration)	130 W (industrial monitor) 145 - 160 W (IPC, depending on configuration)
<b>Dimensions (approx. mm)</b>	W 445 / H 390 / D 55	W 567 / H 380 / D 55	W 615 / H 414 / D 55	W 690 / H 450 / D 55	W 820 / H 520 / D 55	W 1300 / H 800 / D 60
<b>Weight</b>	Approx. 9 kg	Approx. 10 kg	Approx. 12 kg	Approx. 14 kg	Approx. 23 kg	Approx. 45 kg
<b>Housing</b>	Stainless steel, type 1.4301 (AISI 304)					
<b>Surface</b>	Glass bead blasted					
<b>Certification</b>	CE, FCC / ISED (optional)					
<b>IP rating</b>	IP65					

# PILOT

## THE PERFECT PC FOR HYGIENE REQUIREMENTS IN THE FOOD, BEVERAGE AND COSMETICS INDUSTRIES

The PILOT HMI system is the compact solution for 17.3 to 21.5 inch applications. The system is exceptionally well suited to use in the food and beverage industry, for example. With a **laminated polyester film to reduce reflection and guard against splinters of glass**, they are optimally designed for specialized fields such as the manufacture of dairy products.

The brilliant IPS display provides ideal presentation for MES software, ERP and Distributed Control Systems (DCS). Thanks to its **robust IP65 stainless steel housing**, the system is just right for mechanical engineering applications as well. Any necessary control elements and emergency stop switches can be added.

The PILOT can be configured on **flexible support arm systems, on mobile GMP operating stations, or as a laboratory workstation** to suit local application and installation requirements.

The HMI system PILOT is available in 17" - 21".

Ideally equipped to satisfy hygiene requirements in the food, beverage and cosmetics industries

Laminated polyester film to guard against splinters of glass

Less cleaning work required thanks to fully encapsulated design of stainless steel housing in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

17.3"/19"/21.5" LCD display with LED backlight technology

Intuitive multi-touch display with optical bonding. Operable with cleanroom gloves.

Non-reflecting PCT display. IPS panel with up to 178° viewing angle from all sides.

Available as industrial PC, industrial monitor, thin client (e.g. IGEL)

Wide range of mounting systems available for installation on walls, ceilings and stands

Control elements and emergency stop switches can be added on request

Customized solutions available on request

TECHNICAL DATA OF THE HMI SYSTEM PILOT CAN BE FOUND ON PAGE 14.



PILOT with control elements and emergency stop switch



PILOT side view



PILOT wall mounting



Capacitive power button and function keys



Nymi/RFID/NFC/Smartcard interface (optional)

# TECHNICAL DATA

## PILOT

MODEL	PILOT 217	PILOT 219	PILOT 221
<b>Variants</b>	Industrial PC, Thin Client, Monitor		
<b>Design</b>	Compact, enclosed stainless steel housing		
DISPLAYS AND CONTROLS	PILOT 217	PILOT 219	PILOT 221
<b>Display</b>	17.3" TN-LCD display (16:9), LED backlight	19" IPS LCD display (5:4) with approx. 178° viewing angle, LED backlight	21.5" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight
<b>Resolution</b>	1920 x 1080 Full HD	1280 x 1024 SXGA	1920 x 1080 Full HD
<b>Touchscreen</b>	PCT (projected capacitive) multi-touch with optical bonding and laminated protection layer front side (anti-glare/splinter protection)		
<b>Keyboard (optional)</b>	Keyboard with glass or foil surface, mounted on torque hinge with concealed cabling, with touchpad		
CONFIGURATIONS	PILOT 217	PILOT 219	PILOT 221
<b>Industrial PC</b>	Intel® Celeron® N2930 1,83 GHz / Burst 2,16 GHz, quad-core Intel® Core™ i3-5010U 2.1 GHz, Dual-Core Intel® Core™ i5-5350U 1,8 GHz / Turbo 2,9 GHz, Dual-Core Intel® Core™ i5-7300U (7th Gen.) 2,6 GHz / Turbo 3,5 GHz, Dual-Core Intel® Core™ i7-5650U 2.2GHz / Turbo 3,1 GHz, Dual-Core Intel® Core™ i7-7600U (7th Gen.) 2,8 GHz / Turbo 3,9 GHz, Dual-Core		
<b>Operating systems</b>	Windows® 10; (Android; Linux; Windows 10 Enterprise LTSB/LTSC and others upon request)		
<b>System memory</b>	4 GB DDR3 bis 16 GB DDR3 (DDR4 at 7th Gen.)		
<b>Storage capacity</b>	128 GB mSATA SSD; additional memory sizes and types upon request		
<b>I/O Interfaces</b>	1-4x USB 3.0, 1-6x USB 2.0, 1-2x Gigabit Ethernet, 1-3x RS 232, additional interfaces upon request		
<b>Equipment PC (optional)</b>	WLAN, Bluetooth®, RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone		
<b>Thin Client</b>	Thin Client (e.g. IGEL) for sessions of Microsoft (RDP), VMware, Citrix, VNC and others		
<b>Industrial monitor</b>	DisplayPort; optional: VGA, HDMI		
<b>Equipment monitor (optional)</b>	RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone		
PHYSICAL CHARACTERISTICS	PILOT 217	PILOT 219	PILOT 221
<b>Power supply</b>	100-240 V AC à 50-60 Hz, or 9-36 V DC		
<b>Power consumption</b>	20 W (industrial monitor) 35 - 50 W (IPC, depending on configuration)	40 W (industrial monitor) 55 - 70 W (IPC, depending on configuration)	30 W (industrial monitor) 65 - 80 W (IPC, depending on configuration)
<b>Dimensions (approx. mm)</b>	W 461 / H 324 / D 55	W 470 / H 400 / D 55	W 570 / H 367 / D 55
<b>Weight</b>	Approx. 8 kg	Approx. 10 kg	Approx. 11 kg
<b>Housing</b>	Stainless steel, type 1.4301 (AISI 304), type 1.4404 (AISI 316L) optional		
<b>Surface</b>	Brushed		
<b>Certification</b>	CE, FCC / ISED (optional)		
<b>IP rating</b>	IP65		



Example configuration: PILOT 219 + keyboard TNG + scanner holder

# CONTROL

## THE FITTED PANEL FOR OPTIMAL INTEGRATION INTO WALLS IN CLEANROOMS AND GMP ENVIRONMENTS

The CONTROL HMI system is a **particularly space-saving** and **easy to clean** option for integration into walls, machines and cabinets. It can be fitted **from the front with a stainless steel frame** or **flush-mounted without a frame from the back**. The front of both versions conforms to IP65.

The system comes with an **optically bonded PCT multi-touch display** for intuitive operation, offering high color accuracy, distinct color presentation, and virtually unrestricted viewing angles. It provides an ideal display for MES software, ERP and Distributed Control Systems (DCS).

An outstanding feature of the fitted panel is its **shallow installation depth**. An IP65 stainless steel protective enclosure for fitting between display and wall is also available on request. This retains the cleanroom status if the panel has to be removed.

The HMI system CONTROL is available in 17"- 32".



- \_\_\_\_\_
- Ideal for integration in walls in GMP environments and cleanrooms
- \_\_\_\_\_
- For flush-mounting in a wall or surface mounting on the wall
- \_\_\_\_\_
- Less cleaning work required thanks to front design in accordance with protection class IP65
- \_\_\_\_\_
- Suitable for regular cleaning with disinfectants and cleaning agents
- \_\_\_\_\_
- 17.3"/19"/21.5"/24"/32" LCD display with LED backlight technology
- \_\_\_\_\_
- Intuitive multi-touch display with optical bonding. Operable with cleanroom gloves.
- \_\_\_\_\_
- Non-reflecting PCT display. IPS panel with up to 178° viewing angle from all sides.
- \_\_\_\_\_
- Available as industrial PC, industrial monitor, thin client (e.g. IGEL)
- \_\_\_\_\_
- Customized solutions on request
- \_\_\_\_\_

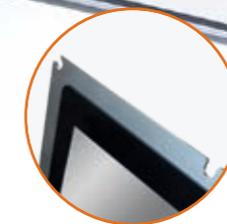
TECHNICAL DATA OF THE HMI SYSTEM CONTROL CAN BE FOUND ON PAGE 18.



