

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 polarographic and galvanic electrodes.
- Freely settable output range.
- Automatic judgement of electrode qualities during calibration.
- Error messages 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 disturb the control system. Automatic return to the measurement mode is available 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.

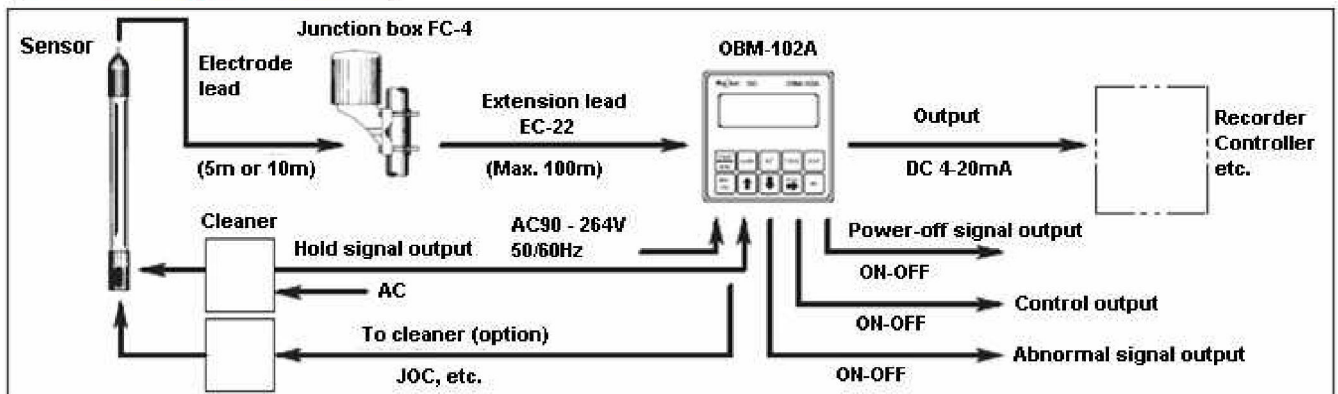
STANDARD SPECIFICATIONS

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



O ₂	: 0.0 to 30.0% (res. 0.1%) Display only (no output)
Temperature	: -10.0 to 60.0°C (res. 0.1°C) Display only (no output)
Temp. compensation	: 0 to 45°C
Output range: DO	: 0.00 to 50.00mg/L Upper limit is freely settable within 1.00 to 50.00mg/L at a 0.01mg/L unit
Performance	
Linearity	: Within ±1% FS
Repeatability	: Within ±0.8% FS
Control functions	
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
Power-off output	
When power-off	: Open contact signal
Contact capacity	: AC 250V, 3A or DC 30V, 3A or less (resistance load)

