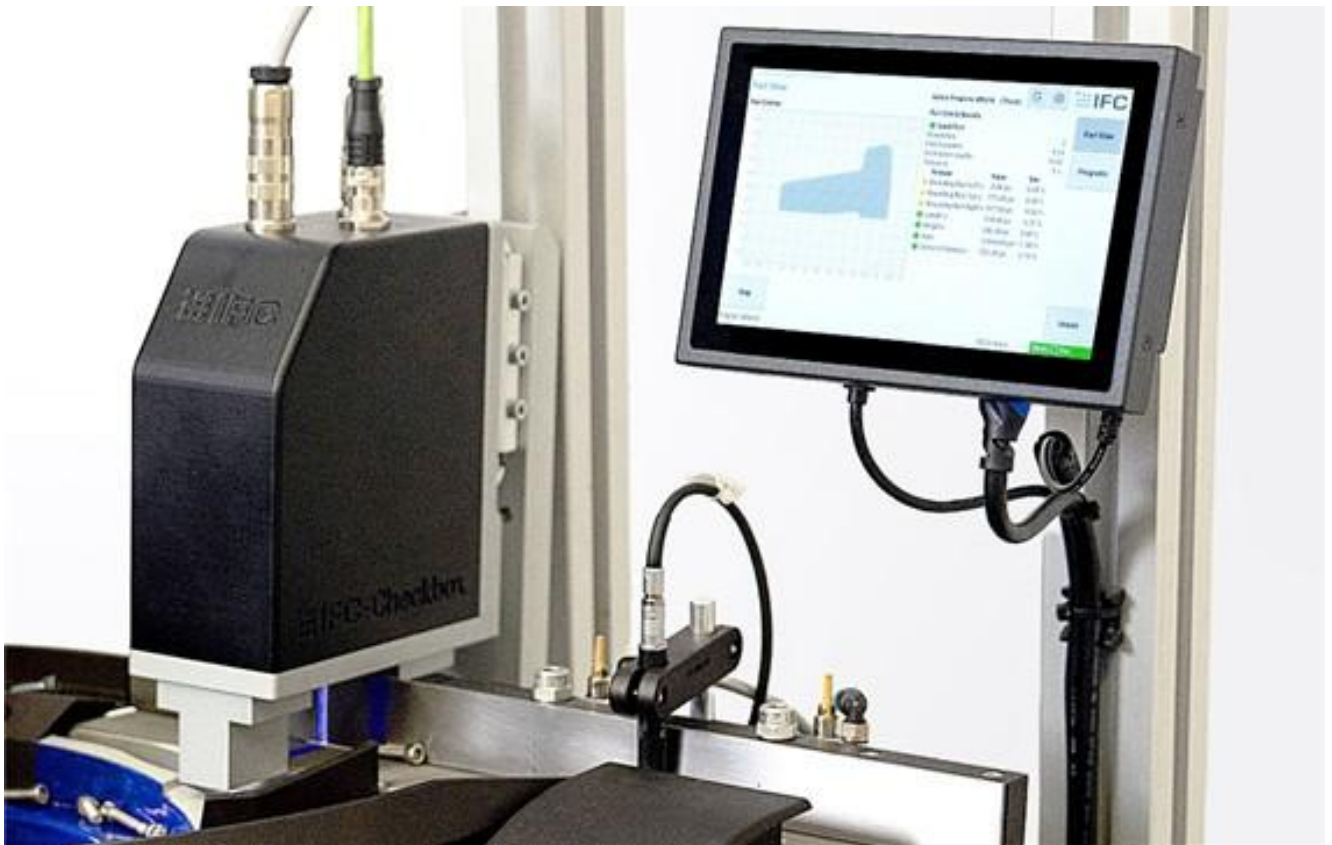
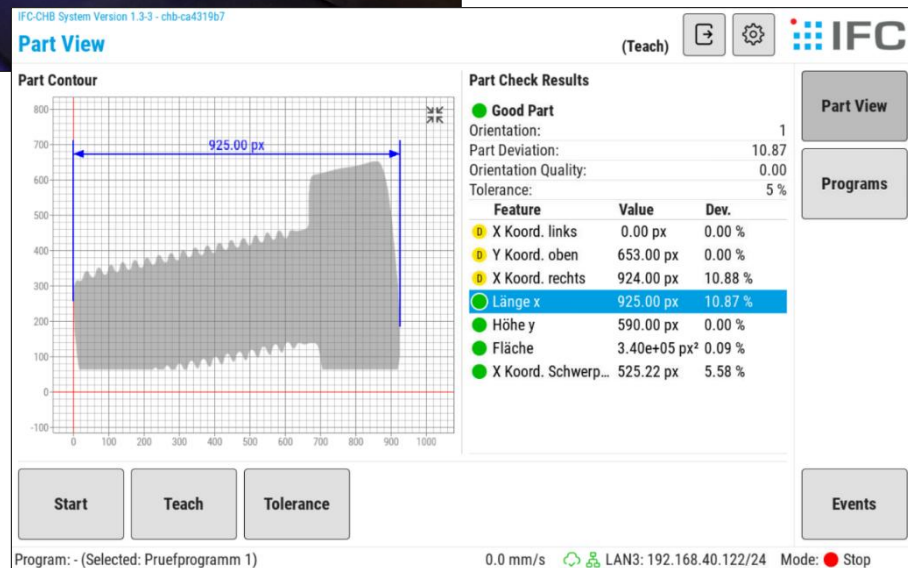


IFC-Checkbox®



Feed – Check – Sort – Count – Control

Technical Specification



The new IFC-Checkbox

Camera-based sorting, inspection and counting of assembly parts

The IFC-Checkbox is an automation component featuring optical part identification for sorting small parts by type, orientation, quality and quantity. It is designed for the reliable feeding of small parts to assembly, manufacturing or packaging machines, especially at high throughput rates and with a high variety of part types.

The IFC-Checkbox enables reliable rejection of defective parts, prevents incorrect part types from being assembled, counts good parts and reduces set-up times to a minimum.

The integrated, highly flexible part flow control enables the integration of additional sensors and actuators and logically integrates any singulation components into the process flow, without the need for complex additional programming.

Compact flexibility

Camera technology and part flow control integrated into a tried-and-tested system

The IFC-Checkbox comprises several components. Part detection is carried out by the *IFC-ScanUnit*, housed in a robust enclosure which contains a line scan camera and telecentric lighting. The processing of image and sensor data, the calculation of inspection results and the control of the part flow are handled by the *IFC-ProcessingUnit*, an industrial PC. The *IFC-ControlUnit* provides the input and output signals. All user interfaces are provided via the *IFC-TouchDisplay*. The connections for the IFC-Checkbox components, encoder and diagnostic PC are designed as plug connectors.

The parts are scanned in a downward-open optical channel on the underside of the *IFC-ScanUnit*. This allows the ScanUnit to be mounted on various customer-side transport systems (e.g. conveyor belt with encoder).

Official successor to the FESTO Checkbox CHB-C-N

State-of-the-art hardware and superior software, backed by over 30 years of production experience

The IFC-Checkbox is the official successor to the Checkbox product family discontinued by FESTO. IFC has ported and further developed the firmware from proprietary hardware to a high-performance industrial PC architecture. All hardware has been rebuilt using high-performance components.

