

**FEATURES**

- Panel type dissolved oxygen analyzer/transmitter with digital display, compatible with various power voltages (AC 90 to 264V)
- Compact design, with panel cut 92 x 92 DIN.
- Compatible with DKK-TOA's poralographic and galvanic electrodes.
- Freely settable output range.
- Automatic judgement of electrode qualities during calibration.
- Error messagees and contact signal output when the sample temperature exceeds the temperature compensation range.
- Maintenance mode turns on the ST-BY indicator, holds the value measured just before entering maintenance mode, and sets the control output contact OFF not to disterve the control system. Automatic return to the measurement mode is availbale in case of forgetting to release the maintenance mode.
- Two-circuit control output, each 1a contact. Usual control output or twin-timer control output, selectable by the user. Freely settable within the measuring range.
- Power-off signal output is available.

**OPTIONS:**

- Power control of cleaner without timer function, such as JOC models.
- RS-232C interface to data transfer to a PC.



O <sub>2</sub>	: 0.0 to 30.0% (res. 0.1%)
Temperature	: -10.0 to 60.0 (res. 0.1 )
<b>Temp. compensation</b>	: 0 to 45
<b>Output range: DO</b>	: 0.00 to 50.00mg/L
	Upper limit is freely settable within 1.00 to 50.00mg/L at a 0.01mg/L unit
<b>Performance</b>	
Linearity	: Within ± 1% FS
Repeatability	: Within ± 0.8% FS
<b>Control functions</b>	
Object	: Dissolved oxygen
No. of contacts	: 2 points, contact a
Contact capacity	: AC 250V, 3A or DC 30V, 3A or less (resistance load)

Usual control output or twin-timer control output, selectable.

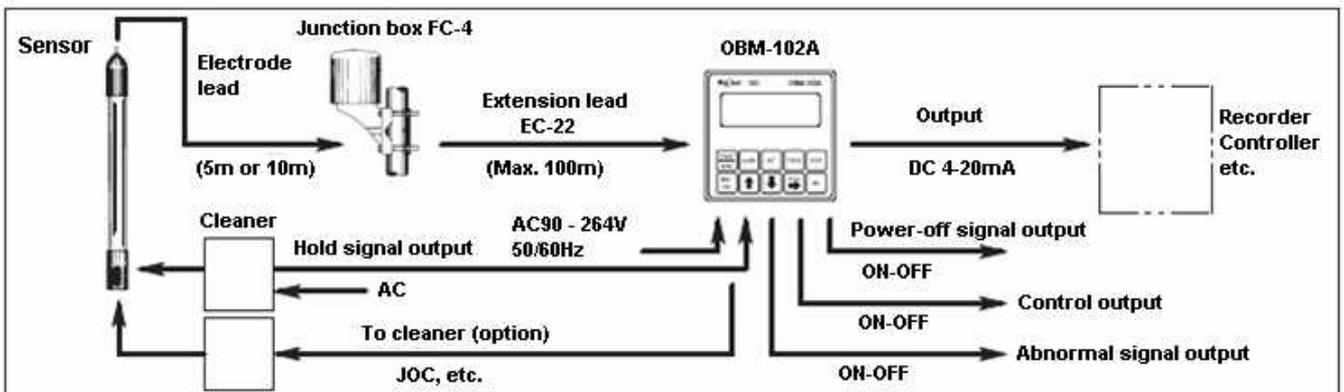
Sensitivity	: Freely settable (2 points)
	: 0.00 to 5% of upper limit of measuring range

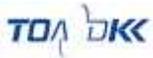
<b>Power-off output</b>	
When power-off	: Open contact signal
Contact capacity	: AC 250V, 3A or DC 30V, 3A or less (resistance load)

**STANDARD SPECIFICATIONS**

<b>Product Name</b>	: Panel type dissolved oxygen analyzer/transmitter
<b>Model</b>	: OBM-102A
<b>Measuring range</b>	:
DO	: 0.00 to 50.00ng/L (res. 0.01mg/L)
	Display only (no output)
SAT	: 0.00 to 200.0% (res. 0.1%)
	Display only (no output)

