### Technical specifications: GMA200-MT6 / GMA200-MT16

#### 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. 70dB(A) adjustable

#### Environmental conditions
- **Mounting:**
  - For storage: in the switch cabinet or in the wall housing, indoors
  - For operation: on a mounting rail TS35 according to DIN EN 60715 up to an altitude of 2000 m above sea level
- **Temperature and humidity:**
  - For storage: -25...+60°C | 0...99%r.h. (recommended: 0...+30°C | 40...60%r.h.)
  - For operation: -20...+50°C | 0...99%r.h.

#### Power supply
- **External supply:**
  - GMA200-MT6: stabilized SELV or PELV power supply
  - GMA200-MT16: stabilized SELV or PELV power supply
- **Operating voltage Ue:**
  - GMA200-MT6: 24V DC (20-30V DC permissible)
  - GMA200-MT16: 24V DC (20-30V DC permissible)
- **Power consumption:**
  - Without transmitter: max. 5W
  - With transmitter: max. 5W (without transmitter)
  - max. 30W (with transmitter)
- **Fuse:**
  - GMA200: F1=T 500mA, F2=M 1A
  - GMA200-MT6: F1=T 500mA, F2=M 1A (for transmitter)
  - GMA200-MT16: F1=T 500mA

#### Transmitter connections
- **Supply outputs:**
  - GMA200-MT6: 6x 150mA or Iges=900mA
  - GMA200-MT16: 16x 4-20mA or 0,2-1mA
- **Analog input signals IIN:**
  - GMA200-MT6: 6x 150mA or Iges=900mA
  - GMA200-MT16: 16x 4-20mA or 0,2-1mA
- **Tolerance:**
  - ±0,3%MR@4...20mA or ±1,2%MR@0...1mA (MR=measuring range)
- **Load:** approx. 50...100Ω, Imax=70mA permanent / 500mA short time
- **RS485:**
  - GMA200-MT6: 24V DC (20-30V DC see above)
  - GMA200-MT16: not possible

#### Measurement value processing
- **Update time:** 1s
- **Adjustment time for RS485:**
  - Rise time t1=2s or t5<2sec
  - Decay time t1=2s or t5<2sec
- **Ready delay:**
  - <40s (can be extended by running-in times of gas measuring transmitters)

#### RS485 outputs
- **GMA bus:**
  - RS485, Half-Duplex; max. 38400 Baud
- **RS485 bus:**
  - RS485, Half-Duplex; max. 38400 Baud (only for GMA200 relay modules)

#### Relay outputs
- **Contacts:** 8 relays with normally open contact
- **Contact load capacity:**
  - 3A/250V AC or 3A/30V DC
- **Minimum switching current:**
  - 10mA
- **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: 1&2, 3&4, 5&6, 7&8
  - Double insulation between the relays: 2&3, 4&5, 6&7

#### Analogue outputs
- **I_{OUT1+2}:**
  - 4-20mA with linear transfer function (load max. 560Ω)
- **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; U_{MAX}=30V DC)
**Technical specifications:**
**GMA200-MT6 / GMA200-MT16**

<table>
<thead>
<tr>
<th>Data logger (optional)</th>
<th>max. 2 GB microSD card with FAT formatting (FAT16)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB connection</td>
<td>Mini USB socket for device configuration with PC</td>
</tr>
</tbody>
</table>

**Housing**
- **Attachment:** on mounting rail TS35 according to EN 60715
- **Protection class:** IP20
- **Material:** Plastic
- **Dimensions:** 162 x 97 x 62 mm (W x H x D)
- **Weight:** 370g

**Cable junction**
- **Cable:**
  - 2-4 wires 0.5-1.5 mm² LiY, NYM (for GMA200 supply)
  - 2-4 wires 0.5-1.5 mm² LiYY, LiYCY (for transmitters)
  - 2-wire 1x2x0.22 mm² BUS-LD (for GMA bus with length >10 m)
- **Terminal blocks:** 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 III for relay contacts)
- **Functional safety:** EN 50402:2017, IEC 61508-1 bis -7:2010 (SIL2/SC3)
- **Metrological suitability:** EN 50271:2018, EN 62061:2016; ISO 13849-1:2015
- **Service life:** 20 years

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