

# OCPxxxP0150C

Reflex Sensors with Background Suppression



Ether**CAT**®

Operating instructions

## Index

<b>1. Use for Intended Purpose</b>	<b>4</b>
<b>2. Safety Precautions</b>	<b>4</b>
2.1. Safety Precautions	4
2.2. Laser/LED Warnings	4
2.3. Approvals and IP Protection	4
<b>3. Device Features</b>	<b>5</b>
3.1. Connection Diagram	7
3.2. Housing Dimensions	7
3.3. Control Panel	8
3.4. Complementary Products	9
<b>4. Mounting Instructions</b>	<b>9</b>
<b>5. Initial Operation</b>	<b>10</b>
5.1. Operation on a controller	10
5.2. Default Settings	10
<b>6. Functional Overview OLED-Display</b>	<b>11</b>
6.1. Run	13
6.2. Display	13
6.2.1. Display Mode	13
6.2.2. Display Intensity	14
6.3. Resolution	14
6.4. Filter	14
6.5. Exposure	15
6.7. Laser	15
6.8. I/O Test	16
6.9. Network	17
6.10. Language	17
6.11. Info	17
6.12. Reset	17
6.13. Password	18
<b>7. Information on EtherCAT</b>	<b>19</b>

<b>8. Web-based configuration</b>	<b>22</b>
8.1. Page layout	25
8.2. Device general	26
8.3. Device Settings	27
8.4. Measured Value Settings	28
8.5. Device Test	29
<b>9. Maintenance Instructions</b>	<b>29</b>
<b>10. Proper Disposal</b>	<b>29</b>
<b>11. EU Declaration of Conformity</b>	<b>29</b>

## 1. Use for Intended Purpose

This wenglor product must be used in accordance with the following functional principle:

### High-Performance Distance Sensors

This group brings together the most powerful sensors for distance measurement, which work in reflex mode according to different principles. High performance distance sensors are particularly fast and precise, and demonstrate their high efficiency over large working ranges. They are ideally suited for demanding applications. Even black and shiny objects are reliably detected. Ethernet technology is integrated into selected sensors.

## 2. Safety Precautions

### 2.1. Safety Precautions

- This operating instruction is part of the product and must be kept during its entire service life
- Read this operating instruction carefully before using the product
- Installation, start-up and maintenance of this product has only to be carried out by trained personal
- Tampering with or modifying the product is not permissible
- Protect the product against contamination during start-up
- These products are not suited for safety applications

### 2.2. Laser/LED Warnings



#### Laser class 1 (EN 60825-1)

Standards and safety instructions must be observed.

### 2.3. Approvals and IP Protection



**RoHS**

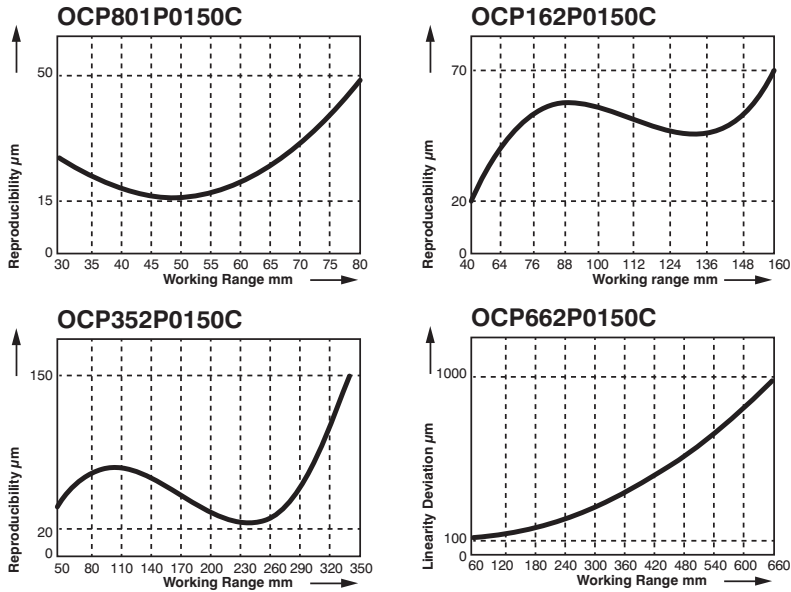
### 3. Device Features

Order No.	OCP801P0150C	OCP162P0150C	OCP352P0150C	OCP662P0150C
Working Range	30...80 mm	40...160 mm	50...350 mm	60...660 mm
Measuring Range	50 mm	120 mm	300 mm	600 mm
Reproducibility	15...50 $\mu\text{m}$	20...70 $\mu\text{m}$	20...150 $\mu\text{m}$	70...1000 $\mu\text{m}$
Linearity Deviation	50...100 $\mu\text{m}$	50...160 $\mu\text{m}$	100...500 $\mu\text{m}$	100...1000 $\mu\text{m}$
Temperature Drift	<5 $\mu\text{m}/\text{K}$	<10 $\mu\text{m}/\text{K}$	<20 $\mu\text{m}/\text{K}$	<50 $\mu\text{m}/\text{K}$
Output Rate	330/s			
Light Source	Laser (red)			
Wave Length	655 nm			
Service Life (T = 25 °C)	100000 h			
Laser Class (EN 60825-1)	1			
max. Ambient Light	10000 Lux			
Beam Divergence	< 2 mrad			
Light Spot Diameter	3.6 × 0.9 mm			
Port Type	100BASE-TX			
PoE Class	1			
Temperature Range	-25...50 °C			
Reverse-polarity Protection	Yes			
Interface	EtherCAT			
Protection Class	III			
Adjustment	Menu (OLED)			
Housing material	Metal			
Protection Class	IP68			
Connection Type	M12×1, 8-pin			
Webserver	Yes			
EoE (Ethernet over EtherCAT)	✓			
Control Panel No.	X2, T15			

