

# SIEMENS

## SIMATIC

### Industrial monitors IFP1900 INOX PRO

#### Compact Operating Instructions

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### Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

#### **DANGER**

indicates that death or severe personal injury **will** result if proper precautions are not taken.

#### **WARNING**

indicates that death or severe personal injury **may** result if proper precautions are not taken.

#### **CAUTION**

indicates that minor personal injury can result if proper precautions are not taken.

#### **NOTICE**

indicates that property damage can result if proper precautions are not taken.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

### Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

### Proper use of Siemens products

Note the following:

#### **WARNING**

Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be complied with. The information in the relevant documentation must be observed.

### Trademarks

All names identified by ® are registered trademarks of Siemens AG. The remaining trademarks in this publication may be trademarks whose use by third parties for their own purposes could violate the rights of the owner.

### Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

# Preface

## Validity

This document applies to devices with the designation IFP1900 INOX PRO, article numbers:

- IFP1900 INOX PRO Stand variant with operator controls, article number 6AV7484-6AB00-0AA0
- IFP1900 INOX PRO Support arm variant, article number with operator controls, article number 6AV7484-6AB10-0AA0
- IFP1900 INOX PRO Stand variant without operator controls, article number 6AV7484-6AB01-0AA0
- IFP1900 INOX PRO Support arm variant, article number 6AV7484-6AB11-0AA0

In relation to the operation, the IFP1900 INOX PRO is identical with the base unit IFP1900 Touch Standard.

This document describes the mechanical and electrical differences between the device and the base device IFP1900 Touch Standard.

The notes contained in this document take precedence over the information contained in the documentation of the basic device, in the release notes and in the online help.

You can find the documentation of the basic device on the Internet at the following address:  
Operating Instructions Industrial Flat Panels IFP, IFP PRO, IFP ETH  
(<http://support.automation.siemens.com/WW/view/en/65288650>)

## Conventions

The term "device" is also used instead of the product designation in this document.

"Windows 7" is used as an abbreviation for "Windows 7 Ultimate".

## Figures

This document contains figures of the device described. The figures can deviate from the particularities of the delivered device.

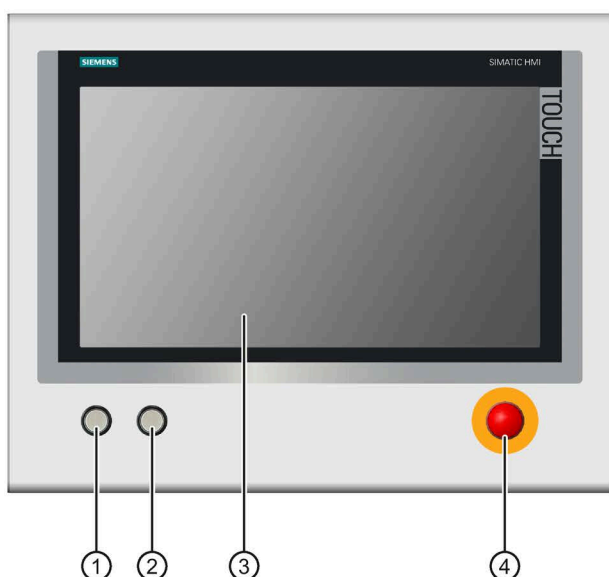
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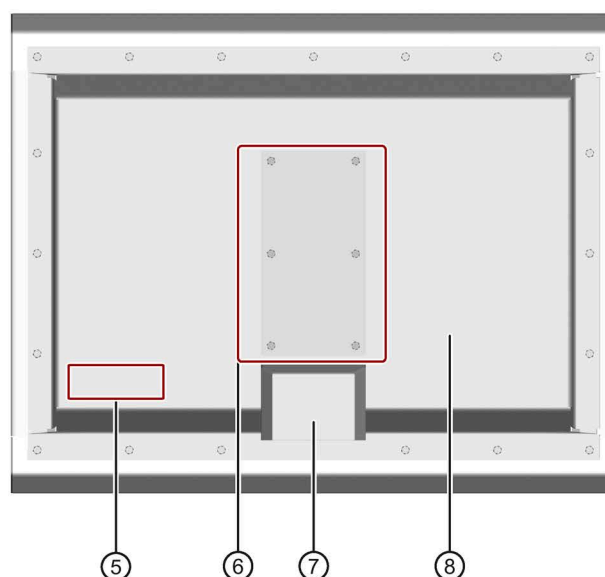
## Product description

The IFP1900 INOX PRO devices are mounted to a support arm or stand by means of the mechanical interface. The IFP1900 INOX PRO devices are not intended for installation in a control cabinet.

The figures below show the front view and rear view using a device with operator controls and stand mounting as an example.



- ① Illuminated pushbutton <sup>1</sup> "left" with green LED
- ② Illuminated pushbutton <sup>1</sup> "right" with red LED
- ③ Display with touch screen
- ④ EMERGENCY OFF button <sup>1</sup>



- ⑤ Position of nameplate and approvals
- ⑥ Connection compartment
- ⑦ Mechanical interface for fastening
- ⑧ Rear panel

<sup>1</sup> Only for devices with operator controls

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### Note

#### EMERGENCY OFF button

The connections of the EMERGENCY OFF button are wired to pins 1-4 of the terminal strip in the connection compartment.

The EMERGENCY OFF button is not connected with the electronics inside the device.

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## Features

Properties of the IFP1900 INOX PRO:

- Enclosure material: INOX stainless steel, material number 1.4301
- Sealing material: FPM (fluorinated rubber)
- Front membrane: Polyester-based
- Degree of protection: IP66 all-round
- Front operator controls: 2 illuminated pushbuttons, 1 EMERGENCY OFF button, wired to internal terminal strip <sup>1</sup>
- Mechanical interface: For stand mounting, analogous for support arm mounting

<sup>1</sup> Internal plug-in terminal strip only for devices with operator controls, pin assignment of the internal terminal strip, see section "Pin assignment of the internal terminal strip (Page 32)"

## Scope of delivery

- 1 x IFP1900 INOX PRO
- 1 x 2-pin connecting terminal for the 24 V DC power supply
- 1 x 20-pin connecting terminal, matching the internal 20-pin terminal strip of the device
- 1 x seal for mechanical interface

## Accessories

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### Note

Accessories are intended only for the INOX devices listed above and not in general for other PRO devices (standard).

