Use

In dirty environments and with increased ambient temperatures, it is recommended to operate the scanner with a protective and/or cooling housing. The protective and cooling housings are optional accessories. Their use may impair the linearity of the sensor in the complete system which is why a referenced measurement is recommended.

In case of safety-related applications, the scanner must only be operated within the limits specified in the technical data. Take additional precautions for safety and damage prevention in case of safety-related applications.

Variants

- Protective housing with blow-out system and compressed air connection, article 2105278
- Protective housing with blow-out system, compressed air connection and water connections for cooling, article 2105307

Protective Housing scanCONTROL LLT30xx
Adaptive protective housing for scanCONTROL 30xx
- Measuring ranges 25 - 200 mm
- Air supply of the optical path
- Exchangeable protective glass

Protective and Cooling Housing scanCONTROL LLT30xx
Adaptive protective and cooling housing for scanCONTROL 30xx
- Measuring ranges 25 - 200 mm
- Air supply of the optical path
- Exchangeable protective glass
- Water cooling circuit for sensor cooling (ambient temperatures up to 95 °C)

Proper Environment
- Protection class: IP65 (applies only when sensor cable is plugged in)
- Lenses are excluded from the protection class. Contamination of the lenses causes impairment or failure of the function.
- Max. ambient temperature without cooling: 45 °C (113 °F)
- Max. ambient temperature with cooling: 95 °C (203 °F)
- Max. pressure: 3 bar (cooling medium), 5 bar (compressed air)
- Only fluid cooling media are permissible. Air / gas cooling is not sufficient.

Mounting
- Mount the sensor only to the existing mounting holes/threaded holes on a flat surface.
- Clamp of any kind are not permitted and can lead to failure of the sensor.
- Ensure careful handling during installation and operation!

Sensor Mounting, Dimensions

The scanCONTROL scanners are optical sensors for measurements with micrometer accuracy.

Protective housing assembly

Protective housing with blow-out system and water cooling, article 2105307

Unpacking/Included in Delivery
- 2 cooling plates (only with protective/cooling housing)
- 2 base plates
- 1 protective plate
- 1 protective glass
- 1 protective glass slot
- 1 additional compressed air connection

Protective Housing with blow-out system, article 2105076

Part | Name
--- | ---
1 | Protective glass slot
2 | Protective plate
3 | Air connection
4 | Base plate, left
5 | Protective glass
6 | Cooling plate, left (only with water cooling)
7 | Heat-conductive pad (only with water cooling)
8 | Water connection
9 | Scanner
10 | Base plate, right
11 | Cooling plate, right (only with water cooling)
12 | Protective plate
13 | Optional air connection

Adaptive protective housing for scanCONTROL 30xx
- Measuring ranges 25 - 200 mm
- Air supply of the optical path
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Adaptive protective and cooling housing for scanCONTROL 30xx
- Measuring ranges 25 - 200 mm
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- Exchangeable protective glass
- Water cooling circuit for sensor cooling (ambient temperatures up to 95 °C)
Mounting of Protective and Cooling Housing

If the protective or cooling housing is installed, make sure that the product labels are removed from the scanner (on the sides).

- Join the left base plate to the protective glass slot. Insert the left cooling plate. Centering pins hold the cooling plate in place.

- Remove the protective film from one side of the heat-conducting pad and stick it on the scanner.

- Remove the protective film from one side of the heat-conducting pad and stick it on the scanner.

- Join the right base plate to the right cooling plate.

- Join the scanner to the left cooling plate.

Join the right base plate to the protective glass slot. Join the right base plate to the scanner.

- Tighten the fastening screws M6x12 on both sides with a torque of 3.5 Nm.

- Slightly tighten the adjusting screws (1) on the base plate by hand as far as it will go in order to ensure proper heat dissipation. Screw back by 1.0 turn. The pitch of the adjusting screw is 0.75 mm/inch.

- Make sure that the ball bearing is half compressed when installed in order to achieve the optimal tolerance compensation. This is why the adjusting screw must be turned back by 1/2 turn after being slightly tightened to the stop.

Mounting of Protective and Cooling Housing

- Join the right base plate to the protective glass slot.

- Join the scanner to the left cooling plate with a set screw (M4x6) and the set screw (M4x6) included in the scope of delivery.

- Slightly tighten the adjusting screws (1) on the base plate by hand as far as it will go in order to ensure proper heat dissipation. Screw back by 1.0 turn. The pitch of the adjusting screw is 0.75 mm/inch.

Depending on the ambient conditions, the gap between the sensor and the protective glass can be flushed with compressed air. For this purpose, the blind plug (2) is replaced by an additional air connection (included in the scope of delivery).

- 2 Blow-out system gap between sensor and protective housing
- 3 Blow-out system protective glass

Mount the protective plate at the laser entrance window. For fastening, use the Allen screw (M4x6) and the set screw (M4x6) included in the scope of supply.

Mounting the Protective Housing

- Join the scanner to the protective glass slot.

- Join the right base plate to the scanner.

- Mount the protective plate at the laser entrance window. For fastening, use the pin screw (M4x6) and the set screw (M4x6) included in the scope of supply.

Mounting the Protective Housing

- Mounting of Protective and Cooling Housing

- Mounting of Protective and Cooling Housing

Mounting the Protective Housing

- Join the scanner to the left base plate with the protective glass slot.

- Join the right base plate to the scanner.

- Mount the protective plate at the laser entrance window. For fastening, use the pin screw (M4x6) and the set screw (M4x6) included in the scope of supply.

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