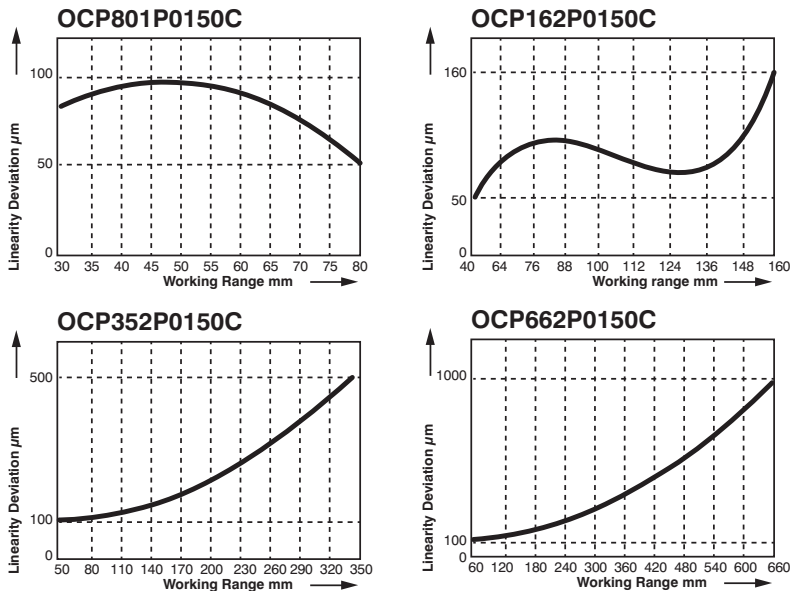
Reference material: kodak white 90 % remission

The warm-up phase lasts approx. 30 minutes. At the beginning of this time, the linearity deviation and reproducibility may vary by a factor of up to 10. During the warm-up phase the values improve in the form of an exponential function until the technical data is reached.

Typical Reproducibility Curves within the Working Range

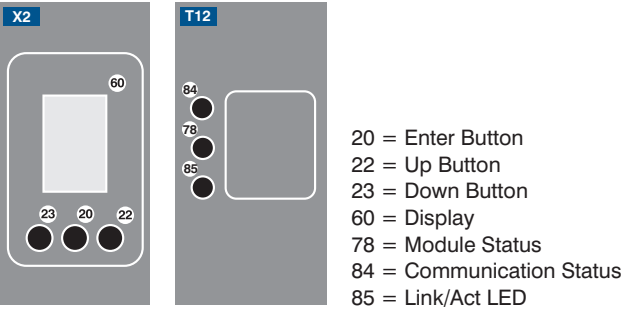


Typical Linearity Error Curves within the Working Range





3.3. Control Panel



Designation	Condition	Function
Status	Green off	ESM state: Initialisation
	Green flashing	ESM state: PRE - Operational
	Flashing green once	ESM state: SAFE - Operational
	Green on	ESM state: Operational
	Red off	No Error
	Red on	Application controller failure
	Flashing red once	Local Error
	Flashing red twice	Process Data Watchdog Timeout/ EtherCAT Watchdog Timeout
MS (Module Status)	Red flashing	Red blinking Invalid Configuration
	Off	—
	Green	Operate Status
	Red	Device Error
L/A	Red flashing	—
	Off	No Ethernet device has been connected to the port.
	Green	An Ethernet device is connected to the port.
	Green flashing	An Ethernet device is connected to the port and is currently communicating.



### 3.4. Complementary Products

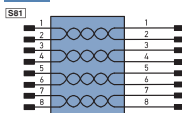
wenglor offers Connection Technology for field wiring.

Suiting Mounting Technology No.

**380**

Suitable Connection Technology No.

**50**



Midspan Adapter Z0029

Switch with PoE ZAC50xN0x

## 4. Mounting Instructions

When using the Sensor, follow the corresponding electrical and mechanical regulations, standards and safety rules. The Sensor must be protected against mechanical influence. The Sensor has optimum extraneous light qualities when the background is within the working range.

5. Initial Operation

5.1. Operation on a controller

If you want to place the device into service at a controller, please complete the following steps:

- Connect the Sensor to a switch with PoE using an appropriate cable M12×1; 8-pole. In the case of a switch without PoE, please use the Midspan Adapter (Z0029) for the appropriate voltage supply. When the voltage supply is present, the display on the Sensor starts.
- You will need the EtherCAT XML Device Description File (ESI-File EtherCAT Slave Information) which is available at [www.wenglor.com](http://www.wenglor.com) › Product › Product search (Order number) › Product Description Files or in the download area under Download › Product Description Files › Product search › Order number.
- The files should always be stored in the ESI directory of the respective master. If the Twin-CAT software is used, it should be stored in the folder "...IO\EtherCAT\" in the installation folder.
- The following example shows the steps that have to be carried out (example based on the TwinCat System Manager by Beckhoff):
- First, the list "Echtzeit Ethernet kompatible Geräte" (list of all real-time Ethernet-compatible devices) must be requested.
- Once the correct network card has been installed, new slave devices can be searched for in "E/A Geräte" (I/O devices). If all configurations are correct, the slave devices are now listed in the TwinCAT tree.
- The assemblies can now be switched into "Free Run" mode so that the local cycle runs independently of the pre-set master cycle.
- In the next step, the process data of the individual devices can be configured.

