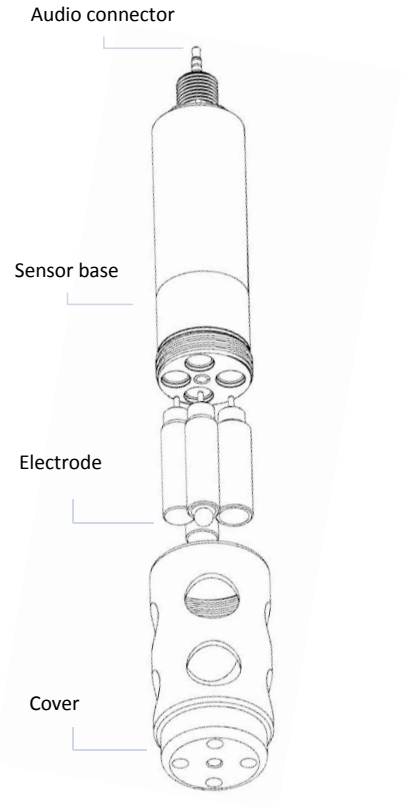
BROADSENSOR
蛙视传感

Digital NH4+ pH ORP/K+ 3-in-1 combo Sensor



Broadsensor online ISE (NH4+ pH ORP/K+) sensor with integrated digital electronics for plug and play capability with Broadsensor multi-parameter sonde platform and IP68 connector to any PLC or RTU.
It has a unique design that incorporates a user-replaceable electrode tip (module) and a reusable sensor base that houses the processing electronics. This allows users to reduce the costs and easy to maintain.

Key Advantages:

- Polymer membrane ISE ammonium and potassium electrode.
- a potassium chloride (KCl) solution reference.
- Isolator and NTC10K inside, easy to use.
- User-replaceable ammonium, potassium, pH, ORP, reference electrode, reusable sensor base.
- RS485 output, Modbus protocol.
- IP68 connector.
- All parts designed and made by Broadsensor including ISE.

Note: Freshwater application only.

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Technical Specifications

Measurement Method	Polymer membrane ISE electrode, glass pH, platinum ORP and KCL reference
Range	0.5-1000ppm NH_4+/0-14 pH/-999~+999mV ORP/0.5-1000ppm K+
Resolution	0.01ppm/0.01pH/1mV/0.01ppm
Accuracy	5%FS /±0.2pH/±20mV/5%FS (freshwater, conductivity<1500uS/cm)
Operating temperature	5~45℃
Storage Temperature	-10~50℃
Min. Detection Limit	0.05ppm/NA/NA/0.05ppm
Warranty	1 year(sensor base and ORP), 3 months (electrode)
Depth	IP68, 10m Max
Power	DC 5V ±5%, 0.5W(normal)
Output	RS485 and Modbus RTU
Materials	POM, TA
Dimensions	Length 186mm, diameter 35.3mm
Flow rate	< 3 m/s
Response time	Minimum 45s T90
Field life*	Sensor base 2 years or greater, NH_4+/K+ 6 months, pH/Ref electrode 12 months or greater
Recommended Calibration maintain Frequency *	NH4+/K+ 2-3 weeks, pH/Ref 4-8 weeks

Note: *Field life and calibration frequency dependent on site conditions.

