

Notes on CE Marking

The following apply to the digital display:

- EU Directive 2014/30/EU
- EU Directive 2011/65/EU, "RoHS" Category 9

The measuring system is designed for use in industrial environments and meets the requirements.

Proper Environment

- Protection class:
 - Front panel: IP 66 (EDU190-4 Pro), IP 65 (EDU190-7 Pro)
 - Rear: IP 20
- Operating temperature: -10 ... +60 °C (+14 ... +140 °F)
- Storage temperature: -20 ... +70 °C (-4 ... +158 °F)
- Humidity: 5 - 85% (non-condensing)
- Ambient pressure: Atmospheric pressure

Installation and Assembly

- ➔ Place the digital display on a stable surface during installation.
- ➔ Use the cut out dimensions in the technical data, see operating instructions.
- ➔ Install the digital display into the panel cut-out.
- ➔ Secure the digital display by screwing the recesses head screw clockwise, allowing the built-in bracket to flip out and tighten against the cabinet.
- ➔ Tighten the screws from 0.5 to 1.0 Nm.

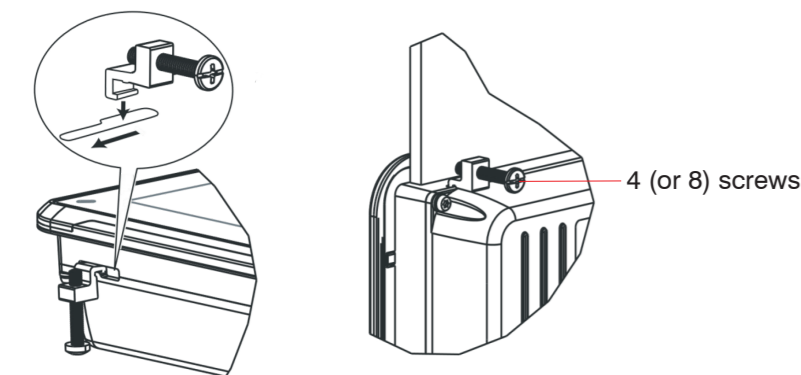
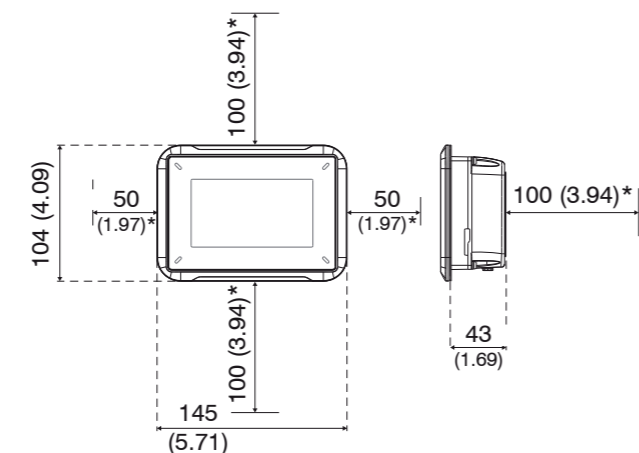


Fig. 1 Installation of digital display

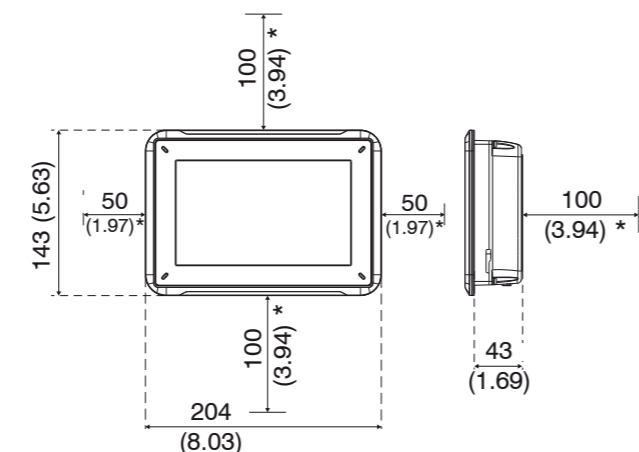
Dimensional drawing for the 4.3 inches model



Cut out dimensions for the installation of the digital display: 130 x 89 mm (5.12 x 3.50 inches)

Fig. 2 Dimensional drawing optoCONTROL EDU190-4 Pro, dimensions in mm (inches), not to scale

Dimensional drawing for the 7 inches model



Cut out dimensions for the installation of the digital display: 189 x 128 mm (7.44 x 5.04 inches)

Fig. 3 Dimensional drawing optoCONTROL EDU190-7 Pro, dimensions in mm (inches), not to scale

*The specified values indicate the space required for installing the control panel.