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### Mounting kit for stand mounting

A mounting kit is available for pedestal mounting of the device. Mounting kit contents:

- 1 stainless steel tube with flange: Length 500 mm, outer diameter 48.3 mm, inner diameter 40 mm.  
The mechanical interface of the stainless steel tube with flange fits the mechanical interface of the device.
- 4 hexagon screws M5×25 made of stainless steel
- 1 flat seal

Article number 6AV7675-1GB00-0AA0

### **Mounting kit for support arm mounting**

A mounting kit is available for support arm mounting of the device. Mounting kit contents:

- 1 stainless steel tube with flange: Length 500 mm, outer diameter 48.3 mm, inner diameter 40 mm.  
The mechanical interface of the stainless steel tube with flange fits the mechanical interface of the device.
- 1 adapter support arm
- 8 hexagon screws M5×20 made of stainless steel
- 2 flat seals

Article number 6AV7675-1GB10-0AA0

### **Service pack**

The service pack contains:

- 1 spare seal for the connection compartment cover of the device
- 6 screws for the connection compartment cover of the device
- 1 spare seal for the mechanical interface of the device
- 4 screws for fastening the stainless steel tube with flange from a mounting kit to the mechanical interface of the device
- 1 connecting terminal for the power supply
- 1 terminal block for the terminal strip in the connection compartment
- Documentation

Article number 6AV7675-1JD20-0AA0

### **Service pack 2, only in combination with the service manual**

The service pack 2 contains:

- 1 spare seal for the rear panel of the device
- 4 spare screws for the rear panel of the device
- 1 spare seal for the mechanical interface of the device
- 4 screws for fastening the stainless steel tube with flange from a mounting kit to the mechanical interface of the device
- 1 connecting terminal for the power supply
- Documentation

Article number 6AV7675-1JD21-0AA0

### Service pack 3, in connection with devices for support arm mounting

Service pack 3 contains:

- 1 spare seal for the connection compartment cover of the device
- 1 spare seal for the mechanical interface of the device
- 1 spare seal for support arm mounting
- 8 screws M5 x 20 mm for support arm mounting
- 6 screws for the connection compartment cover of the device
- 1 connecting terminal for the power supply
- 1 terminal block for the terminal strip in the connection compartment
- Documentation

Article number 6AV7675-1JD20-1AA0

### Service manual

A service manual that describes the following maintenance work is available for the IFP1900 INOX PRO:

- Replacing the seal of the rear panel
- Replacing defective operator controls in the device front
- Converting a device for stand mounting into a device for support arm mounting and vice versa



#### **WARNING**

**Opening the device and working on the opened device may only be carried out by qualified and correspondingly trained personnel**

The service manual describes, amongst other points, the opening of the device and working on the wiring or on electronic components in the inside of the device. Injuries or material damage may result if the work is not carried out correctly.

The work described in the service manual may only be carried out by qualified specialist personnel who have been trained correspondingly by Siemens.

The service manual is available online under "Product Support" next to this document in the same branch of the product tree.



# Safety instructions

## 2.1 Intended use

The IFP1900 INOX PRO touch screen front panel devices are designed to be used for high-performance visualization tasks (operator control and monitoring) and in ambient conditions such as those found in the food, beverage and pharmaceutical industries.

### **WARNING**

#### **Improper use can endanger safety.**

Improper use of the device endangers safety and can result in personal injury or damage to property.

Any use deviating from the intended use is not permitted.

Operate the device only in accordance with its intended use.

Also see the information in the section "Cleaning the device (Page 20)".

Particular attention has been paid during design of the HMI devices to ensure that the front panel is easy to clean and can be disinfected when needed. The devices with stainless steel front have therefore been developed according to DIN EN 1672-2 "Food Processing Machinery - Safety and Hygiene Requirements".

## 2.2 General safety instructions


### **WARNING**

#### **Performing a function test when installing the device in machines or systems**

Following the results of a risk analysis, additional protection equipment on the machine or the system is necessary to avoid endangering persons. In particular, the programming, parameter assignment and wiring of the inserted I/O must be executed in accordance with the safety performance identified by the necessary risk analysis (SIL, PL or Cat.). The intended use of the device has to be ensured.

The proper use of the device has to be verified with a function test on the system. These tests help you to identify programming, parameter assignment and wiring errors. The test results have to be recorded and, if necessary, entered into the safety verification documents.

## Defective touch screen

 <b>WARNING</b>
<b>Risk of explosion, personal injury or material damage in the case of a defective touch screen</b>
The application of excessive force to the device front can destroy the device touch screen, for example, piercing the front membrane or breaking the touch screen carrier plate. There is a risk of explosion, injury and food contamination with additional consequential and health damage.
Make sure that excessive force cannot be applied to the device front.
If the device touch screen is defective, decommission the affected machine immediately and replace the device at once. When replacing the device, please note the chapter "Repair (Page 24)".

## ESD



Electrostatically sensitive components include almost all electrical, electronic, optoelectronic and electromechanical components. These components are sensitive to overvoltage for technical reasons and their function may be impaired or destroyed by electrostatic discharge. Observe the regulations governing the handling of ESD components.

## Industrial Security

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial security concept. Siemens' products and solutions constitute one element of such a concept.

Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place.

For additional information on industrial security measures that may be implemented, please visit (<http://www.siemens.com/industrialsecurity>).

Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply latest updates may increase customer's exposure to cyber threats.

To stay informed about product updates, subscribe to the Siemens Industrial Security RSS Feed under (<https://www.siemens.com/cert>).

### Disclaimer for third-party software updates


This product includes third-party software. Siemens AG only provides a warranty for updates/patches of the third-party software, if these have been distributed as part of a Siemens software update service contract or officially released by Siemens AG. Otherwise, updates/patches are undertaken at your own risk. You can find more information about our Software Update Service offer on the Internet at Software Update Service (<http://www.automation.siemens.com/mcms/automation-software/en/software-update-service>).

### Notes on protecting administrator accounts

A user with administrator privileges has extensive access and manipulation options in the system.

Therefore, ensure there are adequate safeguards for protecting the administrator accounts to prevent unauthorized changes. To do this, use secure passwords and a standard user account for normal operation. Other measures, such as the use of security policies, should be applied as needed.

