GA300

Gas Transmitter for volatile organic compounds VOCs

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

Input:
VOCs

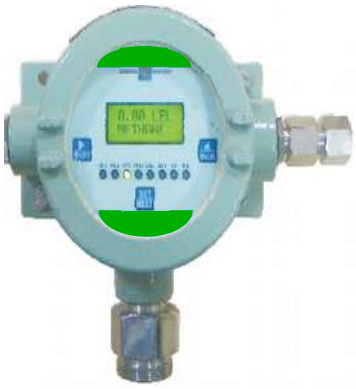
GA300 weatherproof version

Description

The arteos analog gas transmitter GA300 is designed for continuous monitoring of ambient air for volatile organic compounds VOCs. One photo ionization detection (PID) sensor detects one gas per unit. GA300 is capable of over 300 different VOCs to be measured. We are constantly expanding the number of gases to be measured.

Features

- 4 ... 20 mA output (standard)
- 2x 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
- higher accuracy and better lifetime by using PID-sensor technology
- autoranging of gas concentration from PPB to PPM



GA300 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 ...

General	
sensor element	photo ionization detection (PID)
gases detected	VOCs (please select from table below)
accuracy	± 2% of full scale
response time	t_{90} < 8 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
	(3) configurable STEL and TWA set points for all VOCs (optional)
auto ranging	from PPB to PPM
setting	(1) by 3 keys on front panel
	(2) by using remote control (optional)
output-option 1	2x SPDT relays of rating 120VAC/2A; 24VDC/2A
output-option 2	RS485 communication port with MODBUS RTU protocol
sensor life expectancy (normal operating enviroment)	≥ 5 a
max. storage time	12 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	-30 ... +50°C ± 5%
storage temperature	-40 ... +60°C ± 5%
humidity	15 ... 95% non-condensing
Electrical	
power supply	24 VDC; range 18 ... 36 VDC
power consumption	< 3,2 W
connection	3 wires (1,5 mm^2), 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

gas number	Gas / VOC
P001	Acetaldehyde CH3CHO
P002	Acetic Acid C2H4O2
P003	Acetic Anhydride C4H6O3
P004	Acetone (CH3)2CO
P005	Acrolein C3H4O
P006	Acryllic Acid C3H4O2
P007	Alkyl Alcohol C3H6O
P008	Allyl Chloride C3H5Cl
P009	Amonia H3N
P010	Amyl Aceta C7H14O2
P011	Amyl Alcohol C5H12O
P012	Aniline C5H7N
P013	Anisole C7H8O
P014	Arsine ASH3
P015	Asphalt, petroleum fumes
P016	Benzaldehyde C7H6O
P017	Benzene C6H6
P018	Benzenethiol C6H5SH
P019	Benzolnitrile C7H5N
P020	Benzyl Alcohol C7H8O
P021	Benzyl Chloride C7H7Cl
P022	Benzyl Formate C8H8O2
P023	Biphenyl C12H10
P024	Bis(2,3-epoxypropyl) ether C8H10O3
P025	Bromine BR2
P026	Bromobenzene C5H5BR
P027	Bromoethane C2H5BR
P028	Bromoethyl methyl ether, 2- C3H7OBr
P029	Bromoform CHBr3
P030	Bromopropane, 1- C3H7Br
P031	Butadiene C4H6
P032	Butadiene Diepoxide, 1.3- C4H6O2
P033	Butane, n- C4H10
P034	Butanol, 1- C4H10O
P035	Buten-3-ol, 1- C4H8O
P036	Butene, -1 C4H8
P037	Butoxyethanol, 2- C6H14O2
P038	Butyl Acetate, n- C6H12O3
P039	Butyl Acrylate, n- C7H12O2
P040	Butyl Lactate, n- C7H14O2
P041	Butyl Lactate C7H14O3
P042	Butyl Mercaptan C4H10S
P043	Butylamine, 2- C4H11N
P044	Butylamine, n- C4H11N
P045	Camphene C10H6
P046	Carbon Disulfide CS2
P047	Carbon Tetrabromide Cbr4
P048	Carvone, R- C10H14O
P049	Chlorine Dioxide ClO2
P050	Chloro-1, 3-butadiene, 2- C4H6Cl

