



Recorder



Flow



Pressure



Temp



Analyzer



Level

Datasheet

Dissolved Oxygen Sensor

SUP-DO7017

Supmea[®]

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Datasheet**Dissolved oxygen sensor
SUP-DO7017**

DO7017 Optical dissolved oxygen sensor is widely used in DO on-line monitoring of various technological processes such as regulating pools, biochemical ponds, and effluent in sewage treatment plants; DO on-line monitoring in waterworks, surface water, water in various industrial production processes, aquaculture and other industries.

Applications

- Wastewater
- Surface water
- Regulating pools
- Biochemical ponds
- Industrial production processes

Features

- Optical technology without calibration
- Digital technology (Modbus RS485)
- No drift, reduced maintenance
- Body in stainless steel(316L)

**Dissolved oxygen sensor****Principle**

The dissolved oxygen sensor measures dissolved oxygen by fluorescence method. The top of the sensor is covered with a layer of fluorescent material. When the blue light emitted by the sensor is irradiated to the fluorescent material, the fluorescent material is excited and emits red light. Since oxygen molecules can take away energy (quenching effect), the time and intensity of the excited red light are inversely proportional to the concentration of oxygen molecules, and the concentration of dissolved oxygen in water can be obtained by calculation.

Parameters	
Product	Dissolved Oxygen sensor
Model	SUP-DO7017
Measure range	0.00 to 20.00 mg/L
Resolution	0.01mg/L
Power supply	(10-25) VDC
Operating temperature	0°C to 45°C (unfrozen)
Stocking temperature	-15°C to + 60°C
Signal interface	Modbus RS-485
Repeatability	±0.3mg/L
Ingress protection	IP68/NEMA6P
Material	SUS316L
Pressure range	≤0.1MPa
Cable	10m(standard),100m(optional)

Wiring

Sensor:

Core number	1	2	3	4	5
Sensor wire	Brown	Black	Blue	White	Yellow+Green
Signal	+12VDC	AGND	RS485A	RS485B	Ground wire

Ordering code

SUP-DO7017-A-B-10-M3														Description	
SUP-DO7017	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Type	DO7017														Measurement Range: (0-20) mg/L
Output	A														Temperature Range: (0-45) °C
Power Supply	B														Pressure Resistance: 0.1MPa
Cable Length					10										RS485
					20										12VDC
					30										10m
					XX										20m
															30m
Housing Material													M3		Other
															SS316L