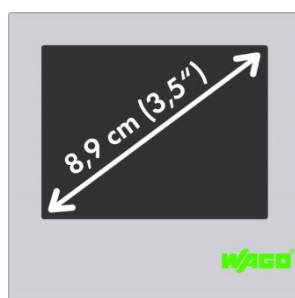


# WAGO PERSPECTO<sup>®</sup> 762



**762-1035**  
**WP 35 QVGA**  
**PERSPECTO<sup>®</sup> WP - Web Panel**

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Every conceivable measure has been taken to ensure the accuracy and completeness of this documentation. However, as errors can never be fully excluded, we always appreciate any information or suggestions for improving the documentation.

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# 1 Notes about this Documentation

The WP 35 QVGA 762-1035 shall only be installed and operated according to the instructions in these operating.

---

## Note



### **Always retain this documentation!**

This documentation is part of the product. Therefore, retain the documentation during the entire service life of the product. Pass on the documentation to any subsequent user. In addition, ensure that any supplement to this documentation is included, if necessary.

---

## 1.1 Scope of Validity

This documentation applies to PERSPECTO-Panel 762-1035 (WP 35 QVGA).

## 1.2 Copyright

This Manual, including all figures and illustrations, is copyright-protected. Any further use of this Manual by third parties that violate pertinent copyright provisions is prohibited. Reproduction, translation, electronic and phototechnical filing/archiving (e.g., photocopying) as well as any amendments require the written consent of WAGO Kontakttechnik GmbH & Co. KG, Minden, Germany. Non-observance will involve the right to assert damage claims.

## 1.3 Symbols

---

 **DANGER****Personal Injury!**

Indicates a high-risk, imminently hazardous situation which, if not avoided, will result in death or serious injury.

---

 **DANGER****Personal Injury Caused by Electric Current!**

Indicates a high-risk, imminently hazardous situation which, if not avoided, will result in death or serious injury.

---

 **WARNING****Personal Injury!**

Indicates a moderate-risk, potentially hazardous situation which, if not avoided, could result in death or serious injury.

---

 **CAUTION****Personal Injury!**

Indicates a low-risk, potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

---

**NOTICE****Damage to Property!**

Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

---

**NOTICE****Damage to Property Caused by Electrostatic Discharge (ESD)!**

Indicates a potentially hazardous situation which, if not avoided, may result in damage to property.

---

**Note****Important Note!**

Indicates a potential malfunction which, if not avoided, however, will not result in damage to property.

---



## *Information*

**Additional Information:**

Refers to additional information which is not an integral part of this documentation (e.g., the Internet).

---

## 1.4 Number Notation

Table 1: Number Notation

Number Code	Example	Note
Decimal	100	Normal notation
Hexadecimal	0x64	C notation
Binary	'100' '0110.0100'	In quotation marks, nibble separated with dots (.)

## 1.5 Font Conventions

Table 2: Font Conventions

Font Type	Indicates
<i>italic</i>	Names of paths and data files are marked in italic-type. e.g.: <i>C:\Program Files\WAGO Software</i>
<b>Menu</b>	Menu items are marked in bold letters. e.g.: <b>Save</b>
<b>&gt;</b>	A greater-than sign between two names means the selection of a menu item from a menu. e.g.: <b>File &gt; New</b>
<b>Input</b>	Designation of input or optional fields are marked in bold letters, e.g.: <b>Start of measurement range</b>
"Value"	Input or selective values are marked in inverted commas. e.g.: Enter the value "4 mA" under <b>Start of measurement range</b> .
<b>[Button]</b>	Pushbuttons in dialog boxes are marked with bold letters in square brackets. e.g.: <b>[Input]</b>
<b>[Key]</b>	Keys are marked with bold letters in square brackets. e.g.: <b>[F5]</b>



## 2 Important Notes

This section includes an overall summary of the most important safety requirements and notes that are mentioned in each individual section. To protect your health and prevent damage to devices as well, it is imperative to read and carefully follow the safety guidelines.

### 2.1 Legal Bases

#### 2.1.1 Subject to Changes

WAGO Kontakttechnik GmbH & Co. KG reserves the right to provide for any alterations or modifications. WAGO Kontakttechnik GmbH & Co. KG owns all rights arising from the granting of patents or from the legal protection of utility patents. Third-party products are always mentioned without any reference to patent rights. Thus, the existence of such rights cannot be excluded.

#### 2.1.2 Personnel Qualification

All sequences implemented on Series 762 devices may only be carried out by electrical specialists with sufficient knowledge in automation technology. These specialists must be familiar with the current standards and guidelines for the devices and the automated environments.

All changes to the controller shall always be performed by qualified personnel with sufficient skills in PLC programming.

#### 2.1.3 Use of the 762 Series in Compliance with Underlying Provisions

762 Series modules are suitable for use in the area of time control and automation. Their use extends beyond residential and commercial areas, as well as industrial areas. Technical data must be observed for all types of applications.

---

### Note



#### Radio interference in residential areas

This is a class A device. This device can cause radio interference in residential areas. In this case, the operator may be required to take appropriate measures.

---

#### 2.1.4 Technical Condition of Specified Devices

The devices to be supplied ex works are equipped with hardware and software configurations, which meet the individual application requirements. These modules contain no parts that can be serviced or repaired by the user. The

following actions will result in the exclusion of liability on the part of WAGO Kontakttechnik GmbH & Co. KG:

- Repairs,
- Changes to the hardware or software that are not described in the operating instructions,
- Improper use of the components.

Further details are given in the contractual agreements. Please send your request for modified and new hardware or software configurations directly to WAGO Kontakttechnik GmbH & Co. KG.

---

## Note



### **Pixel error in TFT display**

Any pixel errors of the TFT display due to production reasons do not represent grounds for complaint!

---

## 2.2 Safety Advice (Precautions)

For installing and operating purposes of the relevant device to your system the following safety precautions shall be observed:



### **DANGER**

#### **Do not work on devices while energized!**

All power sources to the device shall be switched off prior to performing any installation, repair or maintenance work.

### **DANGER**

#### **Install only in appropriate housings, cabinets or in electrical operation rooms!**

The device is an open unit. As such, install it exclusively in appropriate housings, cabinets or in electrical operation rooms. Allow access to authorized staff only by means of specific keys or tools.

