



Recorder



Flow



Pressure



Temp



Analyzer



Level

## Datasheet

### Disssolved oxygen meter

### SUP-DY2900/DY3000

# Supmea<sup>®</sup>

Committed to process automation solutions

Tel: 86-15158063876

E-mail: [info@supmea.com](mailto:info@supmea.com)

[www.supmea.com](http://www.supmea.com)

## Optical dissolved oxygen meter SUP-DY2900

Optical Dissolved Oxygen Online Analyzer, an intelligent online chemical analyzer, is widely applied for continuous monitoring and measurement of dissolved oxygen, saturation, oxygen partial pressure and temperature in the solution in the industry of thermal power, chemical fertilizer, environmental protection, metallurgy, pharmacy, biochemistry, food and water, etc.

### Applications

- Thermal power
- Chemical fertilizer
- Environmental protection
- Metallurgy
- Pharmacy

### Features

- Isolating transmitting output, with little interference.
- Isolating RS485 communication.
- DO/SAT measurement, temp measurement,
- Upper/lower limit control, transmitting output,
- Configurable upper/lower limit alarm and delay.
- Configurable hummer and LCD backlight switch.
- Air calibration.
- Automatic temperature compensation.



**SUP-DY2900**

### Principle

SUP-DY2900 Dissolved Oxygen Meter uses the latest Luminous Dissolved Oxygen measurement probes to provide reliable measurements. Continuous monitoring measurement data is connected with the recorder via transmitting output to realize remote monitoring and recording.

**Datasheet****Optical dissolved oxygen meter  
SUP-DY3000**

Optical Dissolved Oxygen Online Analyzer, an intelligent online chemical analyzer, is widely applied for continuous monitoring and measurement of dissolved oxygen, saturation, oxygen partial pressure and temperature in the solution in the industry of thermal power, chemical fertilizer, environmental protection, metallurgy, pharmacy, biochemistry, food and water, etc.

**Applications**

- Thermal power
- Chemical fertilizer
- Environmental protection
- Metallurgy
- Pharmacy

**Features**

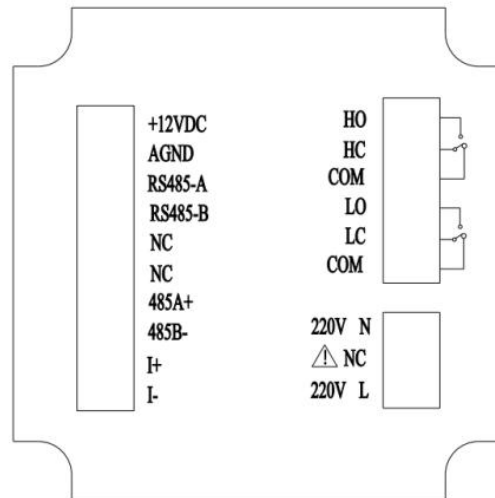
- Isolating transmitting output, with little interference.
- Isolating RS485 communication.
- DO/SAT measurement, temp measurement,
- Upper/lower limit control, transmitting output,
- Configurable upper/lower limit alarm and delay.
- Configurable hummer and LCD backlight switch.
- Air calibration.
- Automatic temperature compensation.

**SUP-DY3000****Principle**

SUP-DY3000 Dissolved Oxygen Meter uses the latest Luminous Dissolved Oxygen measurement probes to provide reliable measurements. Continuous monitoring measurement data is connected with the recorder via transmitting output to realize remote monitoring and recording.

