



# AIEQS

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Process Development

## NDIR GAS ANALYZER

# GA9291

CO, CO2, HC, O2, NO



## OIML Class 0

### Highlights:

- 4&5 gas measuring models
- Paramagnetic and electro chemical cells connectable (for O2, NO)
- no moving parts for zero abrasion and wear
- temperature and pressure compensation, reference channel for maximum precision
- energy saving & combustion control for Engines
- reduce emission
- Lambda Calculation

### ویژگیها :

- در دو مدل 4 و 5 گازه
- استفاده از متدهای پارامگنتیک و الکتروشیمیایی جهت گاز های O2,NO
- بدون موتور چاپر و قطعه متحرک
- دارای تصحیح فشار و دما برای مقادیر اندازه گیری
- بهینه سازی فرآیند احتراق موتور و صرفه جویی در مصرف انرژی
- کاهش انتشار آلاینده های زیست محیطی
- محاسبه لامبدا

### Product Details:

	Resolution	max. range	Type of Sensor
CO	0,001 % Vol	0 – 10 Vol%	NDIR <sup>1</sup>
CO2	0,01 % Vol	0 – 20 Vol%	NDIR
HC <sup>2</sup>	1 ppm vol	0 – 2500 ppm	NDIR
O2	0,01 % Vol	0 – 25 Vol%	EC <sup>3</sup>
NO	1 ppm vol	0 – 5000 ppm	EC

### کاربردها :

- معاینه فنی خودرو توسط مراکز معاینه فنی خودرو
- معاینه فنی خودرو توسط سازمان محیط زیست
- معاینه فنی خودرو توسط شهرداری ها

### Applications:

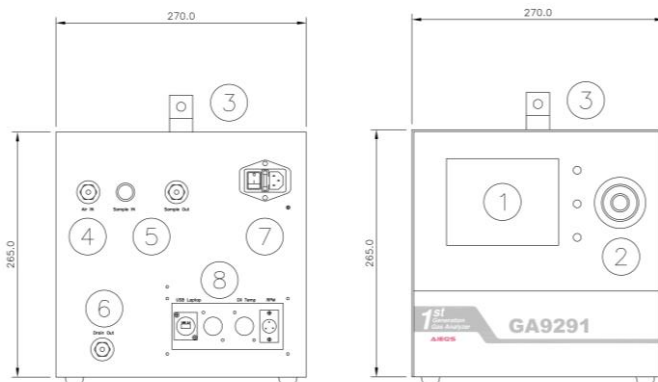
Car Exhaust inspection test for Car inspection test centers and DOE (Department of environments) And Others

### Notes:

- 1- None Dispersive Infra-Red method
- 2- HC as C<sub>3</sub>H<sub>6</sub> or C<sub>6</sub>H<sub>14</sub>
- 3- Electrochemical
- 4- Life time 1-2 years depends on sample condition and concentration and number of tests

### Pictures

1



- 1 Touch screen Display and LEDs for Status
- 2 Filter
- 3 Handle
- 4 Air IN
- 5 Sample IN/OUT
- 6 Drain OUT
- 7 Power Cable & Fuse
- 8 RPM/Oil temp/USB Laptop

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## Technical Information for GA9271

1

Technical Data of NDIR sensor

### Influencing effects

- Influence of the mains voltage: < 0.5 % of the measuring interval with mains fluctuations in the range of + 2 % and a frequency variation of  $\pm 2$  Hz
- Influence of the air pressure: < 0.2 % of the measuring interval per 10 hPa (in the range of 860 - 1160 hPa)
- Influence of the temperature: < 1,5 % of the measured value/10 K (in the range of +5 C - 45 C related of 20°C)

### Ambient conditions

	Storage	Operating conditions
Temperature:	-25 - +70 C	+5 - +55 C
Air pressure:	700 - 1160 hPa	860 - 1160 hPa

**Operating voltage:** + 5 V (+/- 0,25V) max. 200mA

**Warm-up period:** 2 min

### T90 times

IR components	T95 < 10s	if flow > 90l/h
O2	T95 < 60s	if flow > 90l/h

### Measurement conditions

Measuring gas flow rate min. 30l/h max. 120l/h

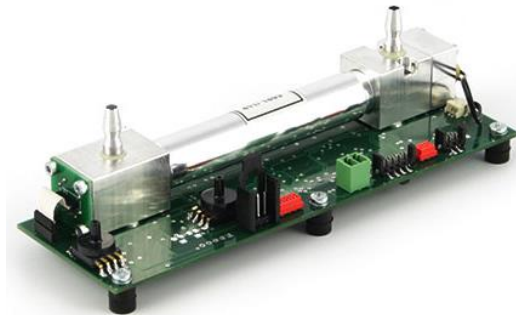
Measuring gas pressure: pressure must be constant, the gas must flow out freely

Measuring gas temperature: min. 5°C max 45°C, no condensate

2

Technical Data of Other Sensors

## NDIR



### non-dispersive infrared

(NDIR) for measure of gases CO, CO2, HC  
See details in section 1

### Manufacturer

SAXON JUNKALOR GmbH Germany

## EC Sensor



### Oxygen Measuring Range

O2: 0 – 25 Vol%

### NO Measuring Range

0 – 5000 ppm

### Manufacturer

SAXON JUNKALOR GmbH Germany

### Sensor life time

1-2 years depends on sample condition