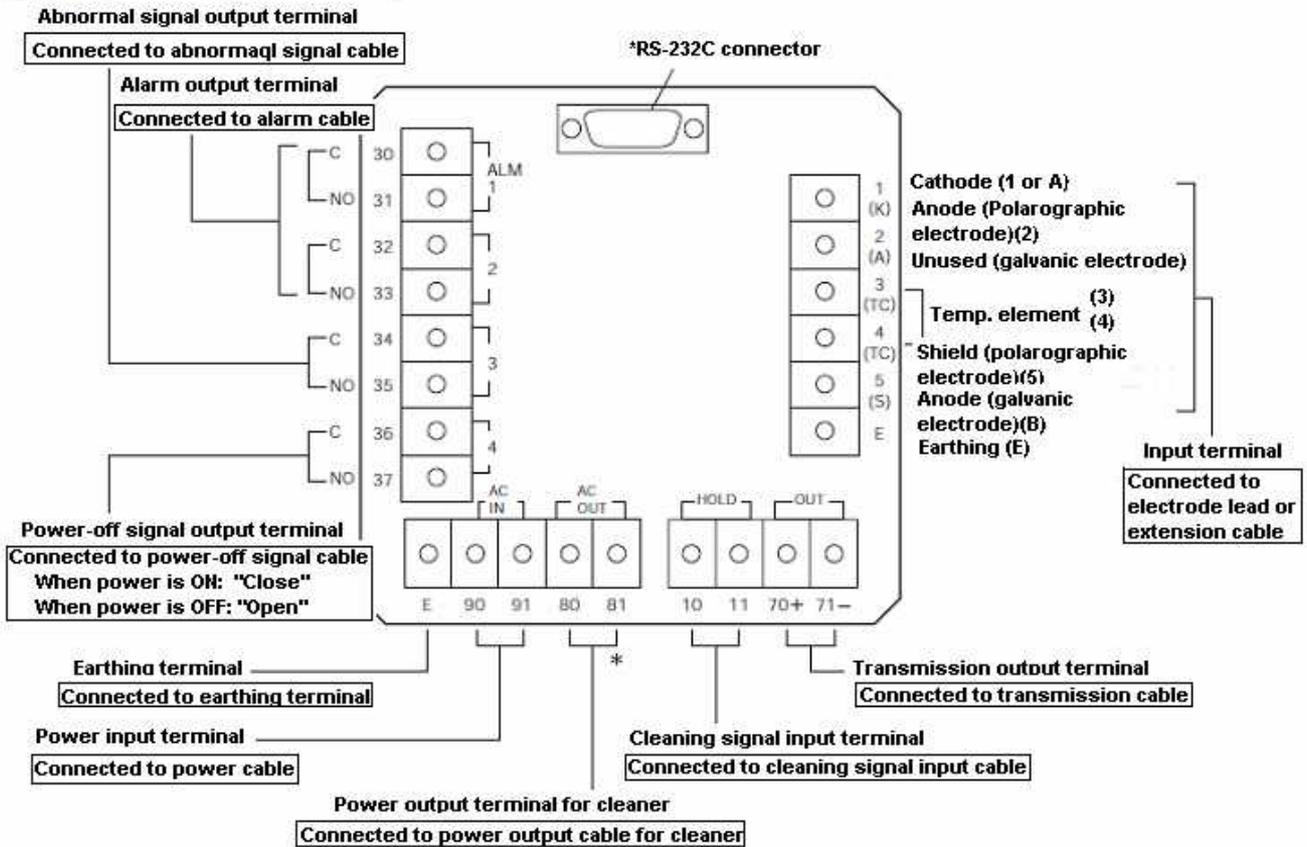
**SYSTEM CONFIGURATION**





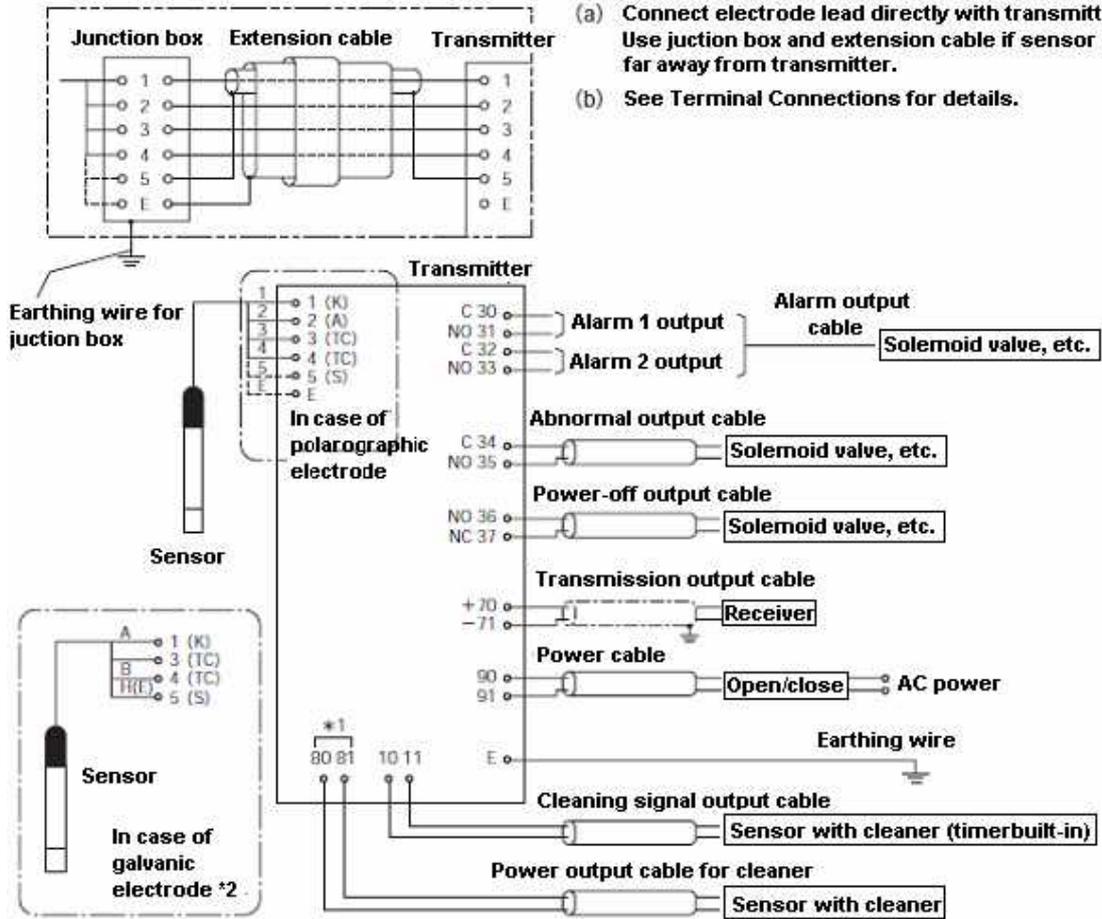
<b>Input terminal during cleaning</b>		Close contact signal, output holding, no-voltage contact	<b>Processor</b>	Microcomputer
<b>Abnormal signal output</b>		Close contact signal when sample tem. exceeds temp. compensation range.	<b>Ambient conditions</b>	-10 to 50 , 90%RH or less
	Contact capacity	AC 250V, 3A or DC 30V, 3A or less (resistance load)	<b>Power source</b>	AC 90 to 264V, 50/60Hz
<b>Display</b>		LCD display	<b>Power consumption</b>	Approx. 10VA
<b>Calibration</b>	Zero	1. Zero electricity	<b>Construction</b>	Outdoor installation, panel mount
