### Technical specifications: GMA200-MGSS

#### Display & control elements
- **Status-LEDs:** 15 status LEDs for alarms, operating and relay states
- **Display:** 2.2" graphic display
- **Buttons:** 5 buttons
- **Alarm:** Buzzer max.100dB(A) einstellbar

#### Environmental conditions
- **Mounting:** only indoors up to 2000m above sea level
- **Storage:** -25..+60°C | 0..99% r.h. (recommended: 0...+30°C | 40…60% r.h.)
- **Operating:** -10..+45°C | 0..99% r.h.

#### Power supply
- **Operating voltage:** 100-240V AC 50-60Hz mains voltage or 24V DC (20-30V DC permitted)
- **Leistungsaufnahme:** max. 42VA or 20W
- **Sicherungen:**
  - F1=T 500mA (for GMA200)
  - F2=T 500mA (for gas sensors)
  - F5=T 315mA (for flow controller)

#### Measuring gas supply
- **Gas treatment:**
  - Cooling coil (optional)
  - Condensate trap with water barrier (optional)
  - Flame arrester (optional)
- **Path changeover:** Solenoid valve (optional)
- **Sample gas pump:** Membrane pump (flow-controlled, typical 0,5l/min)

#### Gas sensors
- **Sensor block:** with maximal 3 sensors
  - 1 catalytic combustions sensor for measuring flammable gases and vapours
  - 2 electrochemical or infrared sensors for the measurement of toxic and combustible gases as well as oxygen

#### Measurement processing
- **Update time:** 1s
- **Setting times:** Rise time t₉₀<2s or t₅₀<2sec Decay time t₅₀<2s or t₉₀<2sec
- **Standby 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, Central, PC, SPS or Gateway)
- **TRM bus1:** RS485; Half-Duplex; max. 38400 Baud (only for GMA200 relay modules)

#### Relay outputs
- **Contacts:** 8 relays with one changeover contact per relay
- **Contact rating:** 3A/250V AC or 3A/30V DC
- **Minimum switching current:** 10mA
- **Minimum switching voltage:** 5V
- **Schalthäufigkeit:** max. 100 per year (per relay contact), applies to SIL applications according to EN 50402
- **Isolationsabstände:** Basic insulation between the relays: 1&2, 3&4, 5&6, 7&8
  - Double insulation between the relays: 2&3, 4&5, 6&7

#### Analogue outputs
- **IOUT1+2:** 4-20mA with linear transfer function (load max. 560Ω)
- **Accuracy:** \(\pm 0.3\%MR@10...30^\circ C \) or \(\pm 0.8\%MR@-20...50^\circ C\) (MR=Measuring/signal range)

#### Alarm acknowledgement inputs
- **Reset1+2:** 0-3V DC (Alarm acknowledgement takes place on contact with GND; \(U_{\text{max}}=30\text{V DC}\))

#### Data logger (optional)
- max. 2GB microSD card with FAT formatting (FAT16)
## Technical specifications:
**GMA200-MGSS**

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

### Housing
- **Protection class:** IP54 according to IEC 60529, IK08 according to IEC 62262
- **Material:** Plastic
- **Dimensions:** 270 x 290 x 98 mm (B x H x T) (varies depending on version)
- **Weight:** approx. 2.8...3.2 kg (depending on version)

### Cable junction
- **Cable:**
  - 3-wire ≥0.75mm² LIYY, NYM (for GMA200 supply)
  - 2-wire 1x2x0.22mm² BUS-LD (for GMA bus at length > 10m)
- **Cable glands:**
  - 7 pieces M16x1.5 (for cable diameter 4.5-10mm)
  - 0.08...2.5mm² cross section

### Approvals / Tests
- **Electromagnetic compatibility:** DIN 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)

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