The optoNCDT 1900 sensor is an optical system for measurements with micrometer accuracy. It is used for reducing displacement, distance and position as well as in process quality control and dimensional testing. The sensor may only be operated within the limits specified in the technical data, see operating instructions, Chap. 3.3. The sensor must be used in such a way that no persons are endangered or machines are damaged in case of malfunctions or total failure of the sensor. Take additional precautions for safety and damage prevention for safety-related applications.

**Warnings**

- Avoid unnecessary laser radiation to be exposed to the human body. Switch off the sensor for cleaning and maintenance. For system maintenance and repair of the sensor is integrated into a system.
- Caution: use of controls or adjustments or performance of procedures other than those specified may cause hazardous radiation exposure.
- Avoid continuous exposure to splashing water on the sensor and the controller. Avoid exposure to aggressive materials (washing agent, cooling emulsions) on the sensor.
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- Risk of injury. Damage to or destruction of the sensor.
- Avoid exposure to aggressive materials (washing agent, cooling emulsions) on the sensor.
- Avoid shock and vibration to the sensor. Protect the sensor cable against damage.
- Damage to or destruction of the sensor, failure of the measuring device.

**Proper Use**

The optoNCDT 1900 system is designed for use in industrial and laboratory areas. It is used for reducing displacement, distance and position as well as in process quality control and dimensional testing. The sensor may only be operated within the limits specified in the technical data, see operating instructions, Chap. 3.3. The sensor must be used in such a way that no persons are endangered or machines are damaged in case of malfunctions or total failure of the sensor. Take additional precautions for safety and damage prevention for safety-related applications.

**Pin Assignment**

- **Signal**
  - **Pin Description**
  - **Supply Voltage (11 ... 30 VDC)**
  - **Ground**
  - **Analog output**
    - **Current: 4 ... 20 mA (R< 4 Ohm / 4 ... 20 mA)**
      - **Voltage** 5 V
        - **Reference potential** for analog output
      - **측정기의 전원 공급**
      - **측정기의 전원 공급**
      - ** côtometrical characteristic (NPN, PNP ,

**Mounting**

- **Bolt connection**
- **Direct fastening**

**Dimensional drawing, drilling pattern, mounting plate**

**Attention via centering elements (optional)**

**Supply voltage**

- **Nominal value: 24 V DC (11 ... 30 V , P < 3 W)**
- **Use supply voltage for measurement instruments only MICRO-EPSILON recommends using an optional available power supply unit PS2020 for the sensor.**

**Warnings**

- **Never deliberately look into the laser beam!**
- **Never deliberately look into the laser beam!**
- **Never deliberately look into the laser beam!**

**Assembly Instructions optoNCDT 1900**

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RS422 Connection with USB Converter IF2001/USB

Cross the lines for connections between sensor and PC.
- Disconnect or connect the D-sub connection between RS422 and USB converter when the sensor is disconnected from power supply only.

Quick Guide

Components
Mount the sensor and connect the components.
Source
Supply the sensor. A parallel output of measured values is not possible. RS422 and analog output cannot be operated simultaneously. Only use the USB interface, the output is switched off via RS422.

Position the target (measurement object) as much as possible in the middle range.

Select a Measuring Rate
Go to the menu Settings > data recording > measuring rate. Start with a medium measuring rate. Select a measuring rate from the list. Confirm with Apply.

Select an Interface
Go to the menu Settings > output interface. Define which interface is used for output of measured values. A parallel output of measured values via multiple channels is not possible. RS422 and analog output cannot be operated simultaneously.

Access via Web Interface

Interactive web page for programming the sensor now appears in the web browser. The sensor is active and supplies measurement values. The ongoing measurement can be operated by means of function buttons in the area Measurement chart.

Start the program sensorFINDER Vx.x.x.
Select the desired sensor.
Click on the button Connect to detector sensor and start browser.

In the topl navigation bar other auxiliary functions (settings, measurement chart etc.) are available.

The appearance of the websites can change dependent of the functions. Each page contains descriptions of parameters and so tips for filling the website.

The State LED on the sensor indicates the position of the target to the sensor.

The ongoing measurement can be operated by means of the function buttons in the area Measurement chart. The State LED on the sensor indicates the position of the target to the sensor.

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