PCT multi-touch display with optical bonding



CONTROL with shallow installation depth



Glass front with back mounted carrier plate



CONTROL FM flush-mounted in cleanroom wall



CONTROL with glass keyboard on double torque hinge

# TECHNICAL DATA CONTROL

MODEL	CONTROL (FM) 217	CONTROL (FM) 219	CONTROL (FM) 221	CONTROL (FM) 224	CONTROL (FM) 232
<b>Variants</b>	Industrial PC, Thin Client, Monitor				
<b>Design</b>	CONTROL: Built-in unit with brushed stainless steel front panel; CONTROL FM: Built-in unit flush-mounted				
DISPLAYS AND CONTROLS	CONTROL (FM) 217	CONTROL (FM) 219	CONTROL (FM) 221	CONTROL (FM) 224	CONTROL (FM) 232
<b>Display</b>	17.3" TN-LCD display (16:9), LED backlight	19" IPS LCD display (5:4) with approx. 178° viewing angle, LED backlight	21.5" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	24" IPS LCD display (16:9) with approx. 178° viewing angle, LED backlight	32" LCD display (16:9), with approx. 178° viewing angle, LED backlight
<b>Resolution</b>	1920 x 1080 Full HD	1280 x 1024 SXGA	1920 x 1080 Full HD	1920 x 1080 Full HD	1920 x 1080 Full HD
<b>Touchscreen</b>	Analog resistive or anti-glare PCT (projected capacitive) multi-touch with optical bonding	Analog resistive or PCT (projected capacitive) multi-touch (optical bonding upon request)	Analog resistive or anti-glare PCT (projected capacitive) multi-touch with optical bonding		Anti-glare PCT (projected capacitive) multi-touch with optical bonding
CONFIGURATIONS	CONTROL (FM) 217	CONTROL (FM) 219	CONTROL (FM) 221	CONTROL (FM) 224	CONTROL (FM) 232
<b>Industrial PC</b>	Intel® Celeron® N2930 1,83 GHz / Burst 2,16 GHz, quad-core Intel® Core™ i3-5010U 2.1GHz, Dual-Core Intel® Core™ i5-5350U 1,8 GHz / Turbo 2,9 GHz, Dual-Core Intel® Core™ i5-7300U (7th Gen.) 2,6 GHz / Turbo 3,5 GHz, Dual-Core Intel® Core™ i7-5650U 2.2GHz / Turbo 3,1 GHz, Dual-Core Intel® Core™ i7-7600U (7th Gen.) 2,8 GHz / Turbo 3,9 GHz, Dual-Core				
<b>Operating systems</b>	Windows® 10; (Android; Linux; Windows 10 Enterprise LTSB/LTSC and others upon request)				
<b>System memory</b>	4 GB DDR3 bis 16 GB DDR3 (DDR4 at 7th Gen.)				
<b>Storage capacity</b>	128 GB mSATA SSD; additional memory sizes and types upon request				
<b>I/O Interfaces</b>	1-4x USB 3.0, 1-6x USB 2.0, 1-2x Gigabit Ethernet, 1-3x RS 232, additional interfaces upon request				
<b>Equipment PC (optional)</b>	WLAN, Bluetooth®, RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone				
<b>Thin Client</b>	Thin Client (e.g. IGEL) for sessions of Microsoft (RDP), VMware, Citrix, VNC and others				
<b>Industrial monitor</b>	DisplayPort and DVI				DVI and VGA
<b>Equipment monitor (optional)</b>	RFID/NFC/Smartcard reader (compatible with Nymi Band), speaker, upon request: webcam, microphone				
PHYSICAL CHARACTERISTICS	CONTROL (FM) 217	CONTROL (FM) 219	CONTROL (FM) 221	CONTROL (FM) 224	CONTROL (FM) 232
<b>Power supply</b>	100 - 240 V AC, 50 - 60 Hz, or 9 - 36 V DC				
<b>Power consumption</b>	20 W (industrial monitor) 35 - 50 W (IPC, depending on configuration)	40 W (industrial monitor) 55 - 70 W (IPC, depending on configuration)	30 W (industrial monitor) 65 - 80 W (IPC, depending on configuration)	45 W (industrial monitor) 65 - 80 W (IPC, depending on configuration)	50 W (industrial monitor) 65 - 90 W (IPC, depending on configuration)
<b>Dimensions (approx. mm)</b>					
<b>Front frame CONTROL</b>	W 504 / H 337	W 494 / H 430	W 616 / H 416	W 673 / H 470	W 870 / H 552
<b>Mounting depth</b>	D 55 / D 40 (optional for DC devices)				
<b>Weight</b>	Approx. 9 kg	Approx. 10 kg	Approx. 11 kg	Approx. 12 kg	Approx. 20 kg
<b>Front plate CONTROL</b>	Stainless steel, type 1.4301 (AISI 304), type 1.4404 (AISI 316L) optional, brushed				
<b>Front-side surface CONTROL FM</b>	Toughened glass				
<b>Certification</b>	CE, FCC / ISED (optional)				
<b>IP rating</b>	IP65 front side				



Example configuration: CONTROL 221 - For front side mounting on the cleanroom wall



Example configuration: CONTROL FLUSH-MOUNTED 224 - For flush-mounted integration into the cleanroom wall

# MODI

## IOT HMI SYSTEM FOR ROOM INFORMATION AND FOR BUILDING AUTOMATION IN A GMP ENVIRONMENT

All information on **room and production status at a glance** – this is what the **intelligent, energy-efficient, network-capable** MODI IoT HMI system has to offer. Conforming to GMP standards, the panel is also the perfect choice for building automation.

Intuitive operation is provided by an optically bonded **PCT multi-touch display**. It can be incorporated into a network via **Ethernet or WLAN**. The required data can thus be displayed on the MODI straight from the network, via a browser or by your own applications.

The special **Easy Click Magnetic Mount** (see Page 22) makes it particularly easy to install and remove the MODI. **Flush-mounted installation in the wall** ensures simple cleaning of the IP65 front panel. Alternatively, it can be installed on the wall using a **stainless steel IP65 surface-mounted housing**.

Ideal for GMP conditions and cleanrooms

IoT HMI system for presentation of room information and for building automation

Optionally with pre-installed kiosk mode with Raspbian. Automatic browser display in full screen mode with individual web link setting

7" or 10.1" LCD display with LED backlight technology, without fan

Intuitive multi-touch display with optical bonding. Operable with cleanroom gloves.

IPS panel with up to 178° viewing angle from all sides

Wide range of interfaces, e.g. USB, Gigabit Ethernet, WLAN, Bluetooth 4.0

Power supply with integrated power supply unit or PoE (Power over Ethernet)

Suitable for Linux, Android, Windows 10 IoT Core

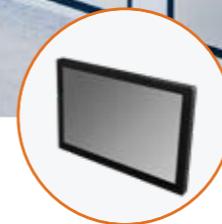
Simple flush mounting with Easy Click Magnetic Mount, IP65 on the front

Optionally available with IP65 stainless steel surface-mounted housing

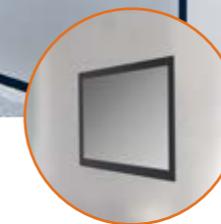
TECHNICAL DATA OF THE HMI SYSTEM MODI  
CAN BE FOUND ON PAGE 23.



The  
HMI system  
MODI  
is available in  
7" and 10".



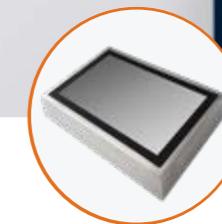
MODI



MODI  
flush-mounted in  
cleanroom wall



Easy Click  
Magnetic Mount



Surface-mounted  
housing for wall  
installation

# MODI

## INNOVATIVE MOUNTING CONCEPT FOR SIMPLE INSTALLATION & REMOVAL - EASY CLICK MAGNETIC MOUNT

The **MODI HMI system** is flush-mounted in the cleanroom wall and provided with a silicone seal.

### Simple, quick & reliable - Easy Click Magnetic Mount

To install, simply connect up the cable and insert the MODI in the opening. The **Easy Click Magnetic Mount** automatically fastens the MODI in the correct position. Once it has been sealed with silicone, the device is **flush-mounted and easy to clean**. The system can be **replaced from the front** after removing the silicone seal. This involves picking up the device with a suction cup and detaching it from the magnetic holders on the back. The connected cables can be detached after lifting the MODI out of the wall.