## 2.3 Notes about usage

 <b>CAUTION</b>
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<b>Safety-relevant mechanisms not visible or operable</b>
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Position the device in such a manner that safety-related mechanisms such as a mains isolation switch remain visible, accessible and operable.
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<b>NOTICE</b>
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<b>HMI device approved for indoor use only</b>
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The HMI device may be damaged if operated outdoors.
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Operate the HMI device indoors only ("Indoor use only").
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**Note**

**Operate the device only in a normal atmospheric environment**

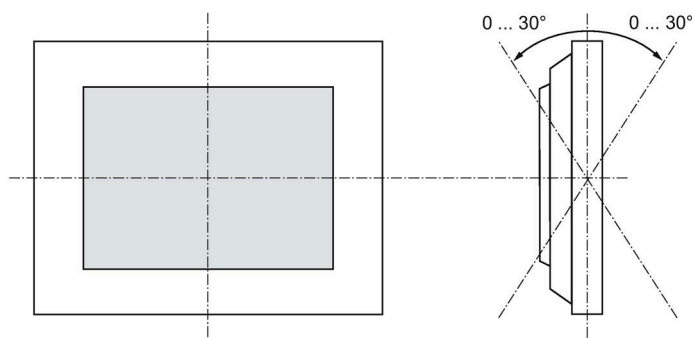
The technical characteristics of the device described in the operating instructions are guaranteed if you operate the device in normal ambient air conditions with usual air composition.

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## Installing the device

### 3.1 Permitted mounting positions

The device may only be operated in landscape format with a maximum inclination of  $\pm 30^\circ$  to the vertical.



Permissible ambient temperature: 0 ... 45 °C

### 3.2 Mounting and connecting the device

This section describes how to mount and connect the device correctly, using stand mounting as an example. Mounting on a support arm is carried out in the same way. All the work steps in this chapter have to be carried out sequentially for complete mounting of the device.

#### Requirement

- A stand with a mechanical interface suitable for the mechanical interface of the device; see section "Mechanical interface of the device (Page 29)".
- The following lines are routed through the stand:
  - Protective conductor, minimum cross-section of 2.5 mm<sup>2</sup>
  - Lines for the external power supply, voltage-free
  - Lines for the front operator controls
  - All required data lines
- Four hexagon screws M5 according to screw standard ISO 4017, material X5CrNi18-10

The length of the screws have to be dimensioned so that the penetration depth of the screw thread in the device-side flange lies in the range of 6 to 10 mm.

## Opening the connection compartment and installing the device

### Note

The device is fastened to a stand or a support arm via the mechanical interface with four screws.

Siemens AG assumes no liability for the consequences of a faulty installation.

### WARNING

#### **The device must be mounted securely**

Inadequately dimensioned fastening material may cause the device to fall down. Serious bodily injury may result.

Make sure that fasteners are adequately dimensioned during installation of the device. Make sure to consider the weight of the device and the forces acting on the device when dimensioning the fasteners. This applies in particular to dynamic load of the device.

Observe any further statutory specifications applying at the location of use of the device and further applicable regulations with regard to the fastening of the device.

### NOTICE

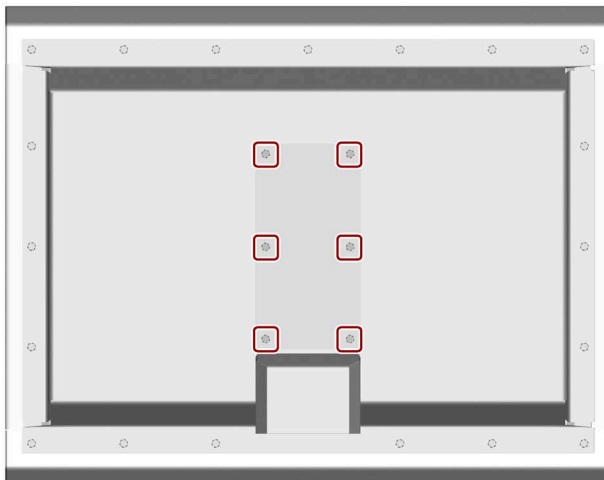
#### **Placing the device on its front can damage operator controls**

If you place the device on its front before or during the installation, the operator controls on the front can be damaged.

Place the device on a soft and elevated surface so that the front operator controls do not contact the working area and are not damaged.

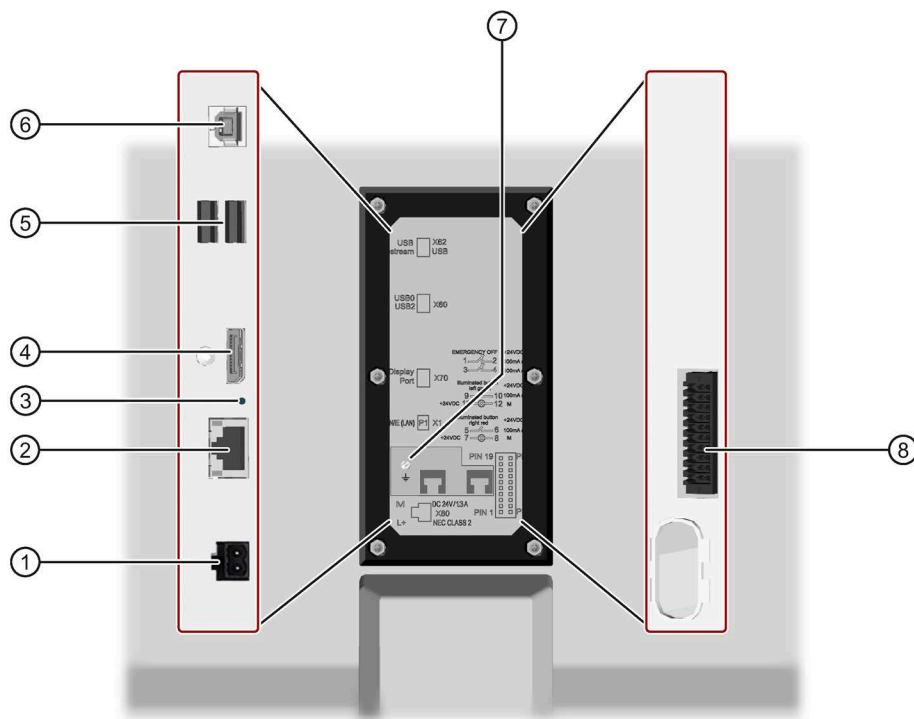
### Procedure

1. Open the connection compartment. To do so, remove the 6 screws on the device rear that are marked in the following figure and remove the connection compartment cover and associated seal.