gas number	Gas / VOC
P051	Chlorobenzene C6H5Cl
P052	Chloroethanol, 2- C2H5ClO
P053	Chloro Methyl Ether, 2- C3H7ClO
P054	Chlorotoluene, o- C7H7Cl
P055	Chlorotulene, p- C7H7Cl
P056	Chlorotrifluoroethylene C2ClF3
P057	Citral C10H16O
P058	Citronellol C10H20
P059	Cresol, m- C7H8O
P060	Cresol, o- C7H8O
P061	Cresol, p- C7H8O
P062	Crotoaldehyde C4H6O
P063	Cumene C9H12
P064	Cyclohexane C6H12
P065	Cyclohexanol C6H12O
P066	Cyclohexanone C6H10O
P067	Cyclohexene C6H10
P068	Cyclohexylamine C6H13N
P069	Cyclopentane C5H10
P070	Cyclopropane C3H8
P071	Decane, n- C10H22
P072	Diacetone Alcohol C6H12O2
P073	Dibenzoyl peroxide C14H10O4
P074	Dibromochloromethane CHBr2Cl
P075	Dibromoethane 1, 2-C2H4Br2
P076	Dichloroacetylene C2Cl2
P077	Dichlorobenzene, o- C6H4Cl2
P078	Dichloroethene, 1, 1- C2H2Cl2
P079	Dichloroethene, cis-1, 2-
P080	Dichloroethene trans-1, 2- C2H2Cl2
P081	Dichloroethylene 1, 2- C2H2Cl2
P082	Dichloromethane CH2Cl12
P083	Dicyclopentadiene C10H12
P084	Diesel Fuel
P085	Diethly Ether C12H10O
P086	Diethyl Maleate C8H12O4
P087	Diethyl Phthalate C12H14O4
P088	Diethyl Sulphate C4H10SO4
P089	Diethyl Sulphide C4H10S
P090	Diethylamine C4H11N
P091	Diethylaminoethanol, 2- C6H15ON
P092	Dietylaminopropylamine, 3- C7H18N2
P093	Dihydrogen Selenide H2Se
P094	Dihydroxybezebe, 1, 2 C6H6O2
P095	Dihydroxybezebe, 1, 3 C6H6O3
P096	Diisobutylene C8H16
P097	Diisopropyl ether C6H14O
P098	Diisopropylamine C6H15N
P099	Diketene C4H4O2
P100	Dimethoxymethane C3H8O2

gas number	Gas / VOC
P101	Dimethyl Acetamide N- C4H9NO
P102	Dimethyl Amine C2H7N
P103	Dimethyl Aminoethanol C4H11NO
P104	Dimethyl Aniline, NN- C8H11N
P105	Dimethyl Butylacetate C8H16O2
P106	Dimethyl Cyclohexane, 1, 2-C8H16
P107	Dimethyl Disulphide C2H6S2
P108	Dimethyl Ether C2H6O
P109	Dimethyl Ethylamine, NN- C4H11N
P110	Dimethyl Formamide C3H7NO
P111	Dimethyl Hydrazine, 1, 1- C2H8N2
P112	Dimethyl Phthalate C10H10O4
P113	Dimethyl Sulphide C2H6S
P114	Diinitro Benzene, m- C6H4N2O4
P115	Diinitro Benzene, p- C6H4N2O4
P116	Dinonyl Phthalate C24H42O4
P117	Dioxane 1, 2- C4H8O3
P118	Dioxane 1, 4- C4H8O4
P119	Dipentene C11H16
P120	Diphenyl Ether C12H10O
P121	Disulphur Dichloride S2Cl2
P122	Di-tert-butyl-p-cresol C11H16O
P123	Divinyl Benzene C10H10
P124	Dodecanol C12H26O
P125	Epichlorohydin C3H5ClO
P126	Ethanol C2H6O
P127	Ethanol Amine C2H7NO
P128	Ethoxy-2-propanol, 1- C5H10O2
P129	Ethoxyethanol, 2- C4H10O2
P130	Ethoxyethyl Acetate, 2- C6H12O3
P131	Ethyl (S)-(-)-Lactate C5H10O3
P132	Ethyl Acetate C4H8O2
P133	Ethyl Acrylate C5H8O2
P134	Ethyl Amine C2H7N
P135	Ethyl Benzene C8H10
P136	Ethyl Butyrade C6H12O2
P137	Ethyl Chloroformate C3H5O2C
P138	Ethyl Cyanoacrylate C6H7O2N
P139	Ethyl Decanoate C12H24O2
P140	Ethyl Formate C3H6O2
P141	Ethyl Hexanoate C8H16O2
P142	Ethyl Hexanol, 2- C8H18O
P143	Ethyl Hexyl, Acrylate 2- C11H20O2
P144	Ethyl Mercaptan C2H6S
P145	Ethyl Octanoate C10H20O2
P146	Ethylene C2H4
P147	Ethylene Glycol C2H6O2
P148	Ethylene Oxide C2H4O
P149	Ferrocene C10H10Fe
P150	Formamide CH3ON