	Span	2. Zero solution Atomospheric air or air-saturated water	<b>Dimensions</b>	96(W) x 96(H) x 90(D) mm 92 x 92mm DIN panel cut Approx. 0.5kg
<b>Output</b>		Insulated, DC 4 - 20mV, resistance of 650kohm or less	<b>Weight</b>	
			<b>Auxiliary equipment</b>	
			Electrode	7533L, 7536L, etc.
			Electrode lead	ELW-32
			Junction box	FC-4
			Extension cable	EC-22

### TERMINAL CONNECTIONS



## WIRING DIAGRAMS

when extension cable is used

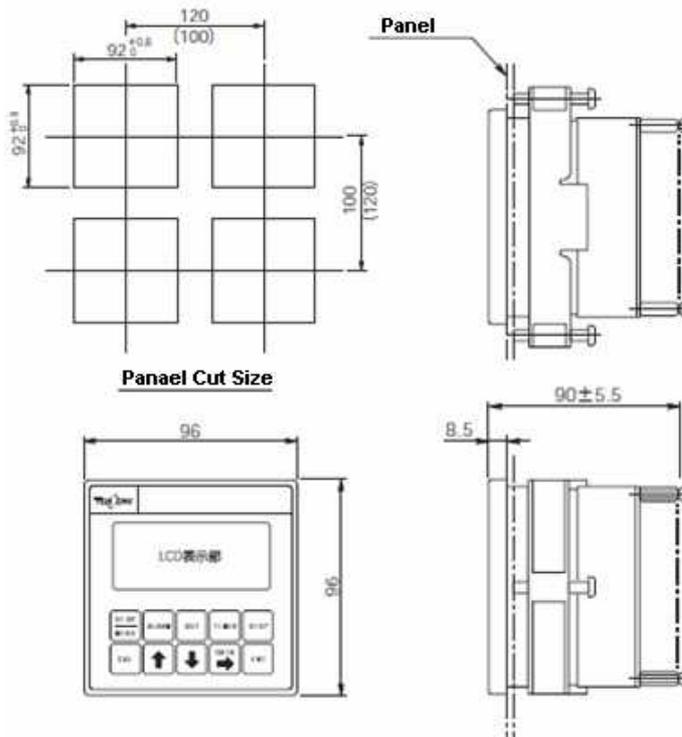


\*1: Option

\*2: Use manual temp. comp. (M. TMP) setting with terminal C and D unconnected in the case of galvanic electrode with built-in temp. element (OET-\*\*\*\*)