The primary development objective was to ensure full backwards compatibility with the FESTO Checkbox despite the use of new components:

- Geometrically identical (interface, position, optical channel) to the Checkbox CHB-C-P, CHB-C-X and CHB-C-N
- Optics: line-scan camera resolution, pixel size and deflection identical to the CHB-C-N
- Test programmes for the Checkbox CHB-C-N are 100% compatible; previous versions require adaption
- Electrical signals and interfaces are identical
- Replacing existing Festo Checkbox CHB-C-N units is significantly simplified by an additional kit, which allows all existing connectors to be used on a 1:1 basis.
- The operating software CheckKon and CheckOpti are now Windows 11-compatible and backward-compatible with the CHB-C-N

Performance improvements and functional enhancements

Speed, resolution, operation, logic functions, connectivity

- Improvement of length resolution by a factor of 4
- Now up to 50 test parts per second
- No restriction on test part length
- Faster calculations
- Option to integrate up to three external sensors (area-scan cameras, AI cameras, eddy current sensors and any other sensors) into the part flow control system for enhanced component inspection.
- Significantly enhanced counting function for good parts, even when integrating up to three external sensors; target values can be specified via the TouchDisplay, inspection programme or external input.
- TouchDisplay for intuitive operation and displaying important information
- Operation of key functions via the TouchDisplay without a PC connection
- Event logs for statistics and problem analysis
- Option for remote maintenance
- Option to send recorded parts for problem analysis or to create test programmes

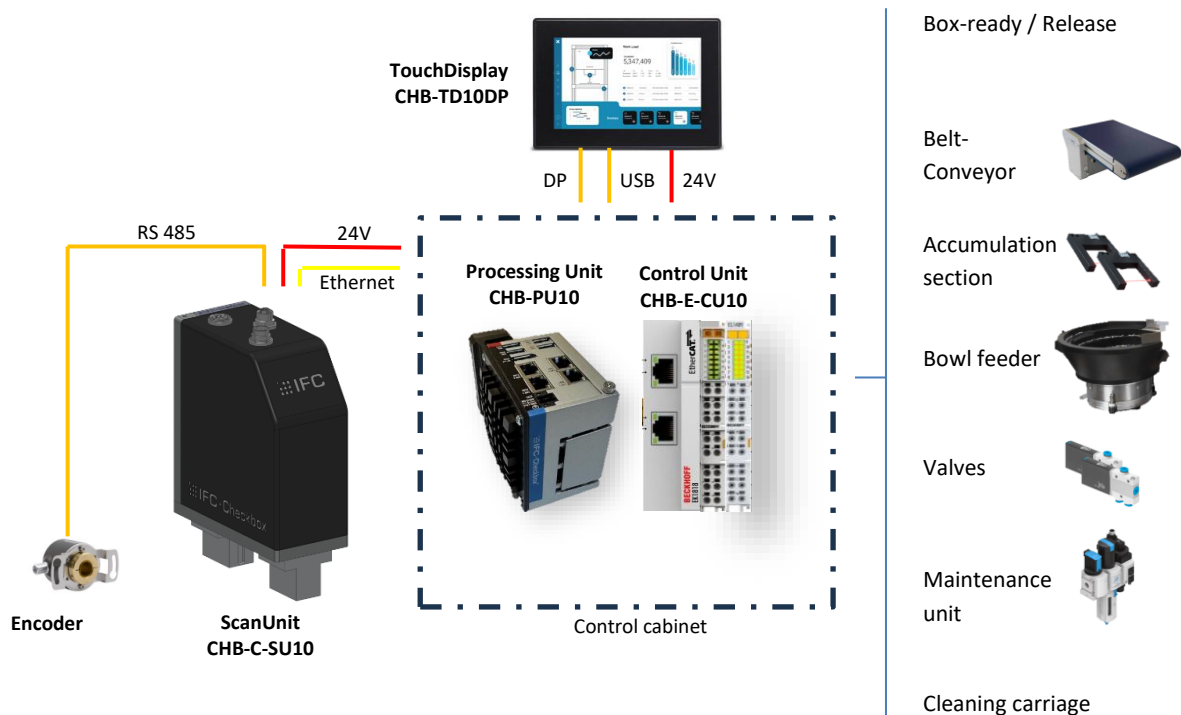
IFC-Checkbox system configuration

The IFC-Checkbox comprises several components. The *ScanUnit*, featuring telecentric illumination and a line-scan camera, is used in conjunction with a digital encoder (rotary encoder) for optical identification of the test parts.

Data processing is handled by the *ProcessingUnit*. This is where image processing, inspection task processing, tracking of the components during the process and control of the actuators ('part flow control') take place.

The *ControlUnit* provides 24V high-power signals at its outputs, these can be used, for example, to directly control fast-acting pneumatic valves in order to reliably eject incorrect or incorrectly oriented parts from the part flow using an air jet. However, other actuators, such as pneumatic or electric ejectors, diverters or turning stations, can also be controlled.

Both are mounted, installed and integrated into a suitable control cabinet.

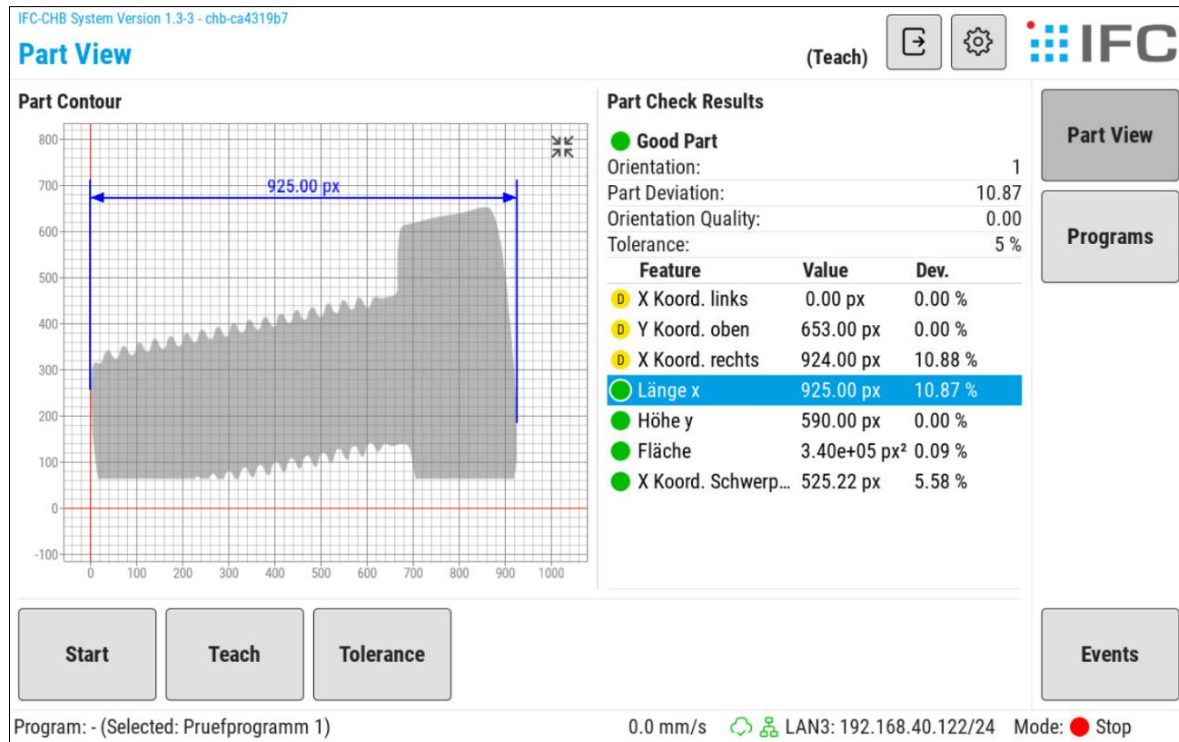


By integrating up to 3 external sensors or cameras, additional quality characteristics can be checked. Inductive, capacitive or optical sensors, colour sensors, vision sensors or AI camera systems can be integrated into the process and into the part flow control for further complex workpiece inspections. All the control functions required for this can be easily configured.

The enhanced count function for good parts now works correctly with up to 3 external sensors.

Inputs for the encoder used for belt speed monitoring and for accumulation section sensors, as well as an output to control the conveyor system, complete the range of functions.

The system is visualised and controlled via a *TouchDisplay* designed for industrial applications. The modern and clearly structured user interface simplifies operation, teaching process, test programme selection and troubleshooting.



Operation via TouchDisplay:

- Convenient operation, configuration and troubleshooting without a laptop
- Counting functions can be set directly via the touchscreen
- Errors displayed in plain text with recommended actions
- Event log: Errors, warnings and information are stored with a timestamp
- Various user levels with access control
- Selection, creation and renaming of test programmes
- Visual representation of tested and teach-in parts with zoom for detailed view
- Display of component height and component length
- Display and configuration of network settings
- Display of conveyor speed
- Checking the field of view (e.g. in case of contamination) by displaying the greyscale line

Basic functions of the IFC Checkbox

Teach function

- Teaching new parts (good and defective parts) without programming
- Saving the characteristics of the inspection programme

Quality inspection¹⁾

- Quality inspection (dimensions, geometry)
- Automatic sorting out of defective and foreign parts

Position check (target orientation)

- Position-oriented transfer of good parts to the following process
- Return of incorrect oriented good parts to the part-feeder
- Position checking and accumulation section monitoring can be carried out simultaneously

Check of the accumulation section

- Control of the buffer section using a sensor
- When the accumulation section is full: return of good parts to the part-feeder
- If the conveyed parts remain on the accumulation section for an extended period, the small-parts conveyor switches off

Accumulation section monitoring with switching hysteresis ²

- control of the accumulation section (min./max. accumulation) using two sensors for delayed switching of the part-feeder (hysteresis)

Counting of good parts with a preselected quantity ²⁾

- A counter determines the total number of good parts
- defined quantities of components by setting a target number for good parts
- Quantity setting via TouchDisplay, fixed via test programme or via external input

Control of part-feeding device (bowl feeder, area feeder)

- Blow-off process
- Delayed starting signal of the feeding device
- Shutdown of the feeding device after an adjustable time if the accumulation section is full or the counter value has been reached

External sensor

- Control of up to three external sensors (e.g. colour sensors, eddy current sensors, area-scan cameras, AI cameras, etc.), which carry out additional evaluation at configurable positions. Integration of the result to the part while it is still in motion and rejection via separately adjustable actuators.