# TECHNICAL DATA MODI

MODEL	MODI 107	MODI 110
<b>Variants</b>	IoT PC, Remote Display, Monitor	
<b>Design</b>	Fitted unit for flush-mounted installation; optionally: encapsulated in stainless steel housing	
DISPLAYS AND CONTROLS	MODI 107	MODI 110
<b>Display</b>	7" IPS LCD display (16:9), LED backlight	10.1" IPS LCD display (16:10), LED backlight
<b>Resolution</b>	1024 x 600 WSVGA	1280 x 800 WSVGA
<b>PCT multi-touchscreen</b>	PCT (projected capacitive) multi-touch with optical bonding	
CONFIGURATIONS	MODI 107	MODI 110
<b>Processor</b>	ARM Cortex-A53 1,4 GHz quad-core Intel® Atom™ x5-Z8350 1,44 GHz / Turbo 1,92 GHz, quad-core	
<b>Operating system</b>	Linux (Raspbian), optional: Windows 10 (Pro or IoT Core™), Android emteria.OS	
<b>System memory</b>	1 GB with ARM CPU, 2 GB with Intel® Atom™ CPU (other configurations upon request)	
<b>Storage capacity</b>	16 GB with ARM CPU, 32 GB with Intel® Atom™ CPU (additional flash memory on request)	
<b>I/O interfaces</b>	2x USB 2.0, 1x Gigabit Ethernet, additional interfaces upon request	
<b>Equipment PC (optional)</b>	RFID/NFC/Smartcard reader, WLAN, Bluetooth®, CAN-Bus, additional equipment upon request	
<b>Monitor</b>	HDMI	
PHYSICAL CHARACTERISTICS	MODI 107	MODI 110
<b>Power supply</b>	5 V DC, optional: 12-24 V DC, PoE	
<b>Power consumption</b>	6-25 W (depending on type)	10-30 W (depending on type)
<b>Dimensions (approx. mm)</b>		
<b>Mounting cutout</b>	W 175 / H 110	W 245 / H 163
<b>Mounting depth</b>	D 37	
<b>Weight</b>	Approx. 0.5 kg	Approx. 0.8 kg
<b>Surface</b>	Toughened glass	
<b>Certification</b>	CE, FCC / ISED (optional)	
<b>IP rating</b>	IP65 front side	

# ACCESSORIES

## EXTENSIVE RANGE OF CLEANROOM-COMPATIBLE ACCESSORIES TO SUIT EVERY REQUIREMENT

We can offer additional accessories for our systems to ensure simple and ergonomic everyday operation for users. These make it possible to **tailor the HMI systems exactly to specific work processes and production environments**.

All components were **developed and optimized specially for use in cleanrooms**. They are made entirely of **stainless steel and cleanroom-compatible materials**. The accessories can be seamlessly combined with the WAVE and PILOT HMI systems.

Please contact us for advice if you do not find exactly what you need. We would be pleased to offer you our **customized modifications or designs**.



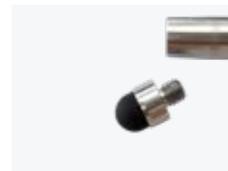
IP65 stainless steel touchpen



Touchpen holder with stainless steel cable



Touchpen holder



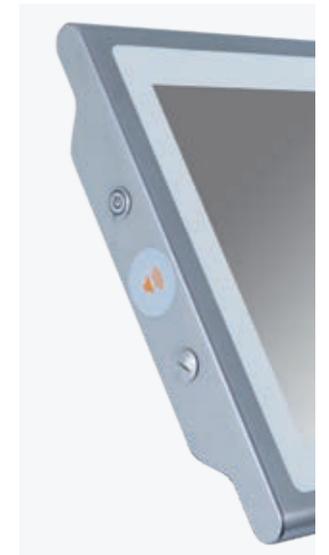
Replaceable tip



Scanner holder



Secure authentication via CONNECT BOX and Nymi Band



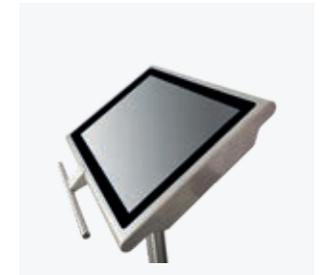
Speaker



Scanner cradle holder - Power supply without external cables



WLAN antenna



Handle



Cable manager on HMI system for TROLLEYS



Nymi/Rfid/NFC/Smartcard interface



Adjustable stainless steel keyboard tray with torque hinge

# AUTHENTICATION

## SIMPLE AND SECURE AUTHENTICATION IN A MATTER OF SECONDS

Regular login, confirmation, and electronic signatures in accordance with 21 CFR Part 11 take up a lot of time and may become a security risk if workers fail to comply with the regulations for the secure use of passwords. Electronic or biometric authentication solutions, employing an RFID card or Nymi Band for example, permit more efficient and secure working. **User authentication then takes just a matter of seconds**, reduces incorrect entries, and saves a significant amount of time.

There are various options for incorporating the authentication interface - including integration into the glass keyboard or the use of a special CONNECT BOX attached to the HMI system. All the solutions conform to **IP65 and were developed specially for cleanroom applications**.

## COMPATIBLE WITH NYMI

Nymi is a leading edge biometric security company. Our enterprise authentication delivers data integrity and security, allowing highly regulated industries to achieve compliance and productivity.



Authentication on keyboard



Authentication on HMI system via CONNECT BOX



Authentication via RFID on PILOT (optional)



NYMI Band

# CLEANROOM KEYBOARDS

## GMP-STANDARD GLASS OR FOIL KEYBOARDS - IDEAL FOR CLEANROOMS

The glass and foil keyboards were developed specially for cleanroom applications - both are provided with **particularly smooth and easy to clean surfaces**. They are designed to withstand regular cleaning with the standard cleaning agents and disinfectants used in cleanrooms.

The keyboards are flush-mounted in a high-grade stainless steel housing and conform to protection class IP65. **Glass keyboards operate on the capacitive principle with audio feedback**. The short-stroke keys of **foil keyboards feature tactile feedback**.

**Desktop, rack and built-in versions** of the cleanroom keyboards are available and can be combined with WAVE, PILOT, CONTROL and TROLLEY systems. A freely adjustable torque hinge connects the keyboard to the HMI system. Wall mounting or cabinet installation is also possible using a double torque hinge. This permits **internal cable routing** and **ergonomic setting of the angle of inclination** to suit the user.

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to fully encapsulated design in high-grade stainless steel housing in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Different language layouts with glass or foil keyboard

Ergonomically adjustable to user and suitable for operation wearing cleanroom gloves

Glass keyboard operates on the capacitive principle with audio feedback. Cleaning function / Auto-Lock (optional)

Foil keyboard with short-stroke keys and tactile feedback

Touchpad operates on the capacitive principle

Glass keyboard optionally with integrated Nymi/RFID/NFC/Smartcard reader and/or laminated protective film

Available as desktop, wall-mounted, rack and built-in versions

TECHNICAL DATA OF THE GLASS AND FOIL KEYBOARDS CAN BE FOUND ON PAGE 30.



Operable with cleanroom gloves



Foil keyboard with ergonomic finger guidance and surface



Double torque hinge for wall mounting



Secure authentication via RFID and Nymi Band



Inclination angle of keyboard can be adjusted freely

# TECHNICAL DATA CLEANROOM KEYBOARDS

MODEL	TNG / TNGR	TNFA	ING / INGR	INFA
<b>Variants</b>	Desktop unit / torque hinge		Integrable, e.g. in TROLLEY COMPACT or MAXI	
<b>Design</b>	Stainless steel, glass surface	Stainless steel, foil keyboard	Glass surface	foil keyboard
FITTINGS	TNG / TNGR	TNFA	ING / INGR	INFA
<b>Touch pad (integrated)</b>	Capacitive technology, tested with cleanroom gloves of varying thickness	Capacitive technology, tested with cleanroom gloves of varying thickness	Capacitive technology, tested with cleanroom gloves of varying thickness	Capacitive technology, tested with cleanroom gloves of varying thickness
<b>RFID/NFC/Smartcard reader</b>	Optional: TNGR with integrated RFID/NFC/Smartcard reader (compatible with Nymi Band)	--	Optional: INGR with integrated RFID/NFC/Smartcard reader (compatible with Nymi Band)	--
<b>Keyboard layout</b>	Many country layouts available as standard, additional layouts upon request			
<b>Key specification</b>	Capacitive keys with audible feedback, cleaning function, Auto-Lock (optional)	Short stroke with tactile feedback	Capacitive keys with audible feedback, cleaning function, Auto-Lock (optional)	Short stroke with tactile feedback
<b>Keyboard surface</b>	Glass (back-printed), optional with laminated protection film	Foil, print with ergonomic finger guidance	Glass (back-printed), optional with laminated protection film	Foil, print with ergonomic finger guidance
PHYSICAL CHARACTERISTICS	TNG / TNGR	TNFA	ING / INGR	INFA
<b>Connection</b>	USB			
<b>Dimensions (approx. mm)</b>	W 517 / H 30 / D 230		W 482 / H 30 / D 177	W 482 / H 20 / D 177
<b>Weight</b>	Approx. 4,5 kg		Approx. 2 kg	Approx. 2 kg
<b>Housing</b>	Stainless steel, type 1.4301 (AISI 304)			
<b>Surface</b>	Brushed, glass bead blasted (optional)			
<b>Certification</b>	CE, FCC/ISED (optional)			
<b>IP rating</b>	IP65			



Keyboard TNG



Keyboard TNFA



TNG keyboard with adjustable torque hinge



Keyboard ING and INFA  
e.g. integrated in TROLLEY MAXI or COMPACT



TNGR keyboard with  
Nymi/RFID/NFC/Smartcard reader

# SUPPORT ARM SYSTEMS

## FLEXIBLE SUPPORT ARM SYSTEMS ARE THE RIGHT SOLUTION FOR ALL CLEANROOM ENVIRONMENTS

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)

You are sure to find the best solution for your particular situation among our wide choice of available options, ranging from **fixed installation to rotating and swivel-mounted systems**. **Dual-display solutions** in vertical or horizontal arrangement are just as feasible as **direct mounting on a wall, ceiling, floor or desktop**.

