

The Gas alarm control unit GMZ-1/2 is designed as rugged industrial measuring instrument, being to a high degree maintenance-free and safe in operation, monitoring hazardous gas concentrations without time delay in rooms, ventilation channels, refrigeration plants, laboratories etc.

The device is used preferentially in refrigeration systems for determination of refrigerants as ammonia, R22, R23, R50, R 123, R 134a, R 170, R290, R404a, R 407 a, R 407 c, butane, carbon dioxide etc. Depending on the type of gas and on the gas sensor used, gas concentrations from 10 ppm to 30,000 ppm can be determined.

The Gas alarm control unit GMZ-1/2 is provided with two alarm thresholds. The maximum limit value is adjusted in ppm on two potentiometers provided with a scale corresponding to the gas.

A zero-potential switch-over contact is provided for each alarm stage. Additionally, it can be delivered with an output for 0/4 mA to 20 mA.

An array of light-emitting diodes for display of the switching state and the gas concentration is provided. Further, a piezo buzzer is built-in for a loud acoustic alarm when the second alarm stage will be exceeded.

For connection of the gas sensor, a 4-wire cable with total shielding is required. Up to 600 m distances, a wire cross section of 0.75 mm² Cu, up to 1,200 m, a wire cross section of 1,5 mm² is required.

BEUTLER Maschinenbau- und Vertriebsgesellschaft mbH

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Dimensions

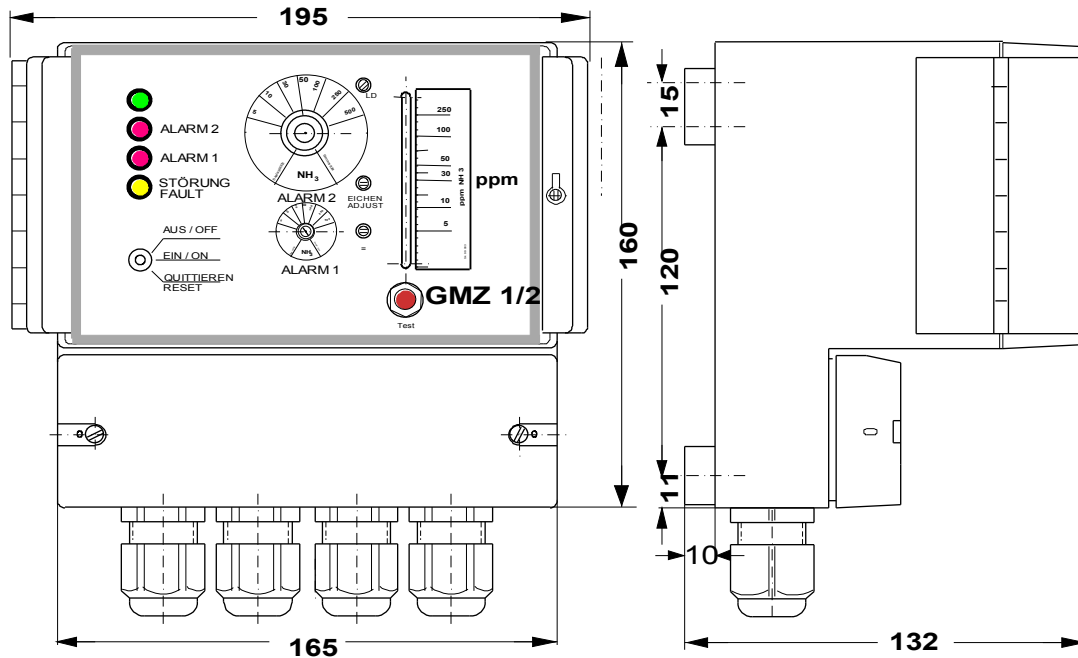
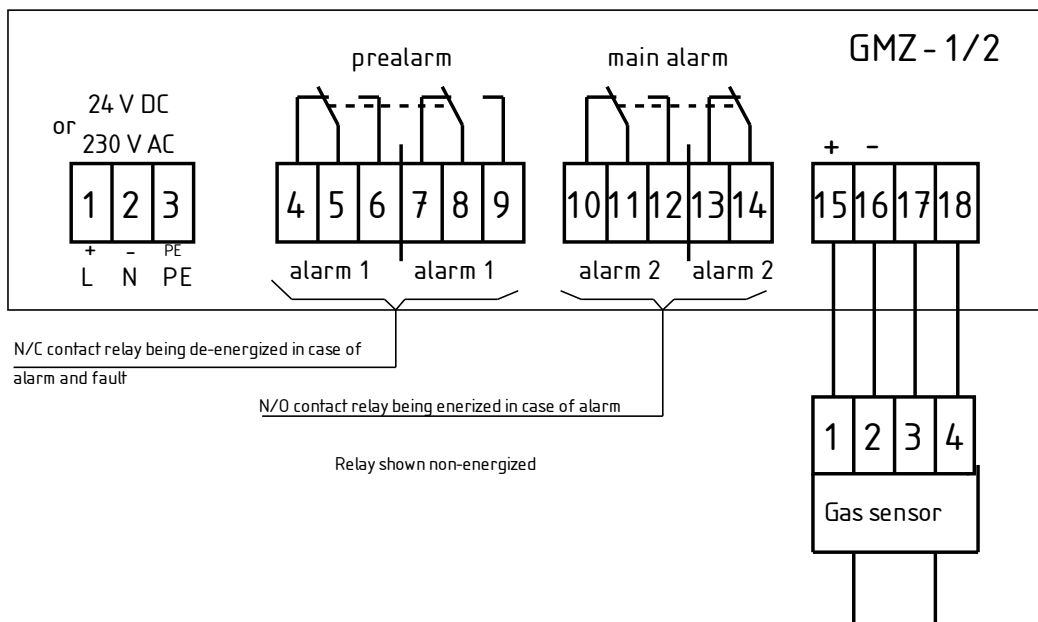