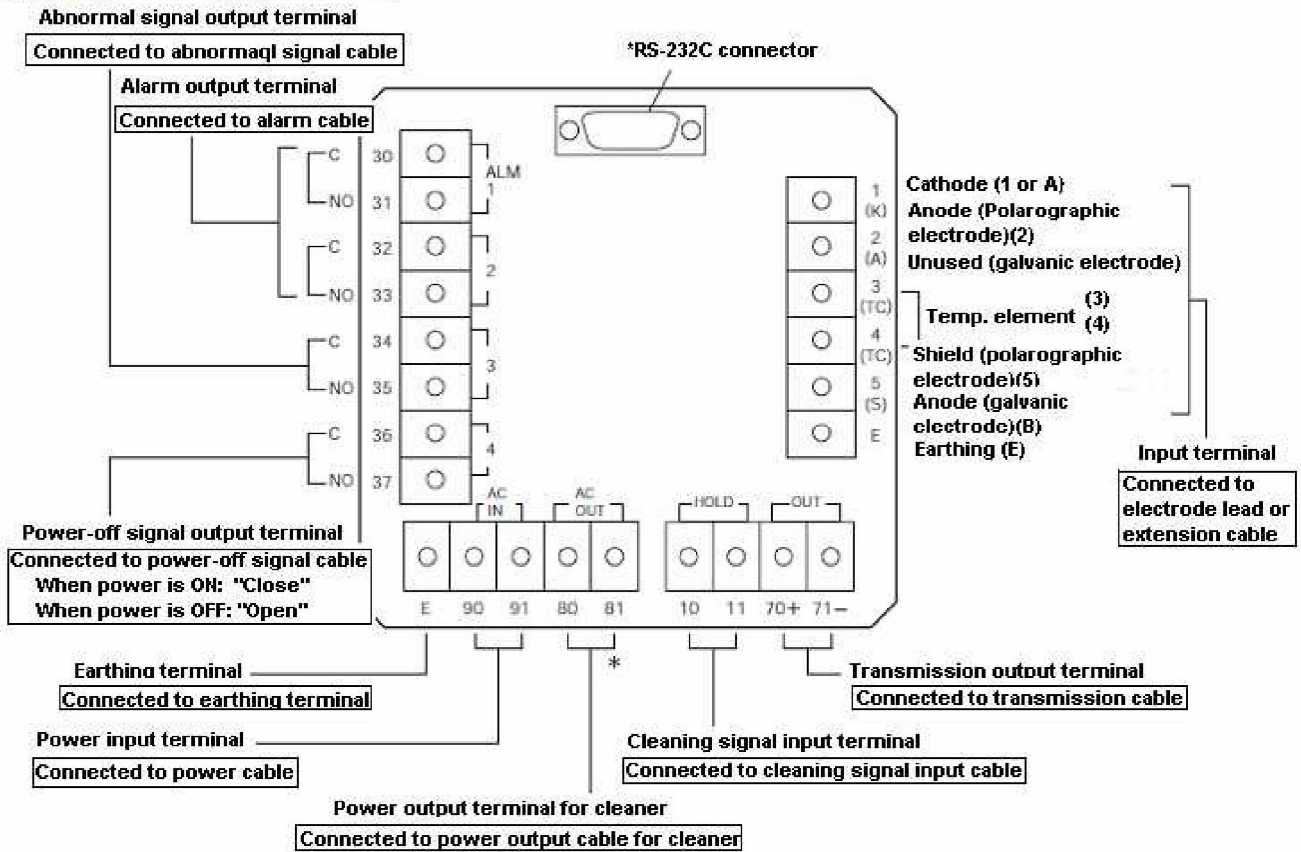
SYSTEM CONFIGURATION





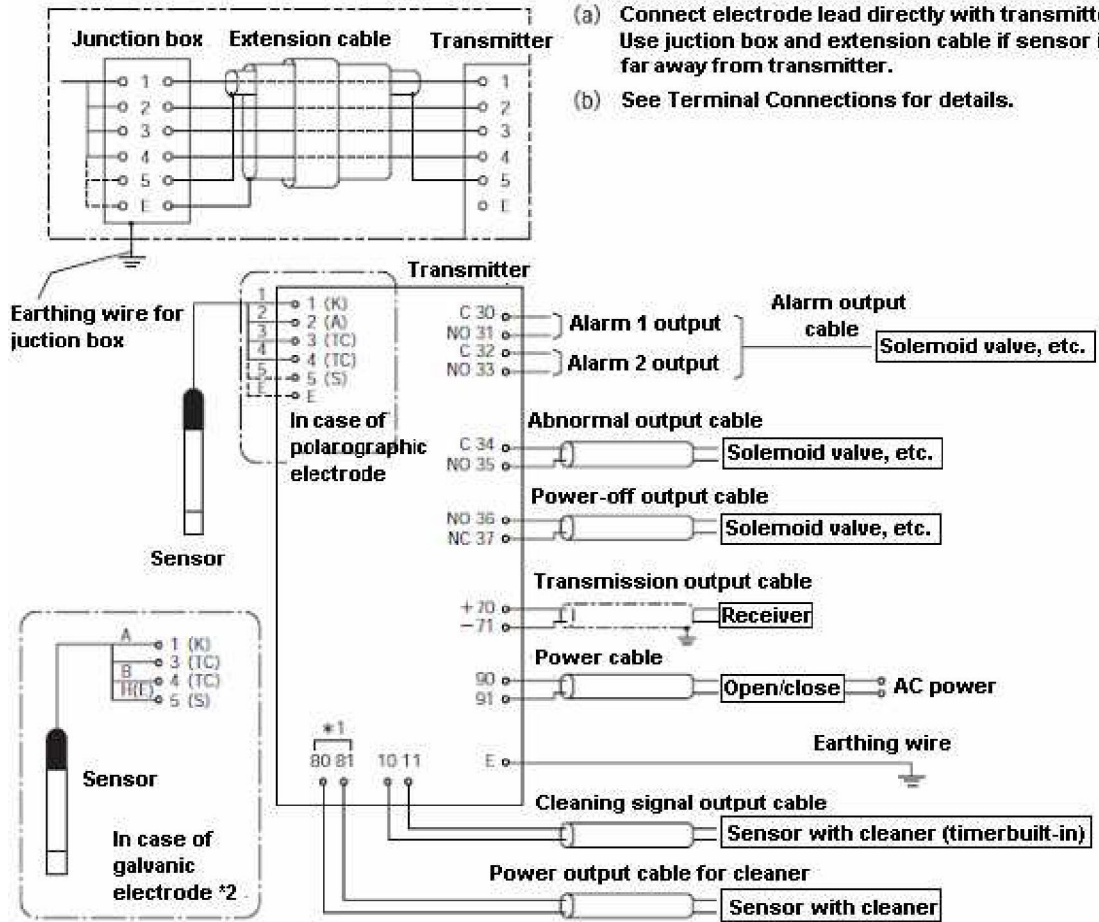
Input terminal during cleaning		Close contact signal, output holding, no-voltage contact	Processor	Microcomputer
Abnormal signal output		Close contact signal when sample tem. exceeds temp. compensation range.	Ambient conditions	-10 to 50°C, 90%RH or less
	Contact capacity	AC 250V, 3A or DC 30V, 3A or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