1) Advanced quality inspection with CheckOpti

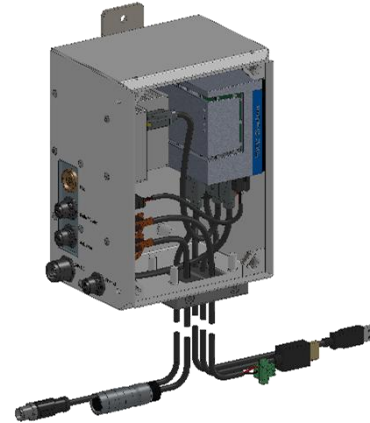
2) Activation and configuration of the system parameters in CheckKon is required

Designed for the seamless replacement of legacy equipment

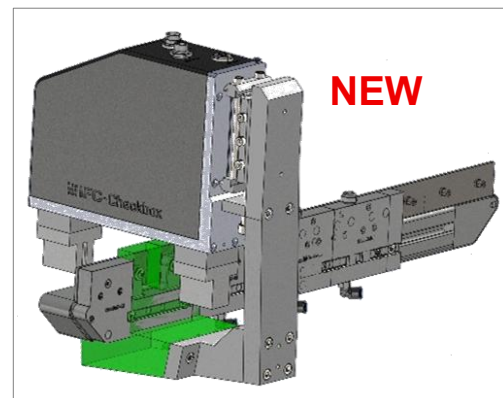
IdentBox, CountBox, CHB-C-C, CHB-C-P, CHB-C-X, CHB-C-N

The Checkbox line-scan camera system, featuring integrated logic and part flow control, has been in use for over 30 years and has been continuously developed and optimised during this time to meet growing industrial requirements. Today, thousands of units are in demanding production use worldwide.

From the very beginning of the IFC-Checkbox development, IFC has placed the highest priority on functionality and performance, as well as on supporting customers in the event of problems or failures involving legacy equipment. The functional geometry and the connection of the ScanUnit have been adopted identically from the Checkbox CHB-C-N. At the same time, connection points for older devices have also been integrated to ensure universal compatibility. Despite a more modern system architecture, the same electrical signals are exchanged. To enable replacement with minimal effort and without complications, IFC offers a special connection box as an accessory. The **CHB-C ReplacementBox** enables 'plug-and-play' integration into existing systems.



For older devices such as the IdentBox and CountBox, IFC offers conversion kits based on the IFC Checkbox, ready-to-install units and support with integration into existing systems for all customers.



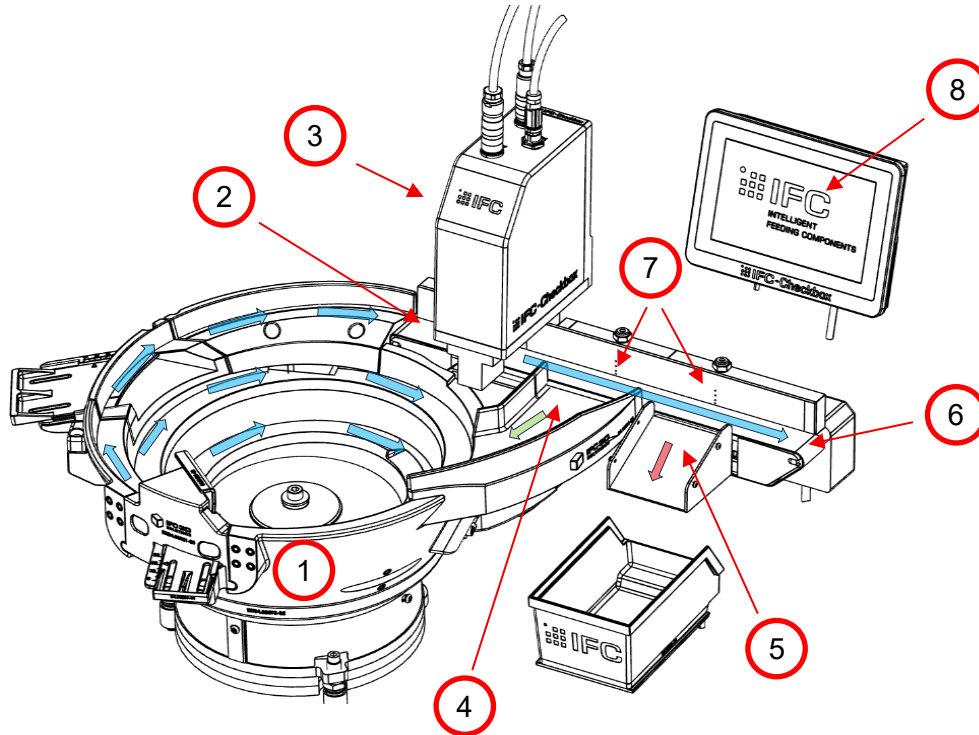
Mechanical integration and CAD models

Detailed CAD models are available for the IFC-Checkbox and the available accessories to support mechanical integration. The IFC CAD catalogue can be accessed directly via the following link:

<https://ifc-online.partcommunity.com/3d-cad-models/ifc>

Operating principle

Integration of the IFC-Checkbox into a conveying system: example using a belt conveyor with 2 actuators and a bowlfeeder.



- (1) Small-parts feeder, e.g. bowlfeeders, step-lift conveyors, centrifuges or flat conveyors
- (2) Conveying equipment, e.g. IFC belt conveyor with centre drive
- (3) ScanUnit for part inspection
- (4) Return of incorrect oriented parts to the small-parts feeder
- (5) Rejection of incorrect parts, e.g. faulty parts or foreign objects
- (6) Transfer of good parts to an accumulation section or the following machine
- (7) Actuators, e.g. blow-off valves
- (8) TouchDisplay for operation, visualisation, problem analysis and test programme management

The parts to be inspected are transported beneath the ScanUnit by a conveyor system. As the parts pass through the 'Optical Channel', the part contour is scanned using the transmitted-light method. The inspection parts are evaluated using customisable inspection programmes; new part types are taught using the teach-in procedure.

The IFC-Checkbox sorts the parts based on the part contour data into:

- *Good part, correctly oriented:* The inspection part passes through to the end of the conveyor system and is transferred to the following station
- *Good part, but incorrectly oriented:* The inspection part is ejected, for example, at the first actuator position and returned to the part feeder or rotated into the correct orientation by a turning station. Ejection can be carried out, for example, by a blast of air
- *Defective part or incorrect type:* The inspection part is diverted, for example, at the second actuator position

Advantages of the IFC-Checkbox compared to area-scan cameras

The scanning method of the IFC-Checkbox (line-scan camera system) offers significant advantages compared to area-scan camera systems.

- For example, any mixture of parts can be captured and processed without the need to maintain minimum distances, as well as very long objects (up to > 1.000 mm).
- Extremely high inspection speeds of up to 50 parts per second!
- No interference from reflections, surface variations or ambient light
- Individual customised inspection programmes using CheckKon and CheckOpti
- Fully integrated, configurable part flow control

Which parts are suitable?

In principle, all workpieces that can be transported in a stable position and whose quality and orientation can be identified based on contour features in the camera image. Colour or material characteristics can also be incorporated into the inspection using additional sensors.