For a more detailed description of the different control systems and the installation of files or the network design, please refer to the help files of the corresponding control system.

5.2. Default Settings

		OCPxxxP0150P
Display	Mode	Process
	Intensity	Screensaver
Filter		1
Resolution		High
Exposure		DCM
Output Rate		Normal
Laser		ON
Password	Activate	Off
	Change	0

## 6. Functional Overview OLED-Display

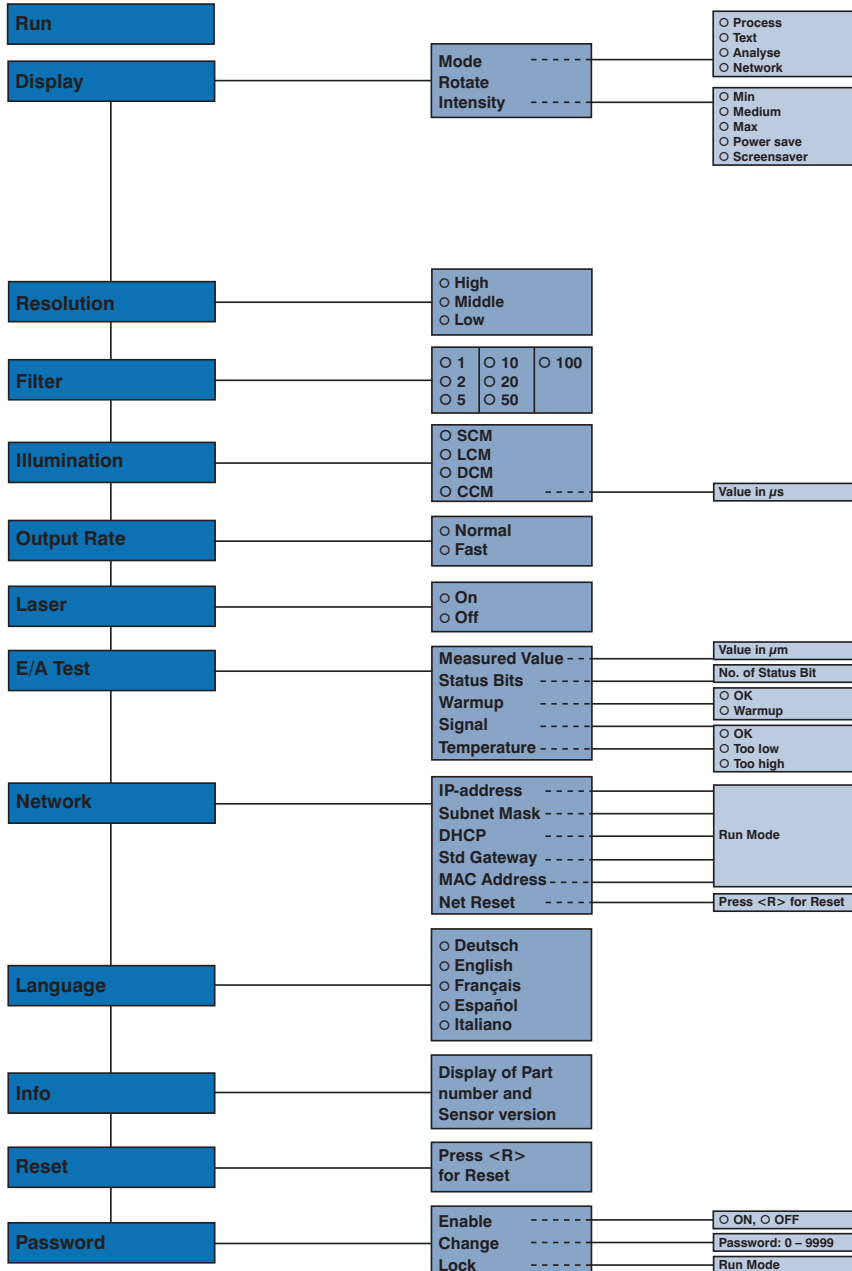




Fig. 1: Set language menu

## Navigation by pressing the button:

- ▲ : Navigation up.
- ▼ : Navigation down.
- ↵ : Enter Button.

The selection is confirmed by pressing the Enter button.

## Meaning of the menu items:

- ◀ Back : one level higher in the menu.
  - ◀◀ Run : Switch to display mode.
- Change to the configuration menu by pressing any button.

**Note:** If no setting is made in the configuration menu for a period of 30 s, the Sensor returns automatically to the display view.