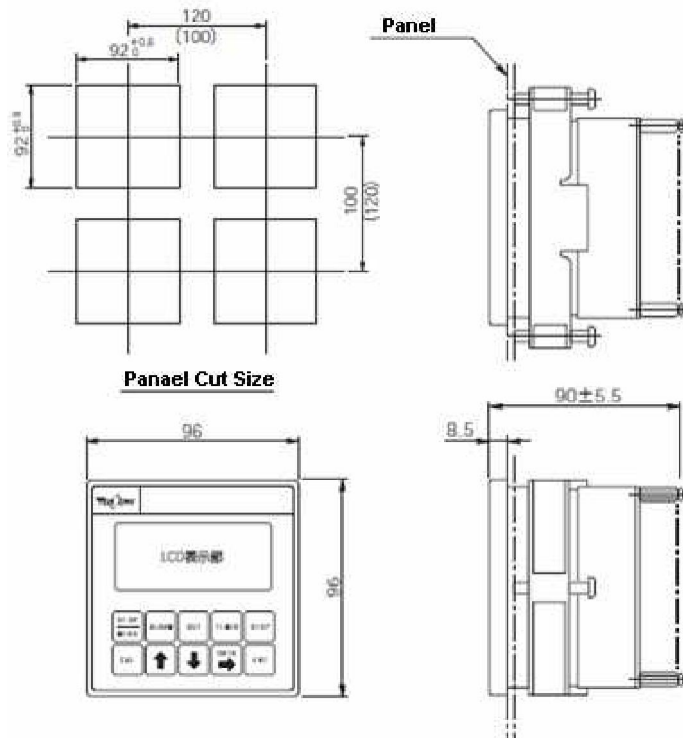
- (a) Connect electrode lead directly with transmitter. Use junction box and extension cable if sensor is far away from transmitter.
- (b) See Terminal Connections for details.

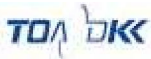
*1: Option

*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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1						Power source *1 AC 90 to 264V, 50/60Hz
A						Transmission output DC 4 to 20mA
B						DC 4 to 20mA & RS-232C interface
A						Electrode to be combined 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						DO measuring range (output range) 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						Alarm output 2-point alarm (2-circuit contact a) + abnormal signal (1-circuit contact a)
9						Special + power-off signal (1-circuit contact a)
1						Timer for cleaner *4 Nil
2						Equipped (combined with JOC-711C, etc.)
9						Special
0						Markings 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**