Selection from the wide range of parts from A to Z:

Axles	Drill bits	Needles	Spring washers
Applicators	Fastening elements	Nuts	Stamped parts
Ballpoint pen parts	Filter elements	O-rings	Switch contacts
Batteries	Fittings	Piercing parts	Syringes and their parts
Bearings	Fuses	Pins	Tablets
Bicycle parts	Game pieces	Pin caps	Terminal strips
Bolts	Glass ampoules	Plastic housing	Threaded screws
Bottle caps	Glass vials	Plastic vials	Threaded sleeves
Brushes	Haberdashery	Rivets	Toothbrush parts
Buttons	Hydraulic components	Screws	Turned parts
Camshaft components	Hygiene products	Sealing rings	Valve guides and seat rings
Cannulas	Ignition parts	Seat belt buckles	Valve springs
Ceramic seals	Inserts	Sensor housing	Wall plugs
Chain links	Installation parts	Shafts	Washer
Clips	Light guides	Sleeves	Wheel bolts
Connectors	Lipstick tubes	Spikes	Windscreen wiper parts
Corrugated tubes	Motor components	Sockets	Wooden dowels
Cosmetic items	Nails	Spray heads	Writing instruments
Dental drills	Nail magazines	Springs	Zip fasteners

What throughput rates and speeds can be achieved?

Depending on the part length, throughput rates of up to 3.000 test parts per minute can be achieved, with part transport speeds of more than 60 metres per minute.

Which industries use the IFC-Checkbox?

Automotive

Clothing industry

Cosmetic industry

Dental technology

Electrical engineering and electronics

Electroplating

Furniture industry

Grinding technology

Metalworking industry

Optical industry

Packaging technology

Pharmaceutical industry

Polymer industry

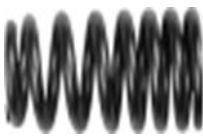
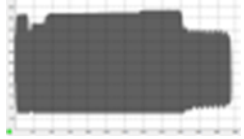
Precision engineering

Tool manufacturing

Toys

Woodworking industry

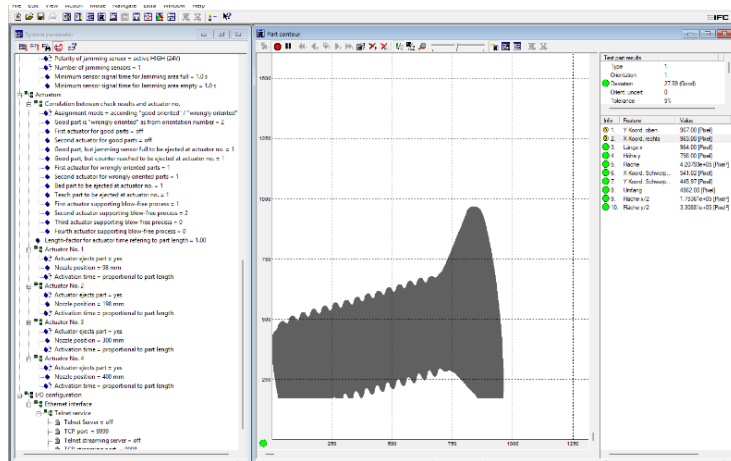
What does the camera see?

Designation	Test part	Camera image
Terminal block insert		
Valve spring		
Glass ampoule		
Heating element		
Non-return valve		
Pen tip		

Engineering software for customisation to individual requirements

The IFC-CheckKon and IFC-CheckOpti software tools are based on the corresponding programmes from FESTO, but are now Windows 11 compatible and backward-compatible with the Checkbox CHB-C-N.

IFC-CheckKon

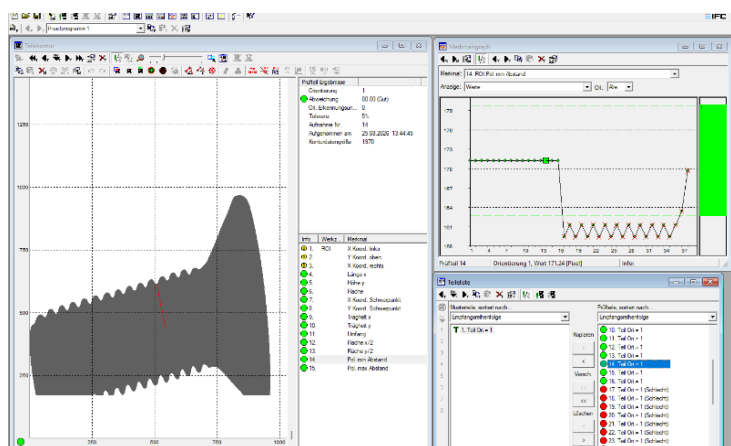


This software enables processes within the IFC-Checkbox – from camera image analysis to I/O parameters – to be displayed, logged and adjusted.

Specifically:

- System configuration, including displaying and modifying parameters and operating modes
- System diagnostics and fault analysis
- Display and recording of test part images and test results
- Archiving and documentation of system settings
- Test programme management
- Statistical analysis of test results

IFC-CheckOpti



CheckOpti is used when the standard teach-in process of the IFC-Checkbox reaches its limits due to insufficient contour differences, meaning that reliable orientation and/or quality detection of a test part cannot be ensured.

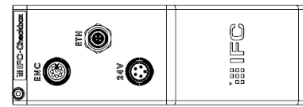
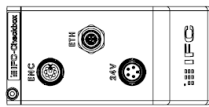
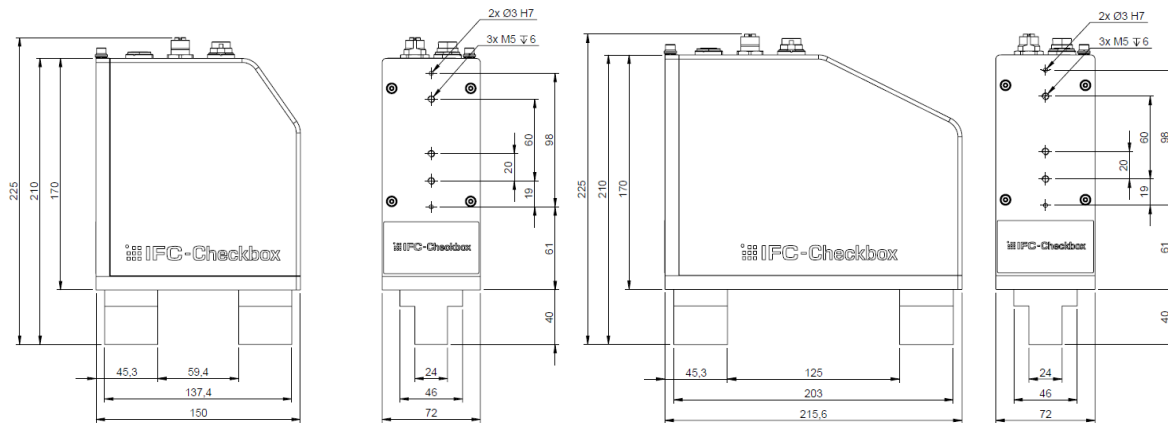
If required, additional powerful test features can be defined to optimise the system for specific applications. CheckOpti also provides functions for archiving and documenting test

programmes.

Software tool	Language	Download
IFC-CheckKon	German, English	www.ifc-online.com/downloads.php
IFC-CheckOpti	German, English	www.ifc-online.com/downloads.php

ScanUnit CHB-C-SU10 / CHB-C-SU10 XL

High-precision scanning unit comprising telecentric light, a line-scan camera and optical deflection components. Functional geometries are identical to the Festo Checkbox CHB-C-N. Various mounting options.

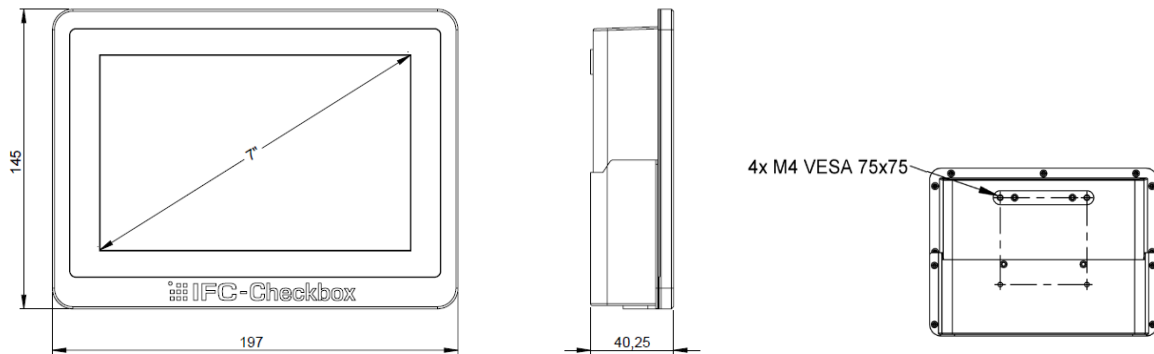


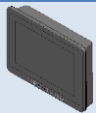
Order details	Designation / Type	Item No.
	ScanUnit CHB-C-SU10	05.12800-00
	ScanUnit CHB-C-SU10XL	05.12801-00

