

**Compact Type**

# **Infrared Gas Analyzer [Type:ZSV]**

**Continuous 5-component measurement with simple operation**

Compact size with excellent functionality and operability  
Portable gas analyzer with great mobility



## **For exhaust gas measurement and R&D**

- A maximum 5 components out of NO<sub>x</sub>, SO<sub>2</sub>, CO, CO<sub>2</sub>, CH<sub>4</sub>, and O<sub>2</sub> can be measured simultaneously.
- The large LCD screen with clear display assures simple operation.
- Single-beam infrared gas analyzer having excellent stability is adopted.  
The O<sub>2</sub> sensor is available in 2 types: Paramagnetic type and Zirconia type.
- The separate structure allows the analyzer unit and the pretreatment unit to be placed separately.
- Measurement can be taken continuously for up to 5 days.

# Leave the measurement of CO、CO<sub>2</sub>、CH<sub>4</sub>、NO、SO<sub>2</sub>、O<sub>2</sub> to us.

|                                   |                                         |
|-----------------------------------|-----------------------------------------|
| Menu Mode                         | Select an item<br>ENT:Enter<br>ESC:Back |
| 1. Zero/Span Calibration          |                                         |
| 2. Setting about Calibration      |                                         |
| 3. Setting about Gas change/purge |                                         |
| 4. Changeover of Range            |                                         |
| 5. Drain                          |                                         |
| 6. Error Cancel                   |                                         |
| 7. Parameter Setting              |                                         |

Menu screen

Simple operation assured  
by clear display

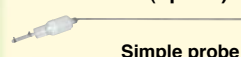
|                     |                                         |
|---------------------|-----------------------------------------|
| Menu Mode           | Change a range<br>ENT:Enter<br>ESC:Back |
| Range Change        |                                         |
| CH ele.             | Range Value                             |
| CH1 NO <sub>x</sub> | range1 range2 range3                    |
| CH2 SO <sub>2</sub> | 500ppm 1000ppm 2000ppm                  |
| CH3 CO <sub>2</sub> | 500ppm 1000ppm 2000ppm                  |
| CH4 CO              | 5vol% 10vol% 20vol%                     |
| CH5 O <sub>2</sub>  | 5vol% 10vol% 25vol%                     |

Range select screen

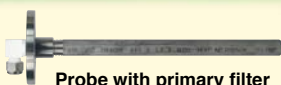
|                     |                                          |
|---------------------|------------------------------------------|
| Menu Mode           | Select a range<br>ENT:select<br>ESC:Back |
| Zero Cal.           |                                          |
| CH ele.             | cal. value                               |
| CH1 NO <sub>x</sub> | ON 3.3 ppm                               |
| CH2 SO <sub>2</sub> | ON 20 ppm                                |
| CH3 CO <sub>2</sub> | ON 0.11 vol%                             |
| CH4 CO              | ON -3.3 ppm                              |
| CH5 O <sub>2</sub>  | ON 18.89 vol%                            |

Zero span screen

Gas extractor (option)



Simple probe



Probe with primary filter

Flow checker (for checking sample gas flow rate)



Display unit  
(LCD with backlight)

Operation key

Sampling gas inlet  
Standard gas inlet

Membrane filter

Bubbler  
(Supply water inlet)

Drain outlet

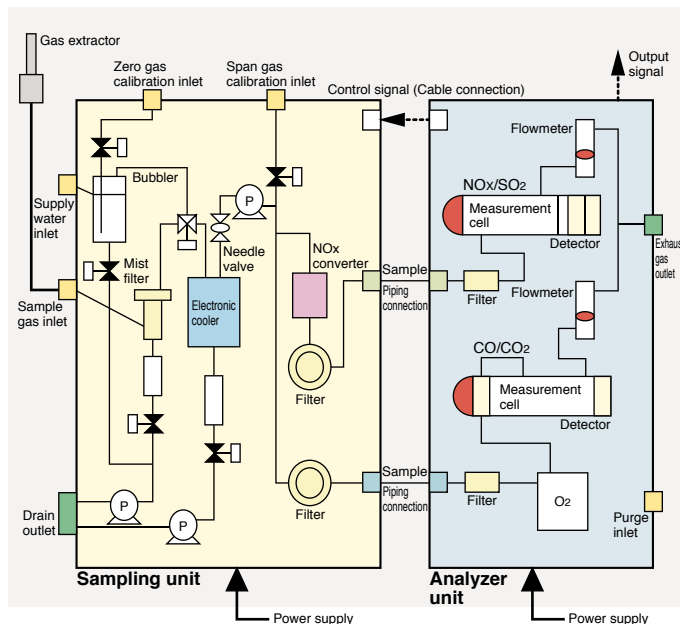
## Specifications

|                                      |                                                                                                                                                                                                                                                                                   |
|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Measured component/measurement range | CO <sub>2</sub> : 0 to 200ppm...100%<br>CO: 0 to 200ppm...100%<br>NO: 0 to 500ppm...5000ppm<br>SO <sub>2</sub> : 0 to 500ppm...1%<br>CH <sub>4</sub> : 0 to 1000ppm...100%<br>O <sub>2</sub> : 0 to 5% / 10 to 25%<br>Maximum range ratio 1:5 Switching between 3 ranges allowed. |
| Analog output                        | 4 to 20mA DC or 0 to 1V DC<br>Concentration of each component, Instantaneous value after O <sub>2</sub> correction<br>One-hour average value after O <sub>2</sub> correction, Four-hour average value after O <sub>2</sub> correction                                             |
| Communication function               | RS232C (MODBUS protocol)                                                                                                                                                                                                                                                          |
| Repeatability                        | 0.5%FS                                                                                                                                                                                                                                                                            |
| Power supply voltage                 | 100 to 115V AC or 200 to 240V AC, 50/60Hz                                                                                                                                                                                                                                         |
| Outside dimensions                   | Analyzer unit: 211(H)x365(W)x514(D)mm<br>Pretreatment unit: 377(H)x365(W)x514(D)mm                                                                                                                                                                                                |
| Weight                               | Analyzer unit: About 12kg, Pretreatment unit: About 18kg                                                                                                                                                                                                                          |
| Gas extractor (option)               | Simple probe or probe with primary filter                                                                                                                                                                                                                                         |

## Major applications

- Tests for R&D such as combustion, biogas generation, and plant photosynthesis tests
- Simple measurement for control of exhaust gas from businesses place
- Control and check of CA storage atmosphere
- Combustion exhaust gas measurement control
- Comparison with gas analyzers installed at site and backup

## Example configuration



## Associated equipment

Paperless recorder for storage of measurement data and analysis



|                            |                                                         |
|----------------------------|---------------------------------------------------------|
| Type                       | PHF                                                     |
| Number of recording points | 3 or 6                                                  |
| Input signal               | 4 to 20mA DC, 1 to 5V DC, thermocouple, resistance bulb |
| Storage medium             | Compact flash (2GB max.)                                |

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