The mounting systems can be implemented with our WAVE and PILOT HMI systems. It is also possible to add a keyboard, mounted on the HMI system by way of a torque hinge. This enables the keyboard to be **ergonomically adjusted to suit each user**.

The mounting arrangement is designed to ensure smooth transitions between the individual components. This **considerably simplifies cleaning**. Made entirely of stainless steel, all mounting solutions are IP65 rated.

We would also be pleased to produce a customized solution for you on request. And we can offer you assistance with installation, qualification and documentation as well.

- For optimum integration of IT systems in GMP environments and cleanrooms
- Less cleaning work required thanks to smooth transitions between stainless steel components in accordance with protection class IP65
- Suitable for regular cleaning with disinfectants and cleaning agents
- Wide range of reliable mounting versions available, customized modifications and designs on request
- HMI systems can be fitted in horizontal or upright position
- Particularly ergonomic with rotating and swivel mounting
- Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example



L-tube for wall mounting, rotates up to 350 degrees.



U-tube for wall mounting, pivots and rotates up to 350 degrees.



2-point-fixation for wall mounting, rotates up to 350 degrees.



Ceiling mounting, as single or duplex system, rotates up to 350 degrees.



Duplex system vertical for use of two HMI systems, up to 350 degree rotation.



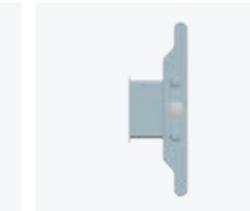
Duplex system horizontal for use of two HMI systems, rotating and tilting.



Table mounting with stainless steel tabletop, rotates up to 350 degrees.



Pedestal / table mounting with flange, rotates up to 350 degrees.



Direct wall mounting



Rear view, all supply lines routed in protective stainless steel tube.

Configuration examples - further options available

# THE TROLLEY CONCEPT

## MOBILE OPERATING STATIONS FOR CLEANROOMS - WITH CUSTOMIZABLE CONFIGURATION

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)

The TROLLEY systems are mobile, flexible cleanroom workstations suitable for customized configuration. They offer the right solution for every situation, ranging from the space-saving version right through to a complete system.

The TROLLEYS can be combined with the WAVE and PILOT HMI systems. The TROLLEY MAXI and the TROLLEY COMPACT are designed to also accommodate a label printer or other hardware. Provided with cleanroom-compatible castors, battery and WLAN, the workstations can be moved around as required in the production environment. On request, certain TROLLEYS can also be equipped with inductive charging technology for a wireless cleanroom.

There is no need for complex and expensive HMI system installation and wiring work on walls, ceilings or the floor. The TROLLEY systems are always ready for use wherever they are required.

1

To permit simple adaptation of the monitor height, we can supply ergonomic height adjustable pipes for the TROLLEY system. The height adjustable system is made entirely of stainless steel.

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

up to 250 mm height adjustment



TROLLEY LIGHT Trapezoid



TROLLEY LIGHT 5-star



TROLLEY LIGHT 5-star



TROLLEY LIGHT Trapezoid



TROLLEY LIGHT 3-star



TROLLEY COMPACT



TROLLEY MAXI

Configuration examples - further options available

# TROLLEY LIGHT TRAPEZOID

## MOBILE, SPACE-SAVING WORKSTATION WITH POWERFUL BATTERY FOR CLEANROOM APPLICATIONS

Space-saving and stable - **The TROLLEY LIGHT with trapezoid stand.** With a platform diameter of just around 550 mm, this base is perfect for use where space is at a premium. The TROLLEY LIGHT can be pushed right up against a wall. Thanks to its lightweight design, the TROLLEY LIGHT is particularly easy to move. The integrated batterie guarantees continuous operation for up to two shifts.

Optionally the height of the operating unit can be adjusted by up to 250 mm.

Can be combined  
with HMI systems  
WAVE (Page 8) and  
PILOT (Page 12)

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated, fully encapsulated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Made in Germany. With utility model and industrial design protection

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

TECHNICAL DATA OF THE TROLLEY LIGHT  
CAN BE FOUND ON PAGE 48.



Device adapter tilted by 10 degrees



Cleanroom suitable, antistatic castors with stainless steel holder



Stainless steel interface cap (optional)



Charge level indicator



Inclination angle of keyboard can be adjusted freely

# TROLLEY LIGHT 5-STAR/ TRAPEZOID INDUCTIVE

Can be combined  
with HMI systems  
WAVE (Page 8) and  
PILOT (Page 12)

## COMPACT STAND WITH INDUCTIVE CHARGING TECHNOLOGY FOR A WIRELESS CLEANROOM

Maximum mobility and wireless power transmission to avoid cross-contamination by cables and plugs - the trapezoid stand for the TROLLEY LIGHT with inductive battery charging technology. The trapezoid stand is magnetically centered with the charging station, and charging starts automatically.

Optionally, the charging rate can be doubled using a second coupler, and charging is then faster than with conventional charging via a cable. If required, inductive charging stations can be distributed around the room to permit both charging and working at different locations. And so the system is always ready for use.

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated, fully encapsulated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Wireless power transmission starts automatically on docking to the station. The TROLLEY is magnetically centered.

Simultaneous charging and operation possible

Made in Germany. With utility model and industrial design protection

TECHNICAL DATA OF THE TROLLEY LIGHT  
CAN BE FOUND ON PAGE 48.



Charging starts on docking to the station



Magnetic couplers center the TROLLEY on the charging station



Optional: Double charging rate with two couplers



Watch video: [systec-solutions.com/inductive](http://systec-solutions.com/inductive)



Cleanroom suitable, antistatic castors with stainless steel holder

# TROLLEY LIGHT 5-STAR

## MOBILE AND STABLE CLEANROOM WORKSTATION WITH PARTICULARLY LONG BATTERY OPERATING TIME

The most powerful battery with an **operating time of up to three shifts** can be accommodated in the **5-arm base** of the TROLLEY LIGHT. Whilst offering full mobility, this base mounted on 5 castors provides a stable stand ideally suited to a **mobile dual-display solution with keyboard**, for example. The dual-display version with an additional display is the perfect choice for working with two applications in parallel, such as MES and Distributed Control Systems (DCS). Even with just one display, this TROLLEY LIGHT version is an excellent option for cleanroom operation.

The TROLLEY LIGHT can also be configured as a tall version with the display at a 10° angle and provided with a keyboard. A half-height version is possible as well, with a display at a 60° angle. Both options can be supplied with or without a keyboard.

**New:** Also available as version **with inductive charging technology**.

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated, fully encapsulated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Made in Germany. With utility model and industrial design protection

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

TECHNICAL DATA OF THE TROLLEY LIGHT CAN BE FOUND ON PAGE 48.

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)



Inclination angle of keyboard can be adjusted freely



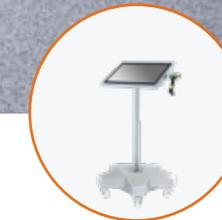
Charge level indicator



Stainless steel interface caps (optional)



TROLLEY LIGHT 5-star with WAVE 221 and TNG



TROLLEY LIGHT 5-star with WAVE 221 60° angle

# TROLLEY LIGHT 3-STAR

## PARTICULARLY LIGHT CLEANROOM OPERATING STATION FOR MOBILE USE

The TROLLEY LIGHT with 3-arm base is the most compact, lightest and most mobile version of the TROLLEY LIGHT. The optional use of an integrated battery makes it possible to work in places with no direct power supply. The system can be moved around as required without having to shut down the HMI.

The operating unit can be controlled either using a keyboard or alternatively via the touch display, like a large tablet. The 3-arm base is ideal for configuration as a half-height version with or without a keyboard.

Can be combined  
with HMI systems  
WAVE (Page 8) and  
PILOT (Page 12)

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated, fully encapsulated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Made in Germany. With utility model and industrial design protection

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

TECHNICAL DATA OF THE TROLLEY LIGHT  
CAN BE FOUND ON PAGE 48.



Device adapter at a 60°  
angle



Stainless steel interface  
caps (optional)



Cleanroom suitable,  
antistatic castors with  
stainless steel holder

# TROLLEY COMPACT

## READY-TO-CONNECT OPERATING STATION FOR CLEANROOMS - HMI SYSTEM, KEYBOARD AND PRINTER

The TROLLEY COMPACT workstation is the ideal **complete system for confined spaces in cleanrooms**. It is equipped with an HMI system, an integrated keyboard and a stable mobile stand. There is also a front drawer for documents and space to **accommodate a label printer**. The labels can be simply removed by way of the printer flap on the side.