### **NOTICE**

#### **Replace defective or damaged devices!**

Replace defective or damaged device/module (e.g., in the event of deformed contacts), since the long-term functionality of device/module involved can no longer be ensured.

### **NOTICE**

#### **Protect the components against materials having seeping and insulating properties!**

The components are not resistant to materials having seeping and insulating properties such as: aerosols, silicones and triglycerides (found in some hand creams). If you cannot exclude that such materials will appear in the component environment, then install the components in an enclosure being resistant to the above-mentioned materials. Clean tools and materials are imperative for handling devices/modules.

### **NOTICE**

#### **Clean only with permitted materials!**

Clean housing and soiled contacts with propanol.

**NOTICE****Do not use any contact spray!**

Do not use any contact spray. The spray may impair contact area functionality in connection with contamination.

---

**NOTICE****Do not use in telecommunication circuits!**

Only use devices equipped with ETHERNET or RJ-45 connectors in LANs. Never connect these devices with telecommunication networks.

---

**NOTICE****Avoid electrostatic discharge!**

The devices are equipped with electronic components that may be destroyed by electrostatic discharge when touched. Please observe the safety precautions against electrostatic discharge per DIN EN 61340-5-1/-3. When handling the devices, please ensure that environmental factors (personnel, work space and packaging) are properly grounded.

---

## 2.3 Characteristics of the CODESYS Web Visualization

---

### Note



#### Depending on the version of CODESYS installed

The functionality of the Web visualization depends on the version of CODESYS "webvisu.jar" Java applet used.

This file is normally the same version as the CODESYS version installed. The general function of the file is the responsibility of the company 3S. The version and function be explicitly checked. Always use the most current CODESYS version from the WAGO-I/O-PRO-CD released by WAGO Kontakttechnik GmbH & Co. KG.

Please also observe the chapter "CODESYS Web Visualization" in the CODESYS online help.

The file "webvisu.htm" is the base HTML page for Web visualization and is copied when installing the WAGO-IO-PRO or WAGO-AUTOMATION-COCKPIT to the subdirectory <3S Software Installation Directory>\Visu.

Settings can be made in this file to optimize and adjust Web visualization.

Observe the CODESYS online help, chapter "Editing the 'webvisu.htm' file" and chapter "Optimization of the Web Visualization" > "Adjustments in the WEBVISU.htm of the Controller".

---

---

### Note



#### Limitations of the CODESYS Web visualization

The CODESYS Web visualization contains some limitations and particularities. In connection with the Web panel, the following description must be observed for continuous operation: To use this file with the WAGO Web panel, the call for the function "CookieHandling()" is disabled.

Depending on the visualization elements and Web server used, memory requirements may continuously increase in the panel. Please regularly check the memory requirements of the panel. Observe the chapter "The WAGO Control Center" > "Advanced Tab".

---



## Note

### **Response time depends on the number, type and form of the objects displayed**

This device has been designed for presentation of simple CODESYS Web visualizations. The device establishes communication with a controller (e.g. from the series 750-88x or 758-8xx) and displays the visualization pages stored there. Due to the limitations of the technologies used, the following points should be observed:

The response time depends on the number, type and form of the objects displayed. The fewer the objects displayed per page, the faster the device responds.

More time is required the first time a visualization page is called up than subsequent calls.

There is a delay the first time a visualization page is displayed because it is first fully compiled in the working memory.

Should it take more than 1 second to compile, a message appears with the text "Loading ..." to indicate that background activity is underway. When switching to another visualization page, a copy of the page remains in the cache and subsequent calls of the page are much faster. Because the size of the cache is limited, it may not always be possible to store all pages in memory entirely depending on the application. As a result, you may experience delays later when calling up the same page.

### **2.3.1 Description of the Function "CookieHandling()"**

The use of this Java Script function results in a continuous memory consumption on the Web panel.

The last set language for dynamic texts is stored by this mechanism and is automatically reset at the next call-up of the Web visualization.

This function is not possible on the Web panels. The response corresponds with that of an Internet browser that does not accept cookies.

## **3 Device Description**

The 762 Series panels are used to operate and visualize the controllers of the WAGO-I/O-SYSTEM. The integrated WAGO-AUTOMATION COCKPIT development environment is used to program the panels and controllers.

### **3.1 PERSPECTO WP Web Panel**

Featuring specialized software, the Web Panel functions as Web browser, connecting a controller with its own Web server.

With the Web Panels, more control units are easy to add.

The display of CODESYS 2.3 Web visualization is optimized for the Web Panel.

The Web Panels are simple display and HMI devices and have no CODESYS and HMI runtime of their own.

## 3.2 View

### 3.2.1 Front View



Figure 1: Front View

Table 3: Legend for Figure "Front View"

No.	Description
1	Front panel
2	Touch screen display



### 3.2.2 Back View

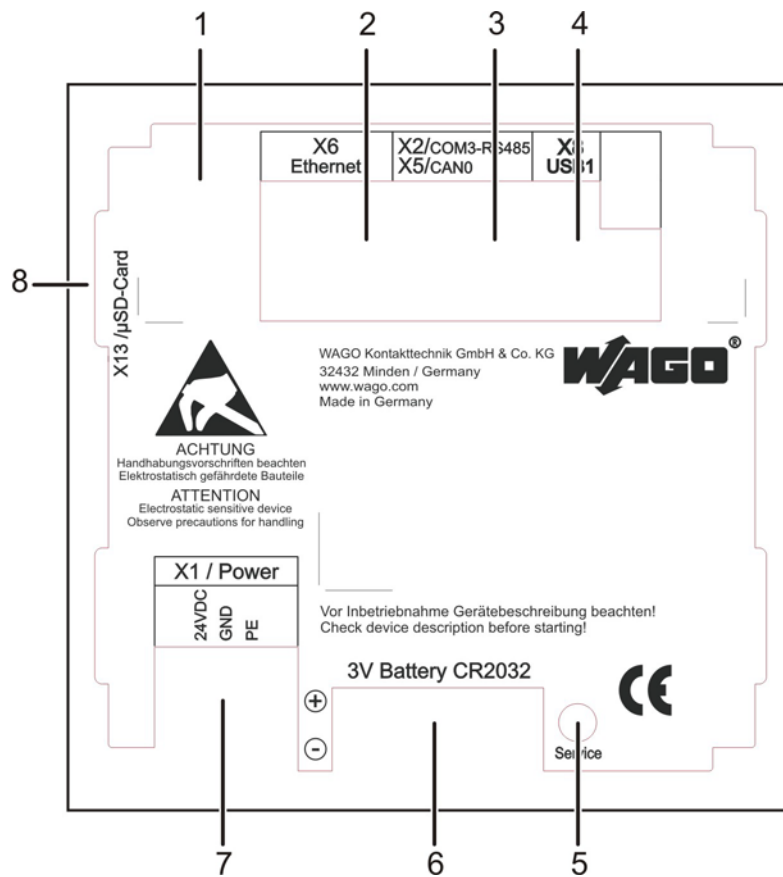


Figure 2: Back View

Table 4: Legend for Figure “Back View”