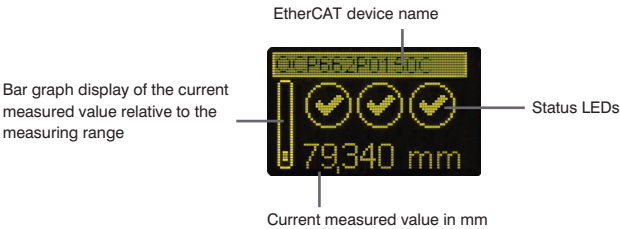
Pressing the button again returns the Sensor to the last menu view used. If a setting is made, it becomes active once you leave the configuration menu.

**Important:** To prevent any damage to the buttons, please do not use any pointed objects for setting.

The following explains the functions behind the individual menu items.

6.1. Run

The Sensor switches into display mode.



Symbol descriptions of status LEDs:

Symbol	Significance	State 1	State 2	State 3
Symbol 1	Warm-up	ok	wait	–
Symbol 2	Signal Strength	ok	too low (dirty)	too high
Symbol 3	Temperature	ok	too high	too low

6.2. Display

Display	Adjust the display device
Mode	<b>Mode:</b> Select display mode (see chapter 6.2.1)
Rotate	<b>Rotate:</b> Rotate display by 180°. By pressing the “↵” button the display is rotated by 180°. The rotation is canceled by pressing this button again.
Intensity	<b>Intensity:</b> Set the display intensity (see chapter 6.2.2)
⬅ Back	
⬅⬅ Run	

6.2.1.Display Mode

The measured value in mm and the order number always appear at the sensor’s display. Selection can be made amongst the following additional displays using the “Display Mode” menu option:

Mode	Adjust the display device
○ Process	<b>Process:</b> Display of status LEDs for warm-up, signal strength and temperature.
○ Text	<b>Text:</b> Display of a free text that can be sent to the Sensor via the control.
○ Analysis	<b>Analysis:</b> Display of signal strength in percent and measuring rate in 1/s.
○ Network	<b>Network:</b> Display of the EtherCAT LEDs MS, CS and L/A. For the function of these LEDs, see “3.3. Control Panel” on page 8.

6.2.2.Display Intensity

Intensity	Set the display intensity	
<div><div><div><div></div></div><div>Min</div></div><div><div><div></div></div><div>Normal</div></div><div><div><div></div></div><div>Max</div></div><div><div><div></div></div><div>Power save</div></div><div><div><div></div></div><div>Screensaver</div></div></div>	<b>Min:</b>	The intensity of the display is set to a minimum value.
	<b>Normal:</b>	The intensity of the display is set to a medium value.
	<b>Max:</b>	The intensity of the display is set to a maximum value.
	<b>Power save:</b>	The display switches off after one minute without a button being pressed and automatically switches back on when a button is pressed.
	<b>Screensaver:</b>	The colors of the display are inverted every minute.

6.3. Resolution

The number of pixels used by the CMOS line is defined by the resolution. The higher the resolution set, the smaller the detectable movements of an object and the slower the output rate of the Sensor becomes when there is a change in the measured values.

Resolution	Adjust the display device	
<div><div><div><div></div></div><div>High</div></div><div><div><div></div></div><div>Medium</div></div><div><div><div></div></div><div>Low</div></div><div><div><div></div></div><div>Back</div></div><div><div><div></div></div><div>Run</div></div></div>	<b>High:</b>	High resolution, low output rate
	<b>Medium:</b>	Medium resolution, medium output rate.
	<b>Low:</b>	Low resolution, high output rate.

6.4. Filter

The filter (filter size) is the number of measured values over which the Sensor takes an average. The larger the filter selected, the slower the response time of the Sensor becomes when there is a change in the measured values. A larger filter improves the reproducibility of the Sensor.

Filter	Number of values for averaging
<div><div><div><div></div></div><div>1</div></div><div><div><div></div></div><div>2</div></div><div><div><div></div></div><div>5</div></div><div><div><div></div></div><div>10</div></div><div><div><div></div></div><div>20</div></div><div><div><div></div></div><div>50</div></div><div><div><div></div></div><div>100</div></div><div><div><div></div></div><div>Back</div></div><div><div><div></div></div><div>Run</div></div></div>	If 1 is selected, each measured value is output directly without averaging. Whenever a value greater than 1 is selected, the Sensor takes an average over the selected number of x measured values.

## 6.5. Exposure

The Sensor adjusts its exposure time or light pulse duration automatically up to a maximum value on the object to be detected. In the default DCM (Default Capture Mode), the Sensor has a fixed maximum possible exposure time. In the case of black or shiny objects, for example, it can be helpful to lengthen this time. It can be helpful to reduce the exposure time when the Sensor is aimed at the light source. In the case of problematic applications, it can be influenced by different modes or manually.

Exposure	Adjusting Exposure Times
<input type="radio"/> SCM <input type="radio"/> LCM <input type="radio"/> DCM <input type="radio"/> CCM <input type="left"/> Back <input type="left"/> Run	<p><b>SCM (Short Capture Mode):</b> The Sensor exposure time can be shortened on dark or glossy objects (e.g. black varnish) in order to reduce a fall in the measuring rate.</p> <p><b>LCM (Long Capture Mode):</b> The Sensor exposure time can be lengthened on dark or glossy objects (e.g. black varnish) in order to achieve a more accurate measurement.</p> <p><b>DCM (Default Capture Mode):</b> Default exposure time for standard applications.</p> <p><b>CCM (Custom Capture Mode):</b> The Sensor exposure time can be adjusted manually between 100...2000 <math>\mu</math>s.</p>

## 6.6. Output Rate

The output rate indicates how often the measured value is refreshed per second at the output.