The design of the TROLLEY COMPACT is based on ergonomic principles and allows full mobile working all day thanks to the **integrated WLAN and battery**.

The workstation is supplied **ready for connection and ready to use** – without the need for costly structural installation work.

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)

Ideal for GMP conditions and cleanrooms

Less cleaning work required thanks to sophisticated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Cleanroom suitable castors, integrated WLAN and high-power batteries for full mobility

With integrated keyboard and preparation for label printer

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

TECHNICAL DATA OF THE TROLLEY COMPACT CAN BE FOUND ON PAGE 49.



Barcode labels can be removed through the integrated printer flap on the side



Charge level indicator



Telescopic rails



TROLLEY COMPACT with WAVE 224

# TROLLEY MAXI

## CLEANROOM OPERATING STATION FEATURING HYGIENIC DESIGN - CONFIGURABLE AND READY TO USE

The TROLLEY MAXI is a complete cleanroom system based on **hygienic design** principles. Special double seals, fasteners and inside hinges ensure compliance with maximum hygiene standards and protection class IP65. It can be used as a **stationary complete system** or fitted with an (optional) battery for mobile applications.

The TROLLEY MAXI is equipped with an HMI system, an integrated keyboard, drawer and offers space for a **label printer**. The labels can be simply removed by way of the door with viewing window. The workstation is designed in accordance with **ergonomic principles**.

The workstation is supplied **ready for connection and ready to use**. The connector plate on the back facilitates the installation of peripherals (e.g. scales) on site, thus saving both time and installation expense.

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)

Ideal for GMP conditions and cleanrooms

Based on hygienic design principles: Special seals, fasteners and inside hinges ensure compliance with maximum hygiene standards

Less cleaning work required thanks to sophisticated stainless steel design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

Use as stationary system or mobile solution with cleanroom suitable castors and integrated WLAN. Also available with battery on request

With integrated keyboard and space inside for equipment as required by customer, for instance a label printer

Plug & Work: Quick, inexpensive and simple installation without the need for structural modifications

Customized solutions available on request

Comprehensive extra services such as hardware IQ and individual maintenance contracts, for example

TECHNICAL DATA OF THE TROLLEY MAXI CAN BE FOUND ON PAGE 49.



Hygienic design with optional compression latch



TROLLEY MAXI interior, prepared for a printer system



Keyboard ING/INGR/INF, integrated



TROLLEY MAXI



Also suitable for mobile use

# TECHNICAL DATA MOBILE SYSTEMS

MODEL	TROLLEY LIGHT	TROLLEY LIGHT	TROLLEY LIGHT
<b>Variant</b>	Mobile GMP-IT workstation		
<b>Design</b>	With device fixtures for HMI systems of the WAVE or PILOT series, as well as integrated batteries and inductive power transmission		
FITTINGS	TRAPEZOID	5-STAR	3-STAR
<b>Base</b>	Compact trapezoid stand	5-arm base	3-arm base
<b>Height adjustment</b>	Ergonomic ±250 mm height adjustment with gas spring (optional)		
PHYSICAL CHARACTERISTICS	TRAPEZOID	5-STAR	3-STAR
<b>Power supply</b>	220-240 V AC or 100-120 V AC, 50 - 60 Hz, cable-free via INDUCTIVE CHARGER (optional)	220-240 V AC or 100-120 V AC, 50 - 60 Hz, cable-free via INDUCTIVE CHARGER (optional)	220-240 V AC or 100-120 V AC, 50 - 60 Hz
<b>Battery option AGM</b>	AGM / sealed lead-acid battery, 12 V, 56 Ah or 12 V, 107 Ah		-
<b>Battery option Li-ion</b>	Li-ion battery (LiFePO4), 12 V, 50 Ah or 12V, 100 Ah or Li-ion battery (UPS)		Li-ion battery (UPS)
<b>Dimensions (approx. mm)</b>	Trapezoid: H 510 (without flange), Base: 490 x 415 Height of center of monitor: H 1450	Standard design: Height of center of monitor: H 1450, Base: Ø 785  Half-high design: Height of center of monitor: H 1115, Base: Ø 785	Standard design: Height of center of monitor: H 1130, Base: 810 x 610
<b>Weight</b>	approx. 25 kg (without battery)	Approx. 26 kg (without battery)	Approx. 18 kg (without battery)
<b>Housing and surface</b>	Stainless steel, type 1.4301 (AISI 304), brushed		
<b>Castors</b>	With stainless steel holder, electrically conductive, 2x guide castors with brakes, 3x guide castors		With stainless steel holder, electrically conductive, 2x guide castors with brakes, 1x guide castor
<b>Certification</b>	CE, FCC / ISED (optional)		
<b>IP rating</b>	IP65		
TECHNOLOGY	TRAPEZOID	5-STAR	3-STAR
<b>Inductive charging station (transmitter)</b>	Inductive coupler with 240 W output. For wall-mounting or for flush-mounted integration into the wall, with external 100-240 V AC power supply unit. Double output (optional)		-
<b>Inductive coupler (receiver)</b>	Integrated into TROLLEY for wireless charging of the integrated battery		-
<b>Weight</b>	approx. 7 kg		-
<b>IP rating</b>	IP65		-

MODEL	TROLLEY COMPACT	TROLLEY MAXI
<b>Variant</b>	Mobile GMP-IT workstation developed in hygienic design	Mobile GMP-IT workstation developed in hygienic design
<b>Design</b>	With integrated drawer and device fixtures for HMI systems of the WAVE or PILOT series.	With device fixtures for HMI systems of the WAVE or PILOT series
FITTINGS	TROLLEY COMPACT	TROLLEY MAXI
<b>Desk</b>	Integrated keyboard ING / INGR / INFA Shelf space (optional)	Integrated keyboard ING / INGR / INFA Shelf space (optional)
<b>Front</b>	1 drawer on telescopic rails with compression latch	1 drawer on telescopic rails with compression latch, 1 door with internal hinges and 2 drawers on telescopic rails
<b>Printer door</b>	On side, with easy-open protection flap	At front, stainless steel frame with hygienic fasteners, tight-closing with special sandwich sealing technology, with viewing window. Optionally with easy-to-open compression latch.
PHYSICAL CHARACTERISTICS	TROLLEY COMPACT	TROLLEY MAXI
<b>Power supply</b>	220-240 V AC or 100-120 V AC, 50 - 60 Hz	
<b>Battery option AGM</b>	AGM / sealed lead-acid battery, 12 V, 56 Ah or 12 V, 107 Ah	
<b>Battery option Li-ion</b>	Li-ion battery (LiFePO4), 12 V, 50 Ah or 12V, 100 Ah or Li-ion battery (UPS)	
<b>Dimensions (approx. mm)</b>	H 1160 (top of the desk, without device fixtures), Base: Ø 786, Height of center of monitor: H 1500	W 600 / H 1140 / D 650 Height of center of monitor: H 1450
<b>Weight</b>	Approx. 65 kg (without batteries)	Approx. 75 kg (without batteries)
<b>Housing and surface</b>	Stainless steel, type 1.4301 (AISI 304), brushed	
<b>Castors</b>	With stainless steel holder, electrically conductive, 2x guide castors with brakes, 3x guide castors	With stainless steel holder, electrically conductive, 2x guide castors with brakes, 2x fixed castors, 4x adjustable foot (optional)
<b>Certification</b>	CE, FCC / ISED	
<b>IP rating</b>	IP65	

# LABORATORY WORKSTATION

## ERGONOMIC WORKSTATIONS TO GMP STANDARDS FOR LABORATORIES AND CLEANROOMS

We offer different laboratory workstation versions for the ergonomic design of laboratory and cleanroom benches. These are based on the **WAVE and PILOT HMI systems**, with the option of **monitor, PC or thin client configuration**. All versions conform to IP65 and are particularly easy to clean. They can be operated via the touch screen and using **cleanroom keyboards**. Both alternatives have been successfully tested wearing cleanroom gloves of different thicknesses.

The HMI systems can be combined with a **space-saving stainless steel stand and a desktop keyboard**. The angle of the display is infinitely variable. Installation on a stainless steel tube is also possible. The **tube-mounted HMI system is then fitted either on a stainless steel stand or directly on the bench**, so that cables can be routed through the bench and tube to satisfy cleanroom standards. A further advantage is that the keyboards can be attached directly to the HMI, with the result that no external keyboard is required. If an external keyboard is required, we can supply a magnetic keyboard shelf for fitting directly to the HMI as an alternative.