Technical data ScanUnit		
Temperature range		
Ambient temperature	5 ... 45 °C	
Storage temperature	-20 to +70 °C	
Environmental conditions	Dry Protection against extreme ambient light conditions: clean ambient air recommended	
Protection against electric shock (Protection against direct and indirect contact)	PELV (Protective Extra Low Voltage)	
CE mark (See Declaration of Conformity)	In accordance with the EU EMC Directive	
Vibration resistance in accordance to EN 0068-2-6	Severity level 2	
Shock resistance in accordance to EN 60068-2-27	Severity level 2	
Protection rating in accordance to EN 60529	IP64 (connectors when mated or fitted with a protective cap)	
Max. permissible cable lengths		
Power supply	30 m	
Encoder	5 m	
Ethernet	10 m	
Electrical data		
Rated operating voltage	24 V DC	
Permissible voltage fluctuations	-15 / +20 %	
Current consumption	250 mA	
Pre-fuse	T 0.5A	
Interfaces		
Encoder connection	In accordance to RS485 specification	
Data connection to the Processing Unit	Ethernet 1,000 Mbit/s	
Dimensions		
Length/width/height (excluding connectors)	Standard L: 155.8 mm W: 72.0 mm H: 210.0 mm	XL L: 221.4 mm W: 72.0 mm H: 210.0 mm
Clear passage of the optical channel	Standard 59.4 mm	XL 125 mm
Clear height of the optical channel	40 mm	
Line scan camera resolution	2048 pixels 14 x 14 µm	
Line rate	1.000... 33.000 Hz	

CHB-TD10DP TouchDisplay

Industrial-grade TouchDisplay for operating the IFC-Checkbox and all connected components. Visualisation of part contours, adjustment of device parameters and display of the event log. Mounting via standardised VESA75 connection, optionally via a mounting system.

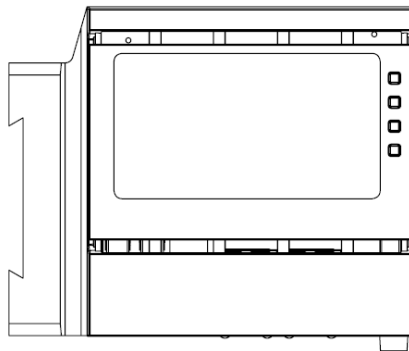
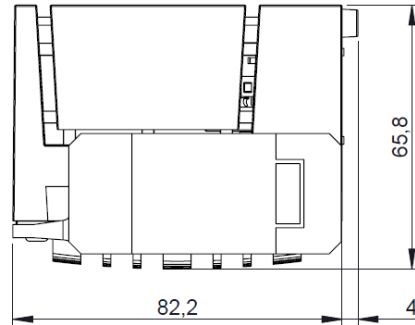
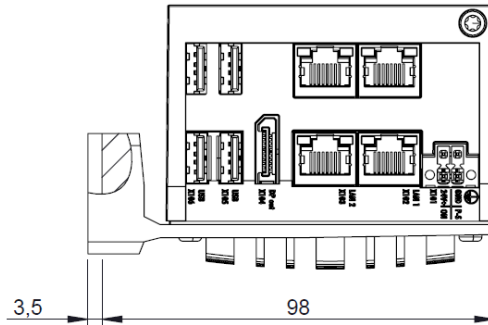


Order details	Designation / Type	Item No.
	CHB-TD10DP TouchDisplay	20.10916-00

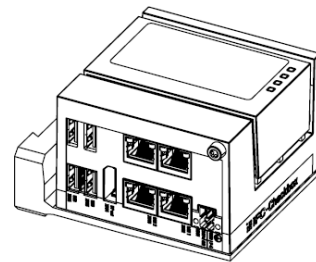
Technical data		
Dimensions		7 inches / 177.8 mm diagonal
Resolution		1,280 x 800 pixels
Touchscreen		PCAP multi-touch (USB)
Brightness		400 nits
Contrast		800:1 (typ.)
Max. colours		16.7 million
Active area		149.76 mm (H) x 93.6 mm (V)
Viewing angle		+/- 88° (H); +/- 88° (V)
Interfaces		Cable length
USB	1x USB-A	Standard: 2.5 m, optional 5.0 m
Video	1x DisplayPort	Standard: 2.5 m, optional 5.0 m
Power	1x connector (screw-type) Input: 9–36 V DC, 15 watts (typical)	Max. 30 m
Environment		
Housing		Durable metal housing
Mounting		VESA 75 x 75 mm
Operating temperatures		-20°C to 60°C
Storage temperature		-30°C to 70°C
Humidity		10 to 95% (non-condensing)
External dimensions		194.8 x 140.8 x 32.2 mm
Weight		2.5 kg
Protection rating		Front IP65, rear IP54
Certification		CE / FCC Class B

ProcessingUnit CHB-PU10

High-performance industrial PC with pre-installed IFC-Checkbox firmware for image processing, handling inspection tasks and tracking components during the process. Mounted using a TH 35 mounting rail (DIN EN 60715) in a suitable control cabinet.



Mounting on a TH 35 mounting rail (DIN EN 60715)

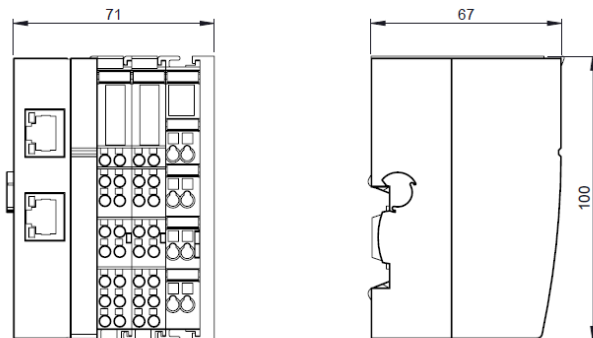


Order details	Designation / Type	Item No.
	Processing Unit CHB-C-PU10	05.12604

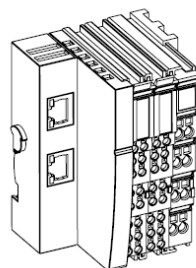
Technical Specifications	
Dimensions (WxHxD)	82 mm x 82 mm x 66 mm, excluding mounting plate
Weight	Approx. 550 g without mounting plate Approx. 610 g with mounting plate
Supply voltage	22 – 30 V DC (24 V power supply) NEC Class 2
Power consumption	Max. 17 watts
Protection rating	IP20
Vibration resistance (sinusoidal vibration)	EN 60068-2-6: 10 – 58 Hz: 0.035 mm 58 – 500 Hz: 0.5G (approx. 5 m/s²)
Vibration resistance (shock)	EN 60068-2-27: 5 G (approx. 50 m/s²), duration: 30 ms
EMC immunity	In accordance with EN 61000-6-2
EMC emissions	In accordance with EN 61000-6-4
Permissible ambient temperature	0°C to +50°C (operation) -25°C to +65°C (transport/storage)
Permissible relative humidity	Max. 95%, non-condensing
Approvals/Markings	CE, UL

ControlUnit CHB-E-CU10

I/O coupler matched to the IFC-Checkbox for connecting local sensors. Connection to the ProcessingUnit via EtherCAT. Required terminals, relays and fuses to be provided by the customer. Mounting via TH 35 mounting rail (DIN EN 60715) in a suitable control cabinet.



