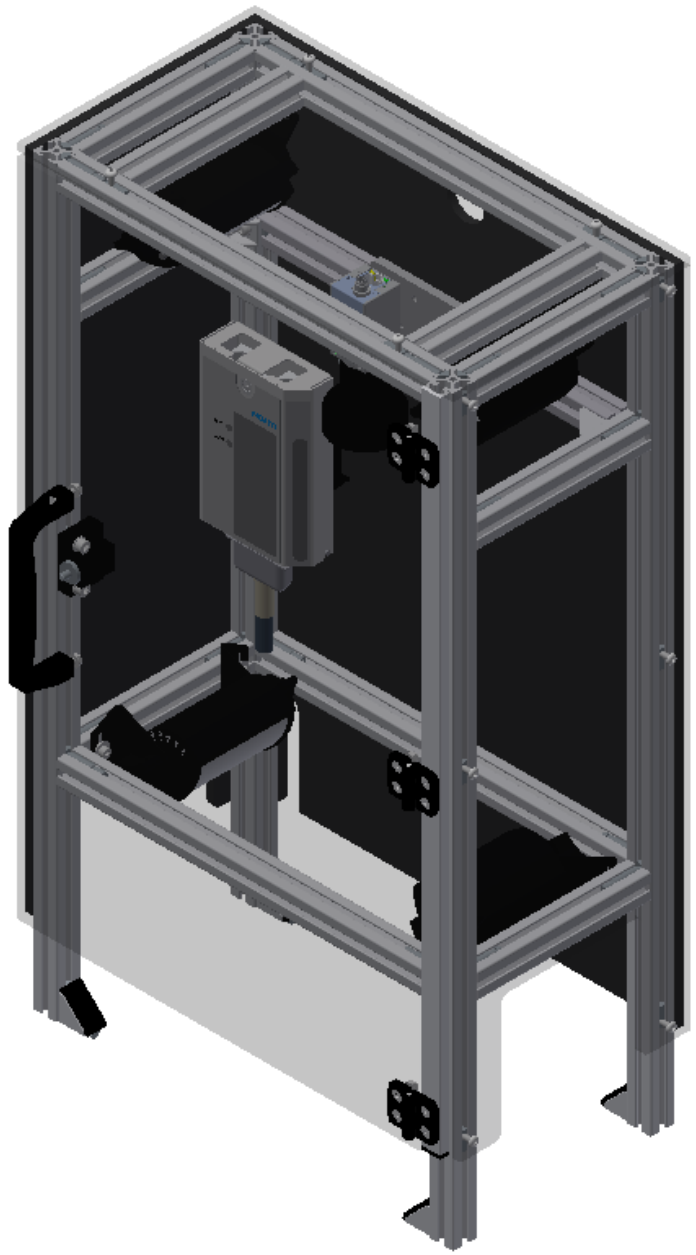
8032511

Camera inspection

FESTO

CP Factory/CP Lab

Translation of the original operating instructions



Festo Didactic
8032511 en
11/2020

Order number: 8032511
Revision Level: 11/2020
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Layout: Frank Ebel
File Name: CP-AM-CAM-GB-Festo-A005.doc

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Translation of the original instructions

Where only pronouns such as he and him are used in these operating instructions, these pronouns are of course intended to refer to both male and female persons. The use of a single gender (e.g. he, him) should not be construed as gender discrimination; it is intended solely to make the manual easier to read and the formulations easier to understand.

CAUTION

These operating instructions must be available to the user at all times.
The operating instructions must be read before commissioning.
The safety instructions must be observed.
Non-observance may result in severe personal injury or damage to property.

Main document
Associated documents attached:

Safety instructions concerning transport (print/electronic)
Component datasheets (print/electronic)
Circuit diagram (print/electronic)

Contents

1 Safety instructions

1.1 Warning notice system

These operating instructions contain notes that must be observed for your personal safety and in order to prevent property damage. The notes concerning your personal safety are indicated by a safety symbol. Notes that only concern property damage are not indicated by a safety symbol.
The notes below are listed in order of hazard level.

DANGER

... indicates an **imminently** hazardous situation that will result in fatal or severe personal injury if not avoided.

WARNING

... indicates a **potentially** hazardous situation which may result in fatal or severe personal injury if not avoided.

CAUTION

... indicates a **potentially** hazardous situation that may result in moderate or slight personal injury or severe property damage if not avoided.

NOTE

... indicates a **potentially** hazardous situation that may result in property damage or loss of function if not avoided.

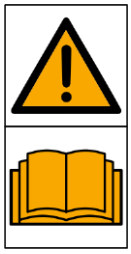
In cases where more than one hazard level applies, the safety note with the highest hazard level will be shown. A safety note may concern both personal injury and property damage.
Hazards that will only result in property damage are indicated with the word "Note".

1.2 Pictograms

This document and the hardware described in it include warnings concerning possible hazards which may arise if the system is used incorrectly.
The following pictograms are used:

Hazard warning

Warning - dangerous electric voltage



Read and observe the operating and safety instructions prior to commissioning.

Switch off the device and unplug the connection for power supply from the plug socket before commencing installation, repair, maintenance or cleaning work.

Warning – optical radiation

Warning – hand injuries

Warning – lifting heavy loads

Information and/or references to other documentation

1.3 General prerequisites for installing the product

- Festo Didactic products must only be used for the applications specified in their respective operating instructions. Products or components supplied by other manufacturers must only be used if recommended or approved by Festo.
- The products must be transported, stored, installed, assembled, commissioned, operated and maintained properly in order to ensure their safe operation.
- The approved ambient conditions must be observed. The specifications in the relevant operating instructions must be observed.
- The safety equipment must be tested every working day.
- Connecting cables must be checked for damage before each use. In case of damage, they must be replaced.

Connecting cables must correspond to the minimum specifications.

1.4 General prerequisites for operating the devices

General requirements for safe operation of the system:

- In industrial facilities, the national accident prevention regulations must be observed.
- The laboratory or classroom must be overseen by a supervisor.
  – A supervisor is a qualified electrician or a person who has been trained in electrical engineering, knows the respective safety requirements and safety regulations, and whose training has been documented accordingly.

The laboratory or the classroom must be equipped with the following devices:

- An emergency-off device must be provided.
  – At least one emergency-off device must be located inside the laboratory or the classroom, and at least one outside it.
- The laboratory or classroom must be secured so that the operating voltage and compressed air supply cannot be activated by any unauthorized persons, for example by means of:
  – e.g. a keyswitch
  – e.g. lockable shut off valves
- The laboratory or classroom must be protected by residual current devices (RCDs).
  – RCDs with a differential current of ≤ 30 mA, Type B. When operating machinery with unavoidable leakage current, suitable measures must be implemented and documented in the corresponding workplace risk assessment.
- The laboratory or classroom must be protected by overcurrent protection devices.
  – Fuses or circuit breakers
- Devices must not be used if they are damaged or defective.
  – Damaged devices must be barred from further use and removed from the laboratory or classroom.
  – Damaged connecting cables, pneumatic tubing and hydraulic hoses represent a safety risk and must be removed from the laboratory or classroom.
- Safety devices must be checked every working day to ensure that they are fully functional.
- Connecting cables and accessories must be checked for damage before each use.

2 Intended use

Festo Didactic systems and components must only be used:

- For their intended use in teaching and training applications
- When their safety functions are in perfect condition

The components and systems are designed in accordance with the latest technology and recognized safety rules. However, life and limb of the user and third parties may be endangered and the components may be impaired if they are used incorrectly.

The Festo Didactic learning system has been developed and produced exclusively for education and training in the field of automation technology. The training company and/or trainers must ensure that all trainees observe the safety precautions described in these operating instructions.

Training with complex machinery is a highly hazardous activity. The operating company must draw up and document a workplace risk assessment. The trainees must be briefed on all the relevant safety aspects before work commences.

Festo Didactic hereby excludes any and all liability for damages suffered by apprentices, the training company and/or any third parties, which occur during use of the device in situations which serve any purpose other than training and/or vocational education, unless such damages have been caused by Festo Didactic due to malicious intent or gross negligence.

All extensions and accessories must be approved by Festo Didactic, and are only permitted for use for their intended purpose.

The machine fulfils the requirements of the European directives that applied when it was commissioned. Any modification to the machine shall render the manufacturer's CE Declaration of Conformity null and void. The CE Declaration of Conformity must be renewed following each major modification.

3 For your safety

3.1 Important information

Knowledge of the basic safety instructions and safety regulations is a fundamental prerequisite for safe handling and trouble-free operation of Festo Didactic components and systems.

These operating instructions include the most important instructions for safe use of the components and systems. In particular, the safety instructions must be adhered to by all persons who work with these components and systems. Furthermore, all pertinent accident prevention rules and regulations that are applicable at the respective place of use must be adhered to.

WARNING

- **Malfunctions which could impair safety must be eliminated immediately!**

CAUTION

- **Improper repairs or modifications may result in unforeseeable operating statuses. Do not carry out any repair or alternation work on components or systems that is not described in these operating instructions.**

3.2 Qualified persons

- The product described in these operating instructions is only permitted for operation by persons who are qualified for the task in question in accordance with the operating instructions, especially the safety instructions.
- Qualified persons are defined as persons whose training and experience enables them to recognize risks and avoid potential dangers when working with this product.

3.3 Obligations of the operating company

It is the responsibility of the operating company to ensure that the station is operated safely.

The operating company undertakes to allow only those persons to work with the components and systems who:

- Are familiar with the basic regulations regarding occupational safety, with the safety instructions, and with the accident prevention regulations, and who have been instructed in the use of the components and systems
- Have read and understood the safety chapter and warnings in these operating instructions
- Are qualified to operate the components and systems in question
- Are governed by and trained in suitable organizational measures to ensure safe training

Personnel should be tested at regular intervals to ensure that they are safety-conscious in their work habits.

3.4 Obligations of the trainees

All persons who have been entrusted to work with the components and systems undertake to complete the following steps before beginning work:

- Read the chapter concerning safety and the warnings in these operating instructions
- Familiarize themselves with the basic regulations regarding occupational safety and accident prevention

4 Basic safety instructions

4.1 General information

CAUTION

- **Trainees must be supervised by an instructor at all times when working with the components and systems.**
- **Observe the specifications included in the technical data for the individual components, and in particular all the safety instructions!**
- **Wear your personal protective equipment (safety goggles, safety shoes).**
- **Never leave objects lying on the top of protective enclosures. Vibrations could cause such objects to fall off.**

4.2 Mechanical components

WARNING

- **Switch off the power supply!**
  - Switch off both the operating power and the control power before commencing work on the circuit.
  - Never reach into the setup unless it is at a complete standstill.
  - Be aware of potential overtravel times for the actuators.
- **Risk of injury during troubleshooting!**
  - Use a tool such as a screwdriver for actuating sensors.

CAUTION

- **Risk of burns due to hot surfaces**
  - Devices can reach high temperatures during operation, as a result of which they can cause burns if touched.
- **Measures to take when maintenance is required.**
  - Allow the device to cool off before commencing work.
  - Use suitable personal protective clothing, e.g. safety safety gloves.

4.3 Electrical components

WARNING

- **Disconnect from all sources of electrical power!**
  - Switch off the power supply before working on the circuit.
  - Please note that electrical energy may be stored in individual components. Further information on this issue is available in the datasheets and operating instructions included with the components.
  - **Warning!**
    Capacitors inside the device may still be charged even after being disconnected from all sources of voltage.
- **Danger due to malfunction**
  - Never place or leave liquids (e.g. drinks) on the station in open containers.
  - The machine must not be switched on if there is condensation (moisture) on its surface.
  - Never lay pipes/hoses designed to carry liquid media near the machine.
- **Electric shock due to connection to unsuitable power supply!**
  - When devices are connected to an unsuitable power supply, exposed components can cause dangerous electrical voltage that can lead to severe or fatal injury.
  - Always use power supplies that provide SELV (safety extra-low voltage) or PELV (protective extra-low voltage) output voltages for all the connections and terminals on the electronics modules.
- **Electric shock when there is no protective grounding in place**
  - If there is no protective grounding terminal in place for a Protection Class I device, or if the protective grounding terminal has not been installed correctly, exposed, conductive parts may carry high voltages, thus causing severe or fatal injury if touched.
  - Ground the device in accordance with the applicable regulations.

WARNING

- **Risk of fire due to use of unsuitable power supply**
  - If a device i connected to an unsuitable power supply, this can cause components to overheat, leading to a breakout of fire.
  - Always use limited power supplies (LPSs) for all the connections and terminals on the electronics modules.

⚠ CAUTION

- **Always ensure that your connecting cables are designed for use with the electrical connections in question.**
- **When laying connecting cables, make sure they are not kinked, sheared or pinched. Cables laid on the floor must be covered with a cable bridge to protect them.**
- **Do not lay cables over hot surfaces.**
  - Hot surfaces are identified with a corresponding warning symbol.
- **Make sure that connecting cables are not subjected to continuous tensile loads.**
- **Devices with a grounding terminal must always be grounded.**
  - If a ground connection (green-yellow laboratory socket) is available, it must always be connected to the protective grounding. The protective grounding must always be connected first (before voltage) and disconnected last (after disconnecting the voltage).
  - Some devices have high leakage current. These devices must be fitted with a grounding conductor for additional grounding.
- **When replacing fuses, always use specified fuses with the correct current rating and tripping characteristics.**
- **The device is not equipped with a built-in fuse unless otherwise specified in the technical data.**
- **Safe operation of the device is not possible in the event of any of the following circumstances:**
  - Visible damage
  - Malfunction
  - Inappropriate storage
  - Incorrect transport

  Switch off the power supply immediately.
- **Protect the device to prevent it from being restarted accidentally.**

4.4 Guarantee and liability for application examples

The application examples are not legally binding, and we cannot guarantee their completeness in terms of their configuration, their equipment or any events that may occur. The application examples are not representations of any specific customer solution; they are merely intended to illustrate typical tasks for which the product in question could be used. You bear the responsibility for ensuring that the products described here are operated properly. These application examples do not in any way relieve you of your responsibility to ensure that the system is handled safely when it is being used, installed, operated or maintained.

4.5 Cyber security

Note

Festo Didactic offers products with industrial security functions that aid the safe operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks from cyber threats, a comprehensive industrial security concept must be implemented and continuously updated. Festo's products and services only constitute one part of such a concept.

The customer is responsible for preventing unauthorized access to their plants, systems, machines and networks. Systems, machines and components should only be connected to a company's network or the Internet if and as necessary, and only when the suitable security measures (e.g. firewalls and network segmentation) are in place. Furthermore, Festo's guidelines on suitable security measures should be observed. Festo products and solutions are constantly being developed further in order to make them more secure. Festo strongly recommends that customers install product updates as soon as they become available and always use the latest versions of its products. Any use of product versions that are no longer supported or any failure to install the latest updates may render the customer vulnerable to cyber attacks.

