FUJI ELECTRIC

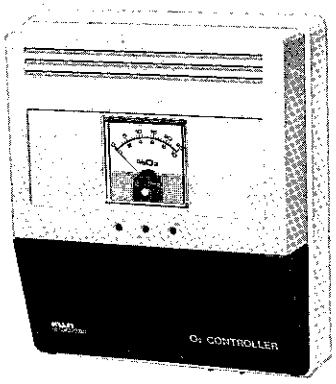
Micro-chip Type OXYGEN ANALYZER

DATA SHEET ZFT

This is a compact and effective oxygen analyzer which employs a new micro-chip oxygen sensor.

This analyzer measures oxygen in the atmosphere or in the sample gas supplied from a sampling system, and generates an analog output.

The wall-mounted type (O_2 controller) Model ZFTA, which is optimum for atmospheric measurement and features upper/lower alarm functions.



(Model ZFTA)

FEATURES

1. Drift is extremely small, so high stability is ensured for long periods. A small maintenance micro-chip sensor is incorporated.
2. Quick response in 10sec or less for 90% indication.
3. Optimum for atmospheric measurements with no need for a reference gas.
4. The sensor has an expected lifetime of 3 years.
5. Smaller, lighter and improved in cost/performance than conventional analyzers.

CODE SYMBOLS

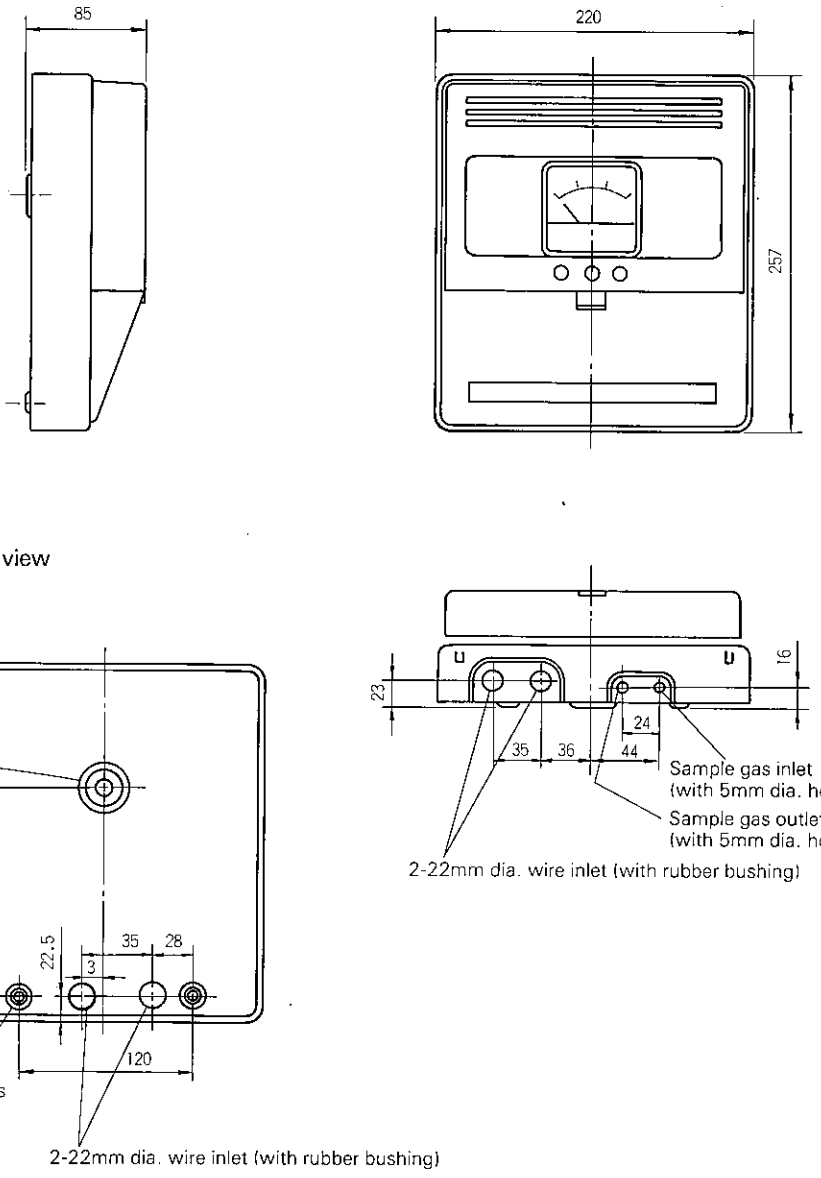
1	2	3	4	5	6	7	8	Description
Z	F	T	A	A	B		1	
			A					**Structure** Wall-mounted type
				A				**Measuring range** 0 to 10/25vol% O_2
					B			**Output signal** 4 to 20mA DC
						1		**Power supply** 100V AC 50/60Hz
						2		115V AC 50/60Hz
						3		220V AC 50/60Hz
						4		240V AC 50/60Hz