Displays

A green LED on the right side of the display indicates if the transmission is active.		Flashing when the digital display is connected with the sensor.
		No flashing when the digital display is not connected with the sensor.
The ON/OFF status is displayed on the blue multicolor LED on the left side of the digital display.		ON
		OFF

Compatible Optical Micrometers

The digital display can be used with the following optoCONTROL series:



Fig. 4 optoCONTROL EDU190



Assembly Instructions optoCONTROL EDU190

Intended Use

The optoCONTROL EDU190 system is designed for use in industrial and laboratory areas. It is used to display the measurement values and parameters of all optical optoCONTROL ODC micrometers with digital interface.

The optoCONTROL EDU190 digital display must only be operated within the limits specified in the technical data, see operating instructions. The digital display must be used in such a way that no persons are endangered or machines are damaged in the event of malfunction or total failure of the system. Take additional precautions for safety and damage prevention in case of safety-related applications.

Warnings

Avoid use in Ex areas.

> Death or injury due to explosion hazard

Liquids, metal swarf and wire parts may not enter the openings of the digital display under any circumstances.

> Electric shock, risk of fire

The digital display liquid contains a powerful irritant. In case of skin contact, wash immediately with plenty of water. In case of eye contact, hold the eye open, flush with plenty of water and get medical attention.

> Risk of injury, damage to the eyes or skin

Connect the power supply according to the safety regulations for electrical equipment.

> Danger of injury, damage to or destruction of the system

The supply voltage must not exceed the specified limits.

> Damage to or destruction of digital display

No sharp or heavy objects should be allowed to affect the cables. Avoid folding the cables. Do not bend more tightly than the minimum bending radius of the cables.

> Damage to or destruction of the cables, failure of the digital display

Avoid shocks and impacts to the digital display.

> Damage to or destruction of the digital display

Storing the digital display where the temperature is lower/higher than recommended in the technical data can cause the LCD display liquid to congeal/become isotopic.

Avoid use in direct sunlight, strong magnetic fields, high temperatures and sudden temperature changes.

> Color alterations on the display or system failure

Read the detailed instruction manual before using the sensor. The manual is available online on www.micro-epsilon.com/download/manuals/man--optoCONTROL-EDU-190--en.pdf.

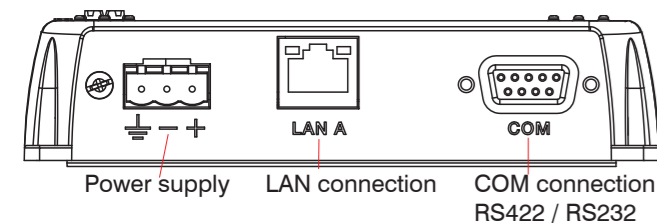
MICRO-EPSILON Eltrotec GmbH
Manfred-Wörner-Straße 101 · 73037 Göppingen / Germany
www.micro-epsilon.com



X9771398-A011079HDR

Connections

Depending on available interfaces, the respective ODC sensors can be connected either via LAN connection or COM connection.



Item	Connection	Description
1	Power supply	+24 VDC (18 ... 32 VDC)
2	LAN A	1 x 10/100 Base-T (RJ-45 shielded)
3	COM	RS422 or RS232

Fig. 5 Ports on the display bottom side

Please refer to the operating instructions for details on the pin assignment.

Supply voltage:

- Digital display: +24 VDC (18 - 32 VDC)
- The exact values can be found in the operating instructions of the respectively connected sensor.

