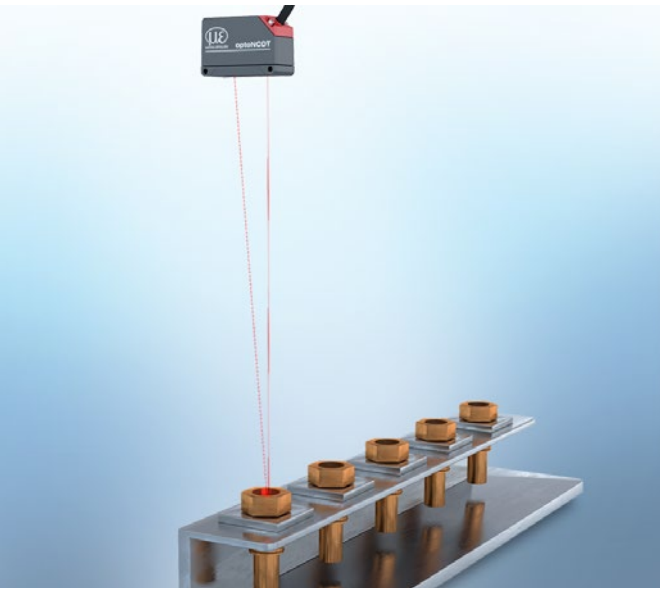
A360

Laser triangulation sensors
optoNCDT



Fill level measurement in oil temperature sensors (OTS)

Laser triangulation sensors from Micro-Epsilon are used for precise distance measurements. They offer an optimal combination of a large measuring range and a large measurement distance at the same time. Furthermore, the sensors are easy to handle, install and commission.

Laser sensors check the fill level in oil temperature sensors in the production line

Oil temperature sensors (OTS) are used to monitor the engine temperature of vehicles. These must function absolutely reliably and faultlessly in order to prevent the motor from overheating and thus being damaged. In this application, the oil in the OTS must have a level of 5 mm, but in no case less than 4 mm.

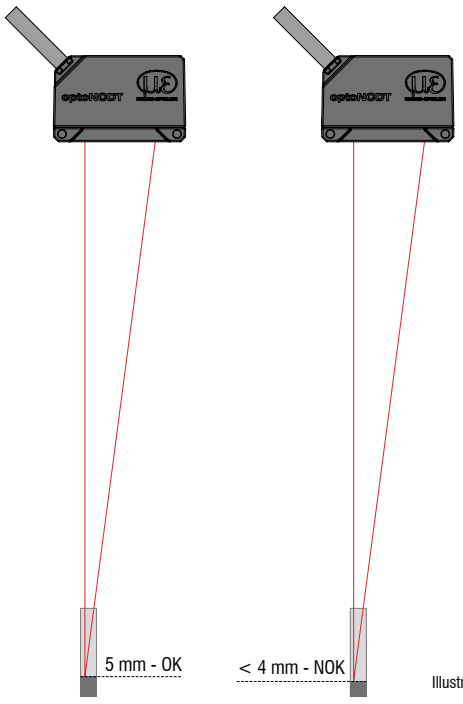
This is already checked during production using optoNCDT 1420 sensors from Micro-Epsilon. After the oil has been filled by a dispenser machine, an ILD1420-200 measures the level. If this is less than 4 mm or if the sensor was not filled at all due to production errors, it is evaluated as NOK and sorted from the production line.

Since the oil temperature sensors have a very narrow inner diameter of only 4 mm and a depth to be tested of 28 mm, a measuring range of 200 mm is used. This ensures that the laser can reliably measure into the filling tube.

Ambient conditions
- Room temperature
- Clean environment

System design
- Compact laser displacement sensor optoNCDT 1420-200

Advantages
- Precise measurement from a great distance
- Large measuring range for reliable detection of all components
- Simple solution with optimal price-performance ratio



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