WARNING

- **Unsecure operating conditions due to software tampering**
  - Forms of software tampering (e.g. viruses, Trojans, malware and worms) can lead to unsecure operating conditions in your system, which may in turn lead to severe or fatal injury or property damage.
  - Keep your software up to date.
  - Integrate the automation and actuator components into an overarching and comprehensive industrial security concept for the installation or machine in question that is in line with the latest technological developments.
  - Make sure that all the products you have installed are incorporated into your overarching industrial security concept.
  - Use suitable measures, such as a virus scanner, to protect files save on exchangeable storage media from malware.

4.6 Additional safety instructions

General requirements for safe operation of the devices:

- Do not lay cables over hot surfaces.
  - Hot surfaces are identified with a corresponding warning symbol.
- Maximum permissible current loads for connector cables and devices must not be exceeded.
  - Always compare the current ratings of the device, the cable and the fuse to ensure that they match.
  - If they do not match, use a separate upstream fuse in order to provide appropriate overcurrent protection.
- Devices with a grounding terminal must always be grounded.
  - If a ground terminal (green-yellow laboratory socket) is available, it must always be connected to protective ground. The protective grounding must always be connected first (before voltage) and disconnected last (after disconnecting the voltage).
- The device is not equipped with a built-in circuit unless otherwise specified in the technical data.

WARNING

- **This product is designed for use in industrial environments, and may cause malfunctions if used in domestic or small commercial environments.**

4.7 Guarantee and liability

Our General Terms and Conditions of Sale and Delivery shall apply at all times. These shall be made available to the operating company no later than upon conclusion of the sales contract. Guarantee and liability claims resulting from personal injury and/or property damage are excluded if they can be traced back to one or more of the following causes:

- Use of the equipment for purposes other than its intended use
- Improper installation, commissioning, operation or maintenance of the system
- Operation of the system with defective safety equipment, or with improperly attached or non-functional safety equipment and protective guards
- Non-compliance with directions included in the operating instructions with regard to transport, storage, installation, commissioning, operation, maintenance and setup of the system
- Unauthorized modifications to the system
- Improperly executed repairs
- Disasters resulting from the influence of foreign bodies and acts of God
- Dust generated during construction work must be kept away from the system (use coverings).
  See the Environmental Requirements section (contamination level) for more details.

4.8 Transport

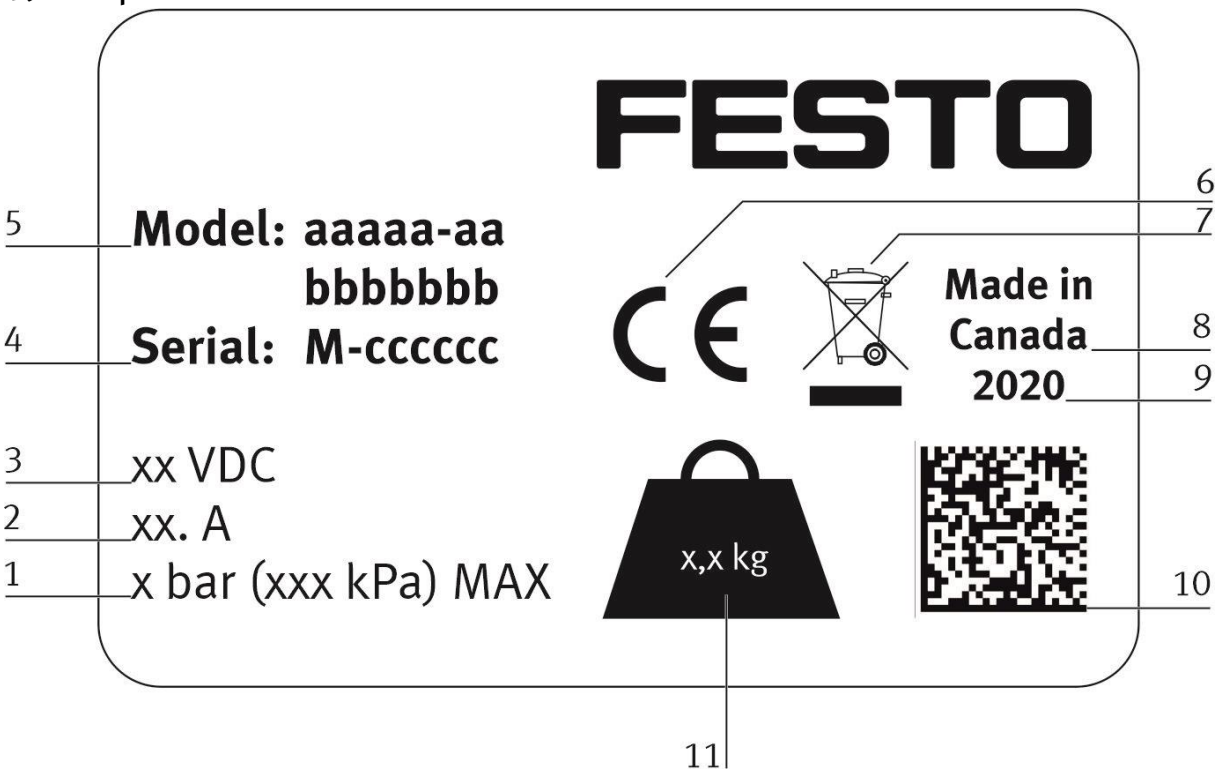
WARNING

- **Danger due to tipping over**
  - Suitable packaging and transport equipment must be used when transporting the station. The station can be lifted from underneath using a forklift truck. Please note that eccentric centers of gravity can cause the station to tip over.
  - Stations with attachments at height will have a high center of gravity.
  - Take care to avoid tipping over during transportation.

NOTE

- **Station contains delicate components!**
  - Take care not to shake during transportation
- **The station is only permitted for installation on solid, non-vibrating surfaces.**
  - Make sure that the ground underneath the station has sufficient load-bearing capacity.

4.9 Name plates



Name plate example

Position	Description
1	Maximum pressure pneumatic (if available)
2	current consumption
3	Operating voltage
4	Serial number
5	Type number (Ordernumber) aaaaa-aa (canadian nomenclature) bbbbbbbb (german nomenclature)
6	CE idenification
7	WEEE identification
8	Country of origin
9	Production year
10	Data Matrix Code (Type-and serial number)
11	Weight

4.10 CE Declaration of Conformity

FESTO

8101137
2018-10-17

(DE) Die alleinige Verantwortung für die Ausstellung dieser Konformitätserklärung trägt der Hersteller. Der beschriebene Gegenstand der Erklärung erfüllt die einschlägigen Harmonisierungsrechtsvorschriften der Union.

(EN) This declaration of conformity is issued under the sole responsibility of the manufacturer. The object of the declaration described is in conformity with the relevant Union harmonisation legislation.

(BG) Настоящата декларация за съответствие е издадена на отговорността на производителя. Предметът на описаната декларация отговаря на съответното законодателство на Съюза за хармонизация.

(CS) Toto prohlášení o shodě se vydává na výhradní odpovědnost výrobce. Popsaný předmět prohlášení je ve shodě s příslušnými harmonizačními právními před-pisy Unie.

(DA) Denne overensstemmelseserklæring udstedes på fabrikantens ansvar. Genstanden for erklæringen, som beskrevet, er i overensstemmelse med den relevante EU-harmoniseringslovgivning.

(EL) Η παρούσα δήλωση συμμόρφωσης εκδίδεται με αποκλειστική ευθύνη του κατασκευαστή. Ο περιγραφόμενος στόχος της δήλωσης είναι σύμφωνος με τη σχετική ενωσιακή νομοθεσία εναρμόνισης.

(ES) La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante. El objeto de la declaración descrita es conforme con la legislación de armonización pertinente de la Unión.

(ET) Käesolev vastavusdeklaratsioon on välja antud tootja ainuvastutusel. Kirjeldatud deklareeritav toode on kooskõlas asjaomaste liidu ühtlustamisaktidega.

(FI) Tämä vaatimustenmukaisuusvakuutus on annettu valmistajan yksinomaisella vastuulla. Kuvattu vakuutuksen kohde on asiaa koskevan unionin yhdenmukaistamislainsäädännön vaatimusten mukainen.

(FR) La présente déclaration de conformité est établie sous la seule responsabilité du fabricant. L'objet décrit de la déclaration est conforme à la législation d'harmonisation de l'Union applicable.

(HU) Ezt a megfelelőségi nyilatkozatot a gyártó kizárólagos felelősségé mellett adják ki. Az ismertetett nyilatko-zat tárgya megfelel a vonatkozó uniós harmonizációs jogszabályoknak.

(IT) La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante. L'oggetto della dichiarazione descritto è conforme alla pertinente normativa di armonizzazione dell'Unione.

(LT) Ši atitikties deklaracija išduota tik gamintojo atsakomybe. Aprašytas deklaracijos objektas atitinka susijusius derinamuosius Sąjungos teisės aktus.

(LV) Šī atbilstības deklarācija ir izdota vienīgi uz ražotāja atbildību. Aprakstītais deklarācijas objekts atbilst attiecīgajam Savienības saskaņošanas tiesību aktam.

(NL) Deze conformiteitsverklaring wordt verstrekt onder volledige verantwoordelijkheid van de fabrikant. Het beschreven voorwerp is in overeenstemming de desbetreffende harmonisatiewetgeving van de Unie.

(PL) Niniejsza deklaracja zgodności wydana zostaje na wyłączną odpowiedzialność producenta. Wymieniony przedmiot niniejszej deklaracji jest zgodny z odnośnymi wymaganiami unijnego prawodawstwa harmonizacyjnego.

(PT) A presente declaração de conformidade é emitida sob a exclusiva responsabilidade do fabricante. O objeto da declaração descrito está em conformidade com a legislação aplicável de harmonização da União.

(RO) Prezenta declarație de conformitate este emisă pe răspunderea exclusivă a producătorului. Obiectul descris al declarației este în conformitate cu legislația relevantă de armonizare a Uniunii.

(SK) Toto vyhlásenie o zhode sa vydáva na vlastnú zodpovednosť výrobcu. Uvedený predmet vyhlásenia je v zhode s príslušnými harmonizačnými právnymi predpismi Únie.

(SL) Za izdajo te izjave o skladnosti je odgovoren izključno proizvajalec. Opisani predmet izjave je v skladu z ustrezno zakonodajo Unije o harmonizaciji.

(SV) Denna försäkran om överensstämmelse utfärdas på tillverkarens eget ansvar. Föremålet för försäkran överensstämmer med den relevanta harmoniserade unionslagstiftningen.

(TR) Bu Uygunluk Belgesi tamamen üreticinin sorumluluğu altındadır. Belgede açıklanan obje, Birliğin ilgili uyum mevzuatına uygundur.

EG-Konformitätserklärung
EU Declaration of Conformity
Декларация за съответствие на ЕС
Prohlášení o shodě ES
EF-overensstemmelseserklæring
Δήλωση συμμόρφωσης ΕΚ
Declaración de conformidad CE
EÜ vastavusdeklaratsioon
EY-vaatimustenmukaisuusvakuutus
Déclaration CE de conformité
EK megfelelőségi nyilatkozat
Dichiarazione di conformità EU
EB atitikties deklaracija
EK atbilstības deklarācija
EG-verklaring van overeenstemming
Deklaracja zgodności WE
Declaração de conformidade CE
Declarație de conformitate CE
Vyhlásenie o zhode ES
Izjava ES o skladnosti
EG-försäkran om Överensstämmelse

The installation instructions according to the manual have to be followed. The person authorized to compile the technical documents is Philippe Drolet, Product conformity, Festo Didactic Ltée/Ltd. Canada.

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FESTO

8101137
2018-10-17

8050101	CP-LAB STATION
8050102	CP-LAB STATION
8058667	STATION CP BRIDGE
8032508	STACKING MAGAZINE
8061362	MEASURING STATION
8032510	MODULE DRILLING
8043598	MODULE IDRILLING
8038567	MODULE MUSCLE PRESS
8032507	MODULE PRESS
8032509	MODULE TURNING
8061184	MODULE WORKPIECE OUT
8032511	MODULE CAMERA INSP
8065842	MODULE LABELING
8032512	MODULE HEAT TUNNEL
8068413	MODULE PICK BY LIGHT
8092833	CP LAB STD CFG 4 STATIONS
8092834	CP LAB STD CFG 6 STATIONS
8092835	CP LAB STD CFG 8 STATIONS
8092836	CP LAB STD CFG 10 STATIONS

2006/42/EC	EN 60204-1:2006
2014/30/EU	EN 61326-1:2006
2011/65/EU	EN 50581:2012

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Philippe Drolet

Philippe Drolet
Product Compliance – Festo Didactic

4.11 General product safety

WARNING

- **General product safety, CE conformity**
  - The product fulfills the requirements of all applicable EU directives. We confirm this with the CE mark.
  - As a consequence of
    Changes (hardware / software)
    Additions
    or improper use
  - Product safety can no longer be guaranteed by the operator.
  - In this case, the manufacturer's CE declaration of conformity expires. The operator must re-evaluate the safety and determine the CE conformity.

4.12 Protective devices

In order to reduce risks, this machine contains guards to prevent access to dangerous areas. These guards must not be removed or tampered with.

WARNING

- **Damage to the safety window**
  - Windows must not be cleaned using aggressive or alcoholic cleaning agents. Risk of brittleness and breakage!
  - This protective device must be replaced if it shows any signs of damage. Please contact our Service department to arrange this.

4.12.1 Panel doors on underground control cabinet

Transparent, impact-resistant, polycarbonate plate with lock.
Can only be accessed with tool (control cabinet key); tool must be kept in a secure place!
Access reserved for qualified electricians.
The safety door is not monitored! Make sure the safety door is always closed.

4.12.2 Emergency stop

If a station has an emergency stop button, the emergency stop signal switches off all actuators. An acknowledgment by the operator is required for a restart, there is no automatic restart.

4.12.3 Additional protective devices

The individual components, such as the power supplies and the controllers, possess built-in safety functions such as short-circuit protection, overcurrent protection, overvoltage protection and thermal monitoring. If necessary, consult the instruction manual for the device in question for more information.