2. Place the supplied seal for the mechanical interface with its smooth side onto the stand. Center the openings of the seal and of the mechanical interface of the stand.
3. Route the lines from the stand through the opening of the mechanical interface of the device into the connection compartment.
4. Place the mechanical interface of the device onto the mechanical interface of the stand. Take the following into account:
  - The seal has to lie exactly in the mechanical interface of the device.
  - The lines must not be squeezed. Hold the lines slightly tensioned while placing the device on the stand.
5. Fasten the device to the mechanical interface of the stand using the four M5 screws. Insert the screws from below through the mechanical interface and tighten the screws with a torque of 3.5 Nm. The degree of protection IP66 is only ensured with this torque. The device is mounted on the stand. The following steps describe the installation in the connection compartment.

The following figure shows the position of the interfaces.



- |   |  |
|---|--|
| ① Connection for the 24 V DC power supply | ⑤ USB 2.0 interfaces, high current   |
| ② Ethernet interface                      | ⑥ USB type B interface   |
| ③ Reset button                            | ⑦ Connection for protective conductor  |
| ④ DisplayPort interface                   | ⑧ Internal terminal strip, 20-pin<br>(only for devices with operator controls) |

## Connecting cables

### Note

#### Use copper cables on connectors with terminal connections

Use copper (Cu) cables for all supply lines that are connected to the device with terminals, e.g. 24 V DC power supply cables on the 24 V DC power supply connector.

Use only shielded standard cables as data connecting cables, order information is available on the Internet Industry Mall (<https://mall.industry.siemens.com>).

### Note

#### External interface cable

Lay external interface cables only indoors or up to a maximum length of 42.6 m outdoors.

## Connecting the device and closing the connection compartment

### Important notes on connecting

The protective conductor connection is needed to protect the device and helps ensure that interference signals generated by power lines, signal lines or lines to I/O devices are safely discharged to earth.

The protective conductor connection on the device must be connected to the protective conductor of the control cabinet or system in which the device is installed.

#### **WARNING**

##### **Electric shock and fire hazard when protective conductor is not connected**

High voltage may be present in a defective device, which can cause fire or an electric shock if touched. Death and serious bodily injury can result.

- Connect the device to the protective conductor before you put it into operation.
- Never operate the device without protective conductor.
- If a device is defective, remove it from operation without delay and label it accordingly.

#### **WARNING**

##### **Risk of fire and electric shock**

Risk of electric shock if the device is opened incorrectly or defective. There is also a risk of fire if the device or connecting lines are damaged.

You should therefore protect the device as follows:

- Always pull out the power plug when you are not using the device or if the device is defective. The power plug must be freely accessible.
- Connect the device to a protective conductor as instructed (see "Connecting the protective conductor").
- Use a central isolating switch in the case of cabinet installation.

#### **NOTICE**

##### **Safe electrical isolation**

The device may only be connected to a 24 V DC power supply that meets the requirements of a safe extra-low voltage (SELV) according to IEC/EN/DIN EN/UL 60950-1 or the requirements of a secure extra-low voltage (SELV/PELV) according to IEC 61131-2.

The power supply must meet the requirements of NEC Class 2 or LPS according to IEC/EN/DIN EN/UL 60950-1.

The supplying source must be fused for a power rating < 240 VA; recommended fuse rating  $\leq 8$  A.



**Procedure**

1. Connect the protective conductor to the protective conductor connection ⑥. The protective conductor connection is identified by the following symbol:

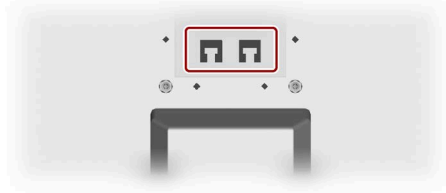


The following applies for devices with a protective earth symbol: The branch circuit which the protective conductor connection is connected to must be protected with a Branch Circuit Protective Device of 20 A.

The minimum cross-section of the protective conductor is 2.5 mm<sup>2</sup>.

The protective conductor connection is needed to protect the device and helps ensure that interference signals generated by power lines, signal lines or lines to I/O devices are safely discharged to earth.

2. Connect the lines for the power supply via the associated connecting terminal to the connection for the power supply ①.  
Pin assignment: 1=24 V DC, 2=Ground
3. Connect the connectors of the data lines to the corresponding interface.
4. Secure the data lines with cable ties to the fastening elements in the connection compartment that are marked in the following figure.



5. Place the seal of the connection compartment cover around the connection compartment. Ensure that the latches of the seal lie in the associated notches and that the seal lies flush on the device rear panel.
6. Fasten the connection compartment cover with 6 screws. Tighten the screws using a torque of 3.5 Nm.

### 3.3 Securing cables for use in hazardous areas

When devices with Ex approval are used in hazardous areas, note that the connectors must be secured in a captive manner at the interfaces.

#### **! WARNING**

##### **Explosion hazard from sparks when connectors come loose**

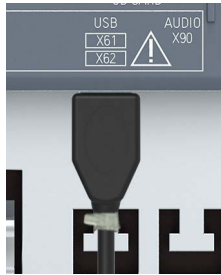
If a plug connector comes loose from the associated device interface during operation in a hazardous area, a spark over at the interface may cause an explosion. Death or serious physical injury as well as property damage may result.

For use in hazardous areas, it must be ensured that the plug connectors of the cables are fully connected to the respective interface and cannot come loose from the interfaces in any case. For SIMATIC HMI Comfort Panels, this risk only exists at the USB interfaces.

Secure all connected USB cables directly at the transition between connector and cable to the nearest mounting element using a cable tie. Tighten up all cable ties in such a way that they fully wrap around the respective cable but do not damage the cable.

For securing the connected USB cables, use the appropriate mounting elements, as described in the previous chapter.

The following figure shows an example of how to secure a USB connector in a captive manner.



## 3.4 Dismantling the device

The device is generally removed in the reverse order for mounting and connecting.

### Procedure

1. Close all open programs on the PC which is connected to the device.
2. Switch off power to the device.
3. When you use the device in a hazardous area, make sure that one of the two following requirements is met:
  - The area is no longer hazardous.
  - The device and its plug-in connections are de-energized.
4. Open the connection compartment by removing its cover.
5. If attached, remove all cable ties that were installed for tension relief of the connecting cables in the connection compartment.
6. Remove all plug-in connectors and the equipotential bonding cable.
7. Remove the device from the support arm or pedestal. Make sure that the connection cables are not damaged.
8. Fasten the connection compartment cover with 6 screws on the device, torque 3.5 Nm.