Items		Wall-mounted type ZFTA
Functional items	Measuring method	Micro-chip Oxi-sensor (zirconia type)
	Measuring gas	Oxygen in sample gas or atmosphere, except for corrosive gases
	Measuring range	0 to 10/25 vol% Selectable with switch on PC board
	Analog output	4 to 20mA DC
	Permissible load	400Ω max.
	Alarm function	Setting range: 0 to 100% FS(*) for both upper and lower limits Upper and lower limits must not coincide. Output: Two PDT (1c) contacts (with lamp indication) Contact capacity: 200V AC, 3A resistive load Hysteresis width: Approx. 0.8% O_2/25% range Approx. 0.35% O_2/10% range
	Indicator	Moving coil type JIS class 2.5 (oxygen concentration scale)
	Gas sampling	Gas inspired with built-in pump and dust removed with filter
	Sample flow rate	Approx. 0.4ℓ/min.
	Sample gas conditions Temperature	0 to 50°C
	Pressure	±490 Pa {± 50mmH_2O}
	Dust	Approx. 10mg/Nm³ or less
	Moisture	Below saturation point at atmospheric temperature
	Corrosive gas	Must not be present (SO_2 and H_2S in particular must be removed in previous stage)
	Flammable gas	Must not be present (reaction with oxygen at sensor section causes error)
	Calibration gas	N_2 for zero adjustment and air for span adjustment
	Power supply	100, 115, 220 or 240 ± 10% 50/60Hz (depends on model specifications)
	Power consumption	Approx. 20VA
	Ambient temperature	0 to 45°C
	Ambient humidity	90% RH or less
Performance items	Repeatability	± 1%FS
	Zero drift	±2%FS/week
	Span drift	±2%FS/week ±10%FS/6 months
	Linearity	±2.5%FS
	Response time (90%)	10 sec. or less
	Warm-up time	Approx. 30 min.
Construction and material	Case material	Base: Steel plate Cover: ABS resin
	Main materials of gas-contacting section	Aluminum, brass, PVC resin, PPS resin
	External dimensions (H x W x D) [mm]	257 x 220 x 85
	Weight (kg)	Approx. 3kg
	Pipe connection	5mm dia. hose end (at both inlet and outlet)
	Wiring	M4 terminal screws
Scope of supply		Analyzer 2 fuses 5 filter sheets

Note: * FS: Full scale

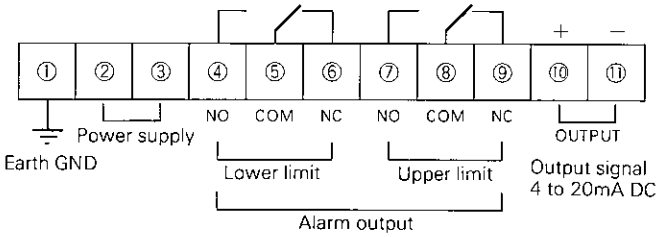
OUTLINE DIAGRAM (Unit: mm)

< Wall-mounted type >



CONNECTION DIAGRAM

< Wall-mounted type >



Lower limit alarm: When oxygen concentration in sample gas drops below the set point, continuity is established between 4 and 5, and between 5 and 6 when the set point is exceeded.

Upper limit alarm: When oxygen concentration in sample gas drops below the set point, continuity is established between 8 and 9, and between 7 and 8 when the set point is exceeded.

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Printed in Japan 1998-11/2E