## DIMENSIONS

Unit: mm





**PRODUCT CODE**

OBM102A-0-	<input type="checkbox"/>					
1						<b>Power source *1</b> AC 90 to 264V, 50/60Hz
A						<b>Transmission output</b> DC 4 to 20mA
B						DC 4 to 20mA & RS-232C interface
A						<b>Electrode to be combined</b> 7533L, 7699L (for general use, polarographic)
B						7536L, 7695L (for waste treatment, polarographic)
C						For fermentation, polarographic (765*L, 766*L, 767*L)
D						For fermentation, galvanic *2
Z						Special
1						<b>DO measuring range (output range)</b> 0.00 ~ 2.00mg/L
2						0.00 ~ 5.00mg/L
3						0.00 ~ 10.00mg/L
4						0.00 ~ 15.00mg/L
5						0.00 ~ 20.00mg/L
Y						Custom spec (freely settable within 0.0 to 50.00mg/L at a 0.01mg/L unit *3)
0						<b>Alarm output</b> 2-point alarm (2-circuit contact a) + abnormal signal (1-circuit contact a)
9						Special + power-off signal (1-circuit contact a)
1						<b>Timer for cleaner *4</b> Nil
2						Equipped (combined with JOC-711C, etc.)
9						Special
0						<b>Markings</b> Standard
1						English

\*1 The transmitter is compatible with power source of AC 90 to 264V, and supplies power to the cleaner at the same voltage. So, be careful about the power source specifications of the cleaner.

(Ex. 1) Power source ----> OBM-102A ----> External stepdown transformer ----> JOC-711C  
 AC 200V AC 200V AC 100V

(Ex. 2) Power source ----> External stepdown transformer ----> OBM-102A ----> JOC-711C  
 AC 200V AC 100V AC 100V

\*2 Use the manual temperature compensation (M. TMP.), with the terminals C and D unconnected, for galvanic electrodes with temperature element (OET-\*\*\*\*).

\*3 Advise DKK-TOA of the range when selecting custom spec.

\*4 Even if selecting "Nil" for timer for cleaner, output holding function operates by the contact signal (On/Off) from the cleaner with timer.

**Note:**

The transmitter can be combined with only the electrodes with temperature element of 10 kohm thermister or with platinum resistor bulb of 1 kohm 1deg.C.

**RELATED EQUIPMENT**

**Connection box**

<b>Model</b>	FC-4
<b>Structure</b>	Outdooe type
<b>Weight</b>	Approx. 0.9kg
<b>Case</b>	ABS resin
<b>Base</b>	ABS resin
<b>Mounting</b>	25A to 50A pipe, wall, or plate mounting

**Extension cable**

<b>Model</b>	EC-22
<b>Outer diameter</b>	8mm
<b>Length</b>	5 to 100m at a 5m unit
<b>Weight</b>	Approx. 0.5kg/5m

**Bar graph meter relay with DC power source**

<b>Model</b>	BMR-24
<b>Output voltage</b>	DC 24V +/- 1V
<b>Input</b>	DC 4 to 20mA (Input resistance 10 ohm)
<b>Alarm output</b>	4 points
<b>Contact capacity</b>	125V, 0.5A
<b>Display</b>	Red LED, 101 dots
<b>Power source</b>	AC 85 to 165V, 50/60Hz
<b>Power consumption</b>	Approx. 5VA
<b>Ambient conditions</b>	0 to 45deg.C, 40 to 80%RH
<b>Weight</b>	Approx. 450g