Diagram of connections



We reserve the right for modifications.

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Auswahl einiger Gassensoren

Gas sensor Type S ... C/3-AI-W

For refrigerants and flammable gases, with terminal box for wall mounting. Measuring principle: semiconductor
Temperature range: - 40° C to + 55° C Mode of protection: IP 53
Designed according to type of gas. Not for applications in explosive areas.



Gas sensor Type S ... C/3-AI-WP

Sensor for measurement of heavy gases, with terminal box and integral vacuum pump for intake of gas.
Temperature range: - 20° C to + 55° C
Mode of protection: IP 53
Designed according to type of gas.
Not for applications in explosive areas.



Gas sensor Type S... N/2 (Ex)

For applications covered by explosion safety regulations.
Test number PTB Ex-96.Y1602
Ex dem MC T6
Temperature range: - 40° C to + 40° C



IR-Sensor for carbon dioxide (CO₂)

Type IR 23-CO₂

Measuring principle: infrarot-optical Measuring range: 0-1 % or 0 - 10 % ,
Temperature range: 5° C to + 40° C,
Mode of protection: IP 53



TECHNICAL DATA

Supply voltage:	230 V AC or 24 V DC
Power consumption:	6 VA
Temperature range:	-20°C to +55°C
Mode of protection:	IP65
Weight including Sensor:	1,6kg
Dimensions:	195 x 190 x 132 mm
Alarm thresholds:	2 (1. prealarm, 2. main alarm)
Prealarm:	2 potential-free relay outputs, change-over. Relay changes over when: prealarm, fault, power failure.
Main alarm:	2 potential-free relay outputs, 1 NC contact and 1 NO contact. Relays change when main alarm. Alarm is maintained, as long as gas concentration is above alarm threshold and confirmation was not actuated. Acoustic alarm by built-in piezo buzzer. Main alarm can be switched off by setting the confirmation switch „Off“. Then the yellow light-emitting diode „Fault“ lights up.
Relay:	max. switching capacity: 100 W/1 000 VA , max. switching current: 5 A, max. switching voltage: 250 V
By choice:	mA Output: 0/4 mA to 20 mA
Testing:	The device can be tested by actuation of button „Test“, then confirm again.
Measuring principle:	It depends on type of gas, semiconductor, infrared-optical, electrochemical.