Can be combined with HMI systems WAVE (Page 8) and PILOT (Page 12)



- Ideal for laboratories and cleanrooms with GMP conditions
- Less cleaning work required thanks to fully encapsulated design in accordance with protection class IP65
- Suitable for regular cleaning with disinfectants and cleaning agents
- Different versions available: Stainless steel stand including torque hinge / tube-mounted with stainless steel stand / tube-mounted, fitted on bench
- Can be combined with WAVE (19"/21.5"/24"/27") or PILOT (17.3"/19"/21.5") and glass or foil cleanroom keyboards
- Non-reflecting PCT display. IPS panel with up to 178° viewing angle from all sides. LCD display with LED backlight technology
- Intuitive multi-touch display with optical bonding. Operable with cleanroom gloves.
- Available as industrial PC, industrial monitor, thin client (e.g. IGEL)

TECHNICAL DATA OF WAVE CAN BE FOUND ON PAGE 10.  
TECHNICAL DATA OF PILOT CAN BE FOUND ON PAGE 14.



Laboratory workstation WAVE with stainless steel stand



Laboratory workstation PILOT with stainless steel stand

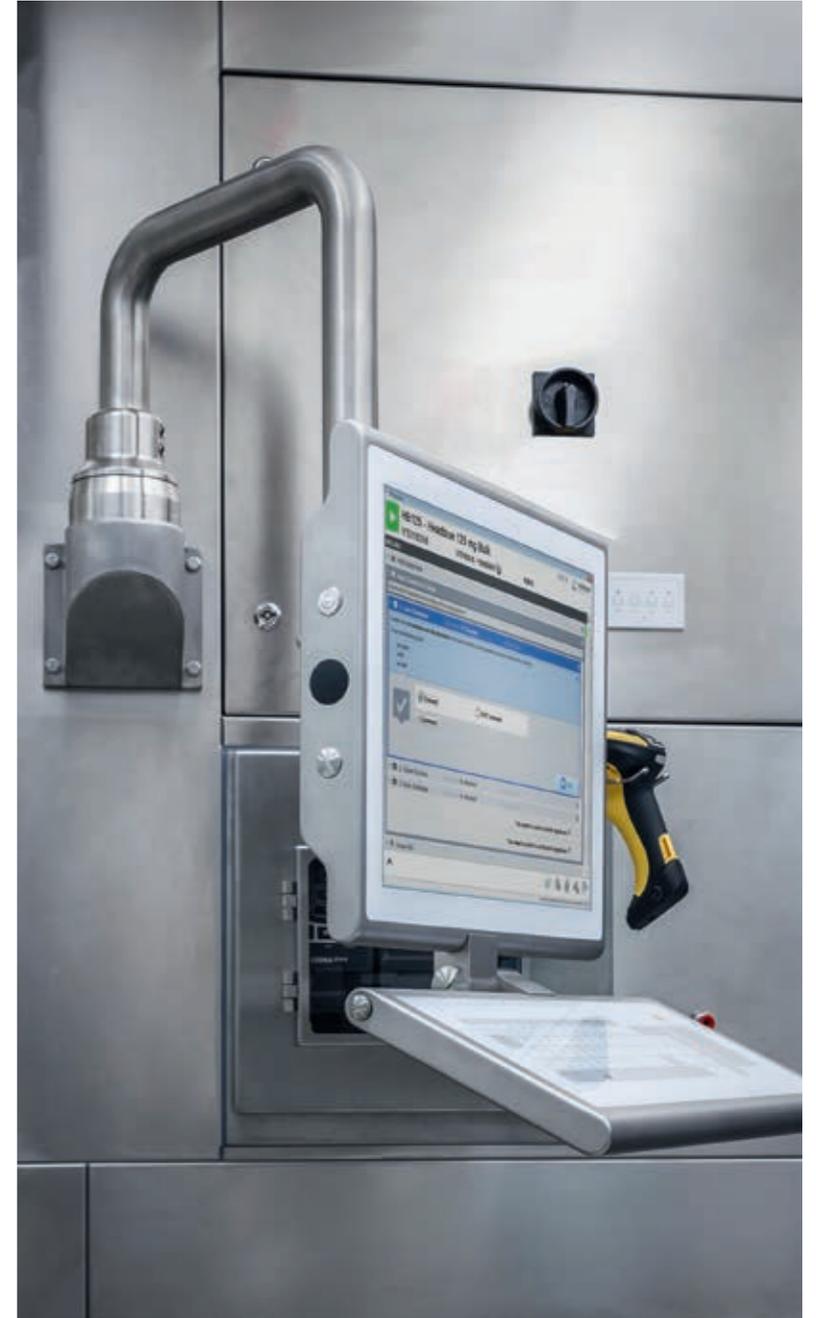


Tube-mounted laboratory workstation with stainless steel stand



Magnetic IP65 USB connector for keyboards





# TABLETS

## GMP CLEANROOM TABLET - MOBILE COMPUTING WITH STAINLESS STEEL HOUSING

The ideal solution for mobile applications in environments with **high hygienic requirements** provides the Tablet PC. The fully enclosed housing meets IP65 and can be rapidly and thoroughly cleaned with almost all standard cleaning agents and disinfectants.

The stainless steel tablet is provided with an IP65 on/off switch. Charging is performed by way of a modern, **easy to clean IP65 magnetic charging contact** (depending on integrated device). So it is ideally equipped for use in cleanrooms. On request, the tablet can be fitted with a handle, a USB interface and volume control buttons.

The stainless steel housing is prepared for/supplied with integrated Microsoft Surface Pro or Apple iPad Pro. We would also be pleased to offer you customized stainless steel housings for other makes on request.

The stainless steel tablet is available in 11" and 12,3".

Ideal for mobile use under GMP conditions and in cleanrooms

Less cleaning work required thanks to fully encapsulated design in accordance with protection class IP65

Suitable for regular cleaning with disinfectants and cleaning agents

11", 12.3" LCD display - other sizes on request

Models available: Microsoft Surface Pro, Apple iPad Pro. Other models on request

Intuitive multi-touch display, suitable for operation wearing cleanroom gloves

Equipped with IP65 On/Off switch, IP65 magnetic charging contact (depending on integrated device)

Handle and holder for wall mounting or placement on a table can be added optionally

TECHNICAL DATA OF THE TABLETS  
CAN BE FOUND ON PAGE 58.



Cleanroom tablet holder for wall mount or placement on table



IP65 magnetic USB connector



Surface optionally with USB port / iPad with USB-C port



Handle (optional)

# TECHNICAL DATA

## TABLETS

MODEL	STAINLESS STEEL TABLET SURFACE	STAINLESS STEEL TABLET IPAD
<b>Manufacturer</b>	Microsoft Surface Pro	Apple iPad Pro
<b>Product description</b>	Tablet in stainless steel housing	
DISPLAYS AND CONTROLS	STAINLESS STEEL TABLET SURFACE	STAINLESS STEEL TABLET IPAD
<b>Display</b>	12.3"	11"
<b>Resolution</b>	Depending on the integrated device	
CONFIGURATIONS	STAINLESS STEEL TABLET SURFACE	STAINLESS STEEL TABLET IPAD
<b>Configurations</b>	External buttons for volume and power on/off, USB interface (optional) Upon request: handle, wall mount, additional interfaces	External buttons for volume and power on/off, USB-C interface Upon request: handle, wall mount
PHYSICAL CHARACTERISTICS	STAINLESS STEEL TABLET SURFACE	STAINLESS STEEL TABLET IPAD
<b>Power supply</b>	External power supply with magnetic charging contact	External power supply via USB-C
<b>Dimensions (approx. mm)</b>	W 331 / H 240 / D 30	W 278 / H 220 / T 30
<b>Weight</b>	Approx. 2 kg	Approx. 1.7 kg
<b>Housing</b>	Stainless steel, type 1.4301 (AISI 304)	
<b>IP rating</b>	IP65	

These pages only show a small selection of our extensive product range. We are pleased to assist you in the selection and configuration of your specific Tablet-PC system.



Tablet with Microsoft Surface Pro in stainless steel casing



Tablet with Apple iPad Pro in stainless steel casing

# SCANNER BOX

## CLEANROOM-COMPATIBLE CHARGING OF SCANNERS IN STAINLESS STEEL HOUSING WITH PROTECTION CLASS IP65

Makes bar code scanner charging stations fit for cleanroom use - the SCANNER BOX. Up to four scanner charging stations or two battery charging stations can be safely and conveniently accommodated in the stainless steel housing. It is particularly **easy to clean and conforms to IP65**.

The SCANNER BOX can be set up on a desktop in a cleanroom or integrated into the wall. The current status of charge can be checked through the viewing window in the door of the SCANNER BOX. Once charging has been completed, the door can be opened and closed by means of a door with compression latch.

Inside there is a partition forming a compartment for the power supply units, the cables of which are **safely routed through an IP65 opening**. The back wall is screwed on and can be detached for service purposes. The SCANNER BOX is supplied fitted with charging stations and power supply units.