Parameters	DY2900	DY3000
Dimension	100mm * 100mm * 150mm	100mm * 100mm * 150.5mm
Display	2.8-inch monochrome LCD screen, resolution 128*64	
Weight	0.65kg	
Temperature accuracy	±0.5℃	
Measure range	DO :(0~20)mg/L Saturation:(0~200)%	
Mounting panel thickness	1.5mm~13mm	
Accuracy	±3%FS	
Measured variable	DO and saturation	
Signal output	Isolated, 4 - 20mA current transmission output, Max. loop resistance: 500Ω, output accuracy 0.2%FS	
Relative humidity	10%~85% (No condensation)	
Communication	Isolated, RS485 Modbus-RTU	
Power supply	AC220V±10%, 5W Max, 50Hz	
Relay out	Break away/pick up 2 channel, AC250V/3A	
Working temperature	(0~60)℃	
Storage	Temperature: (-15~65)℃ Humidity: (5%~85%)RH (No condensation) Altitude: <2000m	

## Wiring



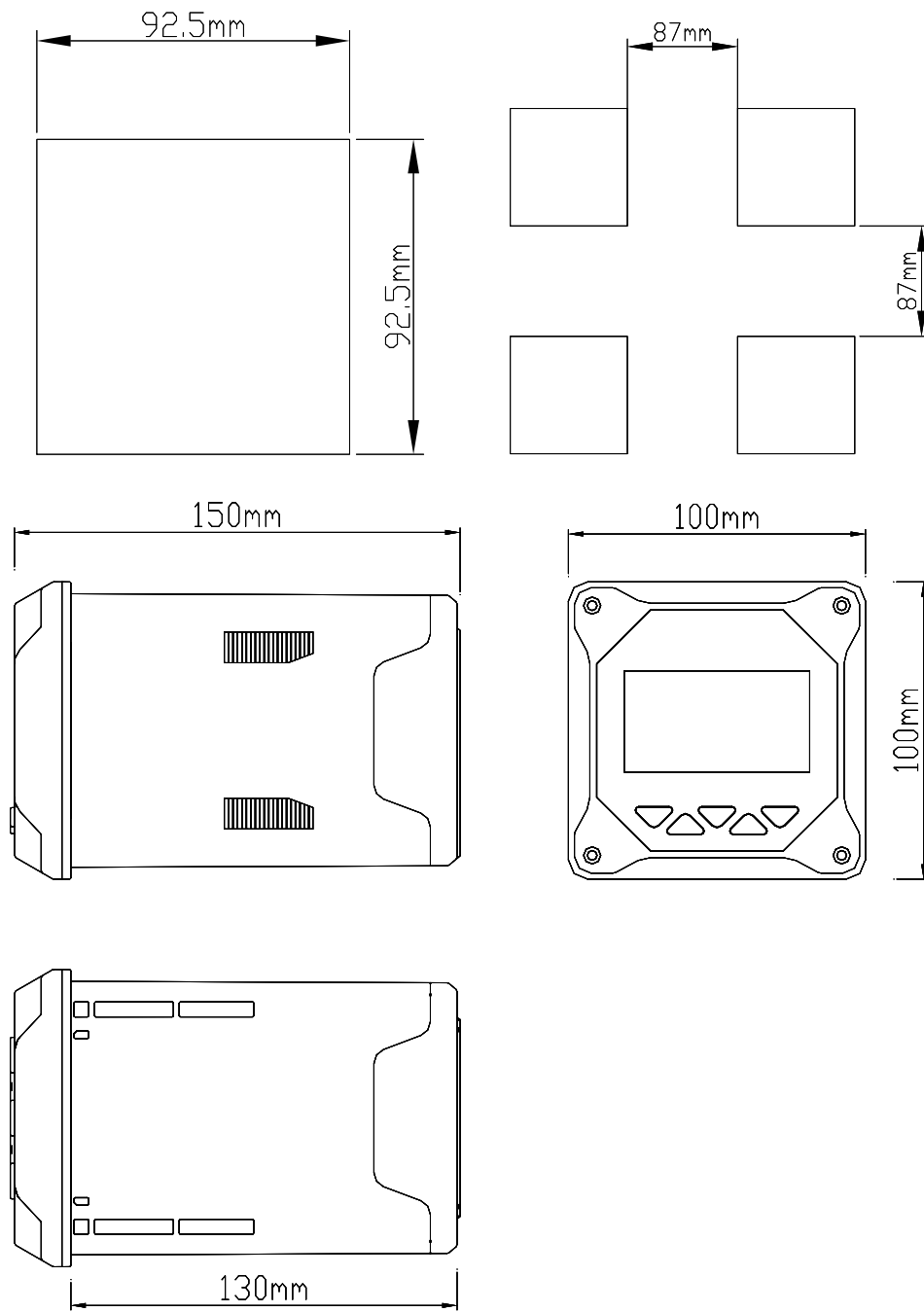
### Identification of terminal

- +12VDC: Power supply of dissolved oxygen electrode
- AGND: Power negative of dissolved oxygen electrode
- RS485-A: Dissolved oxygen electrode communication-A
- RS485-B: Dissolved oxygen electrode communication-B
- NC: Null
- NC: Null
- RS485(A+): RS485 communication interface A+
- RS485(B-): RS485 communication interface B-
- I(+): 4-20mA output +
- I(-): 4-20mA output -
- HO: High alarm of normal open relay
- HC: High alarm of normal close relay
- COM: Common terminal
- LO: Low alarm of normal open relay
- LC: Low alarm of normal close relay
- COM: Common terminal
- 220V N: AC220V neutral wire
- NC: Null
- 220V L: AC220V live wire

