### Introduction and Assembly

The optocONTROL 120x sensors are an optical system used to measure in the near-range.

Ensure careful handling during installation and operation.

Do not touch the optical windows.

- Functionality impaired due to contamination.
- No sharp or heavy objects should be allowed to affect the cable. Avoid pulling the cables.
- Avoid contact of the cable, taking care of the measuring device
- Do not bend the cables more tightly than 52 mm.
- No sharp or heavy objects should be allowed to affect the cables. Avoid folding the cables.

#### Laser Safety

The optocONTROL 120x light source generates with a semiconductor laser at a wavelength of 670 nm (conditioned), the maximum optical power is 0.39 mW.

- The sensor falls within laser class 1.
- Lasers of Class 1 are not subject to notification and a laser protection officer is not required.
- Consequently, you can use Class 1 equipment without further protective measures.
- The accessible radiation is harmless under predictable conditions. For class 1 laser devices, impairments are not permitted.

#### Laser label and laser warning sign

- COMPLIES WITH 21 CFR 1040.10 AND 1040.11
- The protection class is limited to water proof, the degree of protection does not apply for optical inputs as their dimensions (A x B) in mm

### Laser light

130 (5.12) 20 (0.79)
16 (0.63)
max. 2500 (98.43)
4 (.16)
Laser light

### Aperture dimensions

- Dimensions (A x B) in mm (inches)
- The optoCONTROL series 1200/1201 is designed for use in industrial areas. It is used for measuring transfer distances, signal switching, measuring gaps and edge detection, especially with distances > 150 mm (between transmitter and receiver), an adjustability in 3 axes shall be ensured. Adjust the light current exactly to the receiver aperture.
- A stop bracket or rails are suitable tools for the application.

### Dimensions Drawings

**Fig. 1** Dimension ODC 1200 with laser labels

### Assembly Instructions

#### Mounting Instructions

- The sensor is mounted by means of screws type M4 or M5.
- Ensure careful handling during installation and operation.
- Connect the power supply and the display output device according to the safety regulations for electrical operating equipment.
- Ensure that all parts required for the operation of the sensor are in place.
- Ensure that all cables are correctly connected to the power supply and the display output device.
- Ensure that all connections are secure.
- Ensure that all protective devices are in place.
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- Ensure that all connections are secure.
- Ensure that all protective devices are in place.

#### Notes on Product Marking

- The product meets the requirements of the Directive 2014/30/EU. All specifications described in the operating instructions must be observed.
The power supply voltage is typically connected via a visiobus cable. e.g., via the signal and power supply cable PC1200-x. Connect the cable to the grounding connection to ensure the power supply unit is correctly earthed.

**Power**

- **Power Supply Voltage**: +24 VDC
- **Load**: up to 100 mA
- **Power +24 VDC**: GND (0 V)

**Gain**

- **Range**: 0 ... 10 V

**Threshold**

- **Analog Voltage > Threshold Value**: Analog voltage > threshold value
- **Analog Voltage < Threshold Value**: Analog voltage < threshold value

**Output**

- **Output < 9.5 V**: Output < 9.5 V
- **Output > 9.5 V**: Output > 9.5 V

**Laser Power**

- **Range**: 0 ... 10 V

**LEDs’ Adjustment**

- **Potentiometer**: Use the gain pot to adjust the analog output up to 10 V.
- **Red**: Use the gain pot to adjust the analog output up to 10 V.

**Power Supply and Output Cable**

- **PC1200-x**: This cable is an optional accessory.

**Inputs and Outputs**

- **Screen**
  - Pin 1: Connected with 5 ... 24 VDC: Laser off
  - Pin 2: Connected with 0 ... 5 VDC: Controls the laser power
  - Pin 2: Connected with GND: Full laser power
  - Pin 2: Open: 66% of the maximum laser power

**Sensor Tool**

- **Features**
  - Convert the measured values from analog sensors such as the ODC1200 to Ethernet/EtherCAT.
  - Offers three analog inputs (2 x 0 - 10 V voltage, 1 x 4 - 20 mA current) which can be used to control digital outputs.

**Quick Guide**

- **Sensor Tool**
  - Open the website and select the sensorTool program. Parameter settings are via the sensorTool program.

**Installation**

- **Unpacking**
- **Included in Delivery**

**Technical Information**

- **Housing**
- **Description**

**Electrical Connections**

- **Signal**: Brown
- **Housing**: GND (0 V)

**Power**

- **White**: Output < 9.5 V
- **Black**: Output > 9.5 V

**Analog**

- **Analog voltage > threshold value**: Analog voltage > threshold value
- **Analog voltage < threshold value**: Analog voltage < threshold value

**Digital**

- **Brown**: +12 ... +32 VDC
- **White**: -10 VDC or +10 VDC
- **Green**: 0 VDC

**Opto-Interface**

- **Available for Germany, 1 x for EU region and USA**

**Dimensions**

- **ø 14.5 (0.57 dia.)**
- **ø 5.2 (0.20 dia.)**
- **40 (1.57)**
- **41.5 (1.63)**
- **26.5 (1.04)**

**Assemblies and packaging**

- **Example: optoCONTROL 1200**

**Contact**

- **Your local contact**: Manfred-Wörner-Straße 101 • 73037 Göppingen / Germany