No.	Designation	Description
1	-	Housing
2	X6	ETHERNET interface as RJ45 jack
3	X2	RS-485 serial interface (COM 2) as RJ45 jack (without function)
	X5	CAN-Bus 0 (CANopen) interface as RJ45 jack (without function)
4	X8	USB host interface
5	Service	Service button
6	3V Battery CR2032	Battery case
7	X1	Connection for 24VDC power supply
8	X13	Slot for micro SD memory card

## 3.3 Connectors

### 3.3.1 X1 – Supply Voltage

Use the X1 connection for the device power supply. More information about the power supply and power consumption is available in the "Technical Data" section.

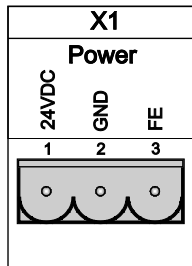


Figure 3: Connector X1 – Supply Voltage

Table 5: X1 Pin Assignment

Pin	Assignment	Function
1	+24 V	Supply Voltage
2	0 V GND	Reference potential GND
3	FE	Ground conductor

### 3.3.2 X6 – ETHERNET Interface

An RJ45 jack is used for the ETHERNET interface.

The connections and cables must meet CAT.5 and the guidelines for ETHERNET interfaces.

If there are more than 2 devices in a network, then they must be connected to each other by a HUB or SWITCH. A "1:1" cable is used here.

If there are only 2 devices in a network, a crossover cable can be used.

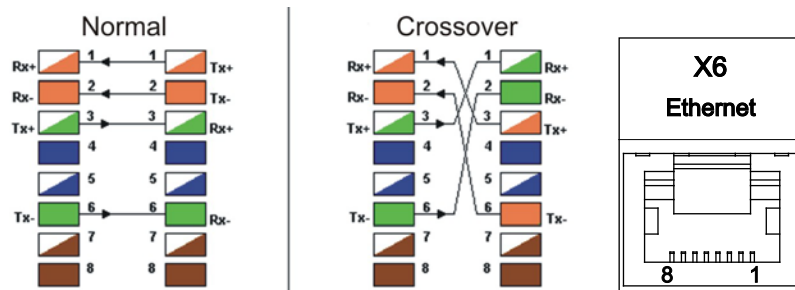


Figure 4: Connector X6 – ETHERNET RJ45

Table 6: X6 Pin Assignment

Pin	Assignment	Function
1	TX+	Transmit Data +
2	TX-	Transmit Data -
3	RX+	Receive Data +
4	n.c.	-
5	n.c.	-
6	RX-	Receive Data -
7	n.c.	-
8	n.c.	-

### 3.3.3 X8 – USB Interface

The interface is designed as a USB host interface, type A.

The following table and illustration provide information on the pin assignment of the interface. The interface connection meets the USB specification 2.0.

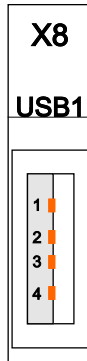


Figure 5: Connector X8 – USB Interface

Table 7: X8 Pin Assignment

Pin	Assignment	Function
1	USB_VCC1	USB +5V DC
2	USB_N1	USB data line N1
3	USB_P1	USB data line P1
4	USB_GND	USB GND

## 3.4 Battery Case

### CAUTION

**Do not charge, disassemble or burn the battery!**

Incorrect use of the lithium battery contained in this device may cause damage incurred by fire or chemical burns. The battery must not be charged, disassembled, burned or exposed to temperatures exceeding 100°C (212°F).

The battery case holds a 3 V lithium battery, type CR2032, that supplies the real time clock and the SRAM with power in case of a power failure.

If you want to change the lithium battery during a power failure, make sure that you have the new battery ready to hand. For a certain time a gold cap capacitor provides the required power. The data of the volatile memory (SRAM) is therefore preserved during a battery exchange.

At room temperature, the battery has a life span of about one year.

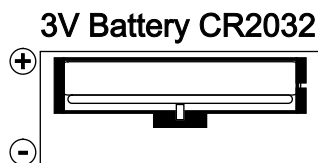


Figure 6: Battery Case

### 3.5 Slot for Memory Card

The panel 762-1035 is equipped with a Flash memory slot on the side for a micro SD card. It supports cards with a 2 GB maximum. Supported memory cards (item no. 758-879/000-002) are available from WAGO.

## 3.6 Operating Elements

### 3.6.1 Service Button

The service switch on the back of the device is used to call up the Windows CD desktop. The WAGO Control Center can be launched, for example, to configure the device.

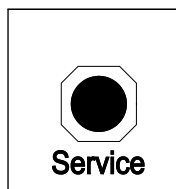


Figure 7: Service Button

## 3.7 Technical Data

### 3.7.1 Housing

Table 8: Technical Data – Housing

Front panel	Plastic, polyester film
Housing material	Plastic
Dimensions (W x H x L)	96 mm x 96 mm x 29 mm
Panel cutout (B x H)	91 mm x 91 mm
Fixing means	2 clamping elements
Surrounding air temperature, operation	0 °C ... +55 °C
Surrounding air temperature, storage	-10 °C ... +60 °C
Relative humidity (without condensation)	10 % ... 85 %
Weight	170 g
Degree of protection	Front IP65, back IP20

### 3.7.2 Power Supply

Table 9: Technical Data – Power Supply

Voltage supply	DC 24 V (18 V ... 30 V)
Max. input current (24 V)	500 mA
Operating power	8 W ... 12 W
Buffer battery	CR2032

### 3.7.3 Display

Table 10: Technical Data – Display

Display type	TFT
Screen size (diagonal)	8.9 cm (3.5 ")
Display colors	262,000 colors
Graphics resolution	320 x 240 pixels
Contrast ratio	800:1
Angle of view horizontal / vertical	-60 ° ... +60 ° / -60 ° ... +45 °
Brightness	560 cd/m <sup>2</sup>
HBT*	50,000 hrs.
Panel	Touch, analog, resistive
Light transmission <small>typ.</small>	80 %
Durability	100,000 activations with touch pen

\* HBT (Half Brightness Time) defines the LED chip brightness decrease to 50% original brightness at  $T_a = 25 \pm 2^\circ\text{C}$  and  $RH = 60 \pm 10\%$ .