Mounting on a TH 35
mounting rail (DIN EN 60715)

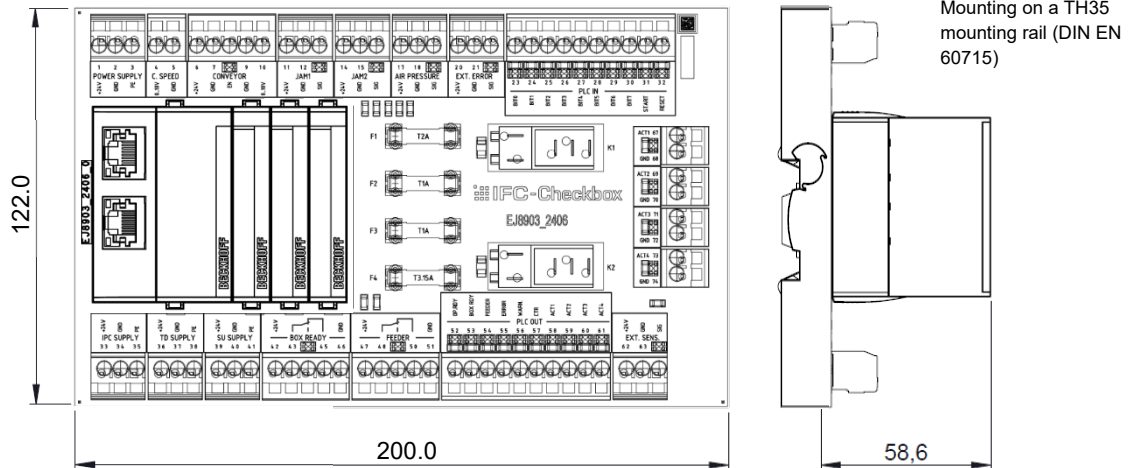


Order details	Designation / Type	Item No.
	ControlUnit CHB-E-CU10	05.12603

Technical data	
Dimensions (WxHxD)	73 mm x 70 mm x 100 mm
Weight	227 g
Supply voltage	24 V DC (-15 %/+20 %)
Data transfer rate	100 Mbit/s
Bus interface	EtherCAT, 2x RJ45
Current consumption from UP	40 mA + load
Current consumption from US	150 mA
Signal voltage '0'	-3...+5 V (EN 61131-2, Type 1/3)
Signal voltage '1'	11...30 V (EN 61131-2, Type 3)
Operating temperature	-25...+60 °C
Storage temperature	-40...+85 °C
Relative humidity	95 %, non-condensing
Vibration/shock resistance	in accordance with EN 60068-2-6/EN 60068-2-27
EMC immunity/emissions	in accordance with EN 61000-6-2/EN 61000-6-4
Protection class	IP20, installation in a suitable control cabinet/terminal box
Approvals/markings	CE, UL

IFC-IO Board CHB-A-CU10

Terminal board designed for the IFC Checkbox, featuring an integrated I/O coupler for the direct connection of all local sensors and actuators using spring terminals. Required relays and fuses are integrated. All connections are logically labelled and fitted with status LEDs, which significantly simplify troubleshooting. Connection to the ProcessingUnit via EtherCAT. Mounting via a TH35 mounting rail (DIN EN 60715) in a suitable control cabinet.

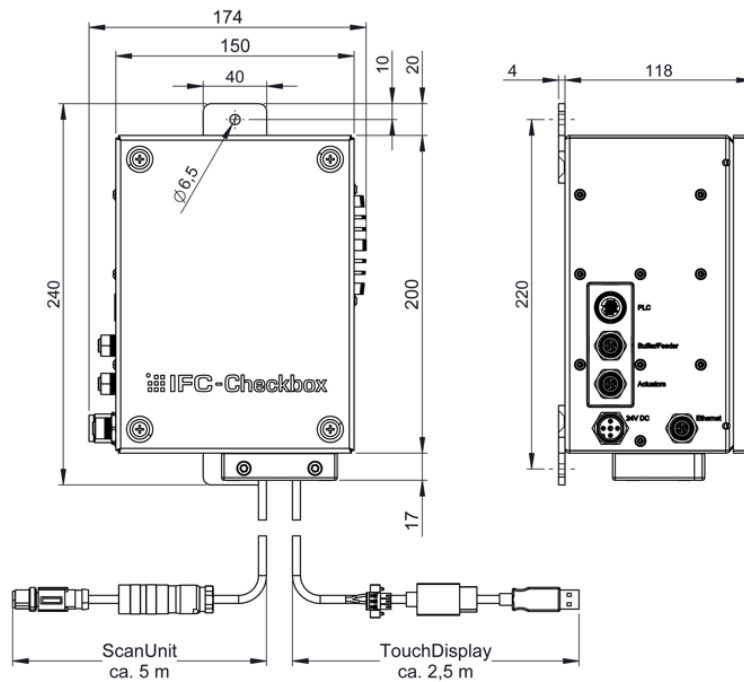


Order details	Designation / Type	Item No.
	IFC-IO Board CHB-A-CU10	05.12597

Technical data	
Dimensions (WxHxD)	204 mm x 122 mm x 86 mm
Weight	227 g
Supply voltage	24 V DC (-15 %/+20 %)
Data transfer rate	100 Mbit/s
Bus interface	EtherCAT, 2x RJ45
Current consumption from UP	40 mA + load
Current consumption from US	150 mA
Signal voltage '0'	-3...+5 V (EN 61131-2, Type 1/3)
Signal voltage '1'	11...30 V (EN 61131-2, Type 3)
Operating temperature	-25...+60 °C
Storage temperature	-40...+85 °C
Relative humidity	95 %, non-condensing
Vibration/shock resistance	in accordance with EN 60068-2-6/EN 60068-2-27
EMC immunity/emissions	in accordance with EN 61000-6-2/EN 61000-6-4
Protection class	IP20, installation in a suitable control cabinet/terminal box
Approvals/markings	CE, UL

CHB-C ReplacementBox

The IFC-Checkbox can replace 1:1 the Festo Checkbox CHB-C-N. The IFC-Checkbox replicates the geometry, imaging, test programmes and interfaces identically. A ready-to-install adapter box has been developed to enable the quick integration of the modernised and higher-performance components into existing systems with minimal modification effort. The cables connected to the CHB-C-N are simply reconnected to the ReplacementBox, while the new ScanUnit and TouchDisplay components are connected with the included cables. This allows the replacement in the shortest possible time and with minimal effort.



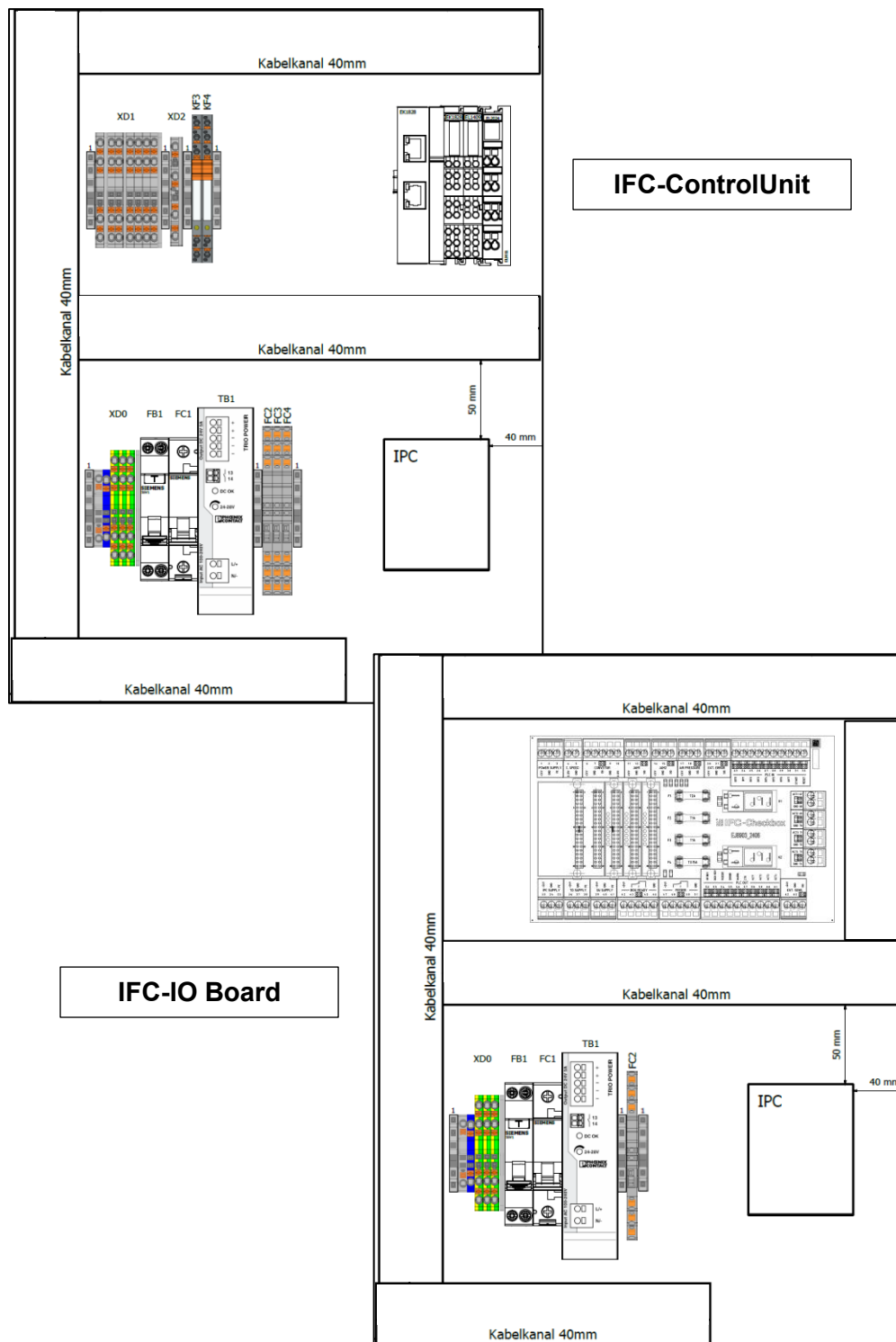
Order details	Designation / Type	Item No.
	CHB-C ReplacementBox	05.12597