5 Technical Data

Parameter	Value
Electrics	
Power supply	24 V DC, 4.5 A
Digital inputs	3
Digital outputs	1
Ambient conditions	
Operating environment	Use inside building only
Ambient temperature	5°C ... 40°C
Rel. air humidity	80% up to 31°C
Pollution degree	2, Dry, non-conductive contamination
Operating height	Up to 2000 m above NN (sea level)
Noise emission level	L_{pA} < 70 dB
Certification	
CE marking in accordance with:	Machinery Directive EMC Directive RoHS Directive
EMC environment	Industrial environment, Class A (in acc. with EN 55011)
Measurements	
Length	356 mm
Width	278 mm
Height	608 mm
Weight	Ca. 8,3 kg
Subject to change	

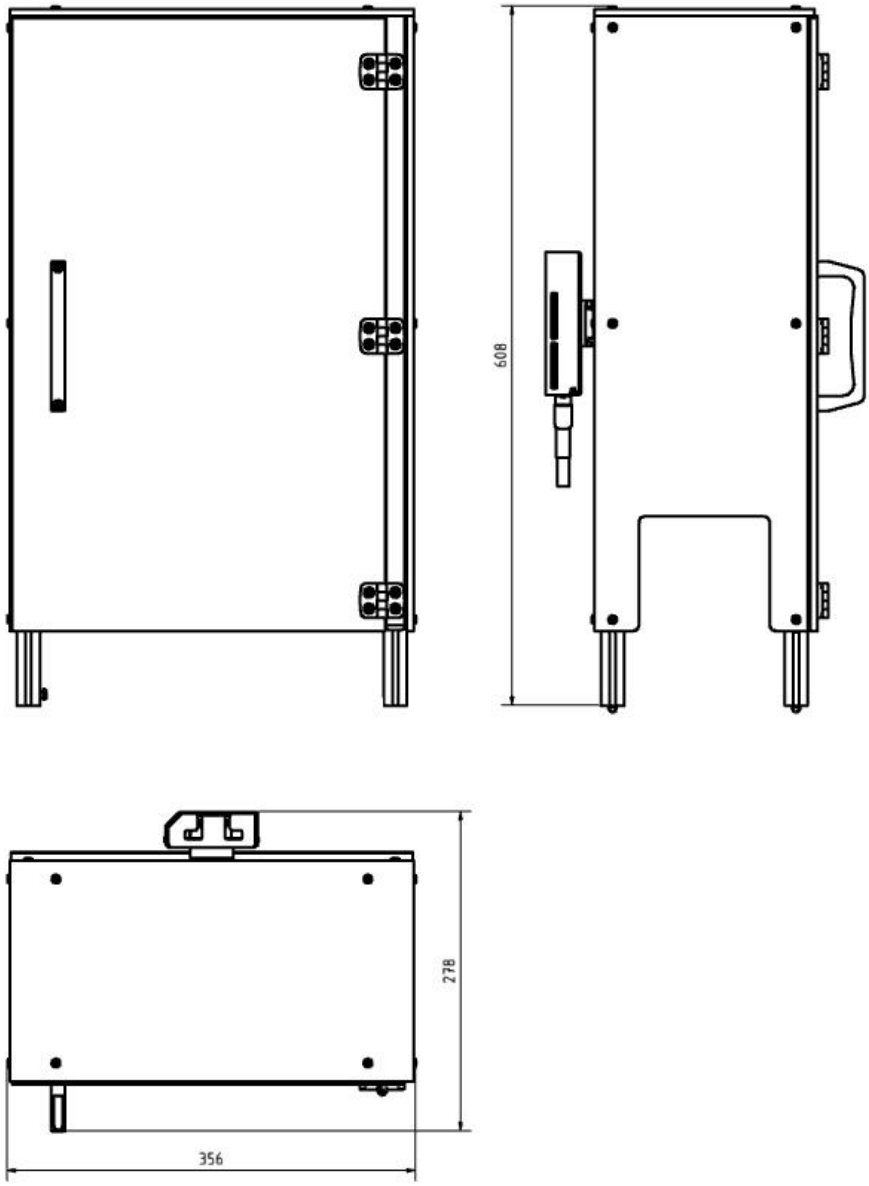


Illustration similar

6 Design and Function

6.1 Transport

WARNING

- **Damage to transport equipment when moving heavy machines/machine sections**
  - When the stations are shipped out, extra care must be taken to ensure that heavy machines/machine sections are always transported using a suitable fork-lift truck. A single station can weigh up to 50 kg.
  - Always use suitable transport equipment.
  - Always use the lifting points provided to move the machine/machine sections.
  - Always use the designated load take-up point.

WARNING

- **Securing transit routes**
  - The supply routes must be cleared prior to transport, and must be suitable for the forklift truck to pass through. If necessary, warning signs or barrier tape must be set up to keep the routes clear.
- **Caution**
  - When opening transport boxes, care must be taken to ensure that any additional components delivered in the same box, such as computers, do not fall out.

WARNING

- **Danger of crushing for hands/feet**
  - It is not permitted to grip onto or under the feet when handling the machine, as there is an increased risk of hands or feet getting crushed or trapped in these areas.
  - When setting down the station, make sure no persons have their feet under the machine's feet.

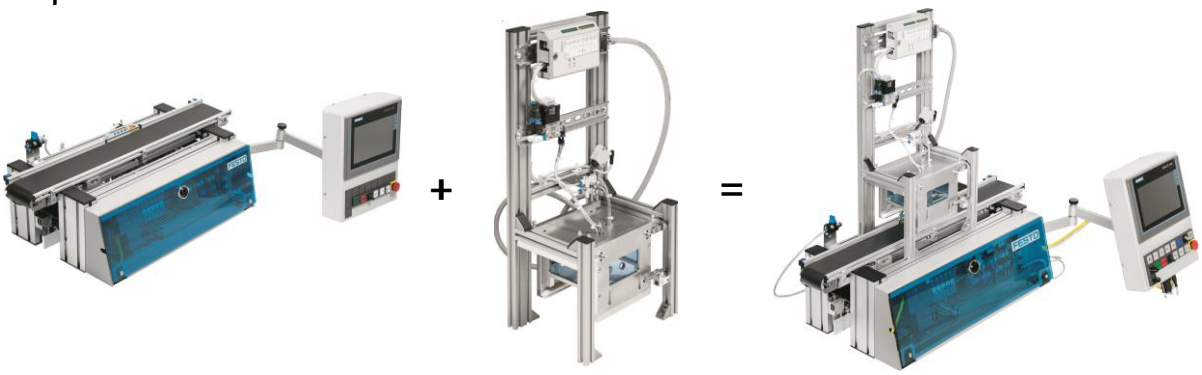
NOTE

- When opening the transport box, any additional components must be secured to prevent them from falling out, and removed first.
- Once this is done, the transport box can be removed/opened up fully, and the station can be taken out and moved to its intended location.
- Care must be taken with all components projecting from the machine, as sensors and similar small parts can easily be damaged if the machine is not transported correctly.
- Check that all the profile connectors are seated correctly using a size 4 – 6 Allen key. Unavoidable vibrations can loosen the connectors during transport.

6.2 Overview of the System

CP Lab Conveyor, CP Factory Linear, CP Factory Shunt and CP Factory Bypass are called basic modules. If an application module, e.g. the CP Application Module press is attached to a basic module, it becomes a station.

Example



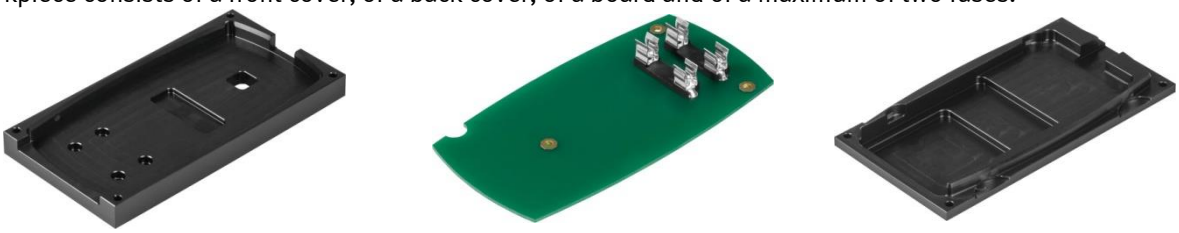
basic module, e.g. CP Lab Conveyor | application module, e.g. press | station press

If several stations are put in a row one behind the other, this will form a production line.

carrier | pallet | workpiece

Carriers are transported on the conveyors of the basic modules. And on the carriers, there are pallets with a fixed workpiece reception placed. The workpieces are placed on the workpiece reception or taken from it. Pallets can also be placed on a carrier in some stations or gripped from there.

The typical workpiece of a CP Factory/Lab System is the roughly simplified version of a mobile phone. The workpiece consists of a front cover, of a back cover, of a board and of a maximum of two fuses.



front cover | board | back cover

6.3 The application module camera inspection

The application module camera inspection designed for

- checking a board’s equipment with fuses

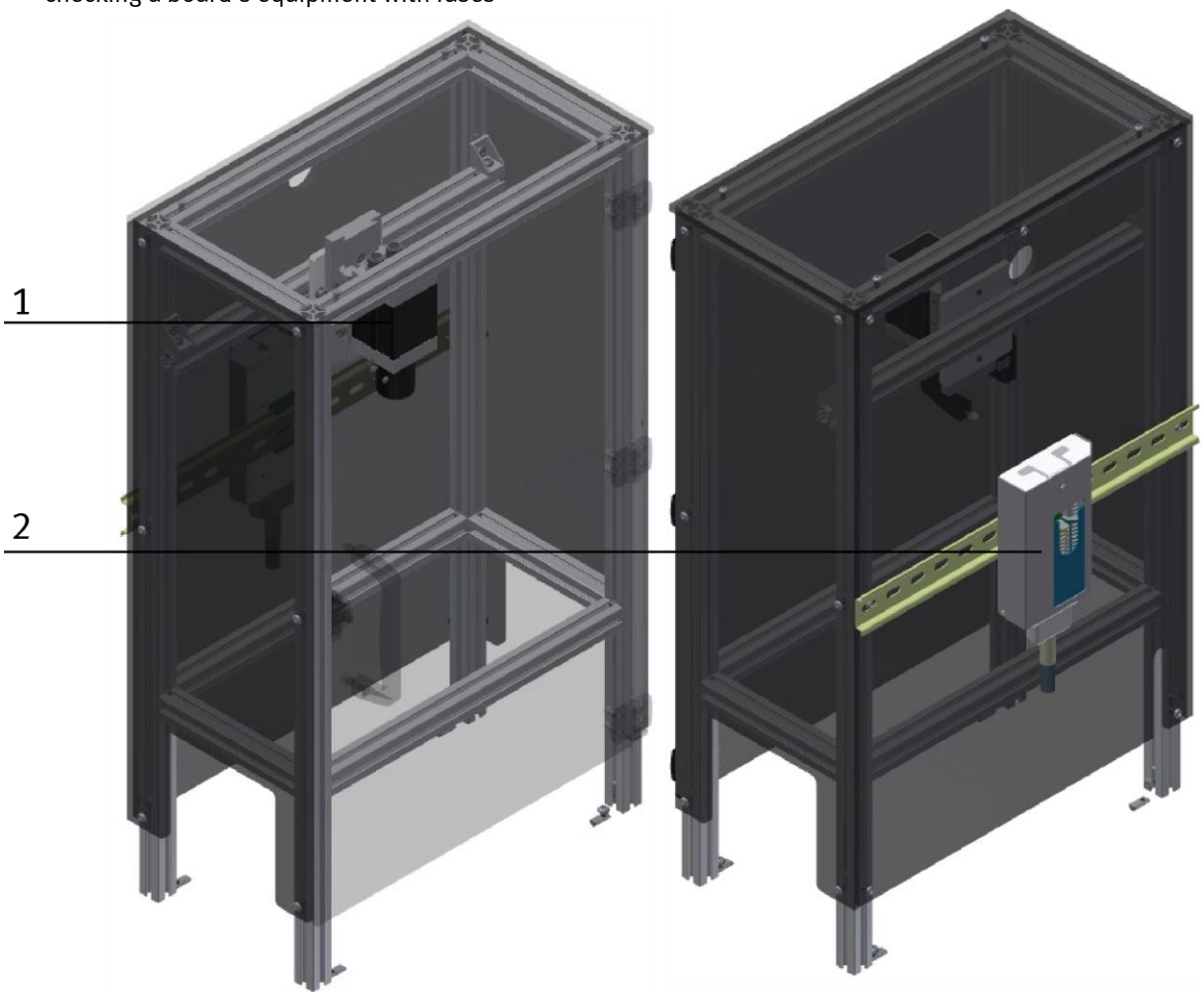


Illustration similar

Pos	Description	Name	Order Number
1	Camera Festo	SBOC-Q-R3C-WB	555842
2	I/O Box		

6.4 Function

The application module camera inspection checks if there are fuses on a board. The carriers are stopped when running into the application module. The camera takes a picture. The selected programme will be executed and compared with the picture. The result will be processed, and the carrier with the workpiece will leave the application module.

6.5 Sequence description

Start Conditions

- All connections have been established properly.
- The camera has been started.

Sequence

1. If a carrier runs into the stopper unit, the stopper is in its extended position and the carrier is stopped.
2. The camera takes a picture.
3. The selected program will be executed for comparing the picture with the desired condition.
4. The result will be processed and passed on.
5. The stopper of the stopper unit drives downward, and the carrier leaves the application.

6.6 Electrical Connections

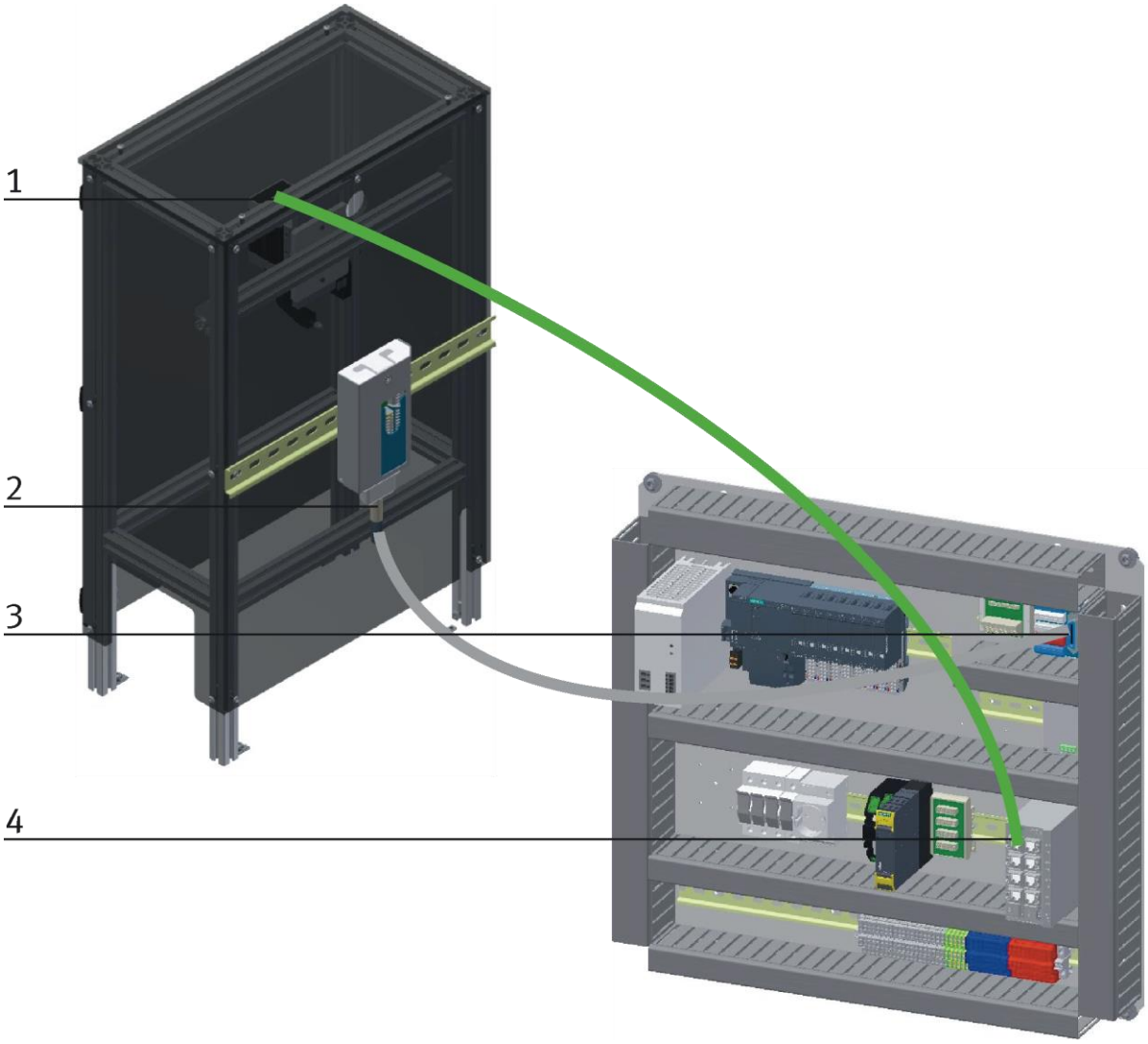
6.6.1 Overview

Connection with syslink connectors

The application module is connected to the electrical board of the module via I/O. The I/O box (1) of the application module is connected to the I/O terminal (2) on the module's electrical board.
The example refers to the connection to a basic module linear, it is possible that the terminal names of the I/O terminal differ when connected to another module.