### 3.7.4 Hardware

Table 11: Technical Data – Hardware

Processor	32 Bit ARM9 200 MHz
RAM / Flash / SRAM	64 Mbytes / 64 Mbytes / 1 Mbyte
Memory expansion	MicroSD card (max. 2 GB)

### 3.7.5 Software

Table 12: Technical Data – Software

Operating system	Windows CE 6.0
Software configuration	Internet browser Java Virtual Machine panel configuration software


### 3.7.6 Interfaces

Table 13: Technical Data – Interfaces

USB interface	1 x USB2.0 Host (Type A)
Ethernet interface	1 x 10/100 Mbit RJ-45
Maximum length of connecting cables	USB: maximum 3 m Power supply: maximum 3 m to power supply

### 3.8 Approvals

The following approvals have been granted to 762-1035 panels:

 Conformity Marking

 UL508

The following ship approvals have been granted to 762-1035 panels:



BV (Bureau Veritas)



LR (Lloyd's Register)

Env. 1, 2, 3, 4



RINA (Registro Italiano Navale)

### 3.9 Standards and Guidelines

762-1035 panels meet the following requirements on emission and immunity of interference:

EMC CE-Immunity to interference      EN 61000-6-2

EMC CE-Emission of interference      EN 61000-6-4

## 4 Mounting

### 4.1 Front Panel Installation

The devices are intended for installation in switch cabinets, for example. Vertical installation of the panels is recommended.

#### Note



##### Note about differing mounting position!

The operating temperature ranges specified in the technical data apply to the recommended mounting position. If the panel is mounted in a position different than recommended, cooling can be affected. Contact WAGO Service for more information.

The PERSPECTO Series panels are used in the panel cutout provided and bolted down with the included clamping elements and the intermediate plate from behind (note the following installation diagram).

#### Note



##### Do not forget the intermediate plate!

Insert the included intermediate plate between the clamping screws and the panel cutout. Make sure that the clamping screws engage in the holes of the intermediate plate!

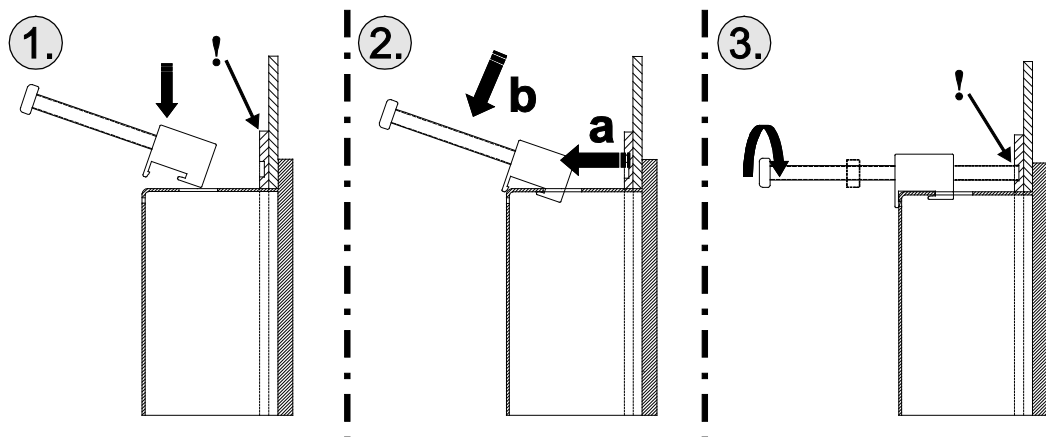


Figure 8: Installation of the Clamping Elements



Figure 9: Detailed Photograph of Installation with Intermediate Plate

Information on the dimensions of the panel cutout is available in the Technical Data section.

## 5 Connect Devices

### 5.1 Supply voltage

Connect the supply voltage to contact 1 (24 VDC) and contact 2 (GND) of the included 734-103 female connector. Use an appropriate operating tool to open the CAGE CLAMP® connections. Feed the 7 mm stripped conductors with a cross section of max. 1.5 mm<sup>2</sup> into the connections and remove the operating tool.

### 5.2 Grounding

Connect the functional earth to the grounding screws or lugs on the housing and to contact 3 (FE) of the included female connector as described in the previous section. Plug the female connector onto the X1 male connector (power) and then verify that the clamping connection is secured.

### 5.3 Peripheral Devices

The interfaces to the back of the device are used to connect the peripheral devices electrically. The number and arrangement of the interfaces depend on the design (note the information in the "Technical Data" chapter or "Connection" chapter).

The Ethernet interface is used for connection to a LAN.

The USB master interfaces are used for connecting to a keyboard, mouse or USB stick. Because there are a large number of USB devices on the market, no guarantee can be made about the function of individual devices.

---

## 6 Commissioning

### 6.1 Switch on

After applying the power supply, the device switches on automatically.

After the boot and self-test phase that lasts about 10 seconds, the programs set in the WAGO Control Center (e.g. HMI runtime) are launched automatically.

To stop the programs and Windows CE desktop for configuring the panels from launching automatically, the touch screen must be touched within a adjustable time period (default setting 3 s) after the boot & self-test phase.

The service switch on the back of the device can be used to launch the Windows CE desktop at any time.

The WAGO Control Center can be used to change the start behavior of the device.

---

#### Note



##### **Time window for launching the Windows CE desktop!**

The WAGO Control Center can be used to set the time window for launching the Windows CE desktop after the boot and self-test phase.

If the time is set to 0, the Windows CE desktop can only be launched by the service switch.