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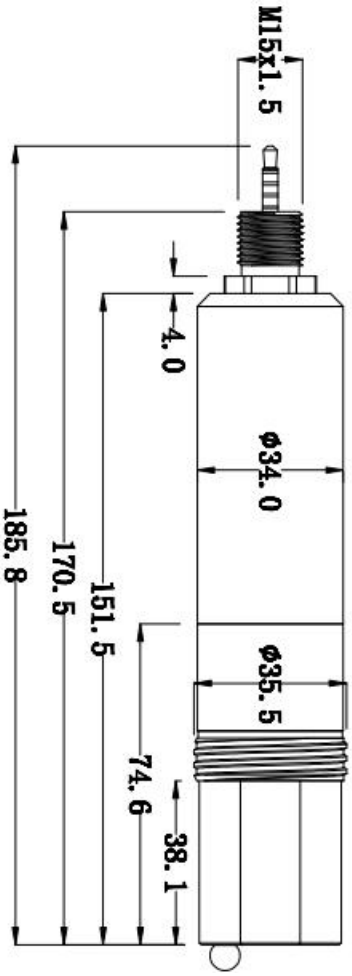
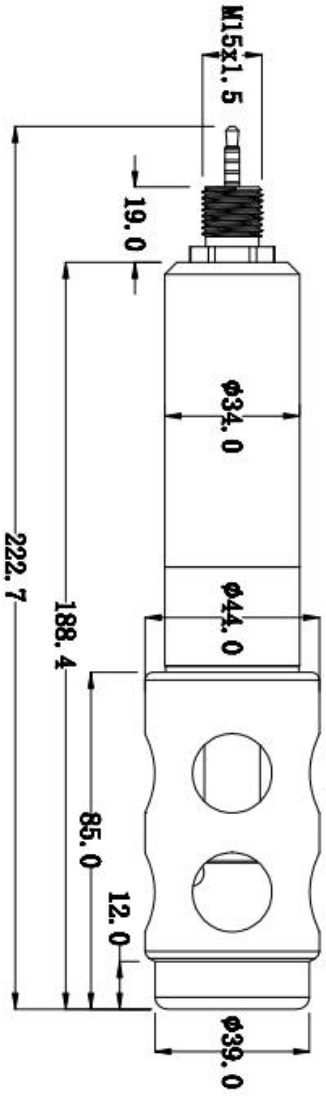
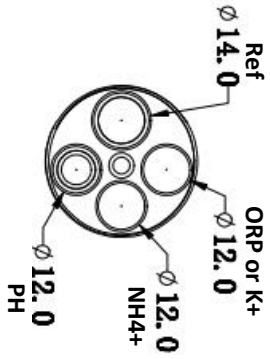
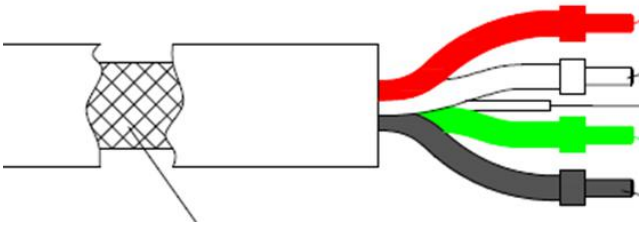






Note:
1, Unit: mm
2, Tolerance: ±0.2mm



Red--VCC
White--RS485-B
Bare—Shielding
Green--RS485-A
Black--GND

Maintenance and ordering information

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Sensor	Clean frequency*	Clean frequency**	Check inside humidity	Replace O-ring	Calibration frequency	Replace consumable part
Optical DO	1-4 days	4-8 weeks	6 months	12-24 months	6 months	24-36 months
Conductivity	4-8 weeks	4-8 weeks	6 months	12-24 months	6 months	No consumable part
Turbidity	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
Chlorophyll a	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
BGA	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
NH4-N	0.5-3 days	4-8 weeks	6 months	12-24 months	2-3 weeks	3-6 months
pH	0.5-3 days	4-8 weeks	6 months	12-24 months	4-8 weeks	6-12 months
UV254 COD	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
Oil in water	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
CDOM/fDOM	0.5-3 days	4-8 weeks	6 months	12-24 months	3 months	No consumable part
Wiper	4-8 weeks	4-8 weeks	NA	18 months	NA	18 months***

Note:
1, * is without wiper system
2, ** is with wiper system.
3, *** are dynamic sealing parts
4, The O-ring between sensor and cable is required to replace every 12 months.
5, Field life and calibration frequency dependent on site conditions.

Order info:
PN: 620911 NH4+/pH 2 in 1 combo sensor
PN: 620911 -O NH4+/pH ORP,3 in 1 combo sensor
PN: 620911 -K NH4+/pH/K+, 3 in 1 combo sensor
PN: 810006-NH sensor cover
PN: 720910-N NH4+ electrode
PN: 720910-K K+ electrode
PN: 720910-P Single pH electrode
PN: 720910-O Single ORP electrode
PN: 720910-R Reference electrode
PN 810005-xx PUR cable(audio connector)
xx is cable length, unit is meter

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