Datasheet

Inductive conductivity electrode

SUP-ADE3500

Supmea®

Committed to process automation solutions

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Datasheet

Inductive conductivity electrode

SUP-ADE3500

Inductive conductivity electrodes are mainly used to measure conductivity and concentration values in liquid media. This product is a digital online analysis sensor that integrates measurement and communication with an instrument embedded inside the sensor. It directly outputs RS485 digital signals (final net data) and can realize distortion-free data transmission to industrial computers, PLCs, touch screens, etc., digitizing Sensors will be directly integrated into the Internet+ system.

Applications

- Wastewater
- landfill leachate
- Electricity
- Pharmaceutical
- Chemical industry
- Water treatment
- Water quality monitoring

SUP-ADE3500

Features

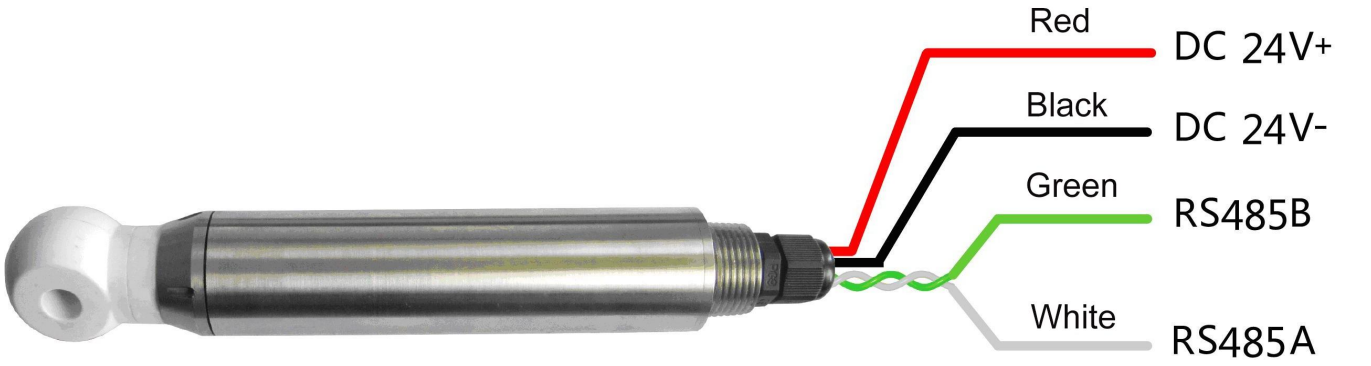
- RS485 output, Modbus protocol.
- Directly output measurement data (no instrument required).
- Directly communicates with computers, configuration systems, wireless modules, and PLCs.
- Visual PC setting software, address and baud rate settings.
- Can be directly connected to universal controller
- Micro-encapsulation technology embeds the measurement unit in the sensor connector.

Principle

Use the principle of electromagnetic induction to reflect the relationship between electrolytic solution concentration and conductivity to achieve the measurement of solution concentration.

Parameters		
Measurement		Conductivity, concentration, TDS, temperature
Measuring range	Conductivity	500μS/cm~2000mS/cm
	Concentration	NaOH：(0~15)% or (25~50)%
		HNO3：(0~25)% or (36~82)%
		User-defined
	Temperature	（0～50）℃
Accuracy	Conductivity	（500～1999）μS/cm，±1.5%FS
		（2～2000） mS/cm，±1.0% FS
	Temperature	±0.5℃
Temperature compensation	Compensation element	Pt1000
	Range	（0～50）℃ linear compensation
Communication output		RS485
Process pressure		≤0.5MPa
Power supply		（20~28）VDC
Power consumption		≤2W
Ingress protection		Electrode: IP68 Cable interface: IP65
Working environment		Temperature: (0～50)℃ Humidity: ≤95%RH (no condensation)
Storage environment		Temperature: (-20～60)℃ Humidity: ≤85%RH (no condensation)
Cable length		10m（standard），others customizable

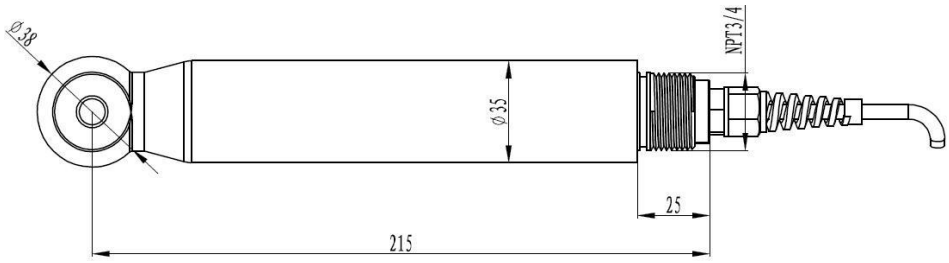
Wiring



Wiring definition

Color	Definition
Red	DC 24V+
Black	DC 24V-
Green	RS485B
White	RS485A

Dimension



Unit:mm

Material:

Electrode material: PEEK/PVDF.

Shell material: 316LSS/PEEK/PTFE

Ordering code

SUP-ADE3500-DP-NF-4-A-C-10-PA														Description
SUP-ADE3500														Concentration: NaOH, (0~15)% or (25~50)%; Concentration: HNO3, (0~25)% or (36~82)%; Temperature range: (0～120)℃，±0.5℃. Pressure resistance: 0.5MPa
Measuring range	DP													500 μS/cm~2000mS/cm Accuracy:(500~1999) μS/cm，±1.5%FS；（2~2000）mS/cm，±1.0%FS
Electrode material		NF												PVDF (Shell material is only available in PTFE)
		NZ												PEEK (Shell material optional PEEK or 316LSS)
Temperature compensation			4											PT1000
Output				A										RS485
Power supply					C									24VDC (20~28)VDC
Cable length						10								10m
						15								15m
						20								20m
						XX								others
Housing material and process connection							PA							PTFE, NPT3/4
							PK							316LSS, NPT3/4
							PP							PEEK, NPT3/4