---

## 6.2 IP Address of the Device

### 6.2.1 General

The Web panels communicate with the Web server via the TCP/IP protocol. Therefore, a TCP/IP connection is required. An IP address must be assigned to the device after switching it on for the first time.

The WAGO Control Center installed on the device is used to assign the IP address by default (observe "Setting the IP Address" section).

The device can either draw its IP address from a DHCP server on the network or the device can be assigned a fixed IP address.

The current IP address can be queried by double-clicking on the network icon in the system tray in the task bar.

---

### Note



#### DHCP / fixed IP address

The device must be connected to a network to change the IP address from DHCP to a fixed IP address.

---

### 6.2.2 Setting the IP Address

The WAGO Control Center is used to set the IP address. Call up the WAGO Control Center from the Start menu:

**Start > Programs > Utilities > WAGO Control Center**

1. Click the **Advanced** tab and then on the **[LAN]** button.
2. In the "Adapter Settings", click on the **IP Address** tab.
3. Enter the desired IP address and click **[OK]** to confirm.

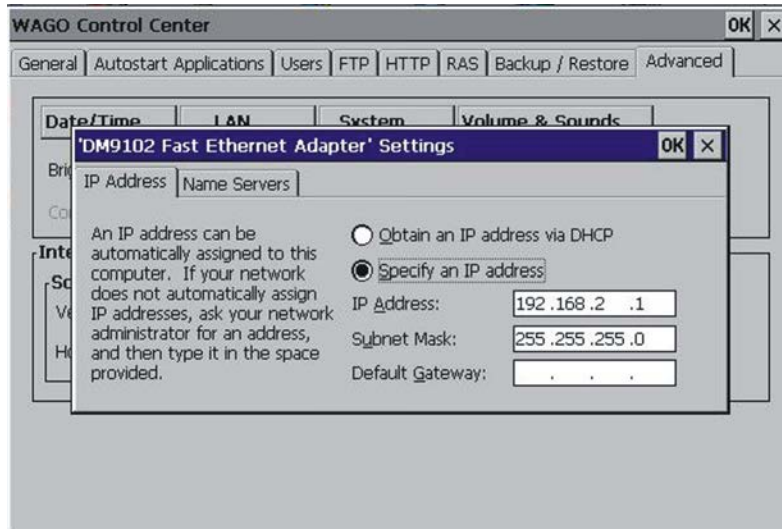


Figure 10: IP Address

### 6.2.3 IP Address

When using a crossover cable to connect between the panel and configuring PC directly, it is recommended that both devices have fixed IP addresses with an open address in the range 192.168.1.xxx.

In this case, the subnet mask is automatically set to 255.255.255.0. There is no default gateway.



## Note

### IP Address

The devices must be set to different IP addresses.



## 6.3 The WAGO Control Center

The WAGO Control Center can be used to configure the device. Settings for the Autostart programs, uses, FTP/HTTP and RAS access can be made. General device settings can also be checked and modified.

### 6.3.1 Starting the WAGO Control Center

The WAGO Control Center is launched from the Start menu:

**Start > Programs > Utilities > WAGO Control Center**

The tabs of the WAGO Control Center are explained on the following pages.

## 6.3.2 “General” Tab

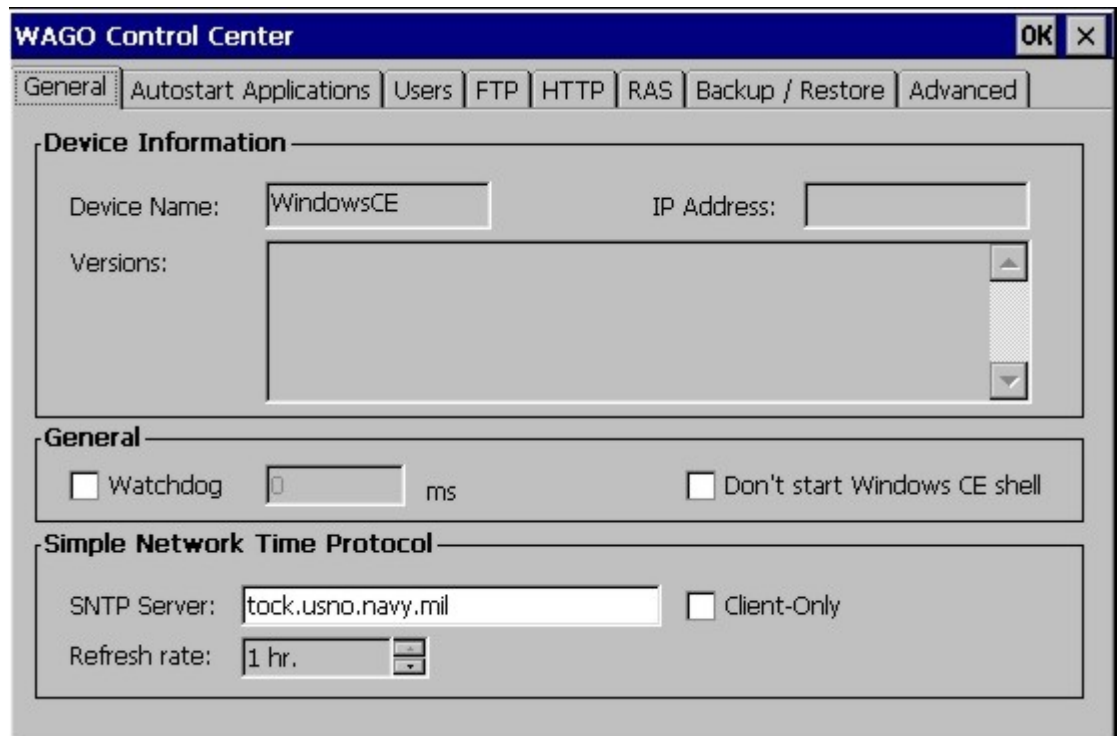


Figure 11: “General” Tab

### Device Information

Information about the device is found here. This information is important, for example, for support cases.

### General

#### Watchdog:

A watchdog can be configured here, which can restart the device if it crashes after a set time.

#### Don't start Windows CE Shell:

If the checkbox is enabled, the Windows CE desktop can no longer be launched. The task bar is no longer displayed.

### Simple Network Time protocol:

If there is an Internet connection, the system clock of the device can be synchronized via an SNTP server.