6.6.2 Ethernet connections

The camera is connected to the electrical board of the module via an Ethernet cable. The camera (1) of the application is connected to the switch (4) on the electrical board of the module.



Electrical connection / illustration similar

6.6.3 I/O Box XD1

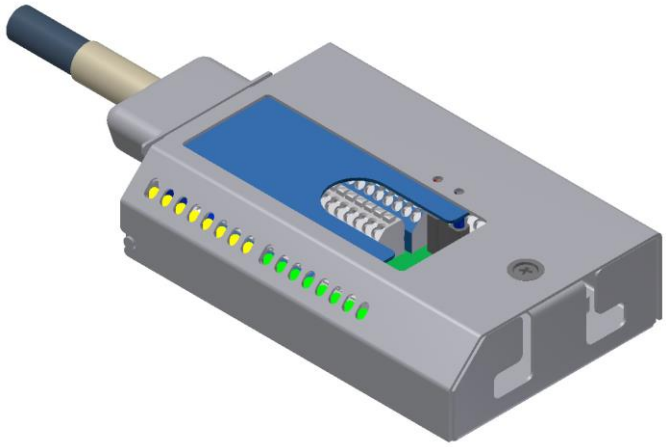


Illustration similar

Box Inputs

Designation	Equipment identifier	Application	Application SysLink
Reserve		XD1 / XK:I0	XD1:XS13
Reserve		XD1 / XK:I1	XD1:XS14
Reserve		XD1 / XK:I2	XD1:XS15
Camera	K_OUT0	XD1 / XK:I3	XD1:XS16
Camera OK	K_OUT1	XD1 / XK:I4	XD1:XS17
Kamera not OK	K_OUT2	XD1 / XK:I5	XD1:XS18
Reserve		XD1 / XK:I6	XD1:XS19
Reserve		XD1 / XK:I7	XD1:XS20

Box Outputs

Designation	Equipment identifier	Application	Application SysLink
Reserve		XD1 / XK:O0	XD1:XS1
Reserve		XD1 / XK:O1	XD1:XS2
Reserve		XD1 / XK:O2	XD1:XS3
Trigger Signal	K_IN0	XD1 / XK:O3	XD1:XS4
Reserve		XD1 / XK:O4	XD1:XS5
Reserve		XD1 / XK:O5	XD1:XS6
Reserve		XD1 / XK:O6	XD1:XS7
Reserve		XD1 / XK:O7	XD1:XS8

7 Commissioning

NOTE

– The following applies to the start-up as well as to the restart.

- The CP Application Module is delivered pre-assembled.
- All attachment parts are individually packaged.
- All components, tubings and cablings have been clearly marked in order to guarantee a problem-free retrieving of all connections.
- For the operation within a CP Factory/Lab System, the CP Application Module has to be put on and attached to a basic module.

NOTE

– You can read the general installation instructions in the manual of your basic module. The following instructions apply particularly to the CP Application Module.

7.1 Workplace

The commissioning of the CP Application Module requires:

- a CP Application Module
- a basic module CP Factory or a basic module CP Lab Conveyor for the installation of the CP Application Module
- a SysLink cable for the connection between the I/O terminal of the CP Application Module and the basic module CP Factory
- an Ethernet cable for the connection of the motor controller (option)
- an on-site electrical connection in the room, see data sheet basic module
- an on-site pneumatically connection in the room, see data sheet basic module

7.2 Visual Inspection

WARNING

- **Any damages must always be repaired instantly.**

Visual inspection has to be carried out prior to every commissioning!
Before you start the CP Application Module, you must always inspect the following parts regarding visual damages and function:

- Electrical connections
- Mechanical components and connections
- Emergency Stop devices

7.3 Safety Regulations

WARNING

- **Any damages must always be repaired instantly.**

The CP Application Module may only be operated on the following conditions:

- The technical condition – mechanically and electrically – of the CP Application Module is perfect.
- The CP Application Module is used in accordance with the regulations.
- The operating instructions have been read and understood.
- All safety devices are available and active.

7.4 Assembly

7.4.1 Assembly of an CP application module to a CP Lab conveyor

	NOTE
	– The procedure of attaching the CP application module to a CP Lab conveyor is the same as with all basic modules. The following description is an example for all application modules.

Positioning slot nuts in the cross profiles of the CP Lab Conveyor

Mounting the CP application module is very easy:

- Two M5-slot nuts (2) have to be put into the inner front slot of the cross profile (4) of the CP Lab Conveyor.
- Then put two additional M5-slot nuts (2) into the inner back slot of the cross profile (3) of the CP Lab conveyor.
- Then you have to position the slot nuts (2) approximately to the distance of the vertical cross profiles of the CP application module.

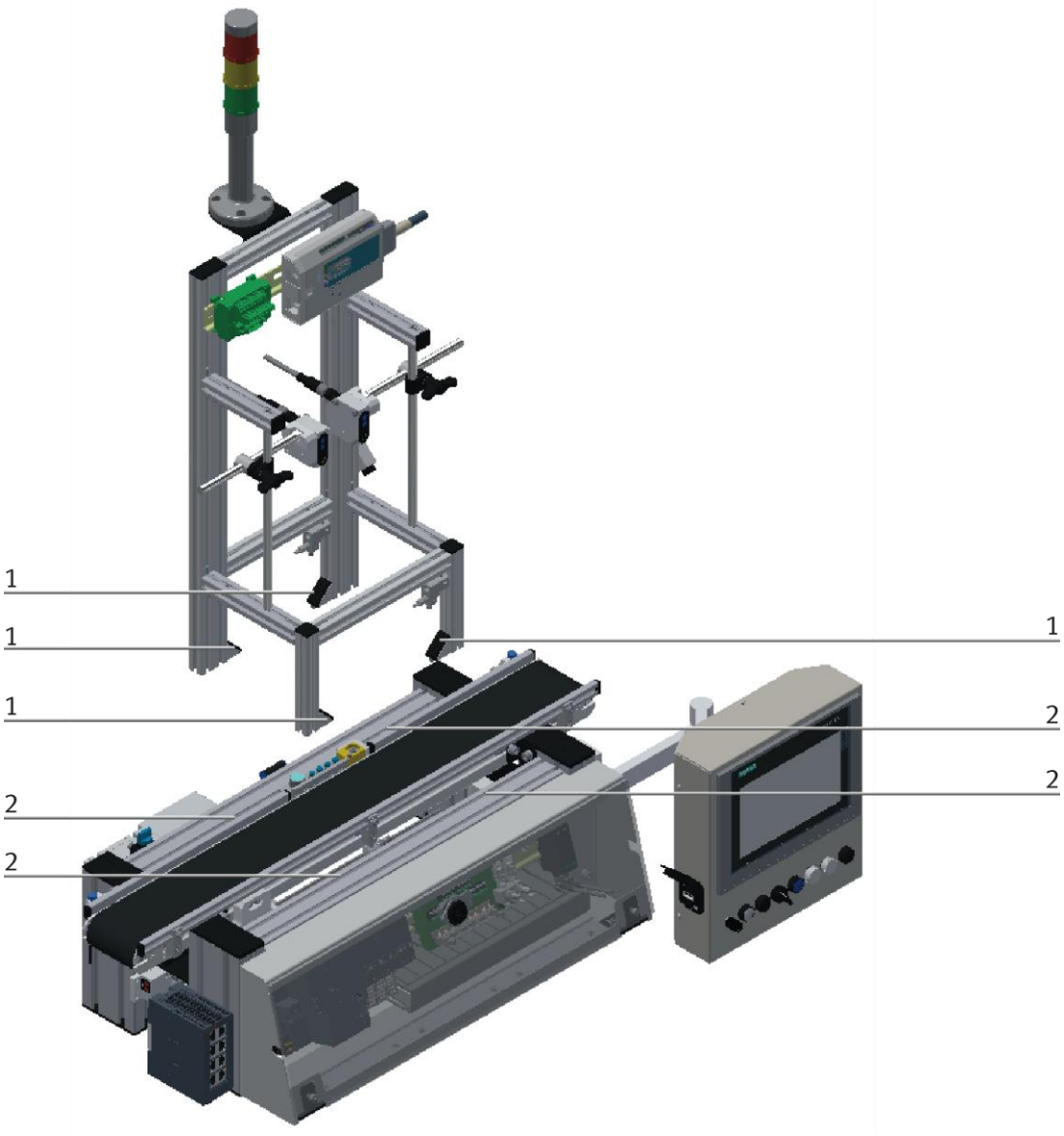
Positioning slot nuts / illustration similar

Position	Description
1	back cross profile
2	slot nut
3	Inner slot (back cross profile)
4	Inner slot (front cross profile)
5	front cross profile

Attaching the application module to the CP Lab Conveyor

- Put the CP application module on the CP Lab Conveyor.
- Position the slot nuts (2) underneath the mounting brackets (1) of the CP application module so that the internal threads of the slot nuts are visible underneath the elongated holes of the mounting brackets.

	***NOTE*** – Use Allen keys for lateral adjustment of the slot nuts.

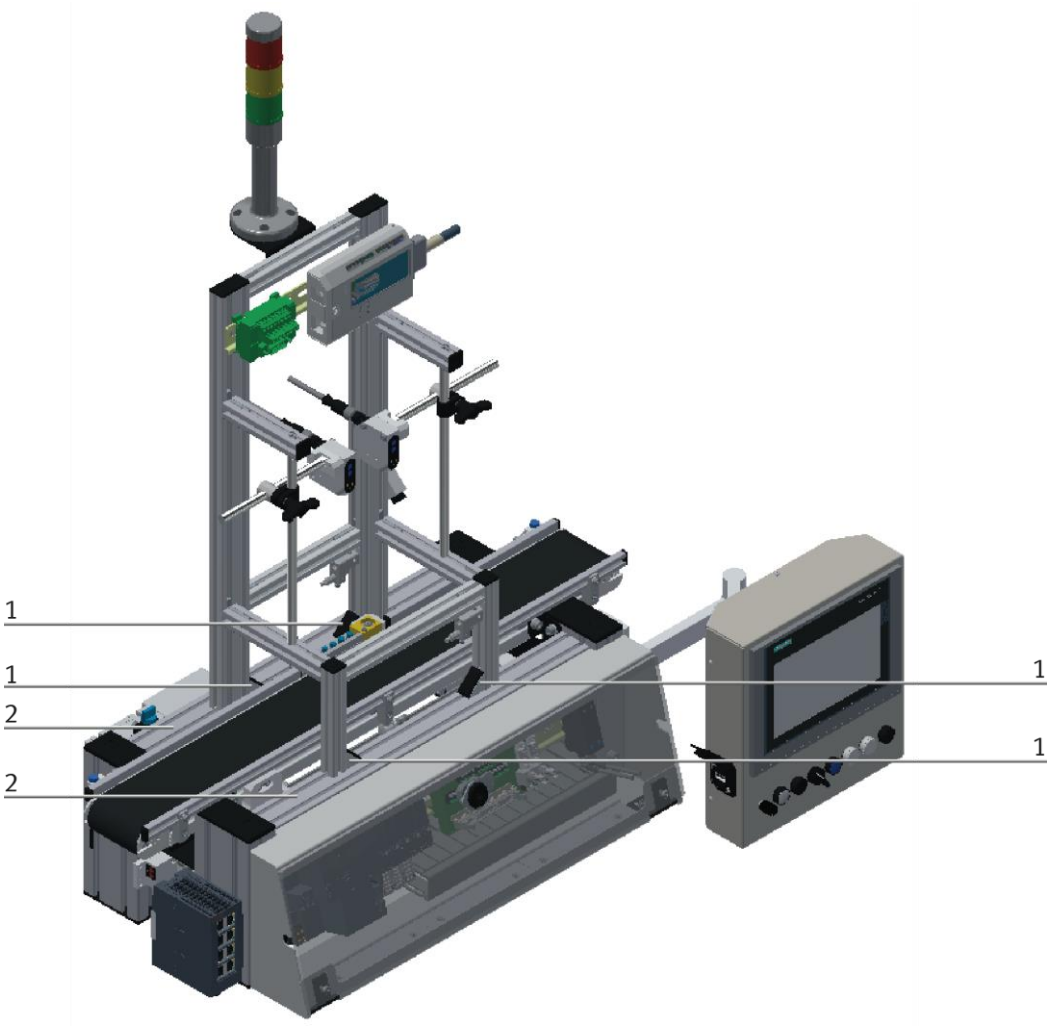


How to put on the CP application module / illustration similar

Position	Description
1	CP application module: mounting bracket
2	slot nut

Adjusting the CP application module and fixing it on the CP Lab Conveyor

- Use raised head screws M5x8, in order to connect the mounting brackets (1) of the CP application module Measuring, at first loosely, with the cross profiles (2) of the CP Lab Conveyor.
- After setting all raised head screws, you can still move the CP application module to the position required.
- Push a carrier with pallet and front cover to the stopper position. The front cover points with its inside upwards. The drilled hole of the front cover is on the left side.
- Have a visual inspection to make sure that the two distance sensors are capable of registering the front cover more or less in medium range.
- Now tighten the raised head screws.
- Then put the black covers onto the mounting brackets.



