

## Specifications of the Dissolved Oxygen Sensor KDS25B



### 1. Scope

This specification applies to the dissolved oxygen sensor, model KDS25B.

### 2. Appearance and Dimensions

Appearance and dimensions of the KDS25B sensor as per attached drawing No. 90DO-09B.

### 3. Specification

Output Voltage in air: 5.6mV~15.0mV

under the conditions of  $1013\pm 5\text{hPa}$ ,  $60\pm 5\%RH$ , and  $25\pm 1^\circ\text{C}$ .

### 4. Characteristics

#### 4-1. Oxygen Concentration-Output Voltage Characteristics(Linearity).

$\pm 5\%$ /Full scale at the water temperature of  $25\pm 1^\circ\text{C}$  when Full scale is below 10ppm of the dissolved oxygen

#### 4-2. Response speed of the water temperature sensor

90% response time shall be within 10 minutes.

### 5. Storage & Operating Conditions

#### 5-1. Temperature range : $5\sim 35^\circ\text{C}$

#### 5-2. Operating pressure range: $-0.2\sim 1.0\text{kgf/cm}^2$ gage(Depth of water=10m)

#### 5-3. Direction of sensor when installation

The sensor body shall be fixed keeping the sensing element horizontal or down.

The sensor output may change transitionally when the vibration or shock is applied to the sensor or its position is changed.

### 6. Absolute maximum operating conditions

Accumulated total operating time under the following conditions: 24 hours Max.

a)Temperature: Lower limit:  $-10^\circ\text{C}$  Upper limit:  $50^\circ\text{C}$

b)Pressure : Lower limit: 0.5atm Upper limit: 2.5atm

### 7. Replacement

Replace of the sensor is recommendable when the output voltage in air is below 5.6mV under the test conditions of atmospheric pressure  $1013\pm 5\text{hPa}$ ,  $60\pm 5\%RH$ , and  $25\pm 1^\circ\text{C}$ . The sensor life expectancy to reach 5.6mV output depends on operating conditions including water temperature, dissolved oxygen concentration, and storage conditions including storage temperature, humidity and atmospheric pressure.

### 8. Limited warranty

Figaro Engineering Inc. warrants the KDS25B dissolved oxygen sensor to be free from defects in material and workmanship under normal use and service for a period of six months from the date of purchase. During the warranty period, repair or replacement of the dissolved oxygen sensor which is found to be defective in materials or workmanship under normal use and service shall be made without charge. The company's obligation under this warranty

shall be limited to the repair or replacement of the dissolved oxygen sensor during the warranty period commencing with the date of purchase. The company shall not be obliged to repair or replace products which are found to be in need of repair because of damage, unreasonable use, modifications, alterations, or extraneous substances on the sensor surface occurring after the date of purchase.



**For further information, please contact:**

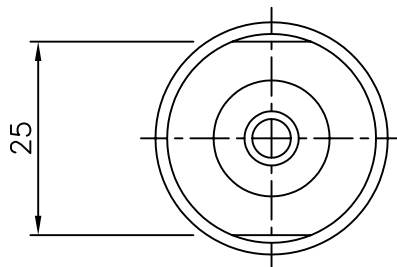
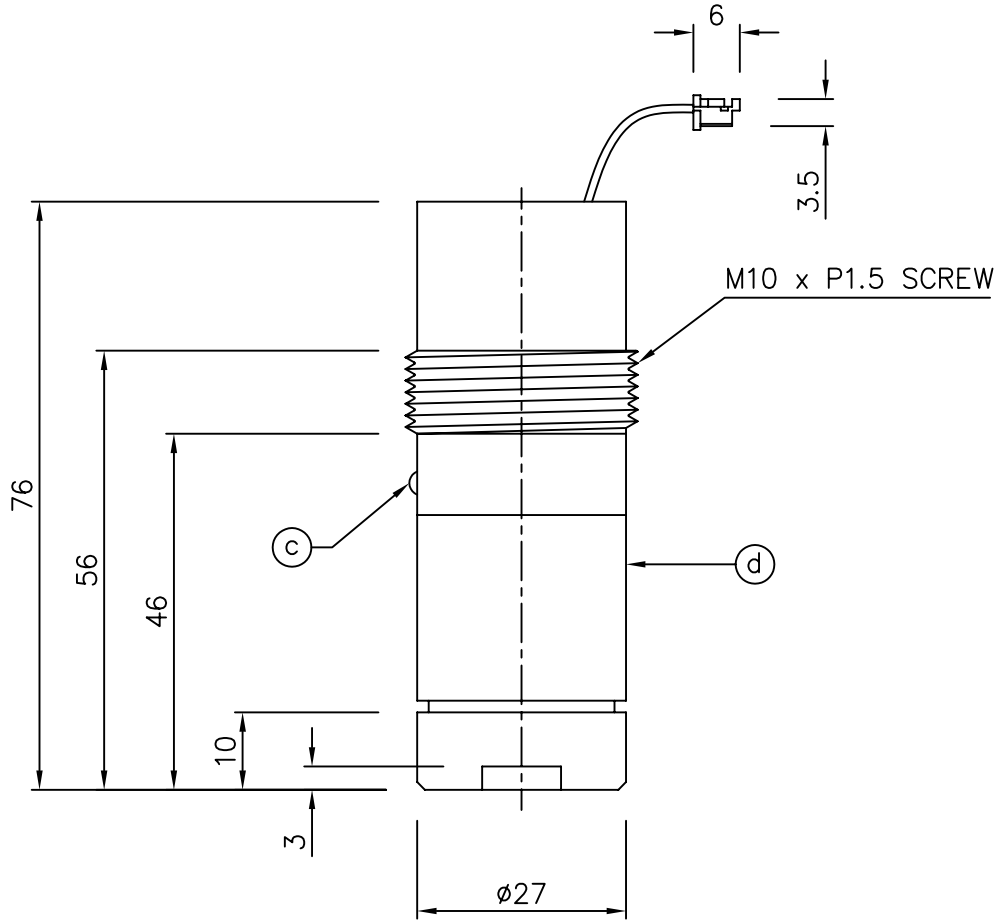
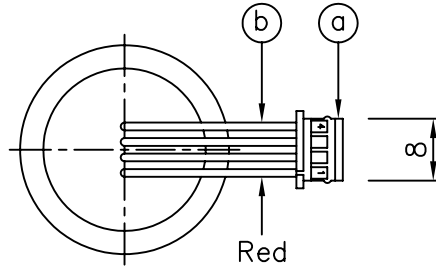
**TASHIKA BOEKI SHOKAI K.K.**

1-12, Kaiyo-cho, Ashiya, 659-0035, JAPAN

Tel: + 81-797-23-9035 Fax: + 81-797-23-2105

e-mail: [sales@tashika.co.jp](mailto:sales@tashika.co.jp) URL: [www.tashika.co.jp](http://www.tashika.co.jp)

No. of Socket and Connection Apparatus	
No.1	Sensor +
No.2	Sensor -
No.3	Thermister
No.4	Thermister



Unit : mm.

No.	Item	Material,etc.
a	Connector Socket	HIROSE DF3-4S-2C
b	Connector Lead	HIROSE DF3-4S-2C
c	Water Temp. Sensor	
d	Main Body	ABS resin , etc.

	title
	Dissolved Oxygen Sensor KDS-25B
Scale; 1/1	External Dimensions
Date; 20/01/07	Drawing No. PRCT200107