Power consumption:

- EDU190-4 Pro: 12 W (24 V)
- EDU190-7 Pro: 14,4 W (24 V)

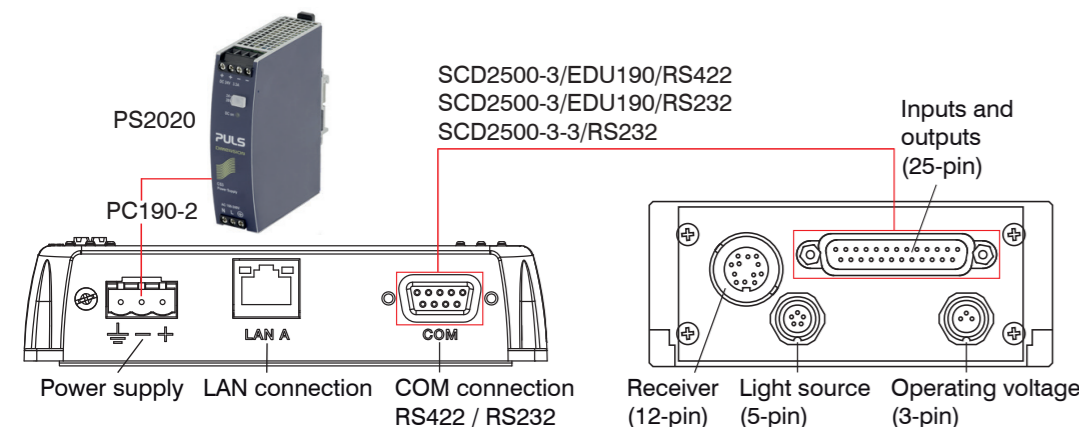
Cable	Pin	Color	Power supply
PC190-2	PIN +	white	+24 V
	PIN -	brown	-GND

Fig. 6 Pin assignment PC190-2

➔ Switch off the power supply when you exit the display program or switch off the sensor.

➔ Switch on the power supply again when you restart the display program or the sensor.