Output Rate	Adjust Output Rate
<input type="radio"/> Normal <input type="radio"/> Fast <input type="left"/> Back <input type="left"/> Run	<p><b>Normal:</b> The normal output rate is 100/s. This means that a new measured value is read out every 10 ms.</p> <p><b>Fast :</b> The fast output rate is 330/s. This means that a new measured value is read out every 3 ms.</p> <p><b>Note:</b> If this mode is activated, the OLED display is switched off as soon as a EtherCAT controller goes online. It's switch back on automatically when the controller goes offline again.</p>

## 6.7. Laser


In the menu item "Laser", the emitted light can be switched on or off.

Laser	Switch transmitted light on or off
<input type="radio"/> On <input type="radio"/> Off <input type="left"/> Back <input type="left"/> Run	<p><b>ON:</b> Switch transmitted light on</p> <p><b>OFF:</b> Switch transmitted light off; the Sensor no longer supplies measured values</p>

6.8. I/O Test

This function manually changes the output of the Sensor. As a result, it possible to test whether the further process is working as desired. The test is automatically terminated once you leave the test menu. This occurs automatically after no keys have been activated for a period of 10 minutes.

I/O Test	Test of the Sensor outputs	
Measured value	<b>Measured value:</b>	Default of a measured value in $\mu\text{m}$
Statusbits	<b>Statusbits:</b>	The number of the status bit to be set can be selected by pressing the “+” or “-” button. (see list of Statusbits)
Warm-up	<b>Warm-up:</b>	Default of the warm-up on “ok” or “warm-up”
Signal Strength	<b>Signal strength:</b>	Default of the signal strength on “ok”, “too low” or “too high”
Temperature	<b>Temperature:</b>	Default of the temperature on “ok”, “too low” or “too high”
◀ Back		
⏮ Run		

If the Sensor returns to the display view after 30 seconds without pressing the button while the test is still active, this is indicated by a  in the display view.

List of status bits:

Number	Function	Description of when the bit is set	Measured value read-out
1	General error	One of the following bits is set.	—
2	Distance to object too small	The current measured value is below the working range.	Measuring range lower limit
3	Distance to object too large	The current measured value is above the working range.	Measuring range upper limit
4	No signal	The sensor does not detect an object within its working range.	Measuring range upper limit
5	Signal too weak	Too little light is reflected back to the sensor from the object (e.g. very dark surface). The quality of the measured value is reduced as a result.	Current measured value
6	Signal too strong	Too much light is reflected back to the sensor from the object (e.g. reflector) The quality of the measured value is reduced as a result.	Current measured value
7	Warm-up procedure	The sensor is currently in the warm-up phase and the quality of the measured value does not yet comply with the specified technical data. See page 5 below.	Current measured value
8	Temperature too high	The sensor is at the upper limit of its temperature range. If temperature continues to rise, the sensor may be destroyed.	Current measured value
9	Temperature too low	The sensor is at the lower limit of its temperature range. If temperature continues to drop, the sensor may be destroyed.	Current measured value



## 6.9. Network

Network	Network parameter settings
IP address	IP address: Display of the IP address set.
Subnet mask	Subnet mask: Display of the Subnet mask set.
Std gateway	Std gateway: Display of the standard gateway set.
◀ Back	
◀◀ Run	

## 6.10. Language

The menu language can be changed in the menu item "Language". The user is automatically prompted for his desired language at initial operation and after each reset.

Language	Set menu language
<input type="radio"/> Deutsch <input type="radio"/> English <input type="radio"/> Francais <input type="radio"/> Espanol <input type="radio"/> Italiano ▶ Back ▶▶ Run	The menu appears in the selected language immediately after selection.

## 6.11. Info

In the menu item "Info" the following information about the Sensor is displayed:

Info	
Order number	
Software version	
Serial number	

## 6.12. Reset

All Sensor settings, with the exception of the network settings, can be reset to the default settings in the menu item "Reset. The settings of the default settings can be found in Chapter "5.2. Default Settings" on page 10.

Reset	Reset to the default settings
Press <R> for Reset	The Sensor settings that have been made can be reset to the default settings by pressing the "R" button.

6.13. Password

Password protection prevents against changing the set data unintentionally.

Password	Set password functionality
Activate Change Block ◀ Back ◀◀ Run	<b>Enable:</b> Turn password protection on or off. If password protection is activated, the operation of the Sensor is disabled after supply power has been interrupted and is only enabled after successfully entering password. <b>Change:</b> Change password. <b>Lock:</b> Locking Sensor causes an immediate disabling of operation if activate Password is set to "on".

If the password functionality is activated, the password must be entered before each operation of the Sensor. After correctly entering the password by means of the "+" and "-" button, the menu is activated and the Sensor is operational.

- The password functionality is deactivated in the default settings.
- The value range of the password number ranges from 0000...9999

It is necessary to note the newly defined code before changing the password. A forgotten password can only be overwritten by a general password. The general password can be requested by sending an e-mail to [support@wenglor.com](mailto:support@wenglor.com).

## 7. Information on EtherCAT

You can find the ESI file for download at [www.wenglor.com](http://www.wenglor.com) → **Products** → **Product search** (order number).