Technical Specifications CHB-C ReplacementBox

Dimensions (WxHxD)	150 mm x 200 mm x 120 mm
Weight	3,200 g
Supply voltage	24 V DC (-15 %/+20 %)
Connection sockets	Analogue Festo Checkbox CHB-C-N
Current consumption from UP	40 mA + load
Current consumption from US	150 mA
Signal voltage '0'	-3...+5 V (EN 61131-2, Type 1/3)
Signal voltage '1'	11...30 V (EN 61131-2, Type 3)
Operating temperature	-25...+60 °C
Storage temperature	-40...+85 °C
Vibration/shock resistance	in accordance with EN 60068-2-6/EN 60068-2-27
EMC immunity/emissions	in accordance with EN 61000-6-2/EN 61000-6-4
Protection rating	IP66
Approvals/markings	CE

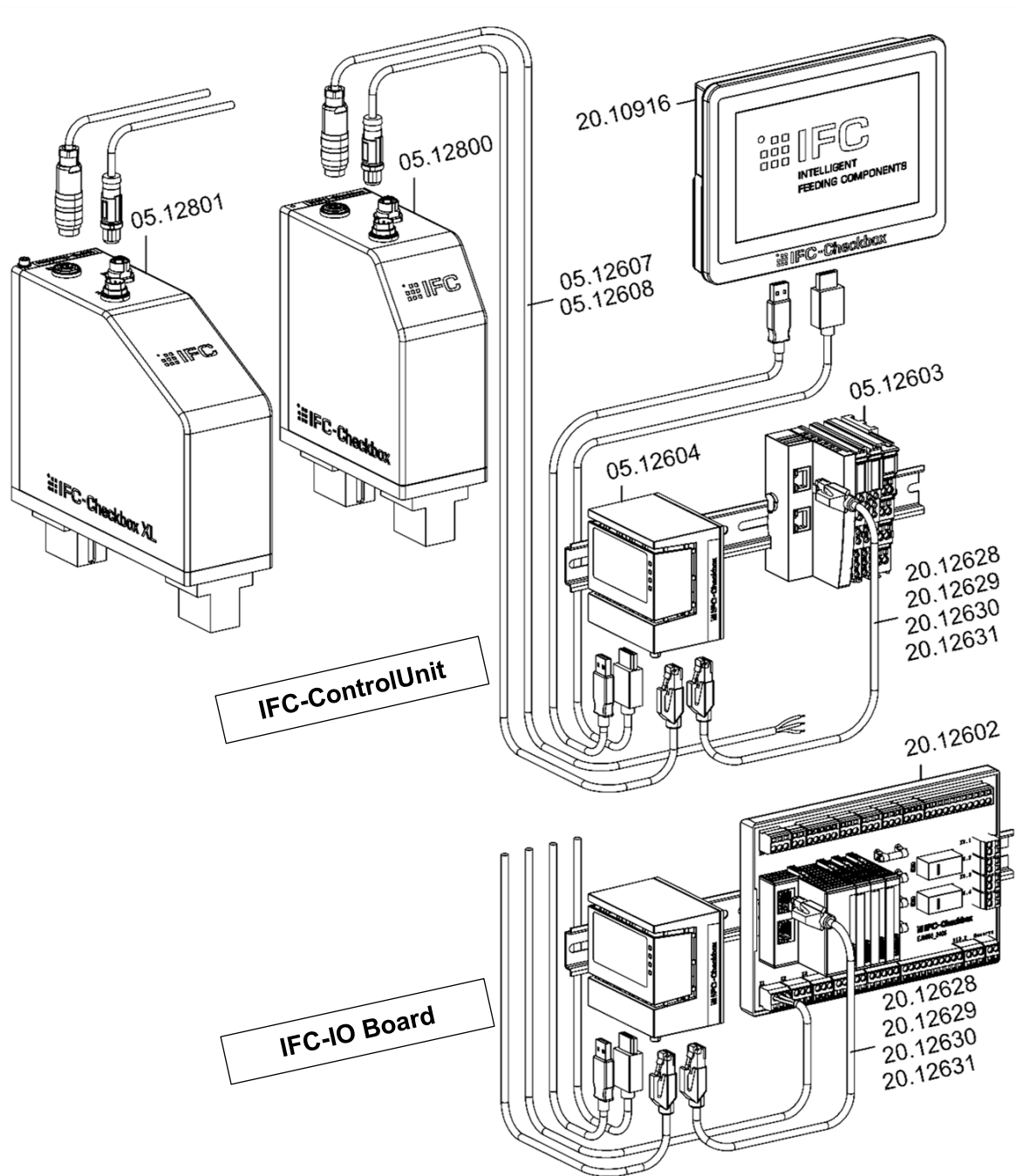
IFC-Checkbox

System variants



IFC-Checkbox

for new projects



Mounting brackets and accessories - see page 25

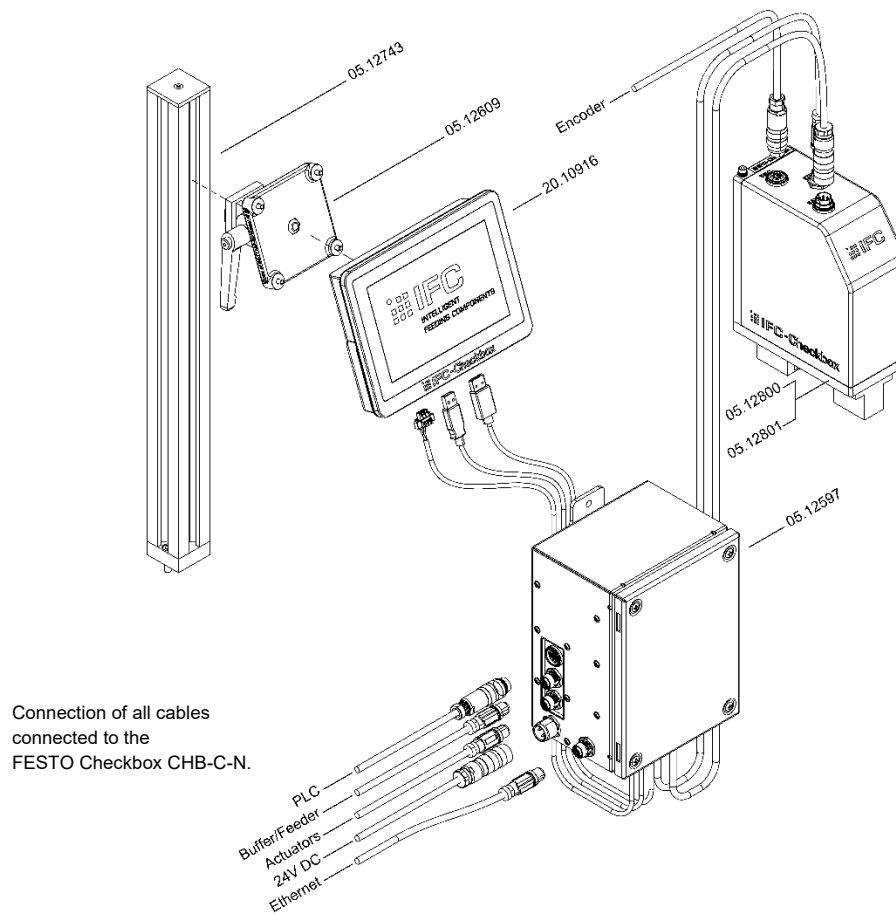
Components			Standard	Optional
05.12800	ScanUnit CHB-C-SU10	Optical channel width: 59.4 mm	X	
05.12801	ScanUnit CHB-C-SU10XL	Optical channel width: 125.0 mm		X
05.12607	ScanUnit cable set 5 m	Power supply + Ethernet connection to ProcessingUnit	X	
05.12608	ScanUnit cable set 10 m	Power supply + Ethernet connection to ProcessingUnit		X
20.10916	TouchDisplay CHB-TD10DP	Display and operation incl. 2.5 m cable set	X	
05.12604	Processing Unit CHB-PU10	Image processing, handling of inspection tasks, tracking of components during the process and control of actuators	X	
20.12602	IFC-IO Board CHB-A-CU10	Terminal board with inputs and outputs for actuators and sensors, fuses and relays	starting Nov. 2026	
05.12603	ControlUnit CHB-E-CU10	Inputs and outputs for actuators and sensors		X
20.12630	Patch cable coupler	Cable length 0.50 m		X
20.12631	Patch cable coupler	Cable length 1.00 m	X	
20.02534	Encoder 2.500	Rotary encoder, 2.500 increments per revolution as standard Cable length 2.00 m		X

The IFC-Checkbox can be ordered in several system variants.