#### Client Only

If the checkbox is enabled, the internal SNTP server is disabled.

### 6.3.3 “Autostart Applications” Tab

You can enter programs here that should launch automatically after booting. The HMI runtime is entered here by default.

The time window for launching the programs after the boot and self-test phase of the device can also be set here.

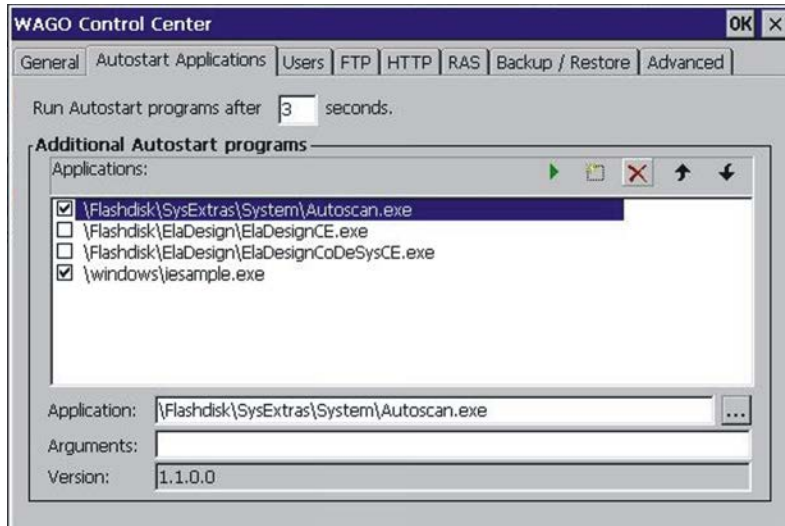


Figure 12: “Autostart Applications” Tab

Enter the program to be called in the "Application:" line and the parameters to be passed in the "Arguments" line.

Example:

Application: Flashdisk\CrEme\bin\CrEme.exe  
Arguments: -cf Flashdisk\creme.cfg 'http://192.168.1.1/plc/webvisu.htm'

### 6.3.4 “Users” Tab

You can create FTP users, grant rights and assign directories. The menu is generally self-explanatory.

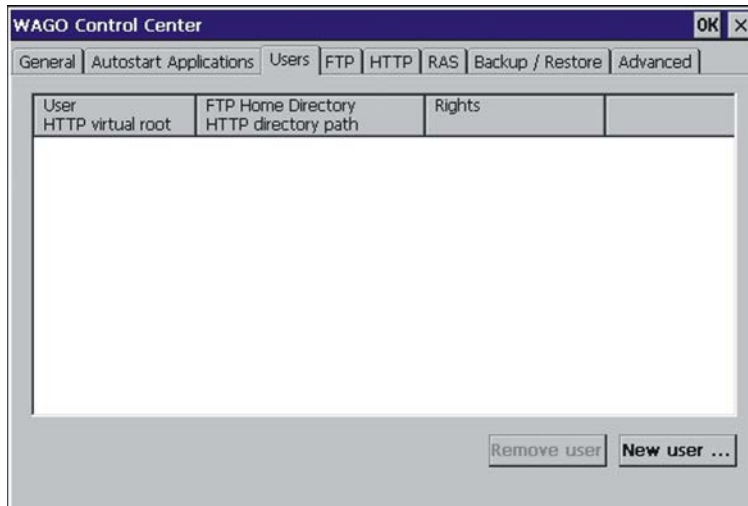


Figure 13: “Users” Tab

#### **User/Virtual Roots:**

A directory from another (protected) tree, for example, can be put in the user's home directory. By doing so, you gain access to this and subsequent directories.

#### **FTP Home Directory/HTTP directory path:**

The user starts downwards from this menu. The user cannot get to higher-level directories.

#### **Rights:**

Access rights assigned to users are displayed here.

## **Note**



#### **Access Rights**

If no home directory is set for a user, the user gets FULL ACCESS to the panel despite disabled write access. Enter at least on \ in the home directory.

### 6.3.5 “FTP” Tab

You can configure the FTP server of the device here.

More information about creating users is available in the "Users Tab" section.

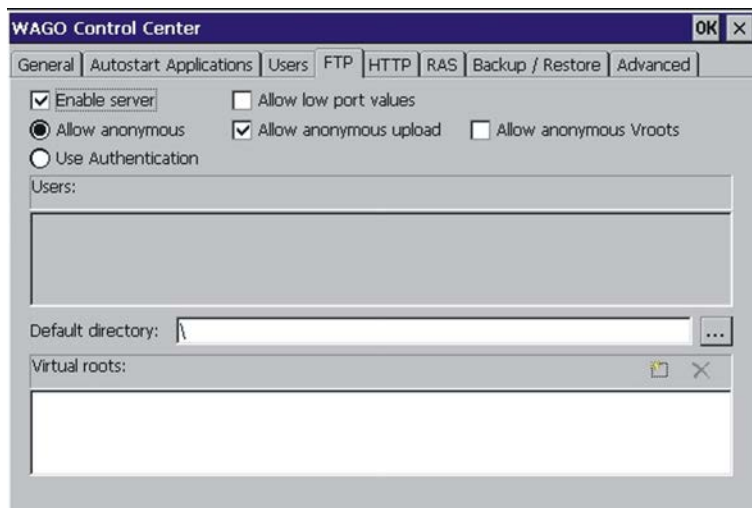


Figure 14: “FTP” Tab

### 6.3.6 “HTTP” Tab

You can configure the Web server of the device here.

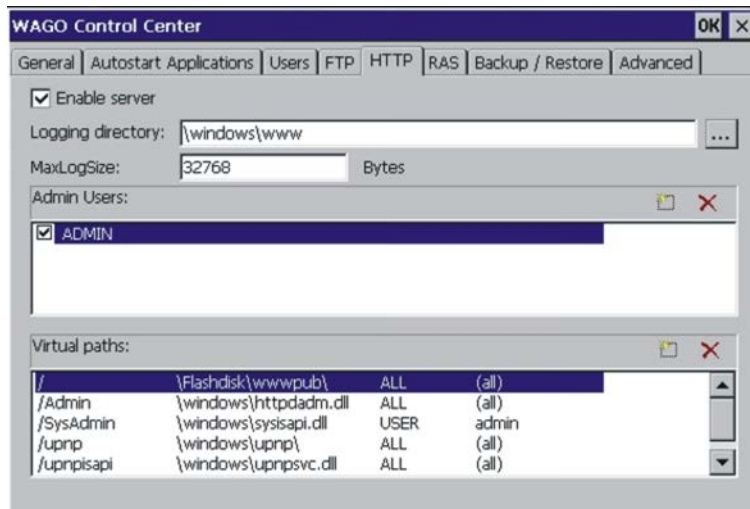


Figure 15: “HTTP” Tab

#### Application example:

An *httptest* directory with the */test* alias was created on the flash disk.

