Proper Environment
- Protection class: IP 65 (indicates when the sensor cable is plugged in)
- Optical inputs are protected from protection class. Contamination leads to impairment or failure of the function.
- Temperature range: -20 °C...+50 °C (-4 °F...+122 °F)
- Storage: -20 °C...+70 °C (+4 °F...+158 °F)
- Humidity: 5...85% (non-condensing)
- Ambient pressure: Atmospheric pressure

Sensor Mounting, Dimensions
The optoNCDT 1750 sensor is an optical system for measurement with micrometer accuracy. Pay attention to correct handling during mounting and operation.

Mount the sensor only to the existing holes on a flat surface. Clamps of any kind are not permitted.

Use three M4 screws to mount the sensor. The bearing surface surrounding the fastening holes (throughholes) are slightly elevated.

Mounting, Direct mounting
Mount the sensor only to the existing holes on a flat surface. Clamps of any kind are not permitted.

Use three M4 screws to mount the sensor. The bearing surface surrounding the fastening holes (throughholes) are slightly elevated.

Mounting, Direct reflection target
Mount the sensor and the target directly. The measurement results will not always be accurate.

Mounting, Pin Assignment
Mounting, Direct mounting
Mount the sensor only to the existing holes on a flat surface. Clamps of any kind are not permitted.

Use three M4 screws to mount the sensor. The bearing surface surrounding the fastening holes (throughholes) are slightly elevated.

Mounting, Direct reflection target
Mount the sensor and the target directly. The measurement results will not always be accurate.
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.

Sensor Supply Voltage

- **Type 1 ILD1750**
  - 5V DC
- **Type 2 ILD1750**
  - 10V DC

Sensor Cable: Shielded cable with twisted cores e.g. PC1700-x.

Cross the lines for connections between sensor and PC.

Access via Web Interface

Interactive web pages for programming the sensor are open in the browser. 
- The sensor is active and supplies measurement values. The ongoing measurement can be started or stopped via buttons in the area Chart Type.
- The State LED on the sensor indicates the position of the target to the sensor.

RS422 Connection with USB Converter IF2001/USB

Connect the sensor to a PC/notebook via a RS422 connector. Connect the supply voltage.

Start the program sensorFINDER Vx.x.x.

Select an Interface

Defines 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.

Select a Measuring Rate

Start with a medium measuring rate. Select a measuring rate from the list. Confirm with Apply.

Store the Settings

- Go to the menu Settings > System settings > Load & Stores or click the Save button.

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.

Place target

- Position the target (measurement object) as much as possible in the midrange.

**Note:** The appearance of the websites can change dependent of the functions.

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

- **Color:** Off, Laser off, Laser beam is switched off
- **Status:** Off, in range, Target within measuring range
- **Mode:** Red, Yellow, Midrange, Target within the midrange
- **Error:** Red, Error, Target exceeds the measuring range, Too low reflection

Store the Settings

- Go to the menu Settings > System settings > Load & Stores or click the Save button.