Connections for optoCONTROL 2500/2600

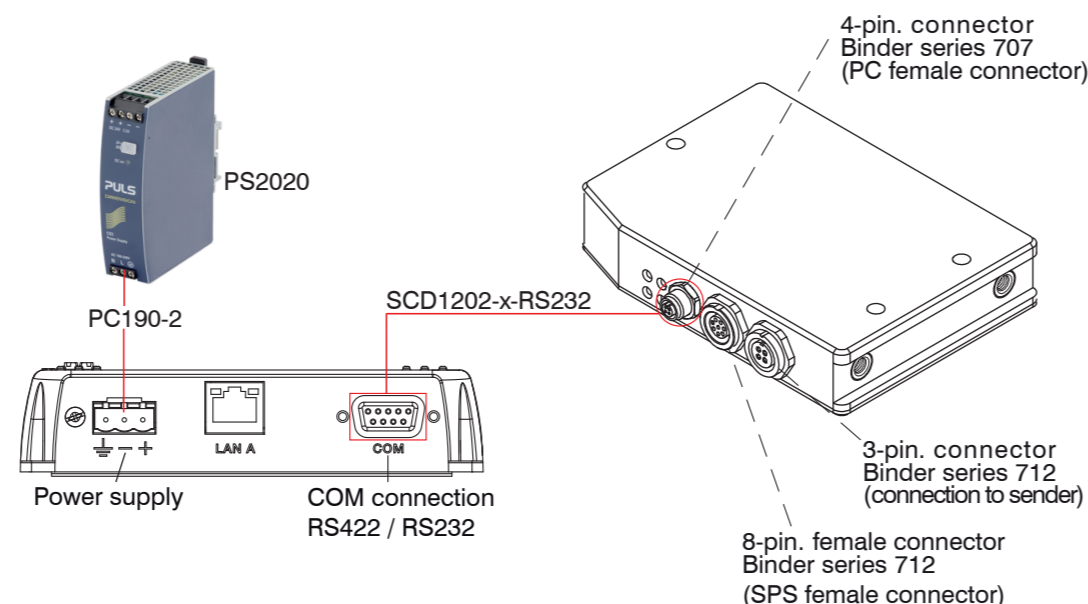


Ports on the display bottom side

Optical connections at the controller of the ODC 2500/2600

Fig. 7 Connections for optoCONTROL 2500/2600

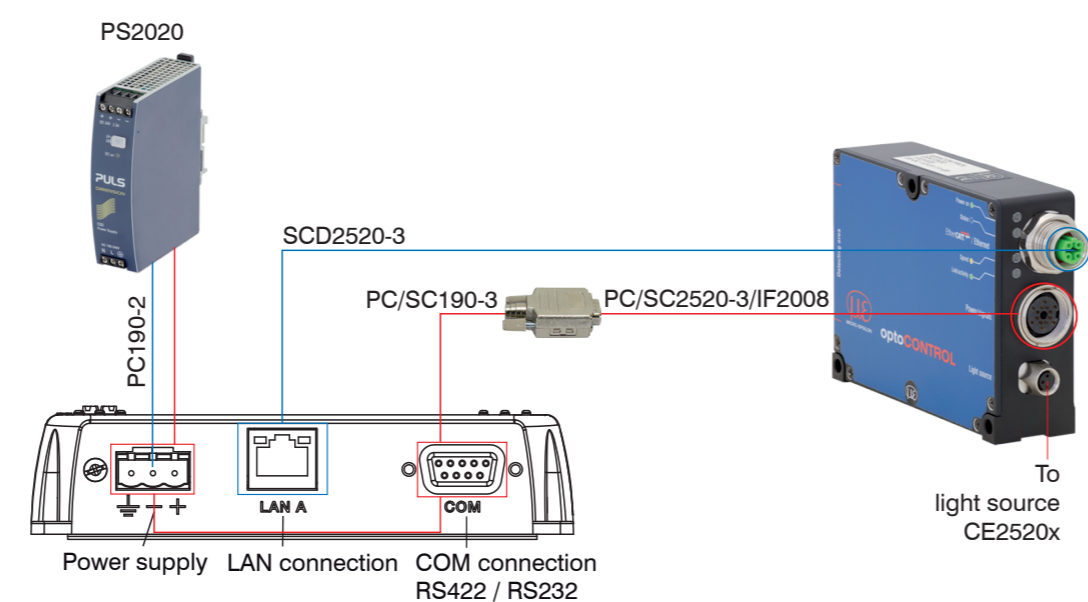
Connections for optoCONTROL 1202/1220



Ports on the display bottom side

Connections on the controller of the ODC 1202/1220

Connections for optoCONTROL 2520



Ports on the display bottom side

Optical connections at the controller of the ODC 2520

The Ethernet connection requires the SCD2520-3 and PC190-2 cables.

The RS422 connection requires the PC/SC2520-3/IF2008 and PC/SC190-3 cables.

Software Quick Guide

Settings

The digital display is configured to automatically detect the connected sensor type and to adjust the user interface accordingly. The display software can be set in English or German and has several buttons for the visualization, configuration and retrieval of sensor data. Depending on the sensor, a large number of additional settings such as filters, measuring programs and calculation functions can be set via the sensor's web interface and visualized on the display.

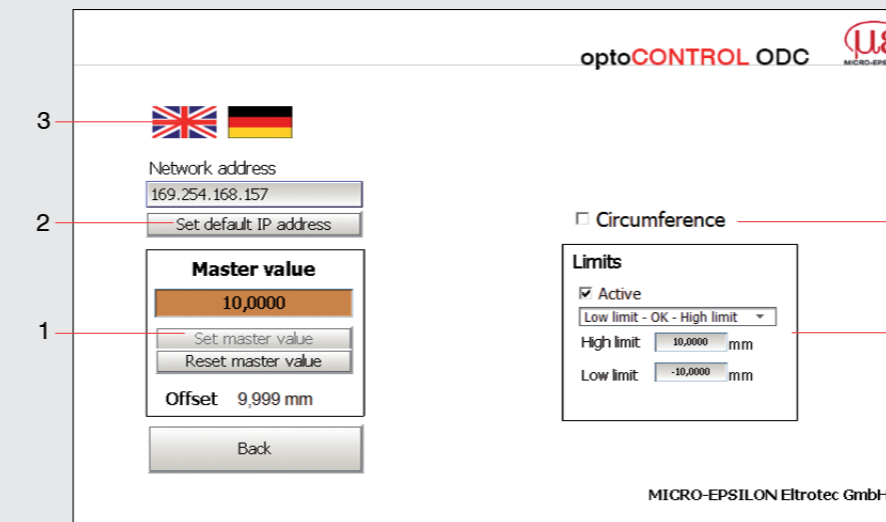
It does not matter whether the digital display is connected via the RS232/RS422 connection or the Ethernet connection.