A Web page *index.htm* was created in this directory.

The page can be used in a Web browser to access the following address:

*http://[IP address of the device]/test*

### 6.3.7 “RAS” Tab

The Remote Access Service (RAS) is a service for remote access to a Windows CE device.

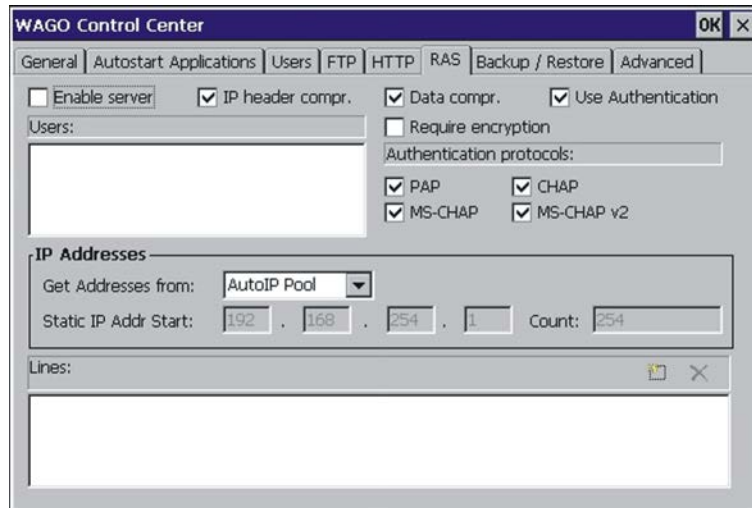


Figure 16: “RAS” Tab

Both RAS functions, server and client, are supported.

The connection between a RAS client and the RAS server can be established via a modem, VPM or direct connection.

For more information about the Remote Access Service (RAS) of the device, please contact WAGO Support.

### 6.3.8 “Backup/Restore” Tab

You can save and restore the device configuration and project data, for example, on a memory card.



Figure 17 “Backup/Restore” Tab

The [**Backup**] button is used to save the parameters defined in the *backup\_restore.cfg* and entries on the target data carrier.

The [**Restore**] button is used to restore the parameters defined in the *backup\_restore.cfg* and entries on the device.

#### Note



##### Create backup!

It is recommended that you create a backup after commissioning the device and to keep the backup in a safe place.

#### Note



##### Operating system update!

There is no operating system update for the device.



### 6.3.9 "Advanced" Tab

You can perform advanced settings for the device. The menu is generally self-explanatory.

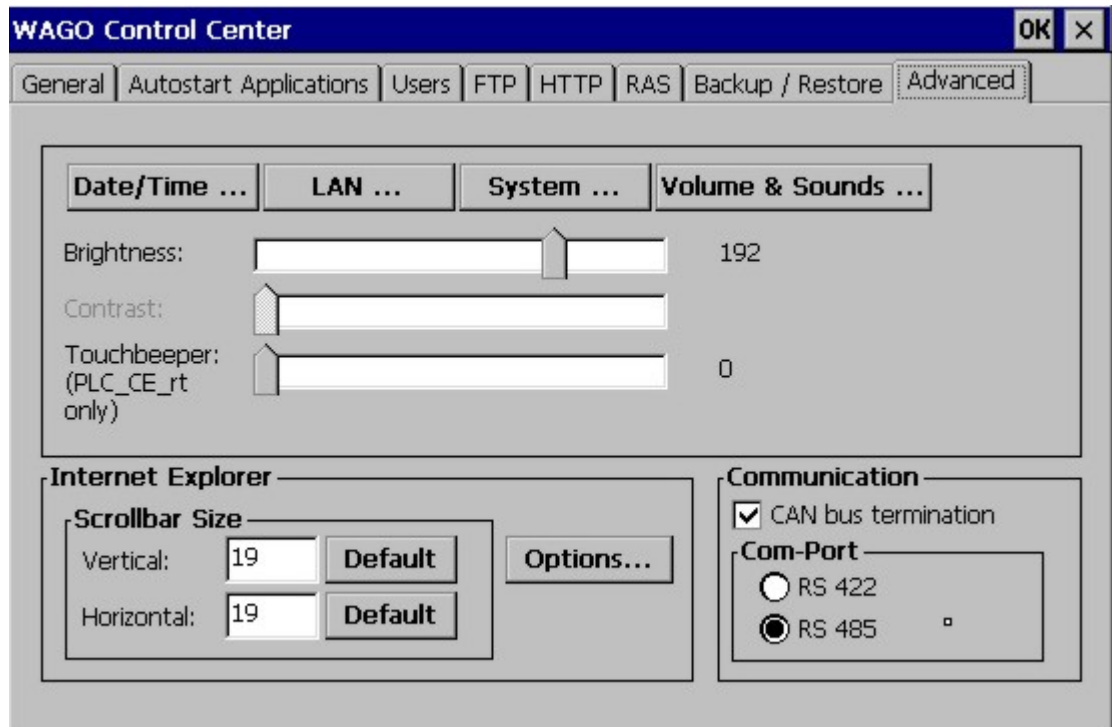


Figure 18: "Advanced" Tab

#### 6.3.9.1 Read Memory Consumption

Click the [**System ...**] button and select the [**Memory**] tab.