gas number	Gas / VOC
P151	Furfural C5H4O2
P152	Furfuryl Alcohol C5H6O2
P153	Gasoline Vapors
P154	Gasoline Vapors 92 octane
P155	Germane GeH4
P156	Glutaraldehyde C5H8O2
P157	Heptan-2-one C7H14O
P158	Heptan-3-one C7H14O
P159	Heptan-2-one C7H14O
P160	Heptane, n- C7H16
P161	Hexamethyldisilazane 1,1,1,3,3,3- C6H19NSi2
P162	Hexamethyldisiloxane C6H18OSi2
P163	Hexane-2-one C8H12O
P164	Hexane, n- C6H14
P165	Hexene, 1- C6H12
P166	Hydrazine H4N2
P167	Hydrogen Peroxide H2O2
P168	Hydrogen Sulfide H2S3
P169	Hydroquinone C6H6O2
P170	Hydroxypropyl Acrylate 2- C6H10O3
P171	Iminodi(ethylamine) 2,2- C4H13N3
P172	Iminodiethanol 2,2- C4H11O2
P173	Indene C9H8
P174	Iodine I2
P175	Iodoform CHI3
P176	Idomethane CH3I
P177	Isoamyl Acetate C7H14O2
P178	Isobutane C4H10
P179	Isobutanol C4H10O
P180	Isobutyl Acetate C6H12O2
P181	Isobutyl Acrylate C7H12O2
P182	Isobutylene C4H8
P183	Isobutylraldeyde C4H8O
P184	Isodecanol C10H22O
P185	Isononanol C9H20O
P186	Isooctane C8H18
P187	Isooctanol C8H18O
P188	Isopentane C5H12
P189	Isophorone C9H14O
P190	Isoprene C5H8
P191	Isopropanol C3H8O
P192	Isopropyl Acetate C5H10O2
P193	Isopropyl Chlorofomate C4H7O2Cl
P194	Jet Fuel JP-4
P195	Jet Fuel JP-5
P196	Jet Fuel JP-8
P197	Kerosene
P198	Ketene C2H2O
P199	Maleic Anhydride C4H2O3
P200	Mercaptoacetic Acid C4H4O2S

gas number	Gas / VOC
P201	Mesitylene C9H12
P202	Methacrylic Acid C4H6O2
P203	Methacylonitrile C4H5N
P204	Methanol CH4O
P205	Methoxyethanol, 2- C3H8O3
P206	Methoxyethoxyethanol, 2- C5H12O3
P207	Methoxymethylethoxy-2-propanol C7H16O3
P208	Methoxypropanol-2-ol C4H10O2
P209	Methoxypropyl Acetate C6H12O3
P210	Methylacetate C3H6O2
P211	Methyl Acrylate C4H6O2
P212	Methyl Bromide CH3Br
P213	Methyl Chloride CH3Cl
P214	Methyl Cyanoacrylate C5H5O2N
P215	Methyl Ethyl Ketone C4H8O
P216	Methyl Ethyl Ketone Peroxides C8H18O2
P217	Methyl Isobutyl Ketone C6H12O
P218	Methyl Isothiocyanate C2H3NS
P219	Methyl Mercaptan CH4S
P220	Methyl Methacrylate C5H8O2
P221	Methyl Propyl Ketone C5H10O
P222	Methyl Salicylate C8H8O3
P223	Methyl Sulphide C2H6S
P224	Methyl t-Butyl Ether C5H12O
P225	Methyl-2-Propen-1-ol, 2- C4H8O
P226	Methyl-2-Pyrrolidione, N- C5H9NO
P227	Methyl-4, &-Dinitrophenol, 2- C7H6N2O5
P228	Methyl-5-Hepten-2-on3, 6- C8H14O
P229	Methyl Amine CH5N
P230	Methyl Butan-1-ol, 3- C5H12O
P231	Methyl Cyclohexane C7H14
P232	Methyl Cycodohexanol, 4- C7H14O
P233	Methyl Cylohexanone 2 C7H12O
P234	Methyl Heptan-3-on3, 5- C8H16O
P235	Methyl Hexan-2-one, 5- C7H14O
P236	Methyl Hydrazine CH6N2
P237	Methyl-N-2,4,4,6- Tetranitroaniline,- C7H5N5O8
P238	Methyl Pent-3-en-2-one, 4- C5H10O
P239	Methyl Pentan-2-ol, 4- C8H14O
P240	Methyl Pentane-2, 4-diol, 2- C8H14O2
P241	Methyl Propan-2-ol, 2- C4H10O
P242	Methyl Styrene C9H10
P243	Mineral Oil
P244	Mineral Spirits
P245	Naphthalene C10H8
P246	Nitric Oxide NO
P247	Nitroaniline 4- C6H6N2O2
P248	Nitrobenzene C2H5NO2
P249	Nitrogen Dioxide NO2
P250	Nitrogen Trichloride Ncl3