## Commissioning the device

If you operate the device exclusively as monitor and do not change the brightness, you do not need to commission the device. To use advanced functions of the device, perform the following commissioning.

### Requirement

- The device is mounted according to the Quick Install Guide.
- The device is connected according to the Quick Install Guide.

---

#### Note

The supplied connecting cables are only intended for commissioning and not for continuous operation.

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- DVD "Documentation and Drivers" or USB stick with a copy of the DVD

### Procedure

1. Switch on the IPC.
2. Switch on the power supply of the IFP1900 INOX PRO.
3. Insert the "Documentation and Drivers" DVD into the CD/DVD drive of the IPC. Alternatively, insert the USB stick with the copy of the DVD into a USB port on the device.
4. Follow the instructions for installation.

# Maintaining and repairing the device

## 5.1 General information on maintenance and servicing

Observe the following when servicing and repairing protective equipment e.g. such as ground circuits or overvoltage protection components:

- Observe the maintenance and replacement intervals.
- Replace system components, including external cables, fuses and batteries only with equivalent components approved by the respective manufacturer.


## 5.2 Cleaning

### 5.2.1 Cleaning the device

The device is designed for low-maintenance operation. However, it is still necessary to clean the device regularly.

Clean the entire device thoroughly:

- Before commissioning
- As required, depending on the degree of contamination
- At regular intervals (according to an internal cleaning plan)

 **CAUTION**

**Unwanted reactions when cleaning the device**

You risk unintentional actuation of operator controls if you clean the device while it is switched on.

You may possibly trigger unwanted actions of the device or controller that are liable to cause personal injury or damage to the machinery.

Always switch off the device before you clean it.

## Cleaning Agents

**NOTICE****Damage to the device due to impermissible cleaning agents**

Impermissible and unsuitable cleaning agents can cause damage the device.

Use dish soap or foaming screen cleaner only as cleaning agents.

Do not use aggressive solvents or scouring powder.

## Procedure

1. Switch off the device.
2. Dampen the cleaning cloth.
3. Spray the cleaning agent on the cloth and not directly on the device.
4. Clean the device with the cleaning cloth.

---

**Note****Cleaning methods**

In addition to the specifications in this section, the following applies for cleaning the device:

**Permitted:** Cleaning with strong jet water under increased pressure in accordance with DIN EN 60529:2014-09, specifications on "IP66".

**Not permitted:**

- Do not clean the device using aggressive cleaners or detergents, greasing or abrasive detergents, acids or caustic solutions, leather, scratching or rough rags and equipment. You can find additional information in the section "Chemical resistance (Page 22)".
  - Do not clean the device with chlorine or chloride, for example, active chlorine, with laser or ultrasonic equipment, or with dry ice.
  - You damage the operating front if you clean the device with high pressure equipment. Do not clean the device thermally, for example, using hot steam equipment, because this would inevitably damage the operating front and, in particular, the touch sensor system.
-

### 5.2.2 Clean screen

If you use the WinCC RT Advanced software in connection with the device, you can clean the touch screen of the device while it is switched on and the project running. An operating element must be available in the project that can be used to call the "clean" screen. Once the clean screen is activated, touch screen operation is locked for a configured period of time. The time the touch screen is locked can be set between 5 and 30 seconds. The time remaining for the lockout is indicated by a progress bar.

---

#### Note

##### Unintentional responses

When cleaning the touch screen, an unintentional response in the controller can be triggered by touching keys.

Always open the clean screen or switch off the device before you clean the touch screen while the system is running.

##### Cannot be operated when the clean screen is active

When the clean screen is active, operations on the device are not possible.

Wait for the period of the clean screen to lapse. Then you can operate the system again with the device.

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### 5.2.3 Chemical Resistance

#### Front membrane

The resistance of the front membrane to various chemicals has been tested to DIN 42 115, section 2. The front membrane is resistant to the chemicals listed below:

- Alcohol
- Diluted acids
- Diluted caustic solutions
- Ester
- Hydrocarbons
- Household cleaners

You can find information of chemical resistance on the Internet.

#### Seals

The seals made of FPM (fluorinated rubber) are approved for food according to FDA CFR21.177.2600 for use with dry, watery and fatty foods.

## 5.2.4 Working with stainless steel surfaces

### Resistance

Information on the resistance of stainless steel:

- The stainless steel surface is not fully resistant against the chemicals listed below:
  - Hydrochloric acid
  - Sulphuric acid
  - Sodium hydroxide
  - Chlorine
  - Chlorides

Do not clean the stainless steel surface with these chemicals or with similar acids or caustic solutions.

- Acid steam develops, for example, when tiles are cleaned with hydrochloric acid, and is also harmful to the stainless steel. If the stainless steel parts are unintentionally contaminated with hydrochloric acid, rinse these off immediately with plenty of water.
- Clean the stainless steel surface with a cleansing agent without active chlorine.

### Cleaning guidelines

Further information on stainless steel surfaces:

- The surface should be properly ventilated.
- Keep the surface clean. Remove cleaners and food residue immediately. Always avoid the return of food stuff splashes to the production process.
- If mechanical cleaning is necessary, do not use cleaning equipment made of metal.
  - Use brushes made of plastic or natural materials, or a microfiber pad.
  - Use plenty of water to clean the surface.
  - Make sure that the cleansing agent is completely removed without any residue.
- Make sure surface is not damaged: Do not damage the device during operation, or by cleaning or repairing it using hard tools, in particular tools made of corrodible materials.
- Make sure that the surface does not come into contact with rusted parts.

This includes water pipes, filings, residue from wire brushes or steel wool. These, as well as rust films have a corrosive effect on parts made of stainless steel.

- Remove any stains or rust immediately.
- Remove new rust spots with a mild abrasive detergent in order to prevent any further corrosion.
- Rinse the part thoroughly after you cleaned it.