Tightening the CP application module / illustration similar

Position	Description
1	CP application module: mounting bracket with cover
2	CP Lab Conveyor: cross profile

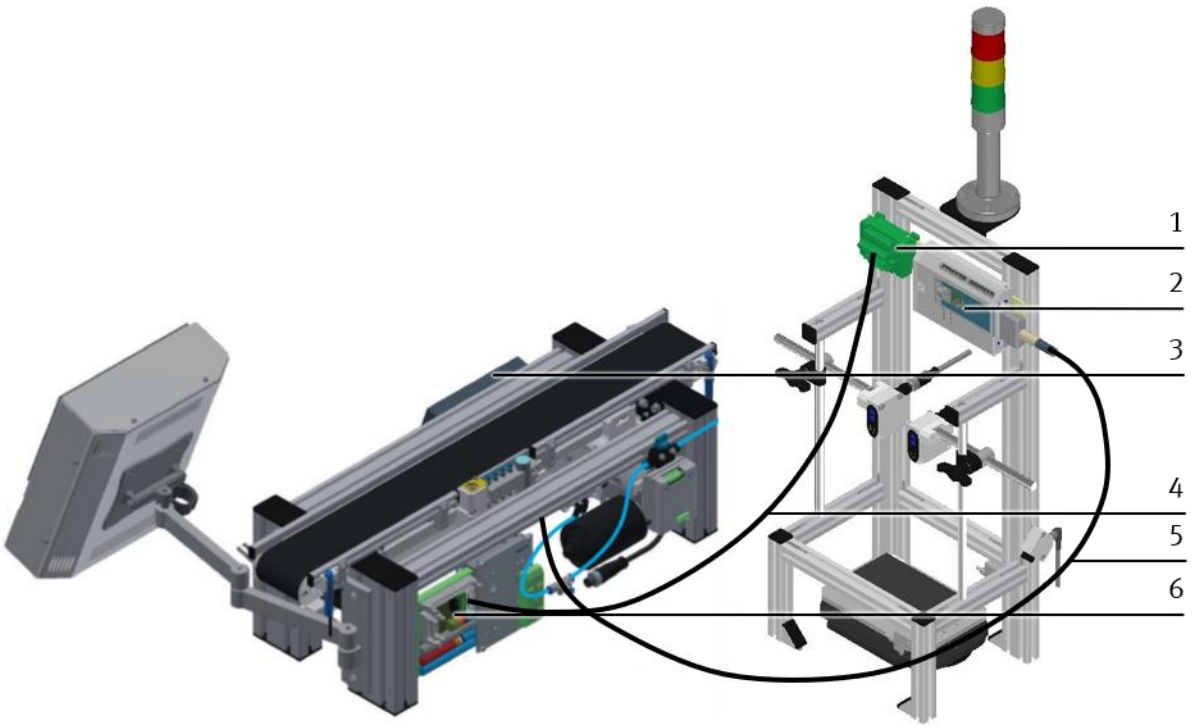
7.4.2 Connecting the CP application module electrically to basic module CP Lab Conveyor SysLink-interface for digital signals

NOTE

– With special variants of the CP Lab Conveyor, you absolutely have to observe the corresponding operation instructions of the CP Lab Conveyor!

The CP application module exchanges digital input and output signals with the CP Lab conveyor via the SysLink interface:

- Connect the I/O terminal (2) of the CP application module with the control (3) of the CP Lab Conveyor. Therefore use the connecting cable with SysLink plugs (5) which has already been attached to the control and is led out on the back side of the CP Lab Conveyor.



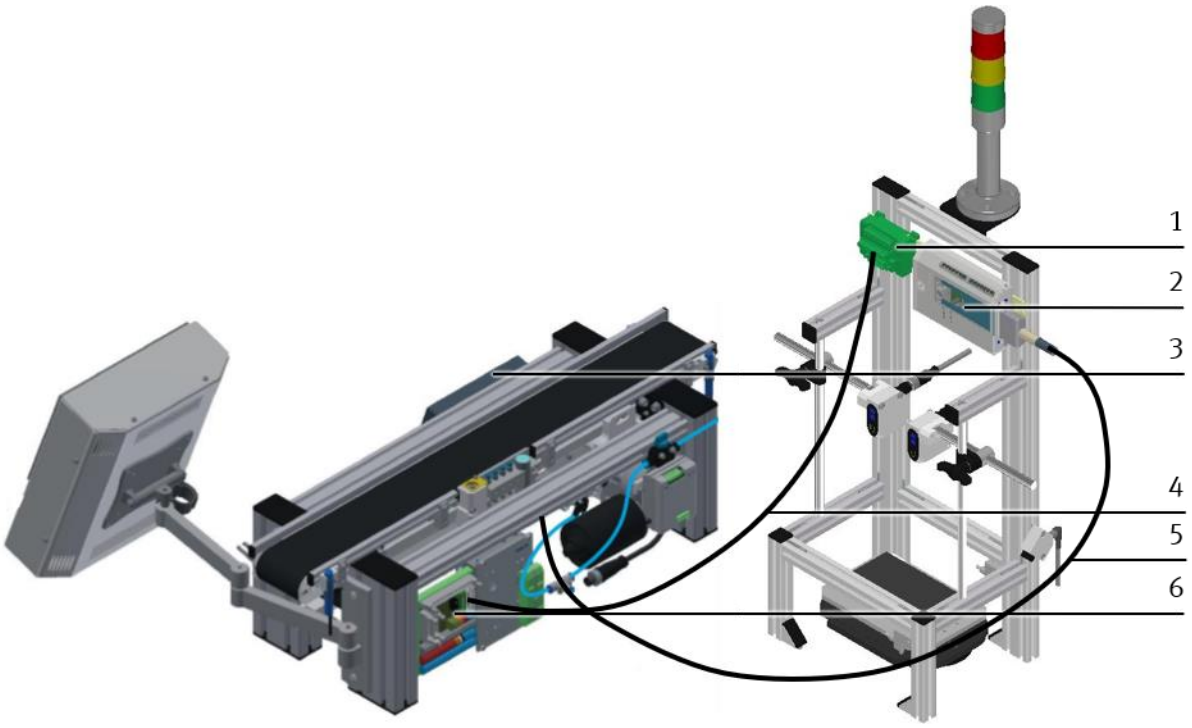
Electrical connections / illustration similar

Position	Description
1	CP application module: analogue terminal (+BG-XD2A)
2	CP application module: I/O terminal (+BG-XD1)
3	CP Lab Conveyor: control or decentralized periphery
4	connecting cable with15-pin standard D-Sub-plugs
5	connecting cable with a SysLink-plug (SysLink-cable)
6	CP Lab Conveyor: board at the back (+G1-XZ2)

D-Sub-interface for analogue signals

The CP application module produces two analogue output signals with the distance sensors. These are put on the analogue terminal (1) and must be connected with the analogue inputs of the CP Lab conveyor:

- Connect the analogue terminal (1) of the CP application module with the D-Sub-interface for analogue signals (6) on the rear board of the CP Lab Conveyor. Therefore use the provided connecting cable (4) with standard D-Sub plugs: 15-pin, two-rowed.



Electrical connections / illustration similar

Position	Description
1	CP application module: analogue-terminal (+BG-XD2A)
2	CP application module: I/O terminal (+BG-XD1)
3	basic module CP Lab Conveyor: control or decentralized periphery
4	connecting cable with 15-pin standard D-Sub-plugs
5	connecting cable with a SysLink-plug (SysLink-cable)
6	basic module CP Lab Conveyor: board at the back (+G1-XZ2)

7.4.3 Assembly of an CP application module to a CP Factory basic module

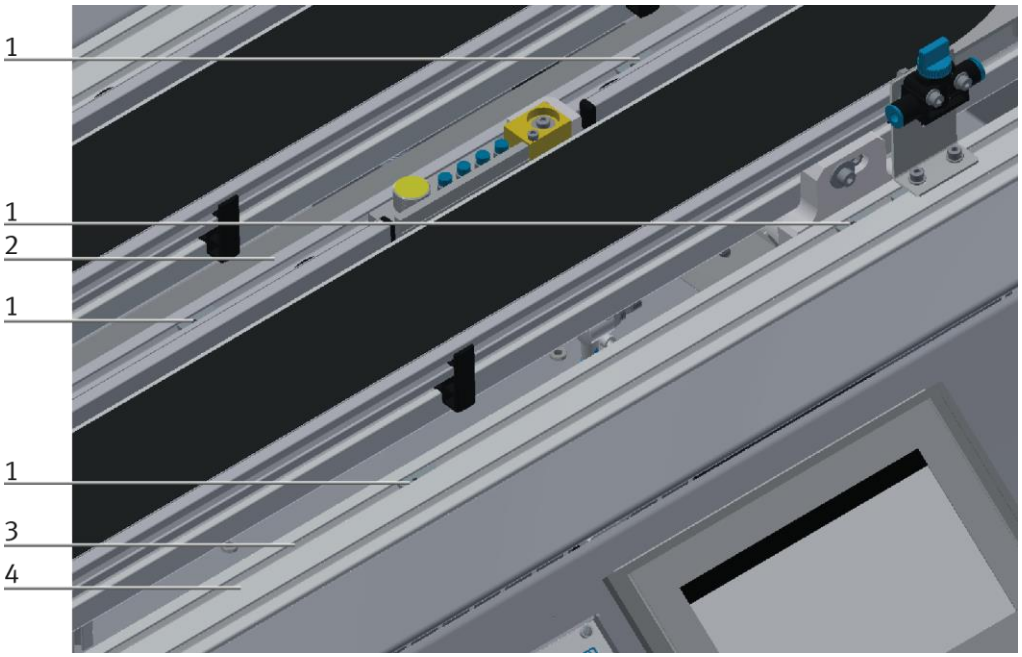
NOTE

The procedure for installing a CP application module on a basic module is identical for all basic modules. The following example is an example for all basic modules and applications.

Positioning slot nuts in the cross profiles of the CP Factory basic module

Mounting the CP application module is very easy:

- Two M5-slot nuts (1) have to be put into the inner front slot of the cross profile (4) of the CP Factory basic module.
- Then put two additional M5-slot nuts (1) into the inner back slot of the cross profile (2) of the basic module.
- Then you have to position the slot nuts (1) approximately to the distance of the vertical cross profiles of the CP application module.



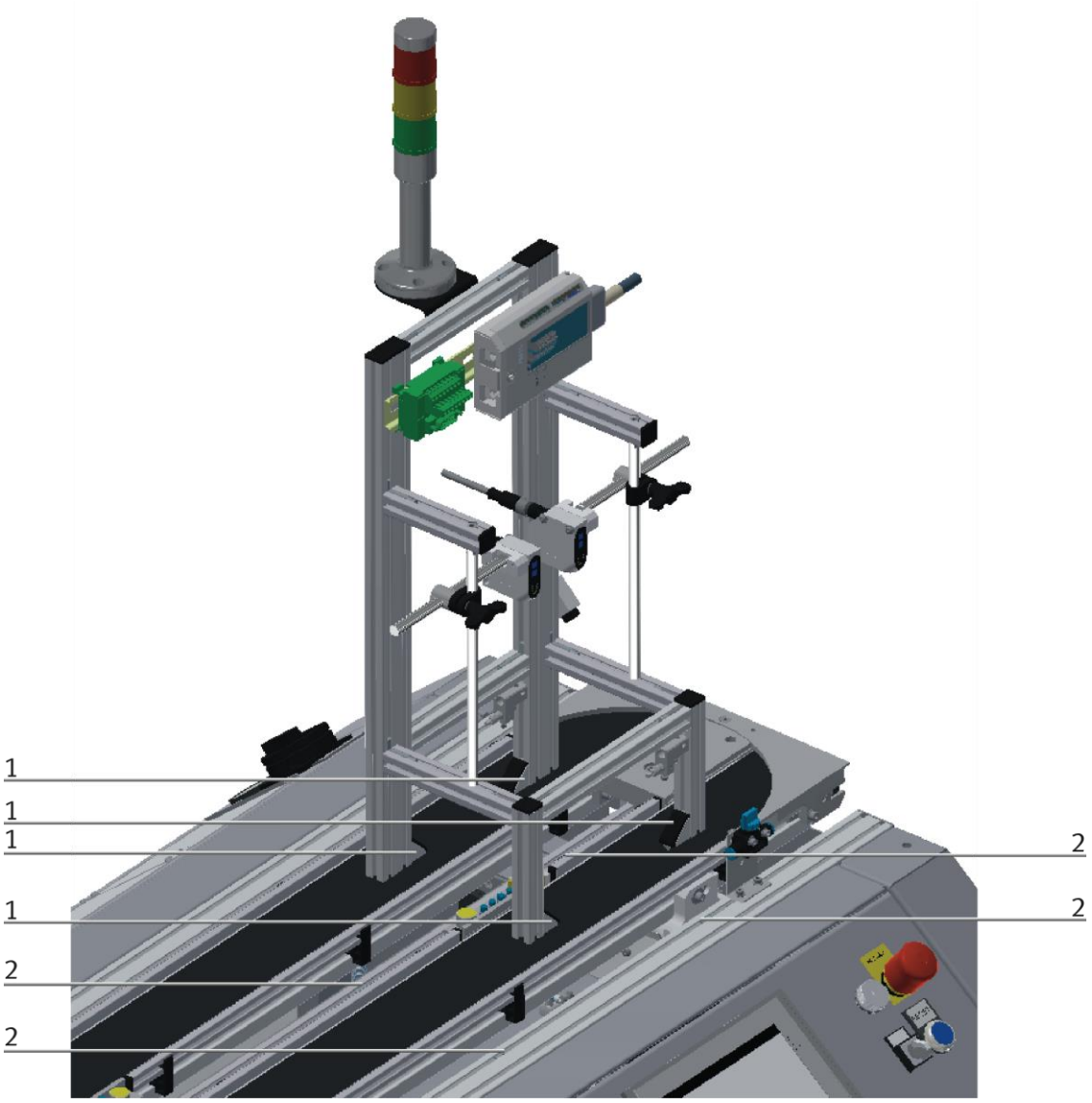
Positioning slot nuts / illustration similar

Position	Description
1	slot nut
2	back cross profile
3	Inner slot (front cross profile)
4	front cross profile

Attaching the application module to the CP Factory basic module

- Put the CP application module on the CP Factory basic module.
- Position the slot nuts (2) underneath the mounting brackets (1) of the CP application module so that the internal threads of the slot nuts are visible underneath the elongated holes of the mounting brackets.

	NOTE
	Use Allen keys for lateral adjustment of the slot nuts.

