

# AUTOMOBILE EXHAUST GAS ANALYZER

**MODEL: ZKE23: (CO/HC/CO<sub>2</sub>)**

**ZKE24: (CO/HC/CO<sub>2</sub>/O<sub>2</sub>)**

**ZKE22: (CO/HC)**



About 25 years have passed since Fuji Electric first marketed a CO/HC automobile exhaust gas analyzer. The high-level technology incorporated in these instruments has been highly evaluated by users nationwide. A new analyzer has now been developed in answer to demands for an even better instrument. This new analyzer is easier to handle by using user friendly human-machine interface. It can measure 6 parameters (CO, HC, CO<sub>2</sub>, O<sub>2</sub>, A/F and  $\lambda$ ). CO, HC and CO<sub>2</sub> are measured by solid-state NDIR sensor. O<sub>2</sub> is measured by Galvanic sensor. This instrument completely fulfills the various requirements of an analyzer and is expected to fully satisfy users' expectations.

## Features

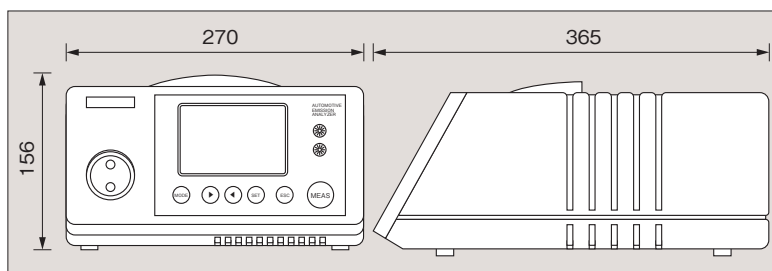
- 4 components (CO, HC, CO<sub>2</sub> and O<sub>2</sub>) can be measured and calculated A/F (Air/Fuel ratio) or  $\lambda$  (excess air ratio)
- A large LCD display with fluorescent back light displays 4 components, A/F and  $\lambda$ .
- A small size and high reliable solid-state NDIR sensor for CO, HC and CO<sub>2</sub> and Galvanic O<sub>2</sub> sensor provides a high level of accuracy, avoids the influence of vibration and shock.
- Display of sampling abnormality like as incorrect insertion of the probe and sampling line or membrane filter clogging.
- Compact design and lightweight (approx. 5kg).

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# Specification

TYPE	ZKE
Measurable components	CO+HC, CO+HC+CO <sub>2</sub> or CO+HC+CO <sub>2</sub> +O <sub>2</sub>
Measuring principle	CO, HC, CO <sub>2</sub> ; NDIR O <sub>2</sub> ; Galvanic Cell
Measuring range	CO, 0.00~10.00vol% HC ; 0~10000ppm or 0~14000ppm CO <sub>2</sub> ; 0.00~20.00vol% O <sub>2</sub> ; 0.00~25.00vol% (Option) A/F ; 10.0~30.0 $\lambda$ ; 0.50~2.50
Display (minimum indication)	LCD display 4 digits and 5 digits CO (0.01vol%) HC (1ppm) CO <sub>2</sub> (0.01vol%) O <sub>2</sub> (0.01vol%) A/F (0.1) $\lambda$ (0.01)
Repeatability	CO ; $\pm 0.06\text{vol}\%$ or $\pm 5\%$ of reading whichever is greater HC ; $\pm 12\text{ppm}$ or $\pm 5\%$ of reading whichever is greater CO <sub>2</sub> ; $\pm 0.5\text{vol}\%$ or $\pm 5\%$ of reading whichever is greater O <sub>2</sub> ; $\pm 0.5\text{vol}\%$ or $\pm 5\%$ of reading whichever is greater
Response time	95% response less than 15sec (CO, HC & CO <sub>2</sub> ) less than 25sec (O <sub>2</sub> )
Warm up time	5min.
Output	RS232C
Printer	Model BS-80tsd separately connected (separately ordered)
Electrical calibration	Auto calibration
Self diagnosis	Warming up time Improper insertion Clogging of filters and/or sampling line
Power supply	AC90~264V 50/60Hz
Ambient temperature	0~40°C
Ambient humidity	Less than 90%RH
Mass	Approx. 5kg
Outline dimension (H x W x D)	156 x 270 x 365mm

## Outline [Unit : mm]



## Ordering code for consumables

Name	Code	Remarks
Primary filter element	ZBNH3012	20pcs/1box
Membrane filter element	ZBNC6102	100pcs/1box
Packing for primary filter and drain separator	ZBNN2012	10pcs/1pack
O-rings for membrane filter	ZBNN3012	10pairs/1pack
Tube type fuse	ZBNM2012	10pcs/1pack 1A
Standard gas	ZBM4NVQ4-00	CO, CO <sub>2</sub> , HC, N <sub>2</sub>

## Symbol code

ZKE					
			1	1	Letters
2					Display:English, Power supply:AC115V 50/60Hz
3					Display:English, Power supply:AC200V, AC220V 50/60Hz
					Measurable components and measuring range
3	1				CO:0~10% HC:0~10000ppm, CO <sub>2</sub> :0~20%, A/F, $\lambda$ indication
3	3				CO:0~10% HC:0~14000ppm, CO <sub>2</sub> :0~20%, A/F, $\lambda$ indication
4	2				CO:0~10% HC:0~10000ppm CO <sub>2</sub> :0~20% O <sub>2</sub> :0~25%, A/F, $\lambda$ indication
4	4				CO:0~10% HC:0~14000ppm CO <sub>2</sub> :0~20% O <sub>2</sub> :0~25%, A/F, $\lambda$ indication
2	5				CO:0~10% HC:0~10000ppm
2	6				CO:0~10% HC:0~14000ppm

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