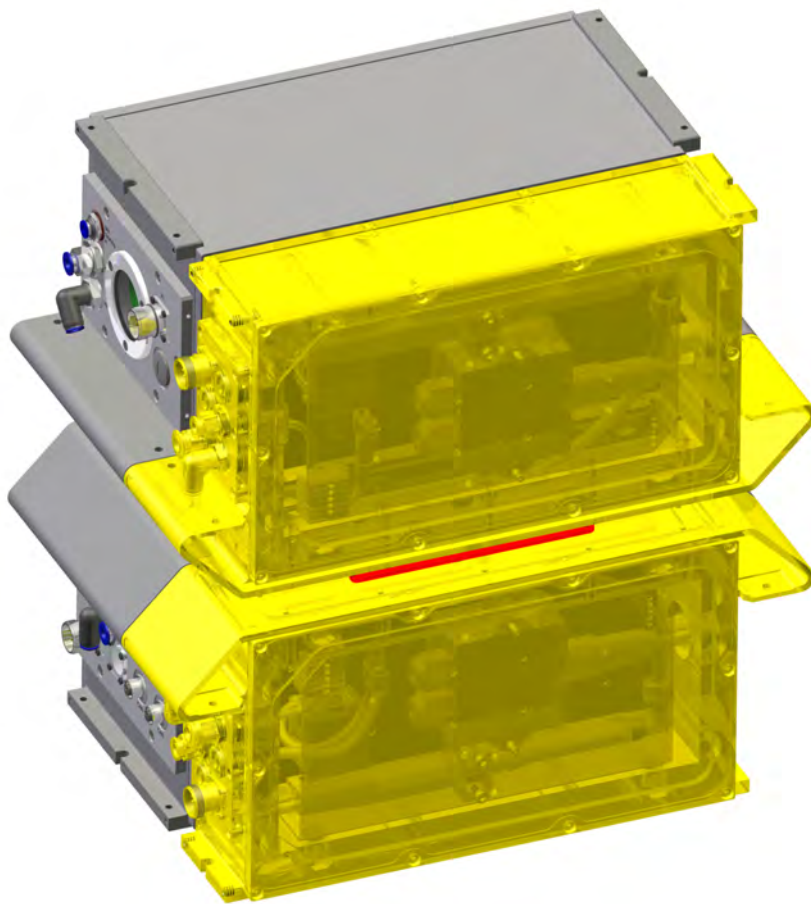


Gap Conditioning Device GCD 12

Temperature control in the measuring gap

Accessory for Qualiscan QMS



Gap Conditioning Device
GCD 12

Gap Conditioning Device GCD, 84-010431, 1, en_GB

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Gap Conditioning Device GCD

Temperature control in the measuring gap



Benefits for the customer

- Defined temperature in the measuring gap
- Increases measuring accuracy
- Simultaneously cleans the measuring gap
- Prevents development of condensate



Product highlights

- Temperature control up to 250 °C
- Control accuracy +/- 1 °C
- Protection class IP65

Area of application

Some applications require a defined and constant temperature in the measuring gap across the transverse profile of the measuring gap to be able to ensure correct measuring.



Fig. 1: Sensor Gravimat DFI (example) with optional Gap Conditioning Device GCD

- 1 Gravimat DFI (example)
- 2 Gap Conditioning Device GCD

Principle of operation

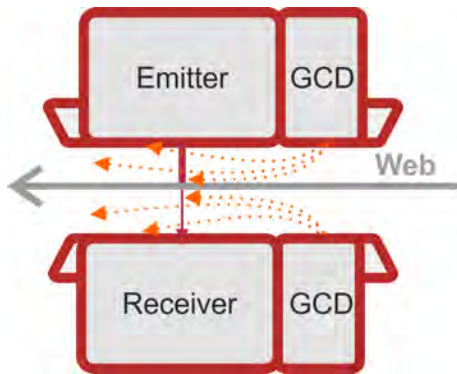


Fig. 2: Gap Conditioning Device GCD schematic diagram

**Receiver /
Emitter
GCD**

Mahlo measuring sensor

Gap Conditioning Device upstream of the Mahlo measuring sensor

The Gap Conditioning Device GCD blows heated air into the measuring gap to reach the defined temperature. The temperature of the heating air can thereby be adjusted with a precision of 1 degree. The measuring gap is cleaned and kept clean at the same time by the steady flow of air. The air pressure of the heating air can be set with a pressure gauge.

The Gap Conditioning Device GCD is an optional add-on device for the respective measuring sensor used. It is installed in the running direction of the product upstream of the actual measuring sensor to thereby heat the measuring gap with the product running direction.