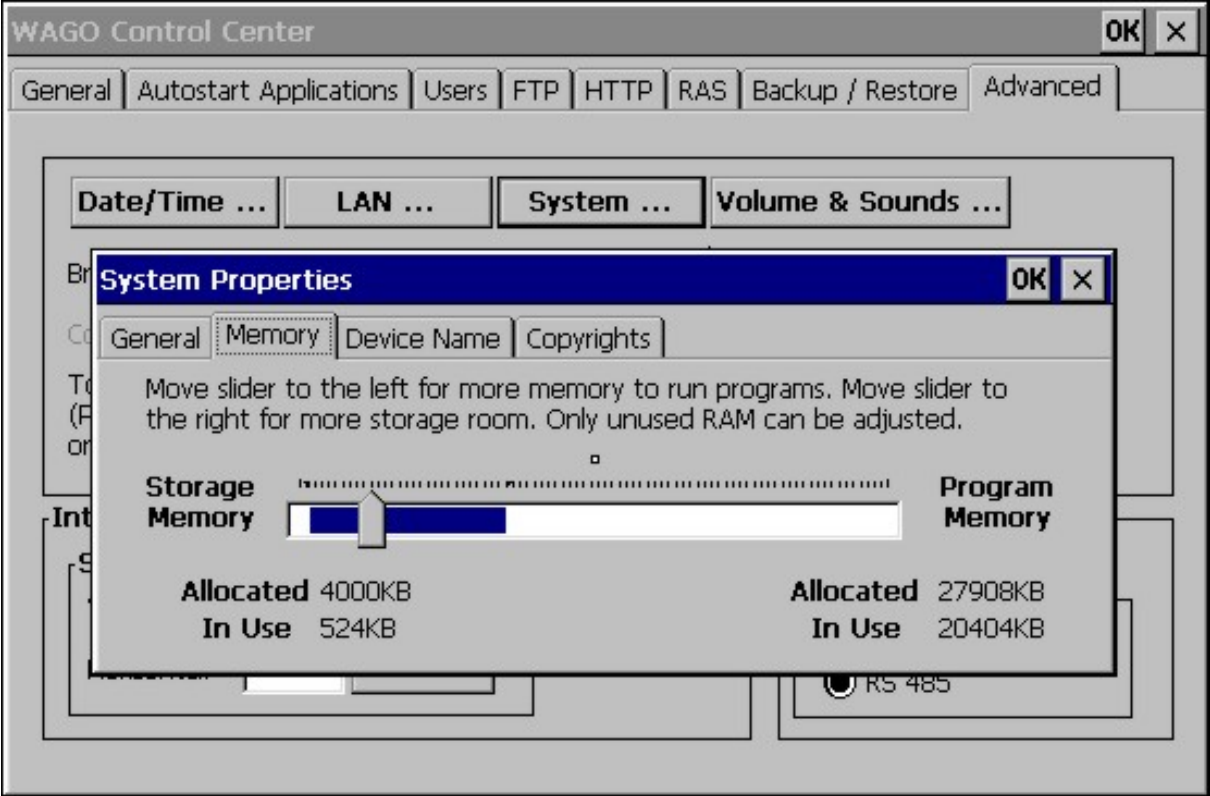


Figure 19: Memory Consumption

A progress bar displays the memory consumption.

### 6.3.10 Saving the Configuration

After configuring the panel, the settings must be permanently saved in the registry. Call up the following utility program:

**Start -> Programs -> Utilities -> Save Registry**

---

#### *Note*



#### **Fail-safe saving of the configuration!**

If the settings are not saved as described, they are lost when the device is restarted.

---

## 6.4 Optimizing Web Visualization

The following settings have been made to optimize visualization.

### 6.4.1 Starting the Java Virtual Machine as an Applet Viewer

The following call is enabled by default in the **Autostart Applications** tab.

Application: *Flashdisk\CrEme\bin\CrEme.exe*  
Arguments: *-cf Flashdisk\creme.cfg 'http://192.168.1.1/plc/webvisu.htm'*

Change the IP address based on your application.

To connect an IPC to the Web panel, please use the following syntax for the URL: "http://192.168.1.1:8080/webvisu.htm".

To keep the call line short and simple, most settings are saved to a configuration file.

The name of the configuration file with path is passed to the application by the *-cf* parameter.

### Note



#### Recommended start version

This start version is recommended in connection with CODESYS.

Example: Content of the configuration file "Flashdisk\creme.cfg"  
(with comments not included in the file)

```
-x320      Width of the display in pixels
-y240      Height of the display in pixels
-ntb       Disables the window header line, full screen mode
-ml 20000  Set memory limit to 20000 KB
-aa 1      Anti Aliasing Level (from 0 (no anti-aliasing)) to 5 (best quality))
-av        Start Java Virtual Machine (JVM) as an applet viewer
```

### 6.4.2 Starting Internet Explorer in Full-Screen Mode

Internet Explorer can also be started in full-screen mode. The "iesimple.exe" file is launched.

Make the following settings:

Enter the following command in the **Autostart Applications** tab for starting Internet Explorer:

Application: *FlashDisk\SysExtras\Tools\iesimple.exe*  
Arguments: *IP address of the page to be displayed*

---

### 6.4.3 Adjustments in the WEBVISU.htm of the Controller

In CODESYS version 2.3.9.28, changes have been made to the "webvisu.jar" java applet for the Web visualization.

To optimize performance of the PERSPECTO panel, the following two parameters have been adjusted in the "WebVisu.htm" and "WebVisu\_wago.htm" files:

```
<param name="UPDATETIME" value="100">  
<param name="USEURLCONNECTION" value="False">
```

After installation of the WAGO-CODESYS application, the htm files and jar file are located in the CODESYS installation directory.

Example path: *C:\Program Files\WAGO Software\CODESYS V2.3\visu*

## 7 Service

### 7.1 Battery Maintenance

#### CAUTION

**Do not charge, disassemble or burn the battery!**

Incorrect use of the lithium battery contained in this device may cause damage incurred by fire or chemical burns. The battery must not be charged, disassembled, burned or exposed to temperatures exceeding 100°C (212°F).

#### CAUTION

**Replace the battery only with an identical one!**

Only replace the lithium battery with an identical one. Use of another type of lithium battery may present a risk of fire or explosion.

#### NOTICE

**Data loss!**

If the device is switched off when the battery has failed or has reached its capacity without replacing the battery, any settings not saved are lost.

The battery in the device control buffers the adjustable parameters and the time for a power failure or switched off device.

Replace the battery as follows:

1. Make sure that the device has been on for at least 10 minutes before replacing the battery, allowing the buffer capacitors to load.
2. Switch off the power supply.
3. Remove the buffer battery and install a new one.
4. Restore the power supply.
5. Dispose the discharged battery immediately in a proper manner.

---

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