### GENERAL SPECIFICATION



## **DIGITAL GAS DETECTOR**

with EXCHANGEABLE SENSOR

# WG.EGx

(custom device)

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### **PURPOSE**

The WG.EGx detectors are used for continuous monitoring of specific gases in closed spaces. Monitoring is performed by periodic measuring the concentration of gas in the ambient air. At the moment when the strictly determined threshold level(s) are exceeded, visual alarms of the detector are engaged and its control outputs and siren are activated.

WG.EGx is equipped with the easily exchangeable sensor = LOW OPERATING COSTS.

The gas detection system build with WG.EGx detectors is very economical as well as extreme simple in mounting.

# General Case Part State Andrew WG , EG

### USE

- closed garages and underground parking lots – ventilation control
- parking lots ventilation control air- conditioning or heat pumps

  boiler rooms with furnaces fuelled by loading zones for trucks

rooms with cooling equipment,

 boiler rooms with furnaces fuelled by solid or liquid or gas fuels

### **FEATURES**

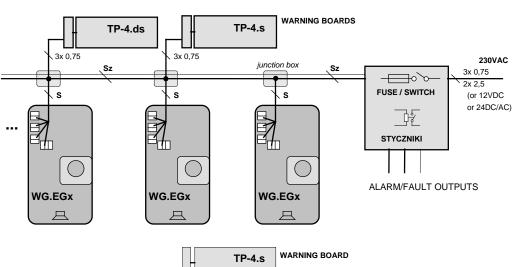
- Selective measurement of CO or methane or CO<sub>2</sub> at low levels
- 1, 2 or 3 independent alarm thresholds calibrated to factory standards or tailored to customer's requirements
- Easy exchangeable sensor unit = LOW OPERATING COSTS
- 3 standard relay outputs (NO type), built-in siren and optionally terminals for external siren
- Removable terminals with a self-locking connectors = easy and fast system set-up
- Built-in microprocessor controlling all functions of the detector = reliability, work stability, temperature compensation circuit, fully automatic operation
- Gas detector + power supply + control unit + siren = all in one solid case, splash proof (IP54)
- Option: 12 or 24 VDC power supply

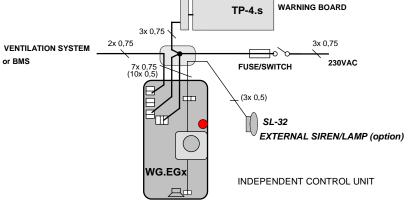
### TECHNICAL SPECIFICATION

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Supply voltage	230 V AC (±10 %), 50 Hz version WG-nn.EGx/A: 12 V DC (9,0 ÷15 V);		
Supply voltage	optionally WG-nn.EGx/A24: 24 V DC/AC (12÷30 V)		
Power consumption	max 3 W (ver. WG-nn.EG/A: max 0,14 A @ 12 V)		
	semiconductor type,		
Gas sensor	NDIR Infra-Red type for WG-8R.EGx and WG-28.EGx;		
	exchangeable; estimated lifetime in the clean air ~10 years -10°C +45°C recommended		
Operating temperature	-25°C +50°C allowable (extended measurement error)		
_	11: natural gas (CNG), 14: methane (selective), 15: propane-butane (LPG), 22: carbon monoxide,		
Detected gases	15: propane-butane (LPG), 22: carbon monoxide,		
(models WG-nn.EGx)*	61: HFC (Freons), 8R: CO2, 28: carbon monoxide + CO2		
	semiconductor sensor: HC, hydrogen, alcohol (high		
Interfering gases	concentration); model: WG-14.EGx - hydrogen only;		
	O2 deficiency (<18% vol.); high, sudden humidity increase;		
	Infra-Red sensor = none		
Protected aera	~ 200 m <sup>2</sup> / detector (in closed spaces)		
	11,14,15: A1=10%, A2=20%, A3=30% LEL;		
Alarm aattings for	22: A1=30 ppm, A2=60 ppm – CO (15 min.TWA),		
Alarm settings for models WG-nn.EGx *	A3=150 ppm (>1 min.) (according to <i>EN 50545-1</i> ); 8R,28 A1=1000, A2=1400, A3=1800 ppm CO2		
models WG-IIII.EGX	61: A1=1000, A2=1400, A3=1600 ppin GO2		
	or tailored to customer's requirements		
Thresholds	Calibration conditions @ 20(-2/+5)°C, 65(±10)%RH,		
	1013(±30) hPa, >72h supply		
Accuracy	±15 % for alarm A3		
Thermal stability	±20 %, at 0°C ÷ +40°C		
Long-term stability	±20 %/ year, but better than ±30 % per 3 years		
Calibration period	< 36 months (recomended)		
Optical alarm indicators	rs LEDs: A1, A2, A3 = red, Fault = yellow; socket for optionally extra red LED for A1		
A	built-in piezo siren, 75 dB/1m (can be switched off);		
Acoustic alarm	optionally: socket for external siren (12V/80mA)		
Outputs:	A1, A2, A3 - relay w/ NO contact,		
•	optionally: A3 as A2 or FAULT w/ NC contact; max 2 A (resistive load), max 250 VAC or 30 VDC		
Dimensions, weight	195 x 80 x 68 mm, H x W x D (with glands); ~0,4 kg		
Enclosure	ABS/PC, IP54		
EHOOSUIE	ADO/FO, IF J4		

# **ELEMENTS OF WG.EGx** Alarm removable pins (NO type) AC Power removable terminals A3 setting Alarm/Fault Socket for optionally bright, red **LED** N L PE = = Control LEDs: Power (green) MS-nnEG A1 (red) A2 (red) A3 (red) Fault (yellow) Exchangeable Sensor Module "Test" magnetic switch "TEST" button Siren settings (A1 or A2 or Off) Mounting hole Piezo siren PRODUCER: **GAZEX** Baletowa 16, PL 02-867 Warsaw, POLAND Tel: +48 22 644 2511 Fax: +48 22 641 2311 gazex@gazex.pl www.gazex.com LIFE IS SAFE WITH US!

### **BLOCK DIAGRAM OF GAS CONTROL SYSTEM**





### Recommended connection cables in the system with WG.EGx

You can use single conductor wire, stranded wire or flexible cables

Cable selection table	System with separated terminals [ No of wires ] x [ mm <sup>2</sup> ]	
MODEL:	WG-nn.EGx *	WG-nn.EGx/A(24)
2-treshold System		
Cable <b>Sz</b>	7x (0,75 ÷ 1,5)	2x 2,5 + 2(4)x 0,75
Cable S	7x (0,75 ÷ 1,5)	4(6)x (0,75 ÷ 1,5)
System power supply	230 V AC	12 V DC (or 24 V DC)

\*- WG-nn.EGx: nn= 11 (natural gas, CNG), 14 (methane - selective); 15 (propane-butane, LPG); 22 (carbon monoxide); 8R (CO2); 28 (CO+CO2); 61 (Freons – HFC)

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