Index	Sub index	Name	Data Type	Access right	PDO mapped	Default Settings	Value range	Description
<b>1000h</b>	00h	<b>Device type</b>	Unsigned 32	Ro	No	00000191h		
<b>1008h</b>	00h	<b>Device name</b>	STRING	Ro	No	OCpxxxP0150C		12 character
<b>1009h</b>	00h	<b>Hardware version</b>	STRING	Ro	No	V1.0.0		6 character
<b>100Ah</b>	00h	<b>Software version</b>	STRING	Ro	No	V1.0.5		6 character
<b>1010h</b>		<b>Store parameters</b>						
	00h	Highest subindex supported	Unsigned 8	Ro	No	1		1
	01h	Store all parameters	Unsigned 32	Rw	No	0		65766173h = store any other = don't store
<b>1011h</b>		<b>Restore default parameters</b>						
	00h	Highest subindex supported	Unsigned 8	Ro	No	1		1
	01h	Restore all parameters	Unsigned 32	Rw	No	0		64616F6Ch = restore any other = don't rest.
<b>1018h</b>		<b>Identity Object</b>						
	00h	Highest subindex supported	Unsigned 8	Ro	No	4		4
	01h	Vendor ID	Unsigned 32	Ro	No	0000059Bh		
	02h	Product code	Unsigned 32	Ro	No	02011D0xh		OCp662P0150C OCp352P0150C OCp162P0150C OCp801P0150C
	03h	Revision number	Unsigned 32	Ro	No	01000500h		
	04h	Serial number	Unsigned 32	Ro	No	nnnnnnnnh		
<b>10F8h</b>		<b>Local time stamp</b>	Unsigned 64	Ro	Optional			
<b>1600h</b>		<b>RxPDO</b>						
	00h	Highest subindex supported	Unsigned 8	W in PreOp, R in Op		0		0 ...7 objects
<b>1A00h</b>		<b>TxPDO</b>						
	00h	Highest subindex supported	Unsigned 8	W in PreOp, R in Op		2		2 ...4 objects
	01h	SubIndex 001	Unsigned 32	W in PreOp, R in Op		21300020h		
	02h	SubIndex 002	Unsigned 32	W in PreOp, R in Op		24270010h		
<b>1C00h</b>		Sync manager type						

1C12h		RxPDO assign						
	00h	Highest subindex supported	Unsigned 8	W in PreOp, R in Op	No	1		0 ... 1
	01h	SubIndex 001	Unsigned 16	W in PreOp, R in Op	No	1600h		
1C13h		TxPDO assign						
	00h	Highest subindex supported	Unsigned 8	W in PreOp, R in Op	No	1		1
	01h	Subindex 001	Unsigned 16	W in PreOp, R in Op	No	1A00h		
1C32h		SM output parameter						
1C33h		SM input parameter						
2040h		Device Access						
	00h	Highest subindex supported	Unsigned 8	Ro	No	2	0 – 254	2
	01h	Webserver Access	BOOL	Rw	No	0: Enabled	0 – 1	0: Enabled 1: Disabled
	02h	Key disabling	BOOL	Rw	No	0: Enabled	0 – 1	0: Enabled 1: Disabled
2100h		Display settings						
	00h	Highest subindex supported	Unsigned 8	Ro	No	5	0 – 254	5
	01h	Display mode	Unsigned 8	Rw	No	0: Process	0 – 3	0: Process 1: Analysis 2: Text 3: Network
	02h	Rotate display	BOOL	Rw	No	0: Not rotated	0 – 1	0: Not rotated 1: Rotated
	03h	Display intensity	Unsigned 8	Rw	No	4: Screensaver	0 – 4	0: Minimum 1: Normal 2: Maximum 3: Energy saving mode 4: Screensaver
	04h	Display language	Unsigned 8	Rw	No	1: English	0 – 4	0: Deutsch 1: English 2: Français 3: Español 4: Italiano
	05h	Display text	STRING	Rw	Optional	-		Displayable text 18 characters

2110h		Measured value settings						
	00h	Highest subindex supported	Unsigned 8	Ro	No	6	0 – 254	6
	01h	Laser ON-OFF	Unsigned 8	Rw	Optional	0: Laser ON	0 – 1	0: Laser On 1: Laser Off
	02h	Output rate	Unsigned 8	Rw	Optional	0: normal	0 – 1	0: Normal 1: Fast
	03h	Filter value	Unsigned 8	Rw	Optional	0: Filter size 1	0 – 6	0: Filter size 1 1: Filter size 2 2: Filter size 5 3: Filter size 10 4: Filter size 20 5: Filter size 50 6: Filter size 100
	04h	Resolution	Unsigned 8	Rw	Optional	0: High resolution	0 – 2	0: High resolution 1: Medium resolution 2: Low resolution
	05h	Exposure mode	Unsigned 8	Rw	Optional	2: DCM mode	0 – 3	0: SCM mode 1: LCM mode 2: DCM mode 3: CCM mode
	06h	Exposure time	Unsigned 16	Rw	Optional	1000µs	100 – 8000	Max. exposure time 100 ... 8000 µs
2130h	00h	Measured value	Unsigned 32	Ro	Yes			Distance value
2427h	00h	Status	Unsigned 16	Ro	Yes			1: General 2: Object distance too small 3: Object distance too great 4: No signal 5: Contamination 6: Signal too high 7: Warm-up procedure 8: Over-temperature 9: Under-temperature
8000h	00h	Measured value timestamp	Unsigned 64	Ro	Optional			FFFFFFFFFFFFFFh
2990h		InternalObj2						
	00h	Highest subindex supported	Unsigned 8	Rw	No	2	0 – 254	
	01h	SubIdx1	Unsigned 8	Ro	No			Internal use
	02h	SubIdx2	ARRAY	Rw	No			Internal use
6131h		Physical unit						
	00h	Highest subindex supported	Unsigned 8	Ro	No	1	0 – 254	
	01h	AI Instance 1	Unsigned 32	Ro	No	FD010000h		