**Physical features:**

Dimensions (approx. mm):      W 470 / H 260 / D 265  
 Weight:                              approx. 22 kg (without equipment)

**Scanner systems:** You can find a selection of 1D and 2D scanners for the reliable, high-performance recording of data under special operating conditions on pages 64-65.

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Ideal for GMP conditions and cleanrooms

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Less cleaning work required thanks to sophisticated design of stainless steel housing in accordance with protection class IP65

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Suitable for regular cleaning with disinfectants and cleaning agents

---

cleanroom-compatible integration of multiple scanner charging stations

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Viewing window for checking charge

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Can be placed on/screwed to a desktop or integrated into a wall

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Completely pre-assembled



SCANNER BOX opened up



SCANNER BOX closed



Space for up to four scanners or two battery charging stations



SCANNER BOX connector plate on back



# TECHNICAL DATA SCANNER

MODEL	POWERSCAN PM9501 / PBT9501	POWERSCAN PD9531	ZEBRA DS3678	ZEBRA DS3608
<b>Manufacturer</b>	Datalogic	Datalogic	Zebra	Zebra
<b>Product description</b>	Wireless 1D- / 2D-Imager; wireless Bluetooth® Imager	Wired 1D- / 2D-Imager	Wireless Bluetooth® Imager	Wired 1D- / 2D-Imager
<b>READING TECHNOLOGY</b>	POWERSCAN PM9501 / PBT9501	POWERSCAN PD9531	ZEBRA DS3678	ZEBRA DS3608
<b>Reading options</b>	1D- / 2D-Imager	1D- / 2D-Imager	1D- / 2D-Imager	1D- / 2D-Imager
<b>Operating range</b>	2 up to 130 cm, Green Light LED System to read confirmation (3GL)	6 up to 130 cm (depending on barcode type and density), Green Light LED System to read confirmation (3GL)	3,3 up to 152 cm (depending on barcode type and density), LED and vibration as a user display	3,3 up to 152 cm (depending on barcode type and density), LED and vibration as a user display
<b>SCAN TECHNOLOGY</b>	POWERSCAN PM9501 / PBT9501	POWERSCAN PD9531	ZEBRA DS3678	ZEBRA DS3608
<b>Communications</b>	433,92 MHz, Bluetooth® 3.0	--	Bluetooth® 4.0	--
<b>PHYSICAL CHARACTERISTICS</b>	POWERSCAN PM9501 / PBT9501	POWERSCAN PD9531	ZEBRA DS3678	ZEBRA DS3608
<b>Power supply</b>	Scanner: 10 V, 2150 mAh, Li-ion battery Station: 10 bis 30 V DC	Scanner: USB	Scanner: 3100 mAh Station: 4,5 up to 12,6V DC	Scanner: USB
<b>Dimensions (approx. mm)</b>	Scanner: W 74 / H 212 / D 110 Station: W 240 / H 108 / D 95	W 74 / H 212 / D 110	Scanner: W 76 / H 185 / D 132	Scanner: W 76 / H 185 / D 142
<b>Weight</b>	Scanner: 380 g Station: 380 g	330 g	Scanner: 407 g Station: 410 g	305 g
<b>IP rating</b>	IP65 (without display) IP64 (with display)	IP65	IP67	IP67

These pages only show a small selection of our extensive product range. All scanner systems are also available as DPM (Direct Part Marking) version.

We are pleased to assist you in the selection and configuration of your specific scanner system. Please contact us so we can inform you about the latest innovations and offers.



PowerScan PM9501 / PBT9501



PowerScan PD9531



Zebra DS3678



Zebra DS3608

# TECHNICAL DATA PRINTER

MODEL	ZEBRA ZD620	ZEBRA ZT220	ZEBRA ZT410	CAB XC6
<b>Manufacturer</b>	Zebra			
<b>Product description</b>	Label printer			
<b>PRINT TECHNOLOGY</b>	<b>ZEBRA ZD620</b>	<b>ZEBRA ZT220</b>	<b>ZEBRA ZT410</b>	<b>CAB XC6</b>
<b>Print method</b>	Thermal direct / thermal transfer	Thermal direct / thermal transfer	Thermal direct / thermal transfer	Color thermal transfer
<b>Print resolution</b>	203 / 300 dpi	203 / 300 dpi	203 / 300 / 600 dpi	300 dpi
<b>Print speed</b>	152 mm per second (300 dpi)	152 mm per second	356 mm per second (203 dpi)	Up to 125 mm per second
<b>Print width</b>	Max. 104 mm	Max. 104 mm	Max. 104 mm	Max. 162.6 mm
<b>MEDIA SPECIFICATIONS</b>	<b>ZEBRA ZD620</b>	<b>ZEBRA ZT220</b>	<b>ZEBRA ZT410</b>	<b>CAB XC6</b>
<b>Media width</b>	15 to 118 mm	Max. 114 mm	Max. 110 mm	55 to 165 mm
<b>Media length</b>	Not endless: 991 mm	Not endless: 991 mm	Up to 3988 mm	1500 mm
<b>Media thickness</b>	0.08 to 0.019 mm	0.076 to 0.25 mm	0.058 to 0.25 mm	0.05 to 0.8 mm
<b>Roll diameter</b>	Max. 127 mm	Max. 203 mm	Max. 203 mm	Max. 300 mm
<b>Core diameter</b>	12.7 mm and 25,4 mm	76 mm	76 mm	76 mm
<b>CONFIGURATIONS</b>	<b>ZEBRA ZD620</b>	<b>ZEBRA ZT220</b>	<b>ZEBRA ZT410</b>	<b>CAB XC6</b>
<b>System memory</b>	256 MB SDRAM 512 MB Flash	128 MB RAM 128 MB Flash	256 MB RAM 512 MB Flash	64 MB RAM 8 MB Flash CF Flash
<b>I/O interfaces</b>	RS-232, USB 2.0, internal Ethernet 10/100 Mbps, Bluetooth® (optional)	RS-232, USB 2.0, 10/100 Print Server (optional)	RS-232, USB 2.0, Parallel Port, Wireless Print Server, 10/100 Print Server (optional)	USB 2.0 Slave and Master, Ethernet, WLAN (optional)
<b>PHYSICAL CHARACTERISTICS</b>	<b>ZEBRA ZD620</b>	<b>ZEBRA ZT220</b>	<b>ZEBRA ZT410</b>	<b>CAB XC6</b>
<b>Power supply</b>	100 - 240 V AC			
<b>Dimensions (approx. mm)</b>	ZD620d: W 177 / H 151 / D 221 ZD620t: W 202 / H 192 / D 267	W 239 / H 280 / D 432	W 269 / H 324 / D 495	W 358 / H 395 / D 554
<b>Weight</b>	1.6 kg / 2.5 kg	7.8 kg	16 kg	24 kg
<b>Housing</b>	Double wall plastic	Robust metal construction	Robust metal construction	Diecast aluminum casing, metal cover with large inspection glass

These pages only show a small selection of our extensive product range. We are pleased to assist you in the selection and configuration of your specific printer system. Please contact us so we can inform you about the latest innovations and offers.



Zebra ZD620



Zebra ZT220



Zebra ZT410



CAB XC6

# THIN CLIENT SYSTEMS

## IGEL ENDPOINT / THIN CLIENT – SIMPLE AND CENTRAL REMOTE ADMINISTRATION LOW COSTS AND LITTLE MAINTENANCE

In combination with the [IGEL Workspace Edition](#), the [IGEL Endpoint / Thin Client](#) represents a fully equivalent alternative to standard thin client hardware. The software is installed as operating system on the WAVE, PILOT or CONTROL HMI system and turns the hardware used into a powerful, universally applicable thin client for secure access to a variety of IT infrastructures. It provides extremely powerful graphics capabilities for access to server systems such as Microsoft TSE (RDP, ICA protocol and VDI) or UNIX/LINUX (VNC protocol).

Only a few clicks are needed to connect the IGEL Endpoint / Thin Client to the server, and it is then immediately ready for operation. The IGEL Endpoint / Thin Client supports USB devices such as [key-board](#), [mouse](#), [scanner](#), [printer](#), [touchscreens](#), [WLAN](#), [Bluetooth](#), [RFID](#), [NFC](#), [smartcard reader](#), [audio](#) etc. The versatile IGEL Universal Management Suite (UMS) permits IT remote maintenance for remote clients, for example.

We also support [other thin client software including ThinManager®](#).