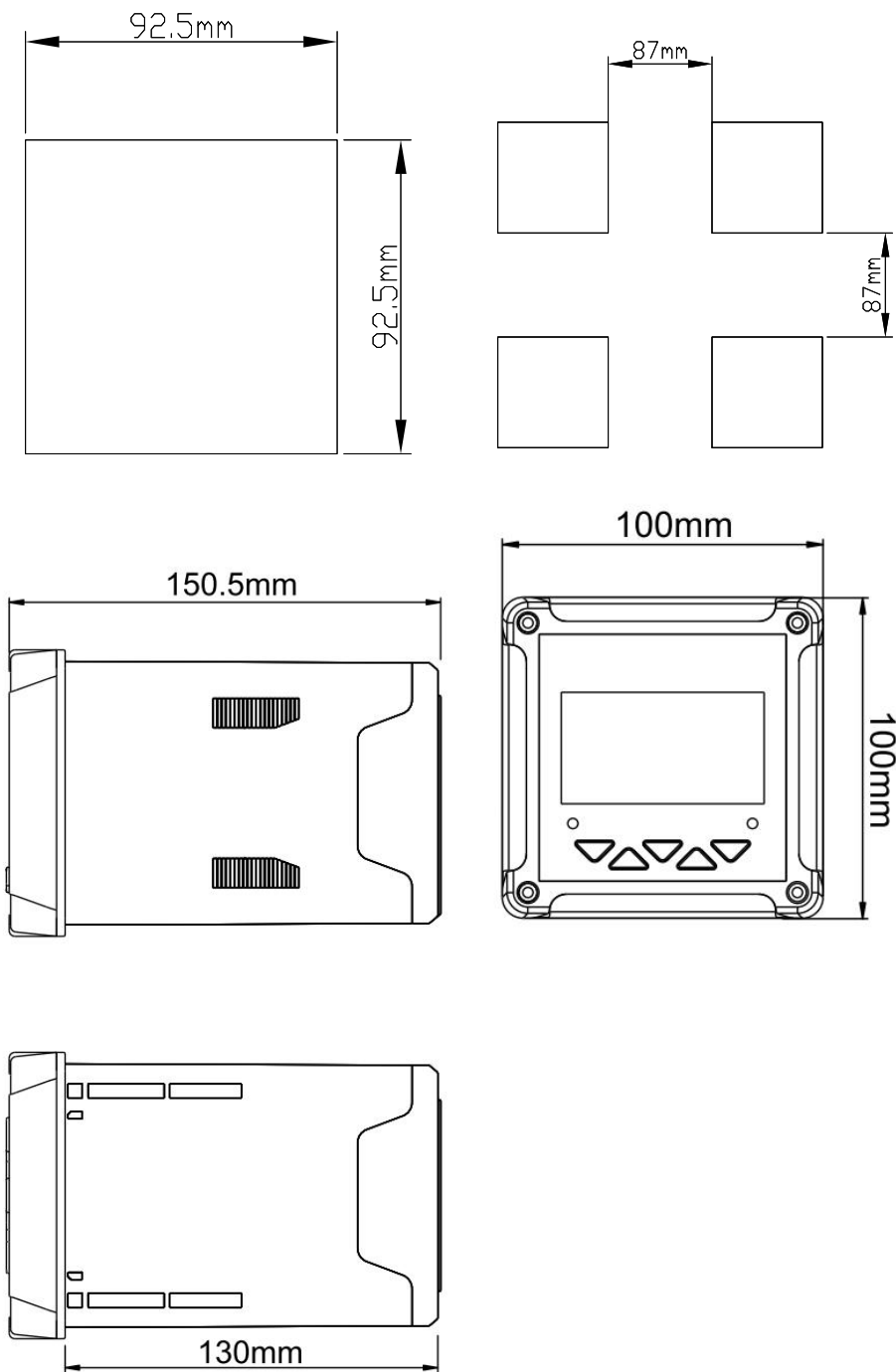
### Attention

- Confirm that the instrument is not power on before connected with signal wire, to avoid electric shock.
- Use double insulation wire to prevent fire accident.
- Do not put electric product close to signal terminal, which may cause failure.

Dimension



DY2900



DY3000

Button display








★ DY2900

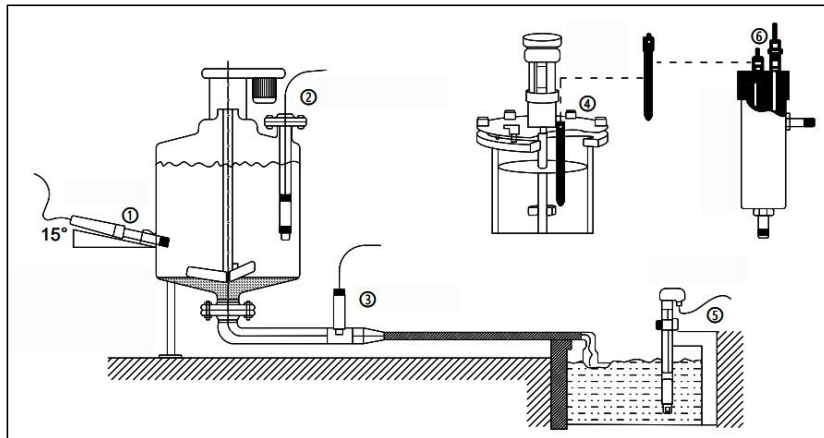


★ DY3000

Definition of buttons

Sign	Button name	Key function
	EXIT	Under "Monitoring interface" - Alarm view Under "Menu interface" - Return to the previous interface
	RIGHT	Make a recurrent selection of digit of parameters modify the original indication value
	MENU	Under "Monitoring interface" - Enter the MENU Under "Menu interface" - Exit the MENU
	DOWN	Under "menu interface" - Select the related menu Modify the values in the configuration state
	ENTER	Under "Menu interface" - Enter the sub-menu or confirm modification



**Installation****Electrode installation(DY2900/ DY3000)**

Schematic diagram of common installation method

- ①Side wall installation ②Flange mounted at the top③Pipe installation ④Top installation ⑤Submersible installation  
⑥Flow-through installation

The interface must be in 15 oblique angle, or it will affect the normal test and use of the electrode.We won't be responsible for any results due to this.

**Applications**



**Drinking water plant**



**Aquaculture**



**Wastewater treatment plant**



**Chemical Plant**

**Ordering code**

SUP-DY2900/3000-O1-D1-A2-V1											Description		
SUP-DY2900/3000	-	-	-	-	-	-	-	-	-	-	-	-	
Type	DY2900												-
	DY3000												-
Signal Output	O1												4 ~ 20mA output
Communication	D1												RS485
Relay Output	A2												2 Chanel Relay Output
Power supply					V1								220VAC(198~242VAC)
					V4								110VAC(99~121VAC)