gas number	Gas / VOC
P251	Nonane, n- C9H20
P252	Norbornadiene, 2, 5- C7H8
P253	Octachloronaphthalene C10Cl8
P254	Octane, n- C8H16
P255	Octene, 1- C8H16
P256	Oxydiethanol 2, 2- C4H10O3
P257	Paraffin wax, fume
P258	Paraffin, normal
P259	Penta Carbonyl Iron Fe5C5O5
P260	Pentan-2-one C5H10O
P261	Pentan-3-one C5H10O
P262	Pentandione, 2, 4- C5H8O2
P263	Pentane, n- C5H12
P264	Peracetic Acid C2H4O3
P265	Petroleum Ether
P266	Phenol C6H6O
P267	Phenyl Propene, 2- C9H10
P268	Phenyl-2, 3-epoxypropyl Ether C9H10O2
P269	Phenylenediamine, p- C6H8N2
P270	Phosphine PH3
P271	Picoline, 3- C6H7N
P272	Pinene, alpha C10H16
P273	Pinene, beta C10H16
P274	Piperdine C5H11N
P275	Piperylene C5H8
P276	Prop-2-yn-1-ol C3H40
P277	Propanol-1-ol C3H80
P278	Propane-1, 2-diol, total C3H8O2
P279	Propene C3H6
P280	Propionaldehyde C3H6O
P281	Propionic Acid C3H6O2
P282	Propyl Acetate, n- C5H10O2
P283	Propylene Oxide C3H6O
P284	Propylen Eneimine C3H7N
P285	Pyridine C5H5N
P286	Pyridyl Amine, 2- C5H6N2
P287	Styrene C8H8
P288	Terpenyls C18H14
P289	Terpinolene C10H16
P290	Tert-Butanol C4H10O
P291	Tetra-Bromoethane, 1,1,2,2- C2H2Br4
P292	Tetra-Carbonylnickel NiC4O4
P293	Tetra-Chloroethylene C2Cl4
P294	-Chloronaphthaleneses, all isomers C10H4Cl4
P295	Tetra-Ethylothosilicate C8H20O4Si
P296	Tetra-Fluoroethylene C2F4
P297	Tetra-Hydrafuran C4H8O
P298	Tetra-Methylsuccinonitri C8H12N2
P299	Therminol
P300	Toulene C7H8

gas number	Gas / VOC
P301	Toulene-2,4-Disocyanat C9H6N2O2
P302	Toulene-Sulphonylchloride, p- C7H7SO2Cl
P303	Toluidine, o- C7H9N
P304	Tributyl-Phosphate C12H27O4P
P305	Tributyl-Amine C12H27N
P306	Trichloro-Benzene 1,2,4- C6H3Cl3
P307	Trichloro-Ethylene
P308	Trichloro-Phenoxyacetic Acid 2,4,5- C8H5O3Cl3
P309	Triethyl-Amine C6H15N
P310	Trimethyl-Amine C3H9N
P311	Trimethyl-Benzene mixtures C9H12
P312	Trimethyl-Benzene, 1,3,5- C9H12
P313	Turpertine C10H16
P314	TVOC
P315	Undecane, n- C11H24
P316	Vinyl-Acetate C4H6O2
P317	Vinyl-Bromide C2H3Br
P318	Vinyl-Chloride C2H3Cl
P319	Vinyl-2-Pyrolidinone, 1- C6H9NO
P320	Xylene mixed isomers C8H10
P321	Xylene, m- C8H10
P322	Xylene, o- C8H10
P323	Xylene, p- C8H10
P324	Xylidine, all

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

ordering information

GA300	–	xxxx	–	Ax	–	Bx	–	Cx	–	Dx	–	Ex
		⇓		⇓		⇓		⇓		⇓		⇓
		Gas input select Gas from table above		**Relay output** A1 = none A2 = Relais		**retransmission output** B1 = none B2 = 4...20 mA		**communi-cation port** C1 = none C2 = RS485		**programming interface** D1 = none D2 = remote control		**housing** E1 = weatherproof E2 = flameproof

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