Technical specifications:
GMA200-MW4

Display & control elements
Status-LEDs: 13 status LEDs for alarms, operating and relay states
Display: 2.2" graphic display
Buttons: 5 buttons
Alarm: buzzer max. 100dB(A) adjustable

Environmental conditions
Mounting: only indoors up to an altitude of 2000m above sea level
for storage: -25…+60°C | 0…99% r.h. (recommended: 0…+30°C | 40…60% r.h.)
for operation: -20…+55°C | 0…99% r.h.

Power supply
Operating voltage Ue: 100 V to 240 Vac 50 Hz to 60 Hz mains voltage or/and 24 Vdc (20 Vdc to 30 Vdc) through stabilized SELV or PELV power supply
Power consumption:
max. 16 VA  (without transmitter)
max. 42 VA  (with transmitter)
Fuse: F1=T 500 mA  (for GMA200)
F2=M  1 A  (for transmitter)

Transmitter connections
Supply outputs: 24 Vdc ±3 % with built-in power supply, otherwise 20 Vdc to 30Vdc (see above)
Analog input signals IIN:
4x 150 mA or Iges=0.6 A with different allocation
Tolerance*: ±0.3%MR@4…20mA or ±1.2%MR@0…1mA (MR=measuring range)
Load approx. 50…100Q, Imax=70mA permanent / 500mA short time
RS485; Half-Duplex; max. 38400 Baud

Measurement value processing
Update time: 1s  (If there are more than 16 transmitters and relay modules on the same TRM bus and the data transmission is only at 9600 baud, the cycle time is extended from 1.0 to max. 1.3 s, so that the time of 1 s cannot be maintained)
Adjustment time for RS485:
for 4…20mA: Rise time tR<2s or tF<4sec
Decay time tR<2s or tF<4sec
Rise time tR<6s or tF<10sec
Decay time tR<6s or tF<10sec
(extended by setting times of the gas measuring transmitters)
Ready delay: <40s (can be extended by running-in times of gas measuring transmitters)

RS485 outputs
GMA bus: RS485; Half-Duplex; max. 230400 Baud
(for GMA200 relay modules, control centre, PC, PLC or gateway)
RS485 bus: RS485; Half-Duplex; max. 38400 Baud (only for GMA200 relay modules)

Relay outputs
Contacts: 6 relays with normally open contact
Contact load capacity: 3A/250V AC or 3A/30V DC
Minimum switching voltage: 5V
Minimum switching voltage: 5V
Switching frequency: max. 100 per year (per relay contact), valid for SIL applications according to EN 50402
Insulation clearances: Basic insulation between the relays: 182, 384, 586
Double insulation between the relays: 283, 485

Analogue outputs
IOUT1+2: 4-20mA with linear transfer function (load max. 560Q)
Accuracy: ±0.3%MR@10…30°C or ±0.8%MR@-20…50°C (MR=measurement/signal range)

Alarm acknowledgement inputs
Reset 1+2: 0-3V DC (alarm acknowledgement occurs on contact with GND; UMAX=30V DC)
Technical specifications: 
**GMA200-MW4**

### Data logger (optional)
max. 2 GB microSD card with FAT formatting (FAT16)

### USB connection
Mini USB socket for device configuration with PC

### Housing
- **Protection class:** IP65 in accordance with IEC 60529; IK08 in accordance with IEC 62262
- **Material:** Plastic
- **Dimensions:** 209 x 180 x 64 mm (W x H x D)
- **Weight:** 890g

### Cable junction
- **Cable:**
  - 3-4 wire ≥0.75 mm² LiYY, NYM (for GMA200 supply)
  - 2-4 wire 0.5-1.5 mm² LiYY, LiYCY (for transmitters)
  - 2-wire 1x2x0,22mm² BUS-LD (for GMA bus with length > 10 m)
- **Cable glands:** max. 9 x M16x1.5 (for cable diameter 3-7 mm respectively 5-10 mm)
- **Terminal blocks:** 0.08 mm² to 2.5 mm² cross-section

### Approvals/Tests
- **Electromagnetic Compatibility:** EN 50270:2015 (interference emission: type class I, interference immunity: type class II)
- **Electrical safety:** EN 61010-1:2010 (Pollution degree 2, overvoltage category II for mains supply)
  
  (Pollution degree 2, overvoltage category III for relay contacts)
- **Functional safety:** EN 50402:2017; IEC 61508-1 to -7:2010 (SIL2/SC3)
  
- **Metrological suitability:** EN 60079-29-1:2016 (EX); EN 50104:2010 (OX); EN 45544-1/-2/-3:2015 (TOX)

### Service life
20 years

* This is only the measurement tolerance of the GMA. The transmitters have additional tolerances.