## 8. Web-based configuration

The Device is equipped with a web-based set-up interface which operates independent of the operating system. Parameterizing of the Device can conveniently be done using a standard web browser. The web server allows control-independent monitoring or creation of a test environment. The web server allows control-independent monitoring or a test environment to be set up. It is not needed for normal operation on the controller.

### NOTE!

Communication via EoE (Ethernet over EtherCAT) is required in order to be able to access the integrated webserver's website. This is only possible via the mailbox communication of a PLC or a PC-based controller software such as TwinCAT®. All website settings can be made, if the product is in Pre-OP mode. For information on how to configure the network parameters please refer to the instructions "Start-Up-EtherCAT-Device" ([www.wenglor.com](http://www.wenglor.com) → **Download** → **Operating Instructions** → **Product Search (Order Number)** → **General instructions**) in the chapter "Displaying and working with the integrated web server".

All further steps require an active mailbox and network communication.

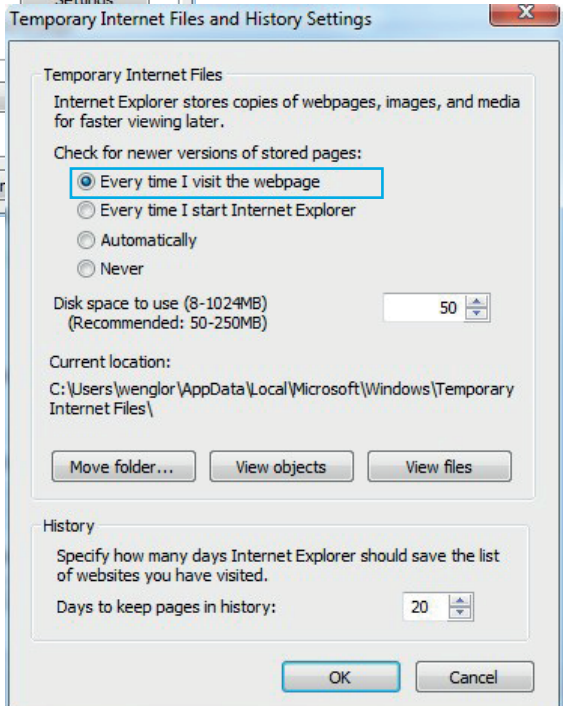
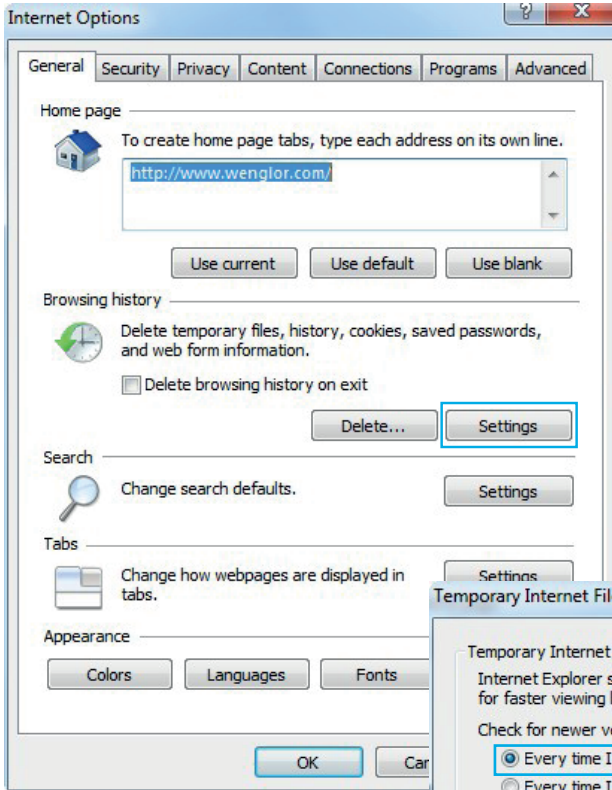
When operated with a controller, settings which have been changed via the website are overwritten by the controller or changes are only possible in the pre-op mode.



### Call up the Administration Interface

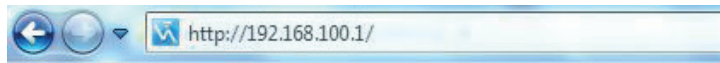
Launch a web browser. Enter the preset IP address of the Device in the address bar of your browser and press enter. To ensure that the browser displays the current website settings, the website in question must always be refreshed automatically in case of change. This setting must be changed browser-specific and is demonstrated here by means of Internet Explorer as an example. Under **Extras** → **Internet Options** → **Browsing history** → **Settings** the selection should be set to **Every time I visit the webpage**. Otherwise, any changes to the homepage might be displayed incorrectly.





