PORTABLE GAS ANALYZER

DATA SHEET ZFY

This unit is a simple and stable analyzer using a single-beam infrared-ray system. It is designed for measuring carbon dioxide gas (CO_2), carbon monoxide (CO) or methane (CH_4), and is used to measure atmospheric gases in agricultural vinyl greenhouse, carbon dioxide gas in rooms or carbon dioxide gas, carbon monoxide, ethane, etc., in thermal processing furnaces.

FEATURES

1. Single-beam NDIR system is used for simple structure, providing excellent stability without interference of other gases.
2. The adoption of a unique mass-flow type sensor assures high sensitivity and long service life.
3. One-touch zero/span calibration, self-diagnosis function and 2-range select function assure easy operation and maintenance.
4. Sampling devices such as pump, filter, flow checker, etc., are built-in to allow the user to make measurements simply by connecting a sampling tube.
5. Compact design offers easy carrying and handling.

SPECIFICATIONS

1) Application : Facilities gardening, measurement of gases in rooms, combustible exhaust gas, gases in thermal processing furnaces or ceramic industry furnaces, and various tests

2) Measurement principle :
NDIR (Non-dispersive Infrared-absorption method; single-beam system)

3) Measuring components and measurement range :

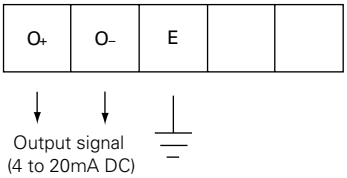
Measurement range \ Measuring components	CO_2	CO	CH_4
0 to 0.2/0.5%	○	×	×
0 to 0.5/1.0%	○	○	×
0 to 1.0/2.0%	○	○	○
0 to 2.0/5.0%	○	○	○
0 to 5.0/10.0%	○	○	○
0 to 10.0/20.0%	○	○	×
0 to 20.0/50.0%	○	○	×
0 to 50.0/100.0%	○	×	×

4) Repeatability : ±0.5%FS
5) Drift : ±2%FS /day for zero and span
6) Linearity : ±2%FS
7) Response : 90%, less than 15sec
8) Sample flow : About 1R/min (pump, filter and flowmeter, built-in)
9) Analog output :
4 to 20mA DC (allowable load; less than 550Ω)
10) Indicator : 4th code digital display
11) Calibration : One-touch calibration using canned gas or compressed standard gas (φ6 tube connection attachment supplied)
12) Warming time :
About 30min
13) Gas connecting parts material :
SUS, polyethylene, polypropylene, CaF_2, toalon, chloroprene
14) Power source :
100V or 115V AC ±10%, 50/60Hz, about 40VA (power cord supplied)
15) Self-diagnosis function :
Calibration range over, analyzer error, etc.
16) Sample gas condition :
Dust; 0 to 10mg/Nm^3(filter should be used at the front for continuous measurement)
Temperature; Less than 50˚C at analyzer inlet Pressure; –2.94 to +2.94kPa {–300 to +300mmH_2O}
17) Installation condition :
Temperature; 0˚C to 40˚C
Humidity; 90%RH or less
Installation place; indoor (Do not install in a place near combustible exhaust gas. Be sure to install on a flat stand.)
18) Case : Plastic, portable type (with ventilating holes)
19) Dimensions : (H)170 × (W)260 × (D)375mm
20) Mass : Approx. 5kg

Code symbols

1 2 3 4 5 6 7 8	9 code	Description
Z F Y		
		Measuring components (4th code)
B		CO
D		CO_2
E		CH_4
		Measurement range (5th code)
G		0~0.2 / 0.5% (Not available for CO and CH_4)
H		0~0.5 / 1.0% (Not available for CH_4)
J		0~1.0 / 2.0%
K		0~2.0 / 5.0%
L		0~5.0 / 10.0%
M		0~10.0 / 20.0% (Not available for CH_4)
N		0~20.0 / 50.0% (Not available for CH_4)
P		0~50.0 / 100.0% (Not available for CO and CH_4)
		Output signal (6th code)
1		4-20mA DC
		Power source (7th code)
1		100V AC 50/60Hz
2		115V AC 50/60Hz
		Application (9th code)
	A	General use (combustible exhaust gas, greenhouse, atmospheric gas)
	B	For heat processing furnace gas, (about 30% H_2 contained)
	C	For heat processing furnace gas, (about 65% H_2 contained)
	D	For ceramic industry

Connection diagram



Scope of delivery

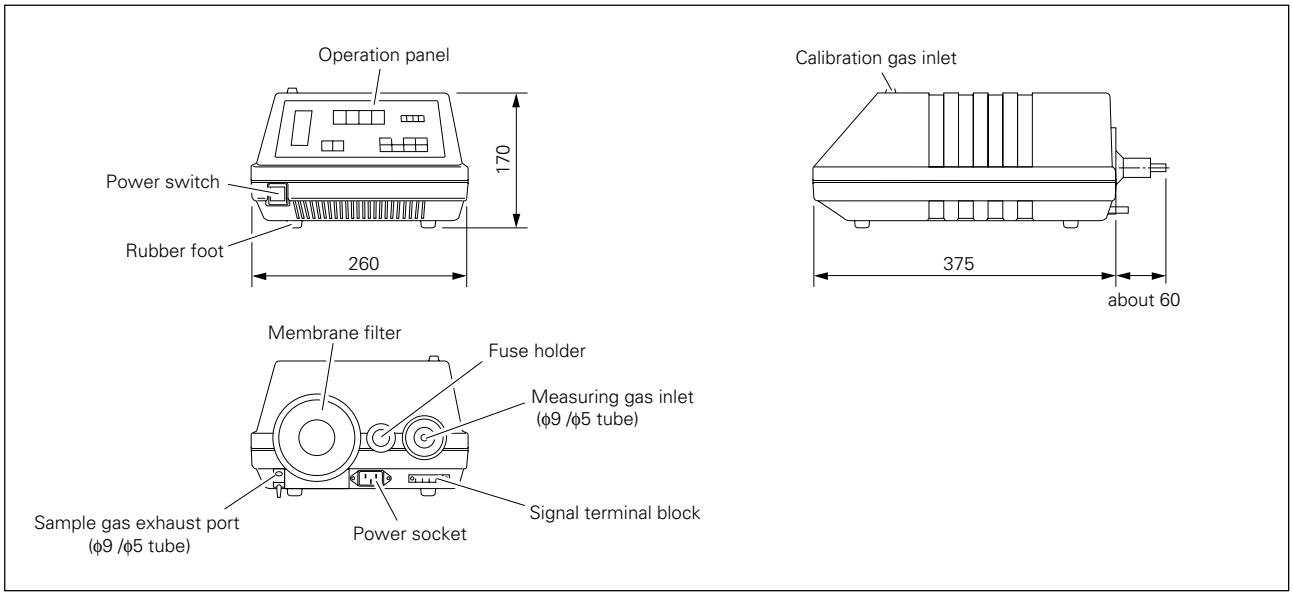
Main body	1
Power cord	1
Power fuse (tube type 1A, $\phi 6.4 \times 30$)	1
Filter paper	25
Calibration gas pipe joint	1
Main body vinyl cover	1
$\phi 9/\phi 5$ Toalon tube, 5cm (for connection of $\phi 6$ tube)	1
Hose band (for $\phi 10$)	2

Optional items

Zero/span calibration standard gas

(Type: ZBM 1 ℓ canned gas available in the unit of 12 cans)

Outline (Unit: mm):



⚠ Caution on Safety

*Before using this product, be sure to read its instruction manual in advance.

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