GA200
Gas Transmitter for **combustible** Gases

Output:
(1) 4...20 mA
(2) 2x relays
(3) RS485

Input:
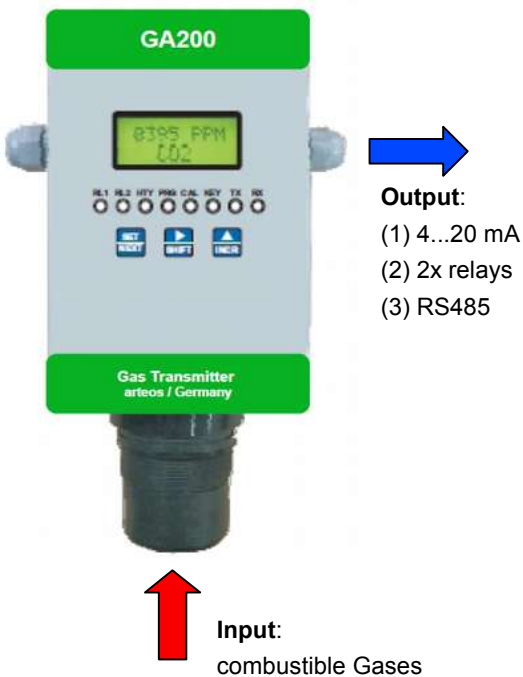combustible Gases

GA200 weatherproof version

Description

The arteos analog gas transmitter GA200 is designed for continuous monitoring of ambient air for combustible gases / vapors. One catalytic pelistor sensor detects one gas per unit. GA200 is capable of over 40 different combustible gases to be measured. We are constantly expanding the number of gases to be measured.

Features

- 4 ... 20 mA output (standard)
- 3x Relays output (optional)
- 1x RS485 output (optinal)
- eaysy handling and programming with 3 keys
- optimized for detection of smalles leak of gas
- one man auto software gas calibration
- highly resistant to aggressive environments
- programmable by using remote control from 10m distance
- capable of detecting down to PPB, PPM, %LEL; %V/V, mg/m³
- autoranging of gas concentration from PPB to PPM, ppm to %LEL & %V/V

GA200 flameproof version

potential Applications

Continuous monitoring and detection of pollutants in the ambient air in a variety of applications.

- living room
- car garage
- heating
- office rooms
- operating room
- laboratory
- storage
- repair shop
- production
- chemical plants
- parking garage
- swimming pool
- sports grounds
- pumping station
- dispensing technology
- refrigeration
- biogasanalgen
- water treatment
- waste water treatment ...

specifications

arteos GmbH

General

sensor element	catalytic pelistor
gases detected	combustible gases (please select from table below)
accuracy	± 1% of full scale
response time	$t_{90} < 40$ s
start-up time	< 30 s
output (standard)	4 ... 20 mA with configurable range selection
control actions	(1) user selctable hystersis and logic option
	(2) 2x independent alarm set points with latch & non-latch facility
auto ranging	from a) PPB to PPM; b) PPM to %LEL; c) PPM to %V/V
setting	(1) by 3 keys on front panel
	(2) by using remote control (optional)
output-option 1	3x SPDT relays (1x for failsafe & 2x for alarm condition) of rating 120VAC/2A; 24VDC/2A
output-option 2	RS485 communication port with MODBUS RTU protocol
sensor life expectancy (normal operating enviroment)	≥ 2 a
max. storage time	6 months
error monitoring	(1) during sensor break / open → the display shows „SENSOR OPEN" and 4...20A output goes down to 3,7 mA
	(2) during over range → the display shows „OVER RANGE" and 4...20A output goes up to 21 mA
Guidlines	CE-sign; EMC-directive 2004 / 108 / EEC

Environmental

working temperature	0 ... +50°C ± 5%
storage temperature	0 ... +40°C ± 5%
humidity	15 ... 90% non-condensing

Electrical

power supply	24 VDC; range 18 ... 36 VDC
power consumption	< 3,2 W
connection	3 wires (1,5 mm²), flexible or armoured shielded cable

housing

protection class	IP65
housing material	polycarbonate, grey colour
cable entry	thermoplastic cable gland (IP68)
dimension	190 x 80 x 55 mm (H x W x D)
weight	~ 500 g
mounting	a) wall mounting; b) stand mounting

Range = 0 – 100 / Unit = % LEL / Resolution = 0,1			
gas number	Gases	gas number	Gases
C001	Acetaldehyde CH_3CHO	C022	Gasoline C_8H_{18}
C002	Acetone $(CH_3)_2CO$	C023	Heptane, n- C_7H_{16}
C003	Acetylene C_2H_2	C024	Hexane, n- C_6H_{14}
C004	Benzene C_6H_6	C025	Hydrogen H_2
C005	Butane, n- C_4H_{10}	C026	Isobutene C_4H_8
C006	Butanol, n- $C_4H_{10}O$	C027	LNG
C007	Butanol, i- $C_4H_{10}O$	C028	LPG (Propan)
C008	Butanol, t- $C_4H_{10}O$	C029	Methane CH_4
C009	Butene, -1 C_4H_8	C030	Methanol CH_3OH
C010	Cyclohexane $C_6H_{12}O$	C031	Methylacetate $C_3H_6O_2$
C011	Cyclopropane C_3H_8	C032	Methyl Ether CH_3OCH_3
C012	Decane, n- $C_{10}H_{22}$	C033	Methyl Pentane C_6H_{14}
C013	Ethane C_2H_6	C034	Nonane, n- C_9H_{20}
C014	Ethanol C_2H_6OH	C035	Octane, n- C_8H_{18}
C015	Ethene C_2H_4	C036	Pentane, i- C_5H_{12}
C016	Ethyl Acetate $C_4H_8O_2$	C037	Pentane, n- C_5H_{12}
C017	Ethyl Amine C_2H_7N	C038	Pentene, 1- C_5H_{10}
C018	Ethyl Benzene C_8H_{10}	C039	Propanol, n- C_3H_8O
C019	Ethyl Ether $C_2H_5OC_2H_5$	C040	Propane C_3H_8
C020	Ethyl Methylether C_3H_8O	C041	Propene C_3H_6
C021	Ethylene C_2H_4		

If you can not find a gas, please contact us (available on request).

ordering information

GA200	—	xxxx	—	Ax	—	Bx	—	Cx	—	Dx	—	Ex
		⇓		⇓		⇓		⇓		⇓		⇓
		Gas input		**Relay output**		**retransmission output**		**communi-cation port**		**programming interface**		**housing**
		select Gas from table above		A1 = none		B1 = none		C1 = none		D1 = none		E1 = weatherproof
				A2 = Relais		B2 = 4…20 mA		C2 = RS485		D2 = remote control		E2 = flameproof

measure ♦ analyze ♦ control