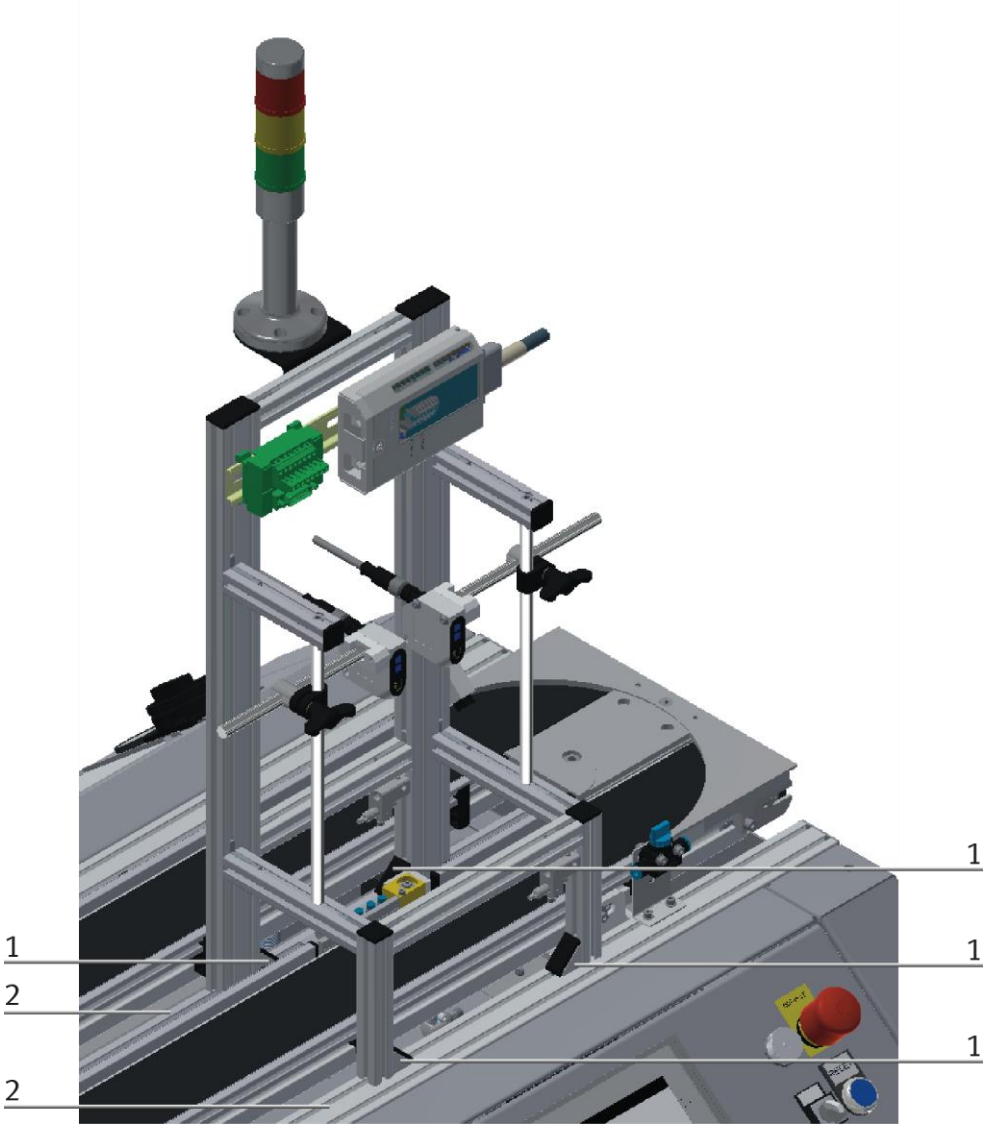


How to put on the CP application module / illustration similar

Position	Description
1	CP application module: mounting bracket
2	slot nut

Adjusting the CP application module and fixing it on the CP Factor basic module

- Use raised head screws M5x8, in order to connect the mounting brackets (1) of the CP application module Measuring, at first loosely, with the cross profiles (2) of the CP Factory basic module.
- After setting all raised head screws, you can still move the CP application module to the position required.
- Push a carrier with pallet and front cover to the stopper position. The front cover points with its inside upwards. The drilled hole of the front cover is on the left side.
- Have a visual inspection to make sure that the two distance sensors are capable of registering the front cover more or less in medium range.
- Now tighten the raised head screws.
- Then put the black covers onto the mounting brackets.



Tightening the CP application module / illustration similar

Position	Description
1	CP application module: mounting bracket with cover
2	CP Factory basic module: cross profile

7.4.4 Connecting the CP application module electrically to the CP Factory basic module

SysLink-interface for digital signals

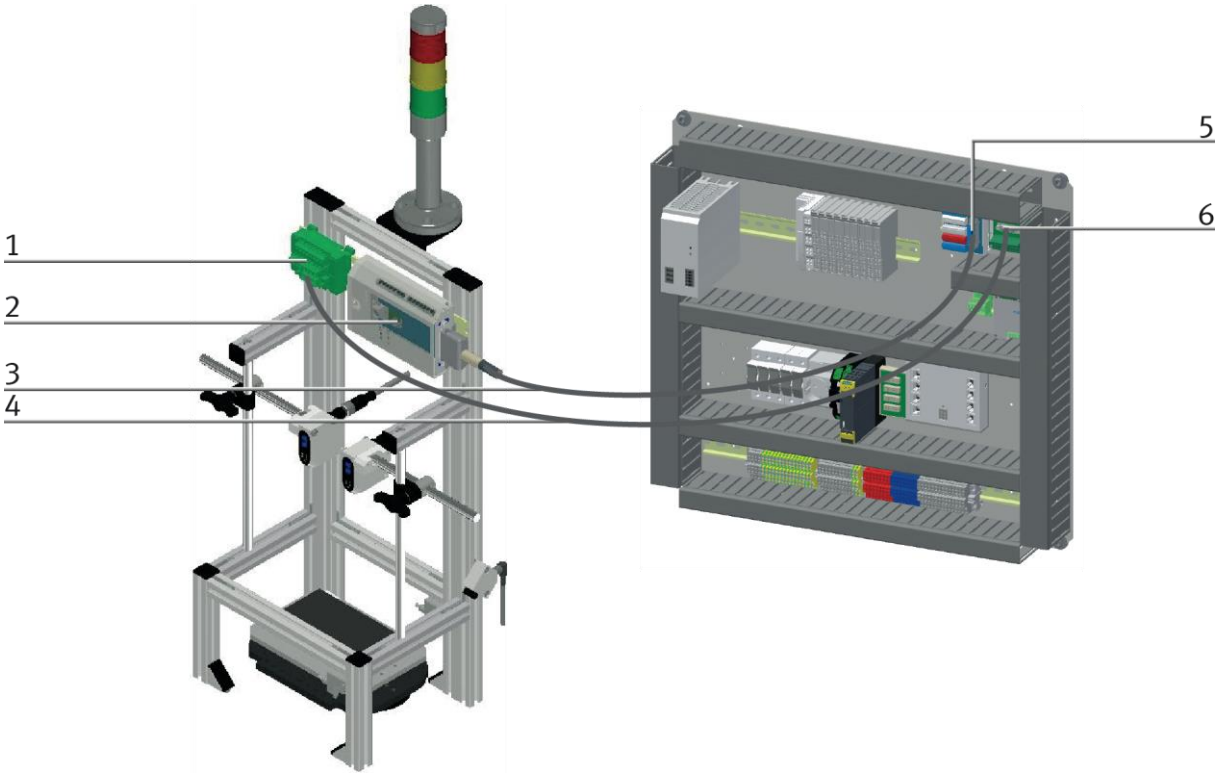
The CP application module exchanges digital input and output signals with the basic module via the SysLink interface:

- Connect the I/O terminal (2) of the CP application module with the I/O terminal (5) on the electric board of the CP Factory basic module. Therefore use the provided connecting cable with SysLink plugs (3).

D-Sub-interface for analogue signals (option – not available at all CP application modules)

The CP application module produces two analogue output signals with the distance sensors. These are set on the analogue terminal (1) and have to be connected with the analogue inputs of the CP Factory basic module:

- Connect the analogue terminal (1) of the CP application module with the analogue terminal (6) on the electric board of the CP Factory basic module. Therefore use the provided connecting cable (4) with standard D-Sub plugs: 15-pin, two-rowed.



Electrical connections / illustration similar

Position	Description
1	CP application module: analogue terminal (+BG-XD2A)
2	connecting cable with 15-pin D-Sub-plugs
3	CP application module: I/O terminal (+BG-XD1)
4	connecting cable with SysLink-plugs (SysLink-cable)
5	electric board CP Factory basic module: I/O terminal (+K1-XD15)
6	electric board CP Factory basic module: analogue terminal (+K1-XD16A)

8 Operation

Any customer can use the application module at his own discretion. Since the application modules do not have any control elements, this is done with the respective basic modules installed.
If the application module is mounted on a CP Lab transport system or on a CP Factory basic module, the general operation is described in these manuals. All application-specific information is described in the application module manual.

The general operating parameters must be adhered to.

8.1 General operating instructions

The operation requires some regulations which have to be observed strictly. If you don't observe the rules, there might occur faults in the process. Dangers to your physical health can also not be excluded.
It is strongly recommended to stick to the following rules.

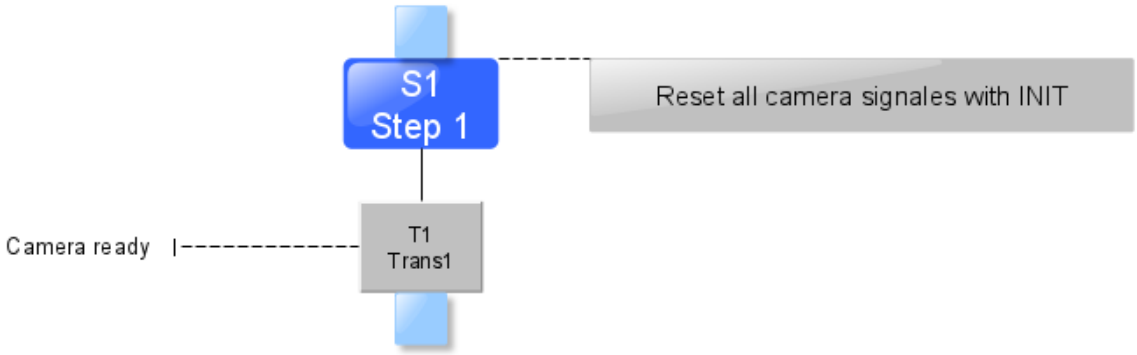
8.1.1 Conduct instructions

- During operation it is not allowed to interfere manually.
- With bigger groups it is necessary to install a mechanic barrier.
- You mustn't take off any cable connections on voltage.
- Water of any kind has to be kept away.

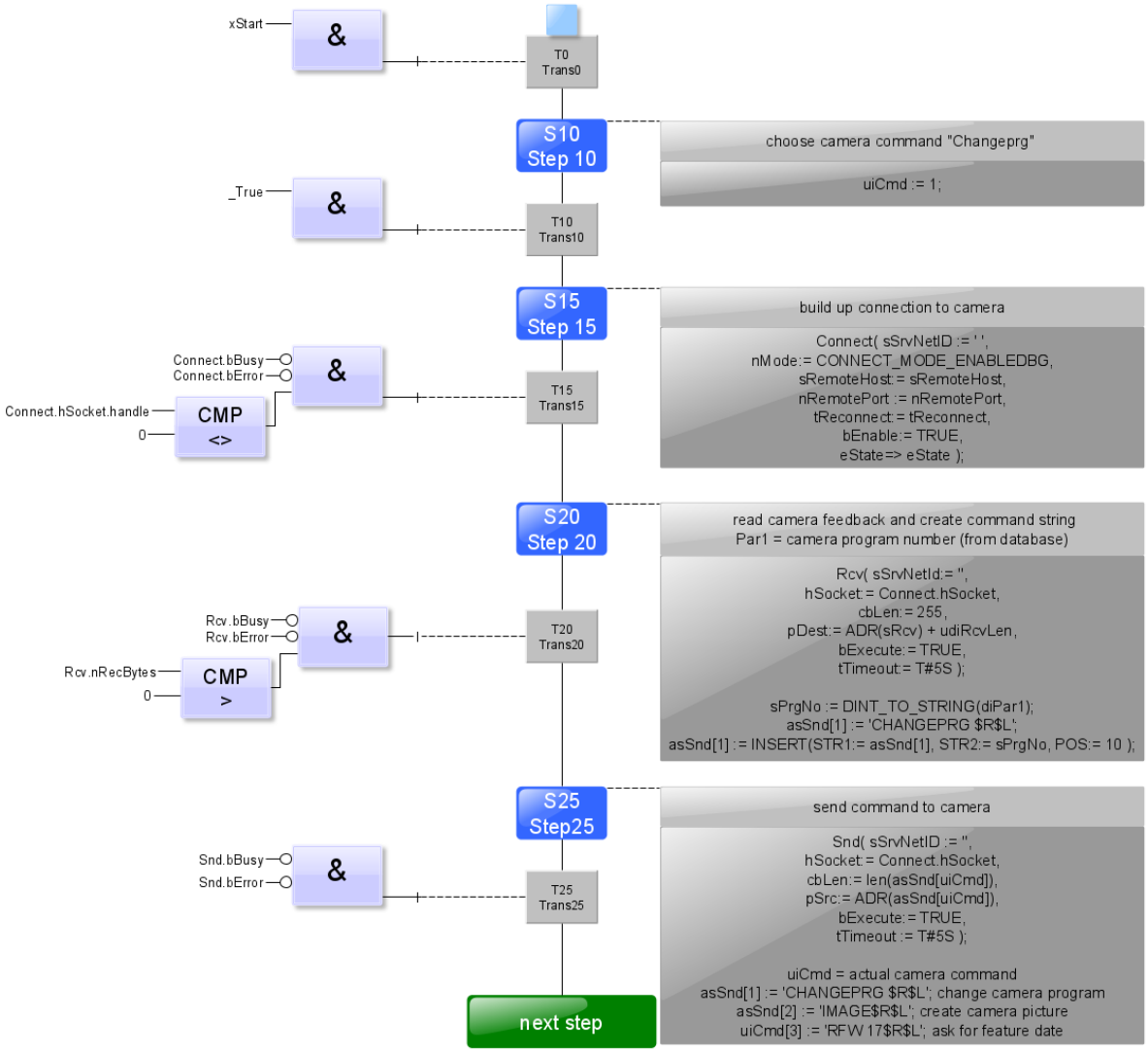
8.1.2 Operating instructions

- The basic modules may only be operated by authorized and instructed persons.
- Operation has to be effected according to the user manual.
- Any uncontrolled pressing on different switches/pushbuttons of all control units has to be prevented.

