



November 7, 2006

No. _____
V-8358

Messrs. _____

SPECIFICATIONS

Model: FCX-UWC

- RoHS compliance model, Ceramic base -

Project: _____

Reference: _____

Fujikura Ltd.

Specifications of Oxygen Sensor Unit

V-8358

1. General:

This document describes the customized specifications of a ceramic oxygen sensor unit, FUJIKURA FCX-UWC.

Table shown below is revision records of this specification

V				
IV				
III				
II				
I	11-7-2006	H. Nishida	Correction: accuracy 2%FS → 0.5%FS	(A)
Est.	11-1-2006	H. Nishida	RoHS compliance, Ceramic base	
	Date	Name	Comments	Remark

<u>Model</u>	<u>FCX-UWC (RoHS compliance model, Ceramic base)</u>
1. Measuring Gas	Oxygen
2. Measurement Method	Limiting current method using Zirconia Solid-Electrolyte
3. Dimension and weight	Please see the drawing 9-760-001, Approx. 7g
4. Measurement Range	0.1 to 95 %O ₂
5. Output current (IL)	8 ~ 20uA in free air , 1.0V sensing voltage (Vs), 1.5W heating Theoretical output is given by following equation. $I_L = - ([A] / 0.2357) \times \ln (1 - [O_2\%] / 100) \text{ ----(1)}$ [A] = Output current in 21.0% O ₂ (uA) [O ₂ %] = Oxygen concentration (vol.%)
6. Accuracy	within +/- 0.5%O ₂ FS (A)
7. Response Time	within 30 sec. (90% value)
8. Life time	10,000 hours at 95%O ₂ , continuous Vs
9. Heater	Power consumption: 1.5WDC +/- 5% Voltage(Vh) for 1.5W: 1.7~3.0VDC (individual for each sensor) Warm up rate: Maximum 40mV/sec
10. Sensing element	Recommended Vs: 1.6~1.8VDC at 95%O ₂
11. Operating temperature	-10 ~ 50 degC
12. Storage temperature	-40 ~ 120 degC
13. Humidity	0 ~ 85 RH ... Without condensation
14. Ambient pressure	0.5 ~ 5 atm

15. Vibration resistance	JIS C 5025 class A Maximum 9G
16. Warranty	Within one year after shipment
For further information, please feel free to contact us.	

Output current of FCX-UWC

	0	10	20	30	40	50	60	70	80	90	95 %O2	
min	0.0	3.6	7.6	12.1	17.3	23.5	31.1	40.9	54.6	78.2	101.7	uA
max	0.0	8.9	18.9	30.3	43.3	58.8	77.8	102.2	136.6	195.4	254.2	uA

Marking



UWC: FCX-UWC

69L996: Year(2006), Month(Sep), Day(21th), Serial number(001~)