In order to now be able to open the website of the Device (in the example ZAC50CN01), the IP address must be entered in the address bar of the browser as described

Example: 192.168.100.1 (IP address set, for example, via TwinCAT® in the area EoE of the Device)



The overview page **Device General** is not password-protected. If the pages of the device or port settings are accessed, a password prompt appears.

The following user data are preset in the delivery state:

User name:	admin
Password:	admin

The password can be changed on the page **Device Settings**.

**Note:**  
Permanent storage of the password only via object 1010h (store parameters) in the controller.



## 8.1. Page layout



① English

General device

General device

9.75340 mm

③

④

Part Number	OCP662P0150C
Product version	V1.0.7
Producer	wenglor sensoric GmbH
Description	OCP: Reflex Sensor with Background Suppression
Serial number	500013947
Real-time Ethernet status	online
Device type	0x00000191

OCP662P0150C

78.83 mm

②

The website is divided into the following 4 areas:

- 1. Language selection:** The website can be changed from English (default setting) to German, French, Spanish or Italian via the language selection.
- 2. Display:** On each page, the current display is represented exactly like on the device itself.
- 3. Category selection:** The web-based settings are divided into four categories:
  - **Device general:** Overview page with general information about the device
  - **Device settings:** Network and display settings of the device
  - **Measured value settings:** Settings for influencing the measured value of the device
  - **Device Test:** Manual change of the Sensor output in order to test the process
- 4. Page content:** Depending on which category is selected, the relevant page content is displayed.

8.2. Device general



Sensors for your success

English

General device

Device settings

Measured value settings

Device test

General device



Part Number	OCP662P0150C
Product version	V1.0.7
Producer	wenglor sensoric GmbH
Description	OCP: Reflex Sensor with Background Suppression
Serial number	500013947
Real-time Ethernet status	online
Device type	0x00000191

OCP662P0150C



78.83 mm

After establishing the connection, the overview page “Device general” is displayed.

### 8.3. Device Settings



Sensors for your success

English

<ul style="list-style-type: none"> <li>General device</li> <li><b>Device settings</b></li> <li>Measured value settings</li> <li>Device test</li> </ul>	<p>Device settings</p> <p>Network Settings</p> <p>IP-address: 192.168.100.10</p> <p>Subnet mask: 255.255.255.0</p> <p>Standard gateway: 0.0.0.0</p> <p>Display settings</p> <p>Language: English</p> <p>Rotate display: OFF</p> <p>Display intensity: Screensaver</p> <p>Display mode: Process</p> <p>Password: <input type="button" value="Change"/></p>	<p>OCP662P0150C</p> <p>✓✓✓</p> <p>78.84 mm</p>
--	---	--

#### Network Settings

Display of network settings

#### Display Settings

For functional description of display settings see chapter "6.2. Display" on page 13.


#### Change password:

Password	<input type="button" value="Change"/>
----------	---------------------------------------

An additional window opens, in which the new password can be entered.

**Note:** If the password is forgotten, it's only possible to return the device to its default settings by means of a reset at the controller.

## 8.4. Measured Value Settings



Sensors for your success

English

---

- General device
- Device settings
- Measured value settings
- Device test

### Measured value settings

Set resolution	High	
Filter	1	
Lighting mode	DCM	
Illumination	1000	<input type="button" value="Apply"/>
Emitted light	ON	
Reset sensor settings	<input type="button" value="Reset"/>	

OCP662P0150C

78.83 mm

### Resolution

For functional description of resolution see chapter “6.3. Resolution” on page 14.

### Filter

For functional description of filter see chapter “6.4. Filter” on page 14.

### Exposure

For functional description of exposure see chapter “6.5. Exposure” on page 15.

### Emitted Light


For functional description of transmitted light see chapter “6.7. Laser” on page 15.

### Sensor Settings Reset

In the event of a reset, the display settings are returned to their default values.

**Note: Measured value settings are not reset in this case!**

## 8.5. Device Test



Sensors for your success

English ▼

- › General device
- › Device settings
- › Measured value settings
- › **Device test**

Device test
OCP662P0150C

Simulation of	
Measured Value	100000 $\mu\text{m}$ <span>Apply</span>
Warmup	Off ▼
Signal	Too low ▼
Temperature	Off ▼
Test mode	<span>Switch off</span>
Remaining test mode time 9.55 min	



100.00 mm

Remaining test mode time 9.55 min

For functional description of device test see chapter “6.8. I/O Test” on page 16.

The test is activated as soon as at least one parameter is changed.

The length of the test is limited to 10 minutes. Afterwards, the test is terminated automatically. The remaining time of the test is displayed under the button “Switch off” and below the display window. The test can also be terminated prematurely by clicking on “Switch off”.

**Note: Settings are retained in the online state as well.**

## 9. Maintenance Instructions

- This wenglor Sensor is maintenance-free.
- It is recommended to clean the lens and the display regularly and to check the socket connections.
- Do not use any solvents or cleaning agents to clean the Sensor, which could damage the device.

## 10. Proper Disposal

wenglor sensoric GmbH does not take back unusable or irreparable products. When disposing of the products, the relevant national regulations for waste disposal apply.

## 11. EU Declaration of Conformity

The EU declaration of conformity can be found on our website at [www.wenglor.com](http://www.wenglor.com) in download area.