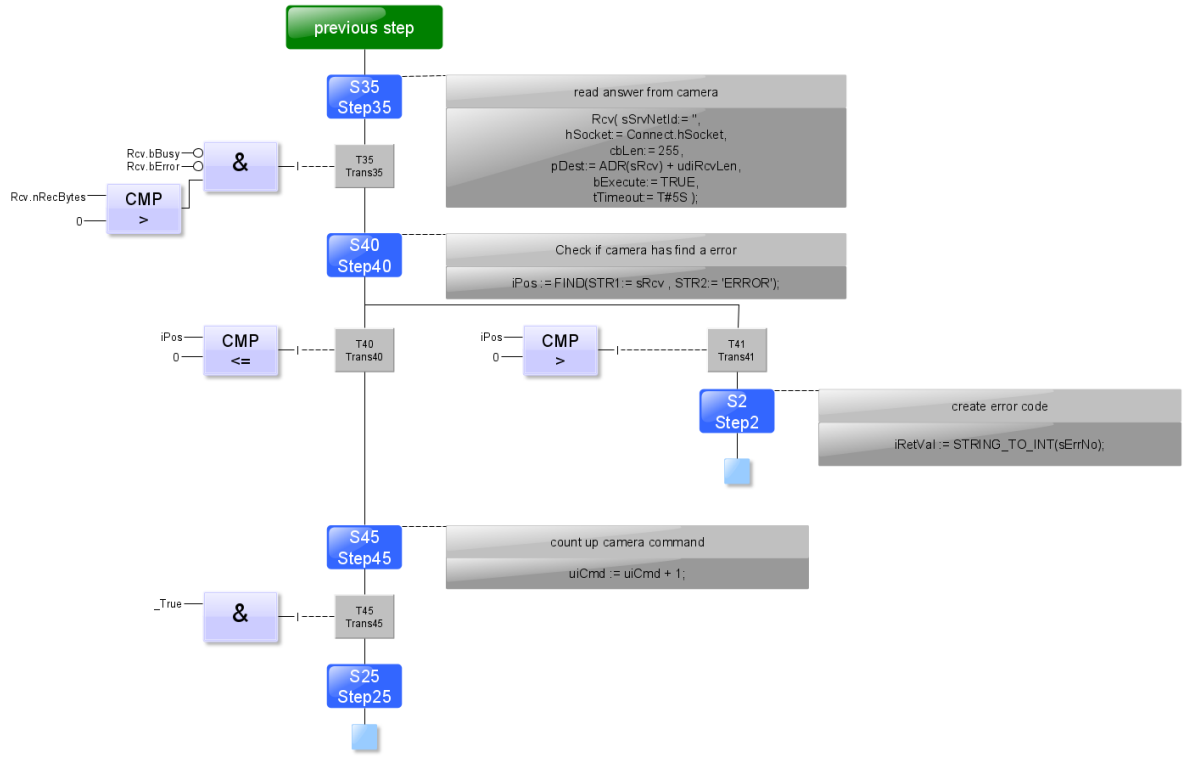
8.2 Sequence description of the application module camera inspection



Adjusting sequence



Automatic Mode sequence

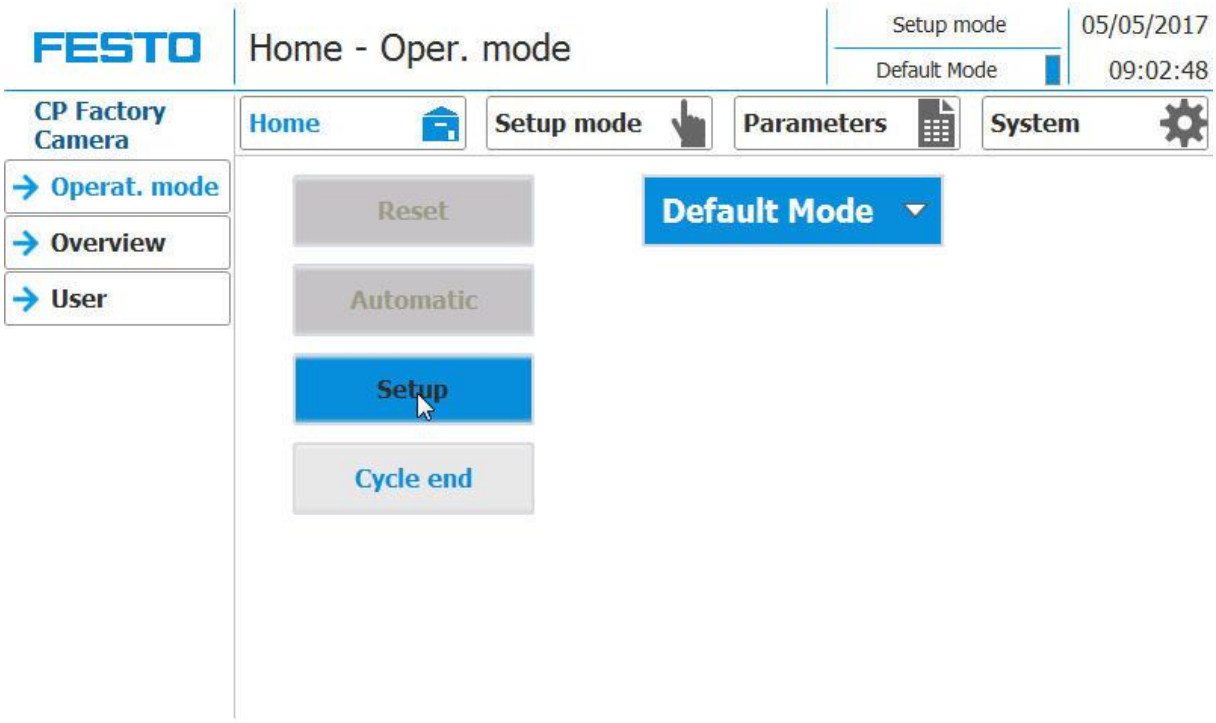


Automatic Mode sequence

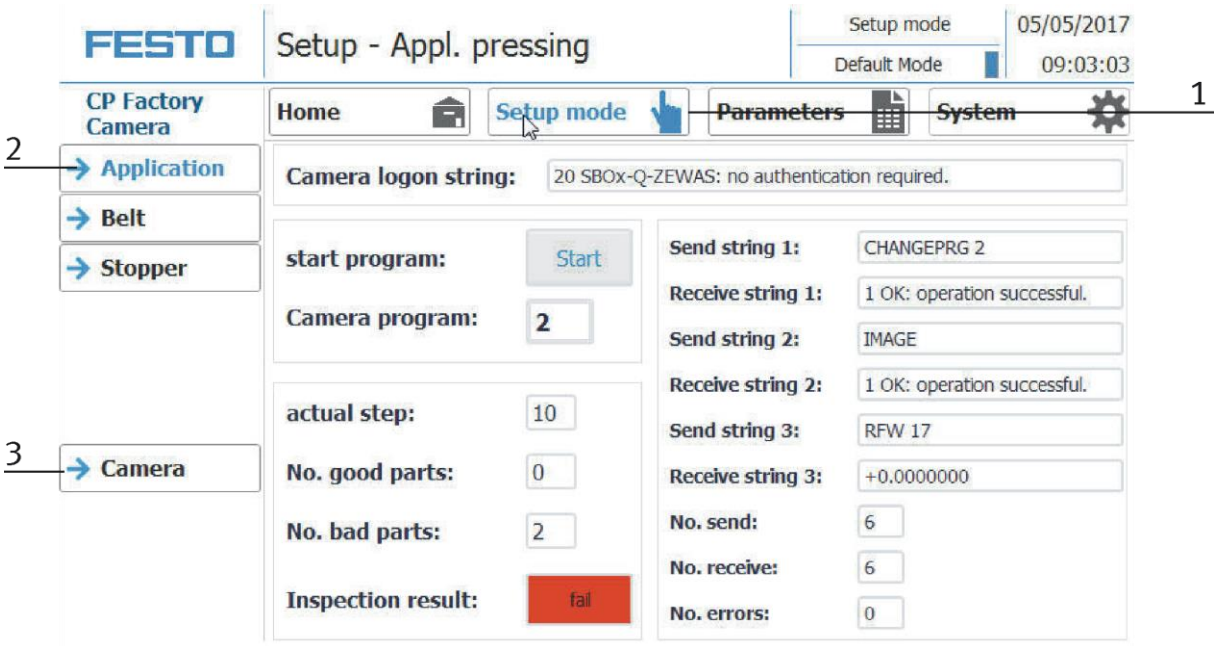
8.3 Setting the application module camera inspection at HMI

To set the application module, the application module must be set to setup mode.

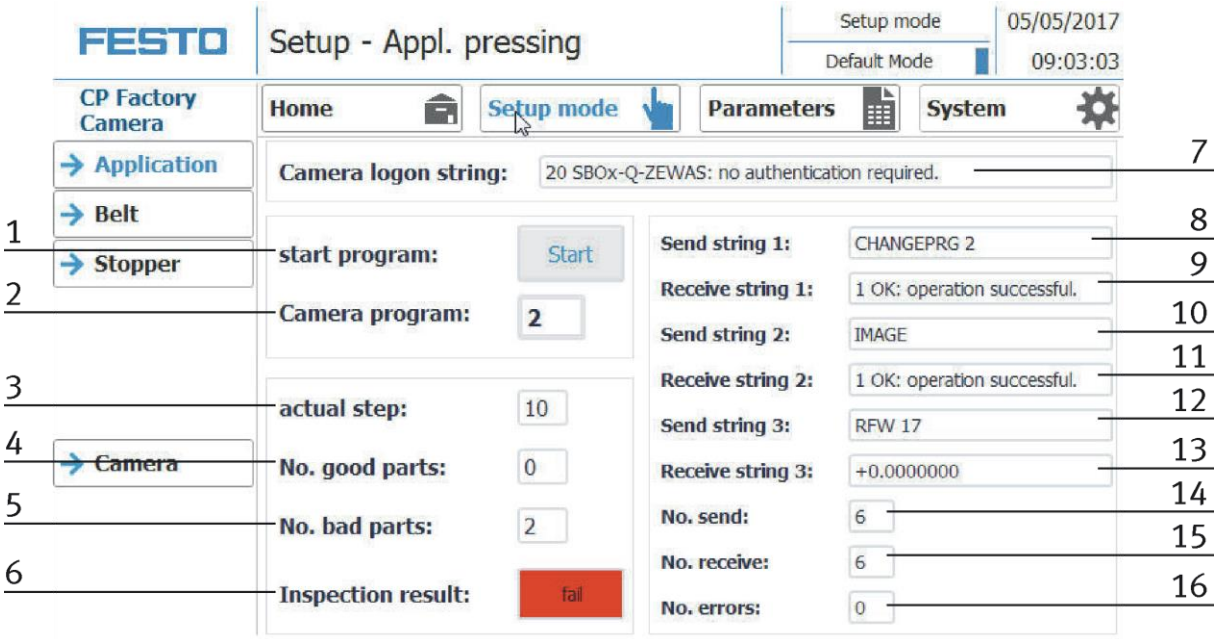
1. On the Start screen, click Setup



Switch to setup page (1) and select application (2), the camera (3) can be used to select the camera to take pictures.

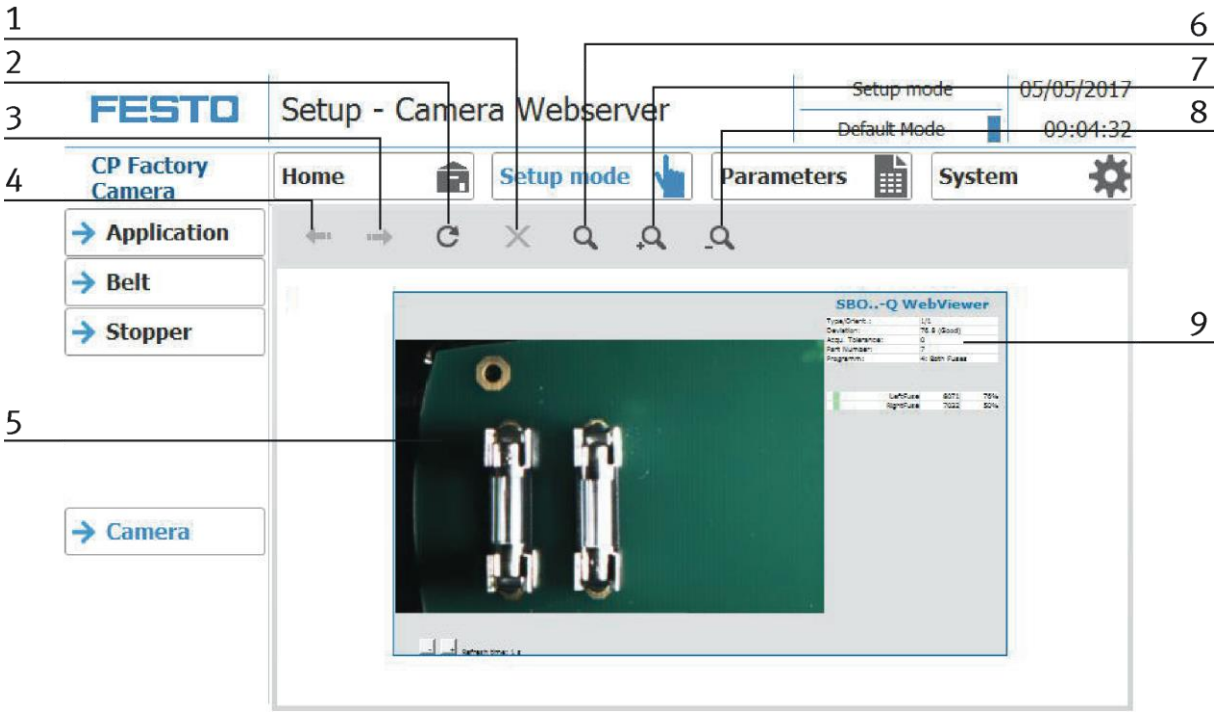


2. Application is selected to set up the application module



Position number	Description
1	Start the program: here the active camera program can be started.
2	Camera program: the camera's measuring program is selected here 1: Test: No fuse mounted 2: Test: Front fuse mounted (seen in direction of transport) 3: Test: Rear fuse mounted (as viewed in transport direction) 4: Test: Both fuses mounted 5: Test: workpiece orientation (rotation about Z axis)
3	Current step: the active step is displayed here
4	Number of good parts: the number of all good parts since switching on is displayed here
5	Number of bad parts: the number of all bad parts since switching on is displayed here
6	Test result: the result of the last measurement is displayed here
7	Camera LogonString: the registration data of the camera are displayed on the PLC
8	Send string 1: the string shows what the PLC sends to the camera (detailed description of the TelNet interface is in the manual of the camera)
9	Receive string 1: the string shows what the PLC receives from the camera (detailed description of the TelNet interface is in the manual of the camera)
10	Send string 2: the string shows what the PLC sends to the camera (detailed description of the TelNet interface is in the manual of the camera)
11	Receive string 3: the string shows what the PLC receives from the camera (detailed description of the TelNet interface is in the manual of the camera)
12	Send string 3: the string shows what the PLC sends to the camera (detailed description of the TelNet interface is in the manual of the camera)
13	Receive string 3: the string shows what the PLC receives from the camera (detailed description of the TelNet interface is in the manual of the camera)
14	No Send: This shows how much was send to the camera (can be used to locate the error between the camera and the PLC)
15	No received: Shows how much of the camera was received (can be used to locate the error between the camera and the PLC)
16	Number of errors: the number of errors is displayed here

