

Messrs. _____

SPECIFICATION

Model: FCX-ULL

Project: Distributed by:
Servoflo Corporation
75 Allen Street
Lexington, MA 02421

Distributor: 781-862-9572
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Reference: _____

Osamu Kitamura

Fujikura Ltd.

Specifications of Oxygen Sensor Unit

V-8423A

General:

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

Table shown below is revision records of this specification

	Date	Name	Comments	Remark
V				
IV				
III				
II				
I	5/Dec/2017	O. Kitamura	Revised the wrong lifetime description	A
Est.	25/Sep/2014	O. Kitamura		

<u>Model</u>	FCX-ULL (RoHS compliance model, Ceramic base)
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. 5.5 g
4. Measurement Range	0 to 1000 ppmO ₂
5. Output current (IL)	35 ~ 75uA in free air , 0.7 V sensing voltage (Vs), 2W heating Theoretical output is given by following equation. $I_L = ([A]/1000) \times [O_2\text{ppm}] \quad \text{----(1)}$ [A] = Output current in 1000ppm O ₂ (uA) [O ₂ ppm] = Oxygen concentration (vol.ppm)
6. Accuracy	within 50 ppm O ₂
7. Response Time	within 30 sec. (90% value)
8. Life time ^{A)}	1 years in 1000ppm O ₂ , continuous Vs
9. Heater	Power consumption: 2WDC +/- 5% Voltage(VH) for 2W: 1.7~3.0 VDC (individual for each sensor) Warm up rate: Maximum 40mV/sec
10. Warm-up time	about 3 min before the measurement

10. Sensing element	Recommended Vs=0.7 V for free air
11. Operating temperature	-10 ~ 50 deg. C
12. Storage temperature	-40 ~ 120 deg. C
13. Humidity	0 ~ 85 RH ... Without condensation
14. Warranty	Within one year after shipment

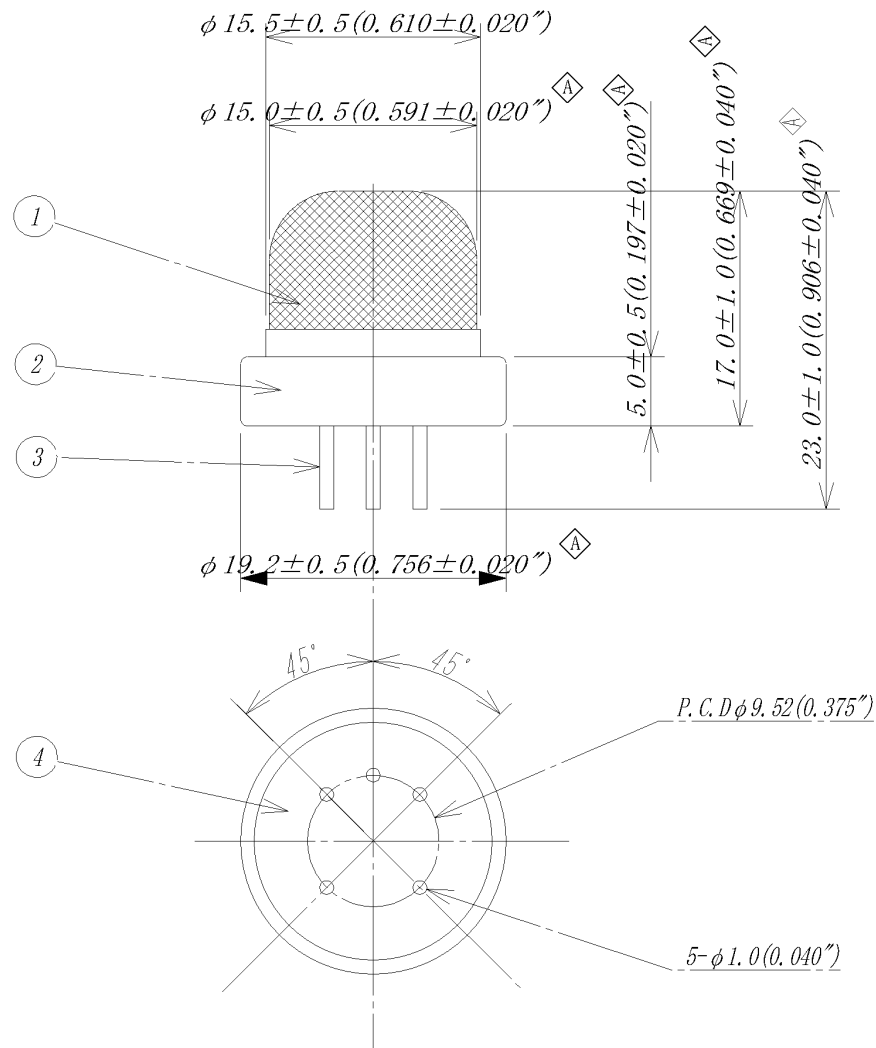
Output current of FCX-ULL

	0	50	100	200	300	400	500	600	800	1000	ppm O2
min	0.00	1.75	3.50	7.00	10.50	14.00	17.50	21.00	28.00	35.00	uA
max	0.00	3.75	7.50	15.00	22.50	30.00	37.50	45.00	60.00	75.00	uA

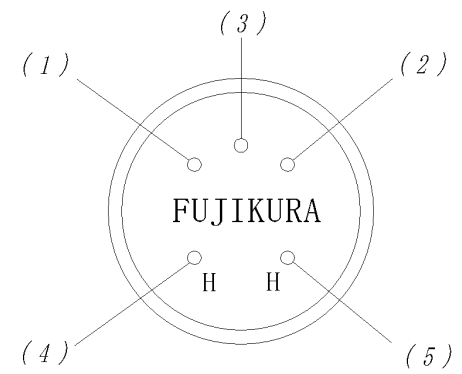
$$I_L = ([A]/1000) \times [O_2\text{ppm}]$$

[A] = Output current in 1000ppm O2 (uA)

[O2ppm] = Oxygen concentration (vol.ppm)



■接続図 : Conection Diagram



- (1) Vs(+) : センサ出力端子(+) : Sensing terminal(+)
- (2) Vs(-) : センサ出力端子(-) : Sensing terminal(-)
- (3) NC : 未使用端子 : Non-conected terminal
- (4) VH(+) : ヒータ電圧端子(+) : Heater terminal(+)
- (5) VH(-) : ヒータ電圧端子(-) : Heater terminal(-)

④	ステム STEM	Ceramics	1	
③	リードピン POST PIN	Cover	5	金メッキ Gold plating
②	リング RING	Brass	1	ニッケルメッキ Nickle plating
①	メッシュカバー MESH COVER	SUS316	1	100メッシュ 100mesh

PART NO.	部品名 NAME OF PART	材質 MAT'L	個数 QTY.	摘要 REMARKS
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PROJECT NAME :

第3角法 3RD ANGLE PROJECTION	名称TITLE
単位UNITS mm (inch)	OXYGEN SENSOR UNIT OUTLINE DIMENSIONS
尺度SCALE FREE	(Type' FCX-UC, UWC, ULC, ULLC, UL-03)

DATE OF ISSUE 1997.11.04	図面番号DRAWING NO. 9-760-001	REV. MARK C
DATE OF DESIGN 1996.11.25		

◇	Sensor stem materila: Plastic -> Ceramics	Sep 7, 2008	HN
⊠	誤記訂正 (ピン配置) Correct of Mistakes (Pin arrangement)	97/11/04	R. Nagano
△	寸法見直し (インチ表示追記)	96/11/25	R. Nagano
MARK	変更 REVISIONS	年月日 DATE	変更者 BY



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