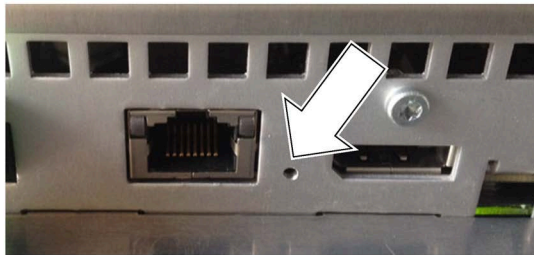
## 5.3 Resetting the device to factory settings

The reset button is used to reset the device to factory settings, for example, when the IFP1900 INOX PRO can no longer communicate with the IPC for a longer period.

During the reset to factory settings, the IP address of the IFP1900 INOX PRO, for example, is reset to the default value "192.168.1.2".

### Procedure

1. Switch off the device's power supply.
2. Press the reset button with a suitable tool and keep the reset button pressed.



3. Switch on the device's power supply and keep the reset button pressed for an additional 10 seconds.

During this the two LAN LEDs are deactivated briefly.

## 5.4 Repair

In case of repair, the device must be shipped to the Return Center in Erlangen. Repairs may only be carried out at the Return Center in Erlangen.

The device described in this document is covered by the conditions of repair and return of equipment, as follows:

1. You return the defective device to the returned goods center. The address is:  
Siemens AG  
Digital Factory Retouren-Center  
c/o Geis Service GmbH, Tor 1-4  
Kraftwerkstraße 25a  
91056 Erlangen  
Germany
2. After it has been repaired, the device is returned to you. A new device will not be supplied in exchange.

Depending on the work necessary to repair the device, the Center may decide to give you a credit note. In this case, it is your responsibility to order a new device.

For additional information, refer to the Internet at Spare parts and repairs (<http://support.automation.siemens.com/WW/view/en/16611927>).



# Specifications

## 6.1 Certificates and approvals

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**Note**

This section lists the certificates and approvals possible for the device.

Only those approvals specified on the rear of your device apply to your device.

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A copy of the certificates can be requested from the following address:

Siemens AG  
Digital Factory  
Factory Automation  
DF FA SE R&D  
Breslauer Str. 5  
DE-90766 Fürth

### DIN ISO 9001 certificate

The Siemens quality management system for all production processes (development, production and sales) meets the requirements of DIN ISO 9001:2000.

This has been certified by DQS (the German society for the certification of quality management systems).

Certificate registration no. DE-000656 QM08

### Software license agreements

If the device is supplied with preinstalled software, you must observe the corresponding license agreements.

### UL approval



Underwriters Laboratories Inc. (UL) in accordance with

- UL508 (Industrial Control Equipment) and
- CSA C22.2 No.142 (Process Control Equipment)

**ATEX/IECEx approval**

**Notes on use in hazardous areas**

Observe the following FAQ regarding the use of an HMI device in hazardous areas: ATEX-FAQ (<https://support.industry.siemens.com/cs/ww/en/view/291285>)

When using the device in hazardous areas, ensure that all plugs connected to the device are secured in a captive manner, see section "Securing cables for use in hazardous areas (Page 17)".


You can find more information about explosion protection, EC/EU declarations of conformity and other certificates on the Internet at the following address:

Certificates for Flat Panels (<https://support.industry.siemens.com/cs/ww/en/ps/24423/cert>)

**ATEX approval**

For an HMI device with "Ex" marking, the following approvals apply according to the following standards.


- Standards:
  - EN IEC 60079-0:2018
  - EN IEC 60079-7:2015 +A1:2018
  - EN 60079-31:2014
- Approvals:

	II 3 G	Ex ec IIC T4 Gc
	II 3 D	Ex tc IIIC T70°C Dc

**IECEx approval**

For an HMI device with "IECEx" marking, the following approvals apply according to the following standards.

- Standards:
  - IEC 60079-0:2017
  - IEC 60079-7:2017
  - IEC 60079-31:2013
- Approvals:

	Ex ec IIC T4 Gc
	Ex tc IIIC T70°C Dc

**CCCEX approval**

The following approvals according to the following standards are valid for a device with the "CCC" marking.

- Standards:
  - GB 3836.1 (Explosive atmospheres - Part 1: Equipment - General requirements)
  - GB 3836.8 (Explosive atmospheres - Part 8: Device protection through type of protection "n")
  - GB 12476.1 (Electrical apparatus for use in the presence of combustible dust -Part 1: General requirements)
  - GB 12476.5 (Electrical apparatus for use in the presence of combustible dust - Part 5: Protection by enclosures "tD")
- Approvals:
  - Ex nA IIC T4 Gc
  - Ex tD A22 IP66 T70°C

**Special conditions for safe operation**

- The SIMATIC PRO device including the top of the adapter provides a degree of protection of at least IP65.  
The bottom of the adapter must be installed with a certified enclosure that ensures a degree of protection of at least IP54 in accordance with GB 3836.8 for Group II, IP54 in accordance with GB 12476.1 & GB 12476.5 for Zone 22 non-conductive dust environment and IP6X in accordance with GB 12476.1 & GB 12476.5 for Zone 22 conductive dust environment.  
During use, make allowances for the ambient conditions.
- The equipment shall be installed in such a way that the risk of mechanical danger is low.
- To avoid an electrostatic charge, wipe the enclosure surface with a damp cloth only.
- When used in an area requiring the use of equipment with EPL Gc, the following additional conditions apply:
  - The equipment shall only be used in an area of not more than pollution degree 2, as defined in GB/T 16935.1.
  - Provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 119 V.

**6.2 Guidelines and declarations****Notes on CE marking**

This product meets the requirements and safety objectives of the EMC directive 2014/30/EU (EMC Directive), and is designed for operation in the following fields of application according to this CE marking:

Field of application	Requirement for emissions	Requirement for interference immunity
Industrial area	EN 61000-6-4:2007 +A1:2011	EN 61000-6-2:2005