Temperature control



Fig. 3: Temperature controller

Air can be heated and the heating air temperature controlled with the Gap Conditioning Device GCD. Cooling is not possible with this device, even if lower temperatures than the ambient temperature can be set on the temperature controller. The minimum temperature depends on the ambient temperature and the temperature of the supplied compressed air. The temperature control of the heating air is factory set and limited to 250 °C; it is preset to 100 °C.

Prevention of condensate



Fig. 4: Condensate

Because of the usually high temperature differences between product, room air and measuring equipment, the moisture in the room air often condensates since the dew point lies within the measuring gap. The measuring windows fog up from the condensate which may lead to wrong measuring results. The Gap Conditioning Device GCD prevents the formation of condensate through the temperature compensation in the measuring gap.

Technical data

Sensor	Gap Conditioning Device GCD
Heating air temperature	Max. 250 °C
Heating output	400 W
Control resolution	1 °C
Control accuracy	+/- 1 °C
Protection class	IP 65

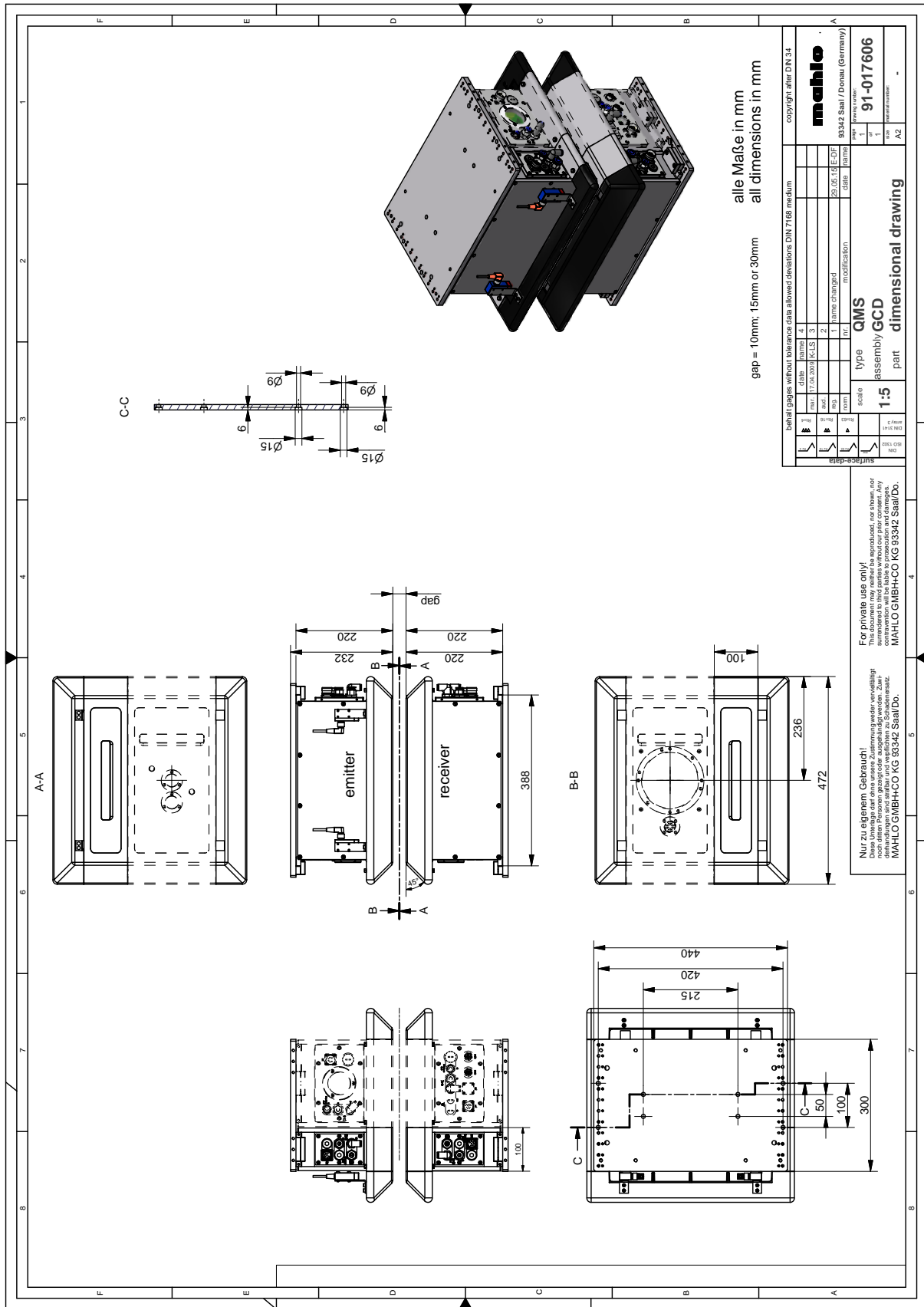


Fig. 5: Dimensional drawing of Gap Conditioning Device GCD, 91-017606-01

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