The set standard IP is 169.254.168.150. Some changes that are selected via the web interface of the ODC 2520 sensor or the ODC 12xx software will not take effect until the digital display is restarted.

➔ Disconnect the display from the power supply.

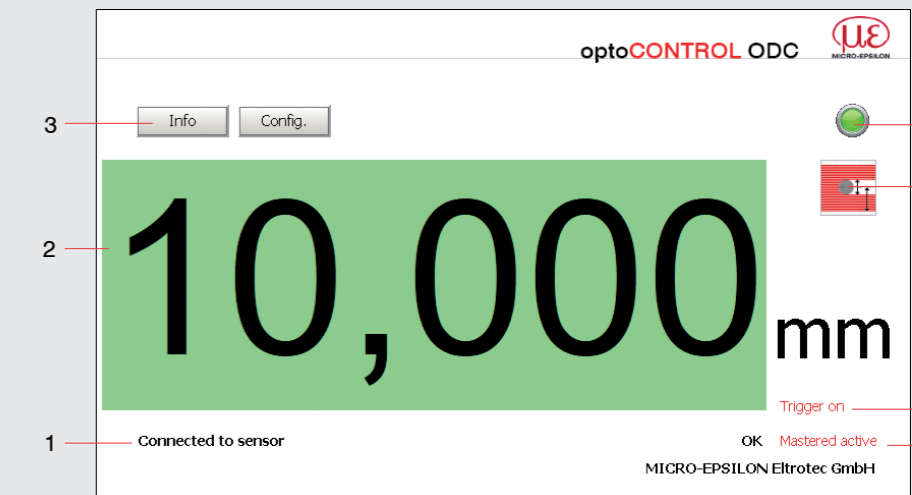
➔ Restart the digital display when you need to change the controller settings.

i Refer to the operating instructions for the sensor settings.



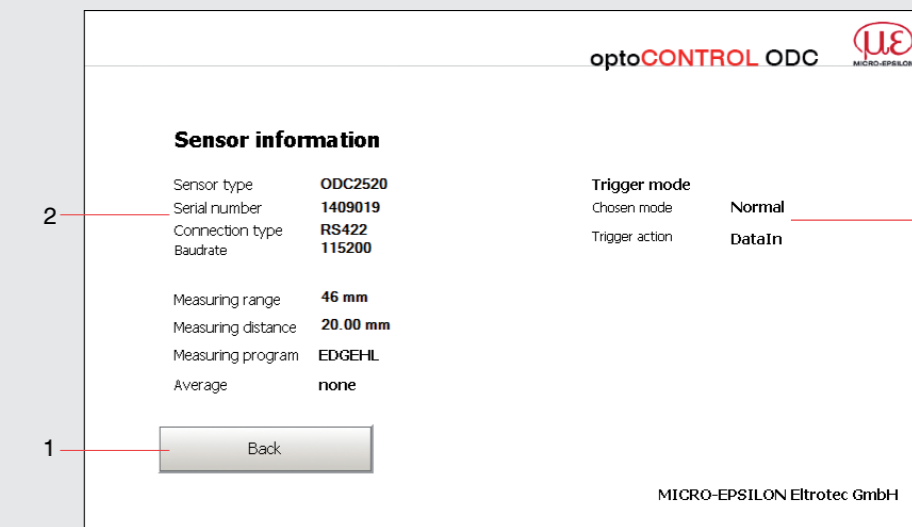
- 1 Master value settings
- 2 Settings IP address
- 3 Language setting
- 4 Circumference calculation from diameter measurement (only selectable with diameter measurement)
- 5 Activating limit value measurement and setting upper High limit and lower Low limit value.

Display Measurement Value



- 1 Connected to sensor
- 2 Measured value - limit values are indicated in colors.
- 3 Buttons for info window Info and for settings window Config.
- 4 LED for connection signal; flushes when connection is active.
- 5 Type of measurement
- 6 Triggering switched on
- 7 Display of limit value status

Sensor Information



- 1 Selected measuring program
- 2 Info site about selected sensor type/connection type RS422 or Ethernet
- 3 Trigger mode state