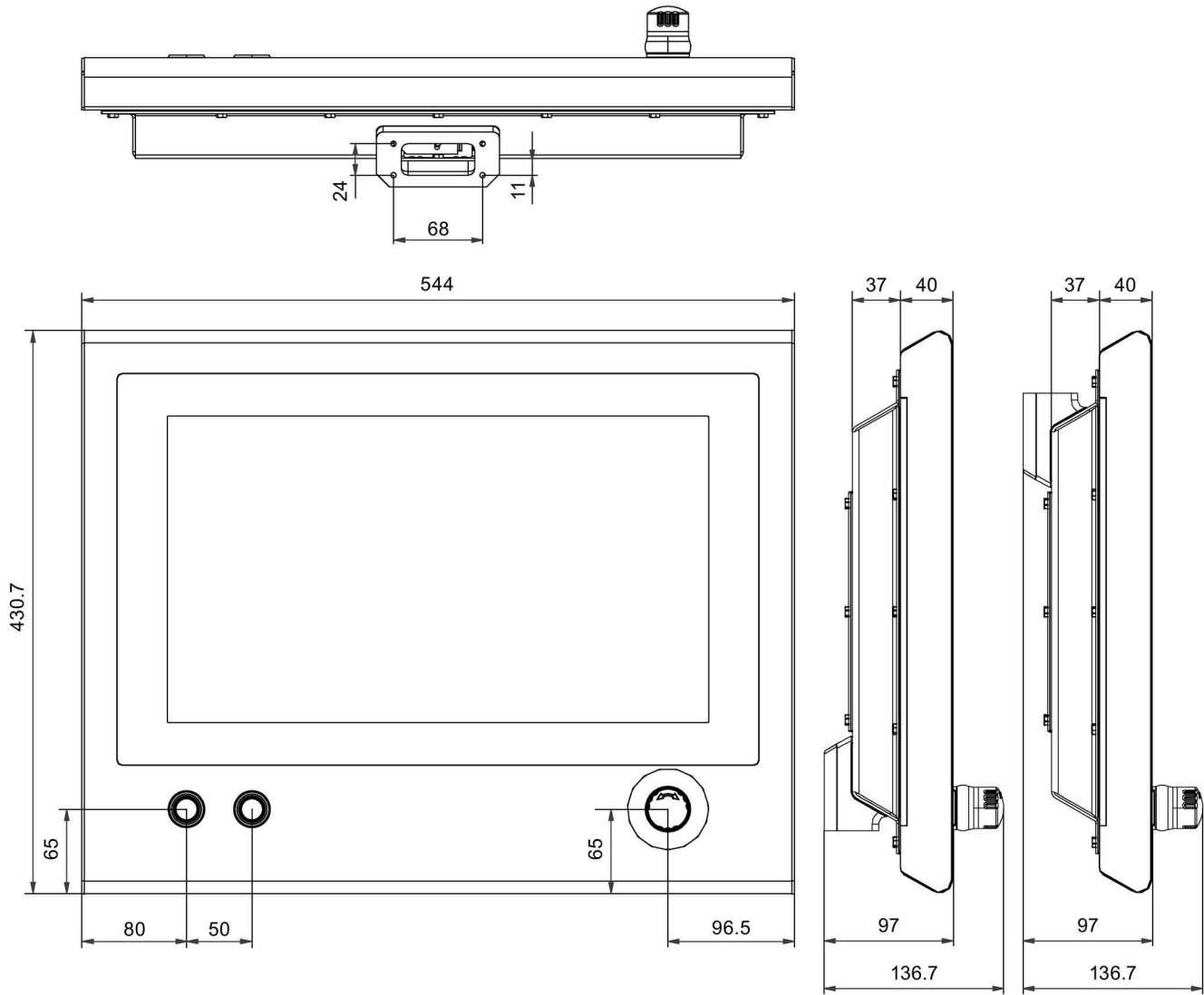
In addition, the device meets the requirements of the following directive:

- ErP Directive (EU) 2019/2021 "Commission Regulation laying down ecodesign requirements for electronic displays pursuant to Directive 2009/125/EC of the European Parliament and of the Council, amending Commission Regulation (EC) No 1275/2008 and repealing Commission Regulation (EC) No 642/2009"

### 6.3 Dimension drawings

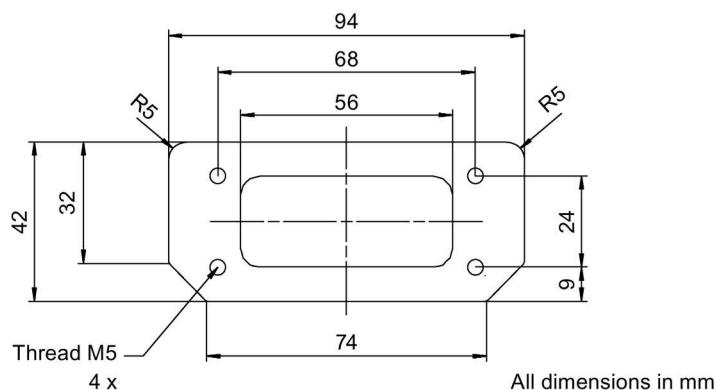
#### 6.3.1 IFP1900 INOX PRO

The figures below show the dimension drawings using a device with operator controls and stand mounting as an example.



All dimensions in mm.

### 6.3.2 Mechanical interface of the device



## 6.4 Technical specifications

### 6.4.1 General technical specifications

Weight	Approx. 15 kg
Quality assurance	In accordance with ISO 9001

### DC power supply

	IFP1900 INOX PRO
Rated voltage <sup>1</sup>	24 V DC
Permitted voltage range	+19.2 V to +28.8 V
Rated current	2.0 A
Inrush current I <sup>2</sup> t	0.5 A <sup>2</sup> s
Power consumption <sup>2</sup>	40 W
Maximum permitted transients	35 V (500 ms)
Minimum time between two transients	50 s
Internal protection	Electronic

<sup>1</sup> The generation of the supply voltage with the line-side power supply must be realized as safety extra-low voltage with safe electrical isolation, isolated as SELV according to IEC/UL/EN/DIN-EN 60950-1.

<sup>2</sup> The power loss generally corresponds to the specified value for power consumption.

