Technical specifications:
GMA200-MGSS

Display & control elements

Status-LEDs:	15 status LEDs for alarms, pperating 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 $t_{50}<2s$ or $t_{90}<2sec$ Decay time $t_{50}<2s$ or $t_{10}<2sec$
	plus the adjustment times of the gas sensors and depending on the length of the suction section
	(extended by setting times of the gas measuring transmitters)
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:	±0,3%MR@10...30°C or ±0,8%MR@-20...50°C (MR=Measuring/signal range)

Alarm acknowledgement inputs

Reset1+2:	0-3V DC (Alarm acknowledgement takes place on contact with GND; U_{MAX}=30V DC)

Data logger (optional)

	max. 2GB microSD card with FAT formatting (FAT16)

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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 ≥0,75mm^2 LiYY, NYM (for GMA200 supply)
	2-wire 1x2x0,22mm^2 BUS-LD (for GMA bus at length>10m)
Cable glands:	7 pieces M16x1,5 (for cable diameter 4,5-10mm)
	0,08..2,5mm^2 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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