IFC Checkbox System variants		ScanUnit	ScanUnit XL	ScanUnit cable set, 5.0 m	TouchDisplay, 2.5 m cable	Patch cable coupler, 1.0 m	ControlUnit	IO board
CHB	05.12820	X		X	X	X	X	
	05.12821	X		X	X	X		X
CHB- XL	05.12822		X	X	X	X	X	
	05.12823		X	X	X	X		X

IFC-Checkbox CHB-C ReplacementKit

as a replacement for the Festo Checkbox CHB-C-N



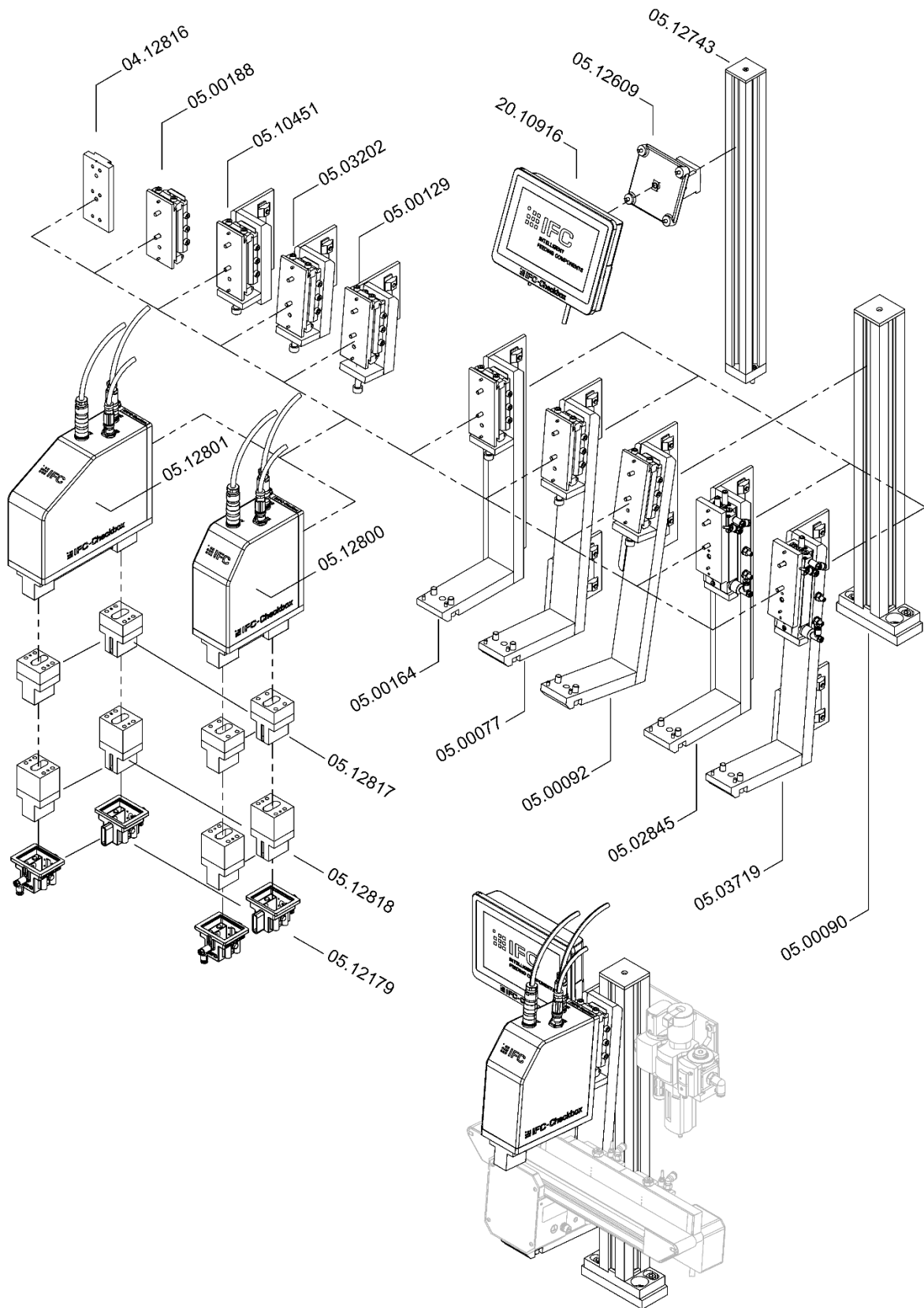
Components CHB-C ReplacementKit

05.12800	ScanUnit CHB-C-SU10	Optical channel width: 59.4 mm
05.12801	ScanUnit CHB-C-SU10XL	Optical channel width: 125.0 mm
20.10916	TouchDisplay CHB-TD10DP	Display and control, including 2.5 m cable set
05.12609	TouchDisplay swivel mount	VESA 75 mount, with clamp
05.12743	Profile mount 40 x 40 x 500 mm	Universal mount with end connector
05.12597	CHB-C ReplacementBox CHB-C-CU10	All-in-one adapter box, incl. ProcessingUnit, ControlUnit, 5m connection cable, connection cable to the TouchDisplay

The IFC-Checkbox can be ordered in various system variants.

CHB-C ReplacementKit System variants		ScanUnit	ScanUnit XL	TouchDisplay	CHB-C ReplacementBox
CHB	05.12950	X		X	X
CHB-XL	05.12951		X	X	X

Range of accessories for the IFC Checkbox



ScanUnit versions		
05.12800	ScanUnit CHB-C-SU10	Optical channel W=59.4 x H=40.0 mm
05.12801	ScanUnit CHB-C-SU10XL	Optical channel W=59.4 x H=40.0 mm
05.12817	Prism holder extension, 20 mm	To increase the clearance of the optical channel by 20 mm, suitable for all ScanUnit versions
05.12818	Prism holder extension, 40 mm	To increase the optical channel clearance by 40 mm, suitable for all ScanUnit versions
05.12179	Optics protection cover	Protects the optics with gentle airflow, suitable for use in contaminated environments, self-supporting

Mounting options for ScanUnit		
04.12816	CHB-C-N mounting profile	With vertical dovetail clamping, compatible with FESTO HMSV-12 connection kit
05.00188	IFC connection kit, XY mount	With vertical and horizontal dovetail clamping, for precise fine adjustment
05.10451	ScanUnit 0° mount	Includes XY mount and height stop for repeatable fine adjustment
05.03202	ScanUnit 5° mount	Includes XY mount and height stop for repeatable fine adjustment
05.00129	ScanUnit 0–10° mount	Swivelling with clamping mechanism, incl. XY mount and height stop for repeatable fine adjustment
05.00077	Camera-conveyor mount 5°	Optimised mounting solution for the ScanUnit and IFC Module conveyors. For inspecting cylindrical components
05.00164	Camera-conveyor mount 0°	Optimised mounting solution for the ScanUnit and IFC Module conveyors. For inspecting components in a stable orientation
05.02845	Camera-conveyor mount 5°, with lift-out	As 05.00077, but with a pneumatic precision carriage for lifting the ScanUnit for cleaning purposes
05.03719	Camera-conveyor mount 0°, with lift-out	As 05.00164, but with a pneumatic precision carriage for lifting out the ScanUnit for cleaning purposes
05.00090	Profile mount 50x50x500mm	Universal mount with mounting plate for fine adjustment

Mounting options for TouchDisplay		
20.10916	TouchDisplay CHB-TD10DP	Display and operation
05.12609	Swivel mount for TouchDisplay	VESA 75 mount, with clamp
05.12743	Profile mount 40x40x500mm	Universal mount with end connector

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IFC Intelligent Feeding
Components GmbH

Paul-Böhringer-Str. 8
D - 74229 Oedheim
Tel.: +49 7136 96395-0
Fax: +49 7136 96395-9

info@ifc-online.com
www.ifc-online.com