### Electromagnetic compatibility

Emission standard	EN 61000-6-4; CISPR 22:2010 Class A; FCC Class A
Immunity with regard to conducted interference on the supply lines	± 2 kV in accordance with IEC 61000-4-4; burst ± 1 kV in accordance with IEC 61000-4-5; symmetrical surge ± 2 kV in accordance with IEC 61000-4-5; asymmetrical surge
Noise immunity on signal lines	± 2 kV in accordance with IEC 61000-4-4; burst; length > 3 m ± 2 kV in accordance with IEC 61000-4-5; symmetrical surge, length > 30 m
Immunity to electrostatic discharge	± 6 kV contact discharge in accordance with IEC 61000-4-2 ± 8 kV air discharge in accordance with IEC 61000-4-2
Immunity to RF interference	10 V/m, 80 to 2000 MHz 80% AM according to IEC 61000-4-3 3 V/m, 2 to 2.7 GHz 10 V, 9 kHz to 80 MHz according to IEC 61000-4-6
Immunity to magnetic fields	100 A/m, 50/60 Hz according to IEC 61000-4-8

### Graphics

Display, resolution	19" diagonal with backlighting, resolution 1366 x 768 pixels
Touch controller	Resistive Semtech controller ELO CTR-2216SU-AT-CHP-00 Touch screen analog resistive Touch force with test pen; 2 mm diameter: 5 N
Backlighting (MTBF) Half brightness life time, typical	LED Min. 50000 h at 50 °C, 50% brightness
Pixel error class in accordance with ISO 9241-307	I

### Interfaces

USB	2 × USB 2.0, high current
LAN interface X1 P1, RJ45	Intel distance connection via Gigabit Ethernet; 10, 100, 1000 Mbps
Keyboard, mouse	Connection via USB interface

## 6.4.2 Environmental conditions

### Climatic ambient conditions

Temperature, tested in accordance with IEC 60068-2-1, IEC 60068-2-2	
• Temperature gradient in operation	Max. 10 °C/h, no condensation
• Ambient temperature in operation	0 to 45 °C
• Temperature during storage/ transport	-20 to +60 °C
• Storage/transport, gradient	Max. 20 °C/h, no condensation
Relative humidity, tested in accordance with IEC 60068-2-78, IEC 60068-2-30	
• Operation	5 to 85% at 30 °C, no condensation
• Storage/transport	5 to 95% at 25/55 °C, no condensation
Air pressure, in accordance with IEC 60068-2-13	
• Operation	1140 to 795 hPa, corresponds to an elevation of -1000 to 2000 m
• Storage/transport	1140 to 660 hPa, corresponds to an elevation of -1000 to 3500 m

### Mechanical ambient conditions

Vibration, tested according to IEC 60068-2-6	
• Operation	10 to 58 Hz: 0.15 mm 58 to 500 Hz: 10 m/s <sup>2</sup> , 10 cycles
• Storage/transport	5 to 8.5 Hz: 7 mm 8.5 to 500 Hz: 10 m/s <sup>2</sup>
Shock resistance, tested in accordance with IEC 60068-2-27, IEC 60068-2-29	
• Operation	150 m/s <sup>2</sup> , 11 ms, 100 shocks per axis
• Storage/transport	250 m/s <sup>2</sup> , 6 ms, 1000 shocks per axis

### Protection against foreign objects and water

The device meets the requirements according to IEC 60529 and UL50.

Degree of protection	Explanation
All-round	When mounted: <ul style="list-style-type: none"> <li>• IP66 according to IEC 60529</li> <li>• Enclosure Type 4X (indoor use only) according to UL50</li> </ul>

The degrees of protection can only be guaranteed if the seals are completely flush at the mechanical interfaces and the associated covers are closed.

The IP66 degree of protection is not covered by the UL approval and was not tested as part of the UL approval.

6.5 Description of the interfaces

Degree of pollution / overvoltage category according to IEC 61131

- Degree of pollution 2
- Overvoltage category II

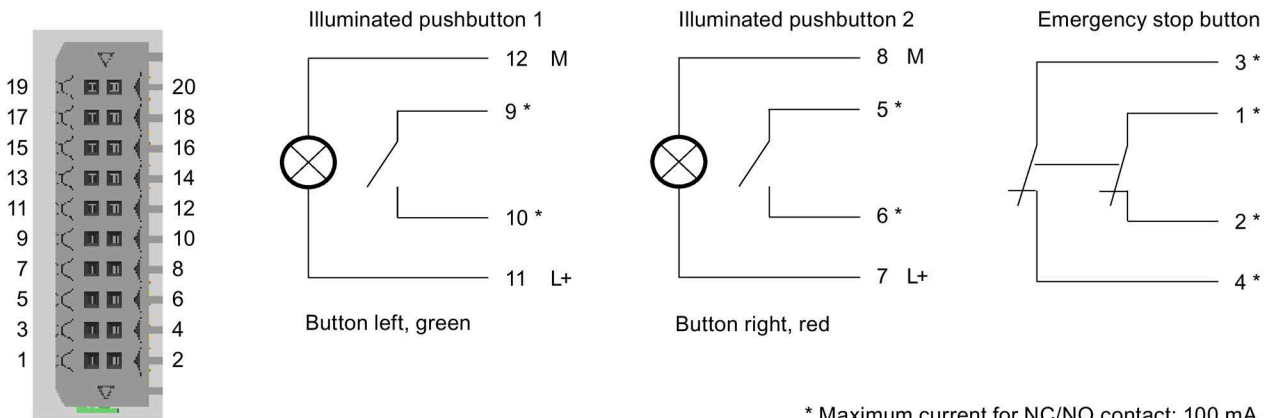
## 6.5 Description of the interfaces

### 6.5.1 Pin assignment of the internal terminal strip

This section applies to devices with operator controls.

The figure below shows the pin assignment of the internal 20-pin terminal strip.

- Pins 1 to 12 are wired with the front operator controls.
- Pins 13 to 20 are not assigned.



\* Maximum current for NC/NO contact: 100 mA  
Voltage: 24 V DC



# Technical support

## A.1 Service and support

You can find additional information and support for the products described on the Internet at the following addresses:

- Technical support (<https://support.industry.siemens.com>)
- Support request form (<http://www.siemens.com/automation/support-request>)
- After Sales Information System SIMATIC IPC/PG (<http://www.siemens.com/asis>)
- SIMATIC Documentation Collection (<http://www.siemens.com/simatic-tech-doku-portal>)
- Your local representative (<http://www.automation.siemens.com/mcms/aspa-db/en/Pages/default.aspx>)
- Training center (<http://sitrain.automation.siemens.com/sitrainworld/?AppLang=en>)
- Industry Mall (<https://mall.industry.siemens.com>)

When contacting your local representative or Technical Support, please have the following information at hand:

- MLFB of the device
- BIOS version for industrial PC or image version of the device
- Other installed hardware
- Other installed software

## Tools & downloads

Please check regularly if updates and hotfixes are available for download to your device. The download area is available on the Internet at the following link:

After Sales Information System SIMATIC IPC/PG (<http://www.siemens.com/asis>)