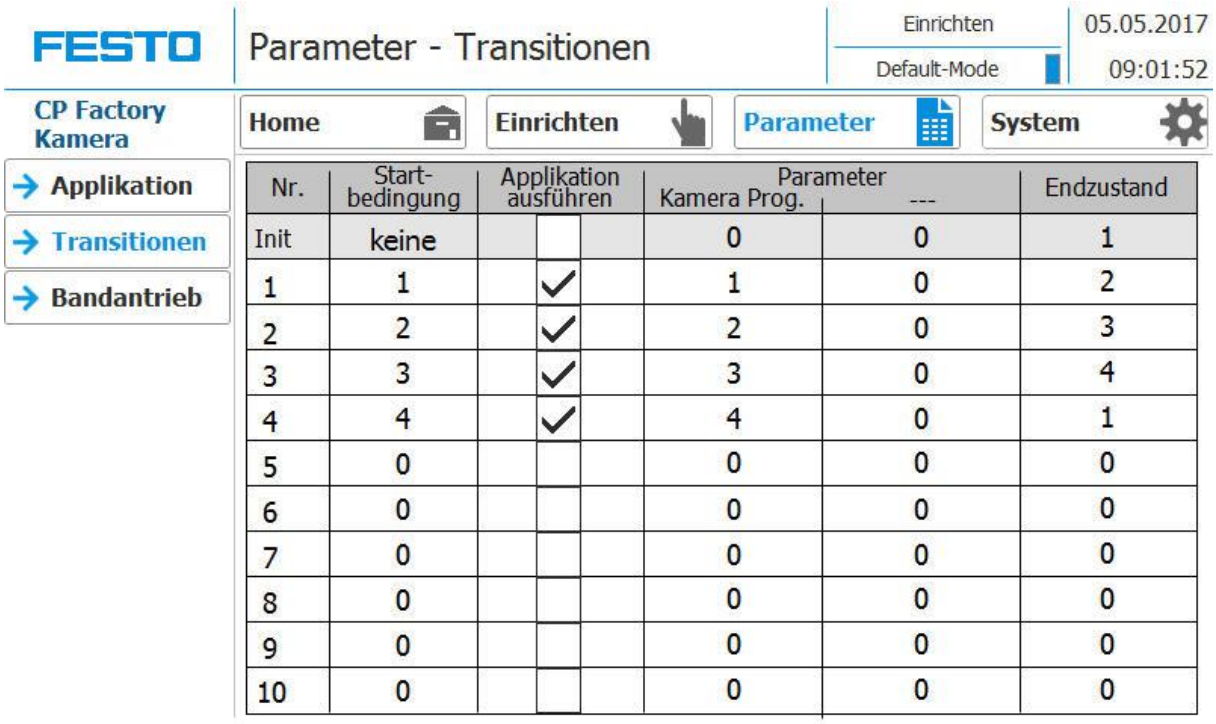
3. Select Camera to set up the camera. The PLC is connected to the camera's HTML server. This would also be possible with a PC - provided that the corresponding IP address can be found in the network manual. The port is 9999



Position number	Description
1	Delete picture
2	Take an new picture
3	Switch one picture forwards
4	Switch one picture backwards
5	Announcement of actual picture
6	Select a magnifying glass / move the image to activate the magnifying glass
7	Make picture bigger
8	Make picture smaller

8.4 Transitions of the application module

The transitions are located in the Parameters submenu



Nr.	Start-bedingung	Applikation ausführen	Parameter Kamera Prog.	---	Endzustand
Init	keine	☐	0	0	1
1	1	☑	1	0	2
2	2	☑	2	0	3
3	3	☑	3	0	4
4	4	☑	4	0	1
5	0	☐	0	0	0
6	0	☐	0	0	0
7	0	☐	0	0	0
8	0	☐	0	0	0
9	0	☐	0	0	0
10	0	☐	0	0	0

The transitions can be displayed or changed here. The transitions are used in the default mode, see also the following chapter.

8.4.1 Parameter (CAM)

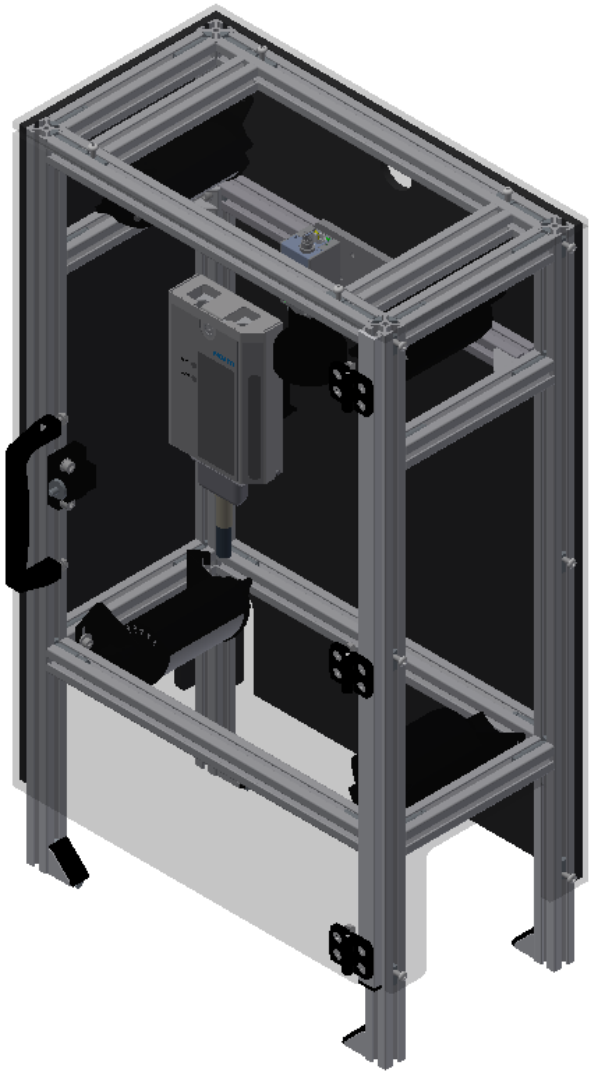


Illustration similar

Default:

Parameter-No.	Description
1	**Program** Program number to evaluate the camera picture Standard programs: 4. Check no fuse assembled 5. Check if PCB has front fuse 6. Check if PCB has back fuse 7. Check if PCB has both fuses 8. Check if front covers right side up 9. Not used 10. Check for empty pallet

MES:

Operation		Parameter	Description
400	Camera check	1	**Camera program** Standard programs: 11. Check no fuse assembled 12. Check if PCB has front fuse 13. Check if PCB has back fuse 14. Check if PCB has both fuses 15. Check if front covers right side up 16. Not used 17. Check for empty pallet Value: 1 Type: changeable
		2	**Return value** Value: 0 Type: on runtime
401	Check: no fuse	1	**Camera program** Low Limit: 1 High Limit:-6 Value: 1 Type: constant
		2	**Return value** Value: 0 Type: on runtime
402	Check: front fuse	1	**Camera program** Low Limit: 1 High Limit:-6 Value: 2 Type: constant
		2	**Return value** Value: 0 Type: on runtime

MES:

Operation		Parameter	Description
403	Check: rear fuse	1	**Camera program** Low Limit: 1 High Limit:-6 Value: 3 Type: constant
		2	**Return value** Value: 0 Type: on runtime
404	Check: both fuses	1	**Camera program** Low Limit: 1 High Limit:-6 Value: 4 Type: constant
		2	**Return value** Value: 0 Type: on runtime
405	Check: part upside down	1	**Camera program** Low Limit: 1 High Limit:-6 Value: 5 Type: constant
		2	**Return value** Value: 0 Type: on runtime

9 Error messages and message texts at the HMI

In general, there are three different reporting classes. These are designed as follows

- Message class 0 (displayed red in the message line)
  - the program is immediately stopped and the automatic mode is terminated
  - the cause of the error has to be fixed
  - Then acknowledge the fault and restart the station
- Message class 1 (displayed red in the message line)
  - the program and the automatic mode are stopped at the end of the cycle
  - the cause of the error has to be fixed
  - Then acknowledge the fault and restart the station
- Message class 2 (displayed yellow in the message line)
  - the program and the automatic mode are executed further
  - If the cause of the fault is fixed, the paler is automatically acknowledged
- Note
  - Displayed on the HMI but not processed in MES

9.1 Reporting texts

9.1.1 General remediation texts

The "XXX" values are variables and change depending on the application. These texts can occur on all applications and modules.

Report class	Location	Alarm name	Report text	Fix error
0	ActMon_1M0B	prgSysAlarmActv	Time monitoring "XXX" Activation actuator:: "XXX" / PLC: "XXX" / instance: "XXX"	Check the actuation of the actuator
0	ActMon_1M0B_noHold	prgSysAlarmActv	Time monitoring "XXX" Activation actuator:: "XXX" / PLC: "XXX" / instance: "XXX"	Check the actuation of the actuator
0	ActMon_1M1B	prgSysAlarmExtd	No feedback of the sensor "XXX" on trigger of the activation actuator:: "XXX" / PLC: "XXX" / instance: "XXX" /	Check control / feedback!
0	ActMon_1M1B	prgSysAlarmRtrd	Feedback from sensor "XXX" without control of the actuator "XXX" PLC: ‹field ref = "0" /›; Instance: "XXX"	Check control / feedback!
0	HeatMon	prgSysAlarmActv	Time monitoring heating. Setpoint not reached. PLC: "XXX" / instance: "XXX"	Check temperature sensor Heating not enabled by the selector switch Heating resistors defective
0	CylMon_1M1B	prgSysAlarmExtd	Time monitoring movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path (exiting)
0	CylMon_1M1B	prgSysAlarmRtrd	Time monitoring movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path (retraction)
0	CylMon_2M1B	prgSysAlarmExtd	Time monitoring movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check travers path (exiting)
0	CylMon_2M1B	prgSysAlarmRtrd	Time monitoring Reset movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path (retraction)

Report class	Location	Alarm name	Report text	Fix error
0	CylMon_2M1B	prgSysAlarmSens	Time monitoring divergence cylinder sensors. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path
0	CylMon_2M2B	prgSysAlarmExtd	Time monitoring movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path (exiting)
0	CylMon_2M2B	prgSysAlarmRtrd	Time monitoring Reset movement of the cylinder. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path (retraction)
0	CylMon_2M2B	prgSysAlarmSens	Time monitoring divergence cylinder sensors. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check the air pressure Check the limit switch / setting Check traverse path
0	DriveMon_4Q	prgSysAlarmA	Time monitoring: Motor clockwise (rapid) defective. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check transducer disk / sensor motor Check the motor cable
0	DriveMon_4Q	prgSysAlarmB	Time monitoring: Motor left run (rapid traverse) defective. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check transducer disk / sensor motor Check the motor cable
0	DriveMon_4Q	prgSysAlarmC	Time monitoring: Motor clockwise (slow speed) defective. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check transducer disk / sensor motor Check the motor cable
0	DriveMon_4Q	prgSysAlarmD	Time monitoring: Motor left run (slow speed) defective. Initiator: "XXX" / PLC: "XXX" / instance: "XXX"	Check transducer disk / sensor motor Check the motor cable

Report class	Location	Alarm name	Report text	Fix error
0	Error	ErrNotAus	EMERGENCY STOP is actuated!	Check emergency stop button -F2-FQ1 and confirm with button -F2-SF1.
2	Error	WarnMES4	Communication to MES4 interrupted!	Please check connection
0	Error	ErrAppTimeout	Application Timeout!	
0	Error	PnErrKF80	PROFINET Connection to subscriber "+ K2-KF80" is interrupted	
0	Error	PnErrKF81	PROFINET Connection to subscriber "+ K2-KF81" is interrupted	
0	Error	ErrProgramm	Programming errors! OB121 was called.	Check program
2	Error	WarnRfidTout	RFID time monitoring is active!	Please check the RFID sensor and the chip.
2	Error	WarnRfidErr	RFID writing / reading with error ended!	Please check the RFID sensor and the chip.
2	Error	WarnConvStop	Conveyor start / stop by sensors Energy saving mode: conveyor is stopped!	Place the workpiece carrier at the beginning of the conveyor Waiting until a workpiece carrier comes automatically from predecessor station

9.1.2 RFID detection messages

Report class	Location	Alarm name	Report text	Fix error
0	RFID_Control	fbErrRfidTout	Timeout at RFID writing / reading to RFID- Instance: "Calling function block!"	Check workpiece carrier / RFID Chip
0	RFID_Control	fbErrRfidErr	Error at RFID writing / reading to RFID- Instance: "Calling function block!"	Check workpiece carrier / RFID Chip
0	Stopper_Default	fbErrCarrier	No RFID tag identified at RFID- Instance: "Calling function block!"	Check workpiece carrier / RFID Chip
0	Stopper_Mes	fbErrCarrier	No RFID tag identified at RFID- Instance: "Calling function block!"	Check workpiece carrier / RFID Chip

9.2 Interactive message texts

Interactive messages are displayed via a pop-up window. Pop Up has two buttons
Retry - Try to redo the action
Abort - The action is aborted and directed to the Cell Controller. There can also be a retry executed or cancelled. In this case, the order would be stored with errors in MES.

9.2.1 General

Value	Text	Fix error
100	Order aborted with errors!	Start order again

9.2.2 Application module camera inspection

Value	Text	Fix error
1050	Camera not in online mode	Set camera in online mode
1051	Camera not ready	Check camera / Check network connection from camera
5050	Quality inspection failed	Check workpiece or/and camera program

10 Spare part list

- Key 8027302
- 24V cable 381525

11 Service and cleaning

The components and systems from Festo Didactic are maintenance-free.
At regular intervals you should have checked:

- the lenses of the optical sensors, fibre optics and reflectors
- the active surface of the proximity switch
- the entire station

can be cleaned with a soft, lint-free cloth or brush.

NOTE

Do not use aggressive or abrasive cleaners.

Protective covers must not be cleaned with alcoholic cleaning agents, there is a risk of embrittlement.

12 Further information and updating

Further information and updates on the technical documentation of Festo Didactic components and systems can be found on the Internet at:
www.ip.festo-didactic.com

13 Disposal

NOTE

Electronic waste contains recyclable materials and must not be disposed of with the domestic waste. Bring electronic waste to a designated municipal collection point.

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