**Assembly Instructions**

**Assembly Instructions optoCONTROL EDU190**

**Notes on CE Marking**

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

- **optoCONTROL 1202**
- **1220**
- **2500**
- **2520**
- **2600**

**Compatible Optical Micrometers**

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 of the following EU Directives:

**Proper Environment**
- Protection class: IP 66 (EDU190-4 Pro), IP 65 (EDU190-7 Pro)
- Meter:
  - Operating temperature: -10 ... +40 °C (+14 ... +104 °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 inside 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.

**Displays**

- A green LED on the right side of the display indicates if the transmission is active.
- No flashing when the digital display is connected with the sensor.
- The ON/OFF status is displayed on the blue multicolor LED on the left side of the digital display.

**Warnings**

- Avoid use in Ex areas.
- Liquids, metal swarf and wire parts may not enter the openings of the digital display under any circumstances.
- 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.
- Connect the power supply according to the safety regulations for electrical equipment.
- The supply voltage must not exceed the specified limits.
- No sharp or heavy objects should be allowed to affect the cables. Avoid folding the cables.
- Avoid shocks and impacts to 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.
- *The specified values indicate the space required for installing the control panel.*

**Fig. 1 Installation of digital display**

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

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

**Fig. 4 Dimensional drawing for the 4.3 inches model**

**Fig. 5 Dimensional drawing for the 7 inches model**

Connections

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

### Connections for optoCONTROL 1200/1220

Ports on the display bottom side

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

Connections on the controller of the ODC 1200/1220

- Power supply: +24 VDC (18 ... 32 VDC)

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.

### Connections for optoCONTROL 2520

Ports on the display bottom side

- Power supply: +24 VDC (18 ... 32 VDC)
- RS422/RS232: COM connection

Connections on the controller of the ODC 2520

- Power supply: +24 VDC (18 ... 32 VDC)

### 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.

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### Connections

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

### Power supply

+24 VDC (18 ... 32 VDC)

### LAN connection

- 1 x 10/100 Base-T (RJ-45 shielded)

### COM connection

- RS422 (5-pole)
- RS232 (9-pole)

### Light source

(5-pin)

### Operating voltage

(3-pin)

### Receiver

(12-pin)

### Inputs and outputs

(25-pin)

### Optic connections

At the controller of the ODC 2520/2600

- SC5305-3-EDU190/RS422
- SC5305-3-EDU190/RS232
- SC5305-3-3/RS232

- PC/SC2500-3/IF2008
- PC/SC2500-3/IF2018
- PS2020

### Display Measurement Value

- optoCONTROL ODC

### Sensor Information

- Sensor type
- Connection type
- Connection RS422 or Ethernet
- Trigger mode state

### Master value settings

- Settings IP address
- Language setting

### Calculations

- Circumference calculation from diameter measurement (only selectable with diameter measurement)
- Adjusting limit value measurement and setting upper high limit and lower low limit value.