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

● **Extension cable**

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

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

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

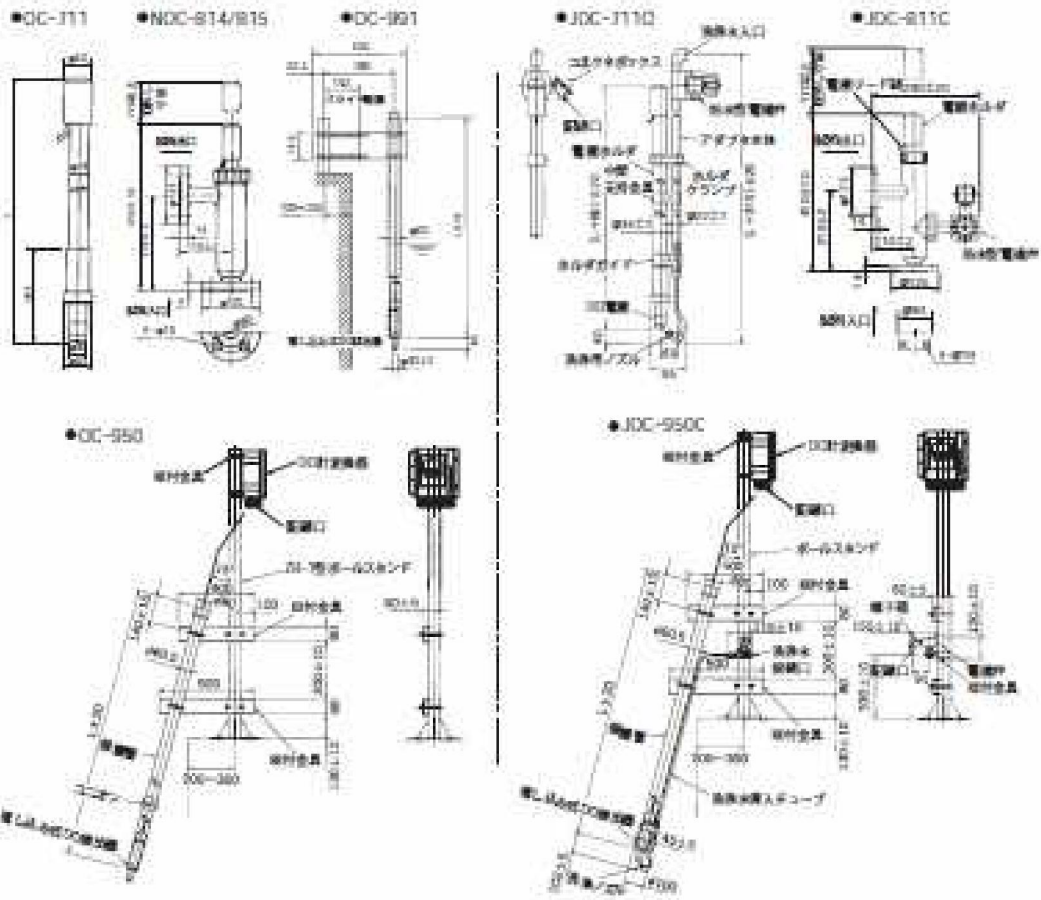
ELECTRODE HOLDER STANDARD SPECIFICATIONS

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	-					1.5~3.5l/mm			
		Air	-					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)									
	Ambient	-5~50°C					0~50°C				
Pressure Range		Ambient pressure	Below 0.1MPaG	Ambient pressure	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				

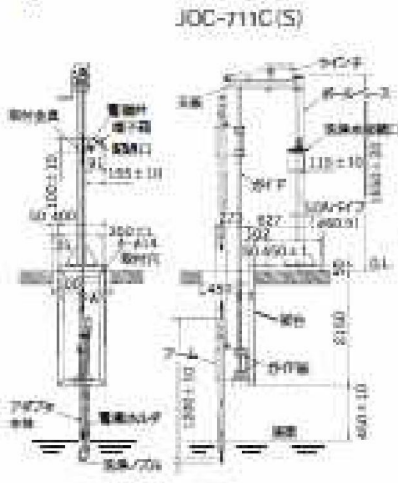
*Water or air jet-spray is applied onto the tip of electrode to clean the electrode.

DIMENSIONS

Unit: mm



● Option



● Option