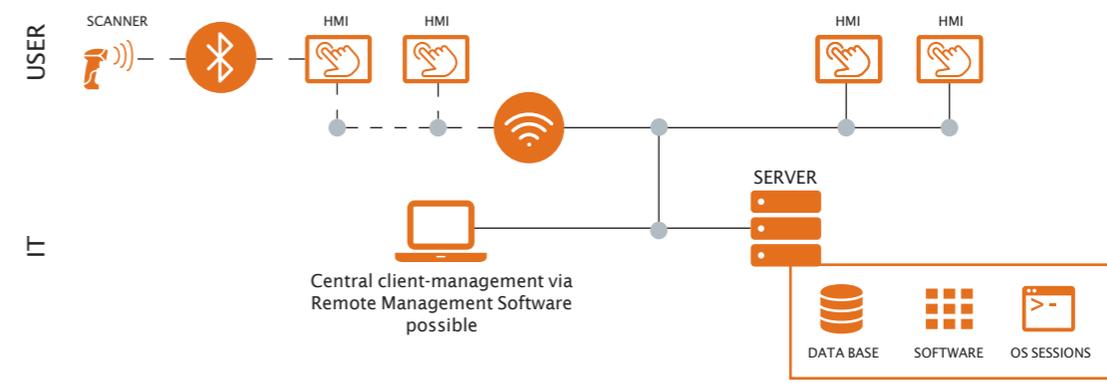
We would be pleased to advise you accordingly on customer-specific solutions.

- Secure plug-and-play connection via Ethernet / RJ45 to server / PC
- Connection of USB devices possible
- No local software, no installation and maintenance
- Central administration with remote management software
- Less expensive than conventional KVM solutions, thin clients, or PCs
- Simple integration of IGEL Endpoints / Thin Clients into existing IGEL infrastructure
- IGEL Endpoint / Thin Client with WLAN and Bluetooth

ThinManager®  
is compatible with  
Systec & Solutions  
HMI systems



### IGEL ENDPOINT / THIN CLIENT SOLUTION



MODEL	IGEL ENDPOINT / THIN-CLIENT
<b>Product description</b>	Thin Client for complete integration into WAVE, PILOT and CONTROL
<b>Operating system</b>	IGEL OS / IGEL Workspace Edition
<b>Administration</b>	IGEL Universal Management Suite (UMS)
SESSIONS	IGEL ENDPOINT / THIN-CLIENT
<b>Resolution</b>	Depending on HMI system
<b>Sessions</b>	Support of all common IGEL remote protocols, e.g. RDP, Citrix, VMware or VNC
INTERFACES	IGEL ENDPOINT / THIN-CLIENT
<b>USB / RS-232</b>	Depending on the HMI
<b>Network</b>	Ethernet 10 / 100 / 1.000 Mbit/s or WLAN

# VISUNET

## THE EX-PROTECTED VISUNET IS SETTING NEW STANDARDS

For use in hazardous areas we recommend the VisuNet EX1 (e.g. VisuNet EX1 GXP RM or VisuNet EX1 GXP PC) and VisuNet EX2 (e.g. VisuNet EX2 GXP RM or VisuNet EX2 GXP PC) systems from Pepperl + Fuchs, which are able to meet the most demanding requirements.

The ex-protected VisuNet PC offers the optimal solution for decentralized displaying and working with information right where the process is happening. Other selected Atex products upon request.

19" / 21.5" EX1 / EX2

EX1 with capacitive multi-touch display

Minimal heat generation

Windows®-based

Industrial monitor, VGA and DVI actuation, fiber optic (optional)

Remote monitors up to 2 km from the nearest network element

Robust, wireless architecture

Easy-to-clean stainless steel housing

Protection class IP66



Example configuration:  
VisuNet GXP RM + keyboard

# TECHNICAL DATA VISUNET

MODEL	VISUNET EX1 GXP RM	VISUNET EX1 GXP PC	VISUNET EX2 GXP RM	VISUNET EX2 GXP PC
<b>Variants</b>	Remote monitor designed for operation in explosion-hazardous areas as per zone 1+21 / Class I, Div. 2 as well as under GMP conditions	Panel PC designed for use in hazardous areas classified as zones 1+21 / Class I, Div. 2 as well as under GMP conditions	Remote monitor designed for use in hazardous areas classified as zones 2+22 and under GMP conditions	Panel PC designed for use in hazardous areas classified as zones 2+22 and under GMP conditions
<b>DISPLAYS AND CONTROLS</b>	<b>VISUNET EX1 GXP RM</b>	<b>VISUNET EX1 GXP PC</b>	<b>VISUNET EX2 GXP RM</b>	<b>VISUNET EX2 GXP PC</b>
<b>Display</b>	19" / 21.5" TFT displays			
<b>Resolution</b>	1280 x 1024 / 1920 x 1080 Full HD			
<b>Touchscreen</b>	Capacitive			
<b>Stainless steel keyboard (optional)</b>	foil keyboard, imprints with ergonomic finger guidance, with touchpad or trackball			
<b>CONFIGURATIONS</b>	<b>VISUNET EX1 GXP RM</b>	<b>VISUNET EX1 GXP PC</b>	<b>VISUNET EX2 GXP RM</b>	<b>VISUNET EX2 GXP PC</b>
<b>Industrial PC</b>	Intel® Atom Bay Trail E3827 (1.75 GHz) Dual-Core			
<b>Operating system</b>	P+F RM Shell 4 Standard (Windows 7 based, RDP8, VNC) P+F RM Shell 5 (Windows 10 IoT Enterprise based)	Windows® 7 Ultimate, Windows 10 IoT Enterprise x64	P+F RM Shell 4 Standard (Windows 7 based, RDP8, VNC) P+F RM Shell 5 (Windows 10 IoT Enterprise based)	Windows® 7 Ultimate, Windows 10 IoT Enterprise x64
<b>System memory</b>	2 GB	4 GB	2 GB	4 GB
<b>Storage capacity</b>	32 GB SSD	128 GB SSD	32 GB SSD	128 GB SSD
<b>I/O Interfaces</b>	Exe: 1 x Fast Ethernet, 1 x USB, 1 x RS232/422, 1 x RS485, Exi: 2 x USB (Keyboard, mouse), 1 x TTY (barcode reader) - optional, 1 x LWL Ethernet - optional, 1 x dual LAN - optional			
<b>PHYSICAL CHARACTERISTICS</b>	<b>VISUNET EX1 GXP RM</b>	<b>VISUNET EX1 GXP PC</b>	<b>VISUNET EX2 GXP RM</b>	<b>VISUNET EX2 GXP PC</b>
<b>Power supply</b>	24 V DC / max. 80 W or 90 - 260 V AC			
<b>Dimensions (approx. mm)</b>	W 618 / H 452 / D 120 (Panel with stainless steel frame, 24 V DC power supply)			
<b>Weight</b>	Approx. 23 kg (panel)			
<b>Housing and surface</b>	Stainless steel, type 1.4301 (AISI 304), brushed			
<b>Certification</b>	ATEX, IECEx		CE (other certifications on request)	
<b>IP rating</b>	IP66			

# SERVICES

## ALL-ROUND SERVICE FOR THE COMMISSIONING, QUALIFICATION, AND MAINTENANCE OF CLEANROOM IT SYSTEMS

Do you plan to use new IT systems in your cleanrooms and GMP environments? We would be pleased to provide you with a wide range of services to support your project. With our comprehensive package, you have everything you need to satisfy GMP standards when working with your new hardware.

**Comprehensive consultation:** We provide you with exactly the right IT solution to satisfy GMP standards. We would be pleased to assist you with the planning and management of your project. We can advise you with regard to IT systems when planning installations and cleanrooms, as well as on the topic of ergonomic mounting options. With our experience we can help you produce a detailed specification (URS) for your IT project and also provide assistance with subsequent Design Qualification (DQ).

**Full installation package:** Our experienced service team will make sure that the systems you order are put into operation as quickly as possible and in conformity with GMP standards. We will gladly perform installation work and IT system commissioning, as well as connecting up peripherals and accessories. Our team will conduct the system function tests on your premises and document the entire procedure accordingly. We will of course also be pleased to assist you if you wish to convert or upgrade your hardware.

**Hardware Installation Qualification (HW-IQ):** We can handle the entire hardware qualification procedure, including the signature rules, in accordance with GMP requirements. Our templates enable us to produce the full IQ documentation for your IT hardware in the shortest possible time. Our experienced team will visit your premises to conduct all the activities involved in the qualification procedure. That saves you time, expense and organizational work, and guarantees professional qualification for your IT systems.

**Professional maintenance:** We will continue to support you after commissioning with maintenance contracts tailored to your requirements. A network of professional specialists throughout Europe and around the world can offer both remote and on site service. This includes the servicing of wearing parts at the necessary maintenance intervals, for example.

**Individual solutions:** Alongside our successful standard systems we can supply customized solutions, even if only small quantities are involved. Just tell us what you are looking for, and we will document the requirements and draw up the specification. Our experienced team of engineers will support you in this process with their specialist knowledge.

**Contact us:**  
Hardware support inquiries:  
[support@systec-solutions.com](mailto:support@systec-solutions.com)





**systec &  
solutions**

DRIVEN BY INNOVATION

[talk@systec-solutions.com](mailto:talk@systec-solutions.com)  
[www.systec-solutions.com](http://www.systec-solutions.com)



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