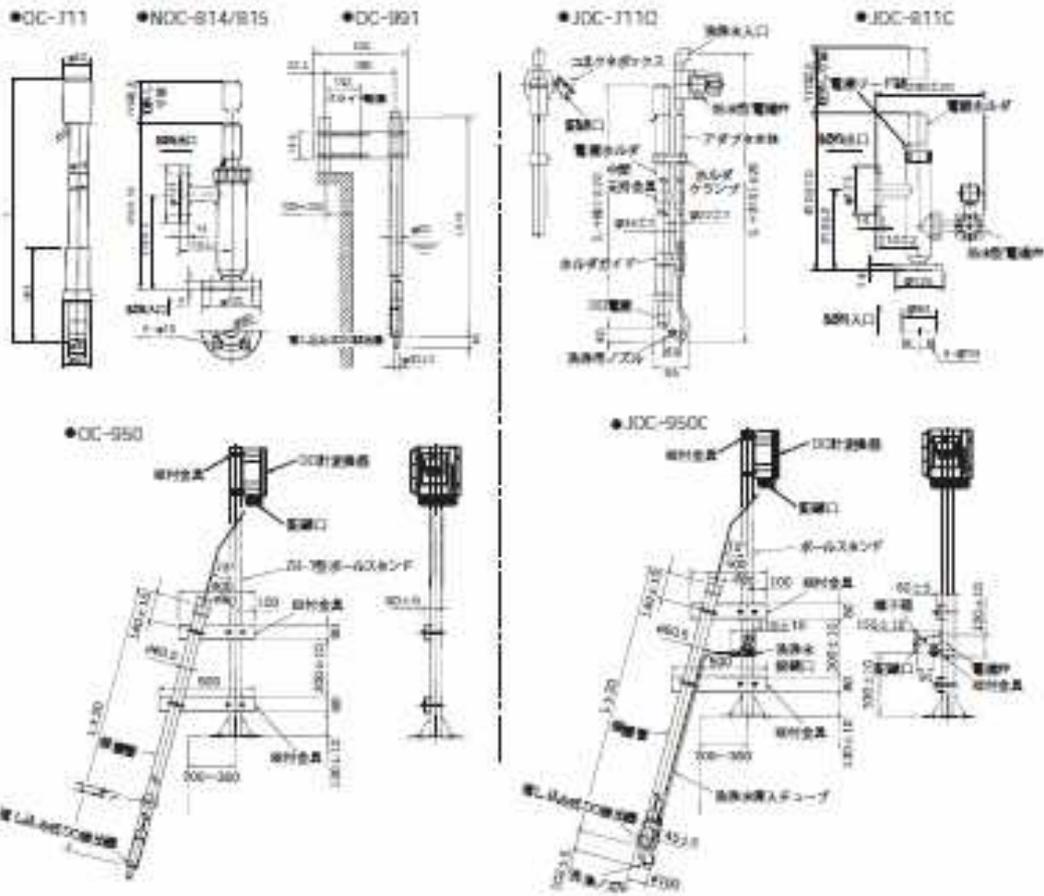
**ELECTRODE HOLDER STANDARD SPECIFICATIONS**

Product Name		Immersion type DO electrode holder	Flow-through type DO electrode holder	Flow-through type DO electrode holder	Drop-in DO electrode holder	Immersion type DO electrode holder with jet cleaner*	Flow-through type DO electrode holder with jet cleaner*	Throw-in DO electrode holder with jet cleaner*	
Model No		OC-711	NOC-814	NOC-815	OC-991 OC-950	JOC-711 C	JOC-811 C	JOC-950 C	
Cleaner		None				Included			
Cleaning Method		-						Cyclic air or water jet cleaning	
Cleaning water or air	Pressure	-						0.05~0.5 MPaG (sample pressure above 0.05~0.1MPaG)	
	Amount	Sample		Air		-			
						1.5~3.5l/mm		6~10L/min	
Installation		Immersion type	Flow-through type		Drop-in type	Immersion type	Flow-through type	Drop-in type	
Temp range	Sample	0~45°C (no freezing)						0~50°C	
	Ambient	-5~50°C						0~50°C	
Pressure Range		Ambient pressure	Below 0.15MPaG	Ambient pressure	Ambient pressure	Ambient pressure	Below 0.3MPaG	Ambient pressure	
Weight (Approx.)		1kg (Total length 1m)	2kg	5kg	3kg (Pipe: PVC)	4kg (Pipe: SUS 316)	3kg (Total length 1m)	5kg	5kg (Total length 1m)
Combined electrode		7533L (general use) or 7536L (for waste water treatment applications)							
Wetted materials		PVC, PP			PVC, PP, SUS316				
Connection specifications		-	25A JIS 10K FF	25A JIS 10K FF	-	-	25A JIS 10K RF	-	
Cleaning cycle		-						Refer to cleaning function of transmitter	
Cleaning time		-							
Power source		-						100V AC +/-10%, 50/60z	
Power consumption		-						Approx. 25VA	

\*Water or air jet-spray is applied onto the tip of electrode to clean the electrode.

**DIMENSIONS**

Unit: mm



● Option



● Option

