HC-200N Specifications

Product name	Ammonia/Nitrate Nitrogen Meter
Transmitter model	HC-200N

Ammonia nitrogen

Sensor model	AM-2000-A: Ammonia nitrogen sensor
Sensor tip model	7691: Ammonium ion tip, 7692: Potassium ion tip for compensation, 7211: Reference tip
Measurement range	Concentration: 0 mg/L to 1000 mg/L (display range: 0 mg/L to 2000 mg/L)
	Temperature: 0°C to 40°C (display range: -10°C to 110°C)
Display resolution	Concentration: 0.01 mg/L: 0.00 mg/L to 10.00 mg/L, 0.1 mg/L: 0.0 mg/L to 100.0 mg/L, 1 mg/L: 0 mg/L to 1000 mg/L
	Temperature: 0.1°C
Repeatability	Concentration: ±3% or ±0.2 mg/L, whichever is greater for the readings (standard solution)
	Temperature: ±0.3°C (equivalent input)
Temperature compensation	Compatible temperature element: platinum resistor: 1 kΩ (0°C)
	Temperature measurement range: 0°C to 40°C
	Temperature calibration function: 1 point calibration for comparison with the reference thermometer
Potassium ion concentration compensation	Compensation range: the potassium ion concentration is not more than 10 times the ammonium ion concentration and 1000 ppm or less
	Compensation error: ±20% (reading)
Measurable pH range	pH 4 to pH 8
Calibration	Reference solution calibration of the ammonia nitrogen (2 points)
	Type of the reference solution: select 1 mg/L to 10 mg/L or 10 mg/L to 100 mg/L
	Additional functions: automatic defect calibration judgment, calibration history
Adjustment	Sample adjustment using manual analysis (1 point, 2 points*1), standard curve input function (primary system)
	Additional functions: adjustment history (number of days elapsed from the previous adjustment, sample adjustment coefficient)
Abnormal detection	Calibration error, sensor diagnosis error, transmitter error

*1 When AM-2000 is connected, the 2-point sample adjustment function becomes unavailable.

Nitrate nitrogen

Sensor model	NO-2000: Nitrate nitrogen sensor
Sensor tip model	7693: Nitrate ion tip, 7694: Chloride ion tip for compensation, 7211: Reference tip
Measurement range	Concentration: 0 mg/L to 1000 mg/L (display range: 0 mg/L to 2000 mg/L)
	Temperature: 0°C to 40°C (display range: -10°C to 110°C)
Display resolution	Concentration: 0.01 mg/L: 0.00 mg/L to 10.00 mg/L, 0.1 mg/L: 0.0 mg/L to 100.0 mg/L, 1 mg/L: 0 mg/L to 1000 mg/L
	Temperature: 0.1°C
Repeatability	Concentration: ±3% or ±0.2 mg/L, whichever is greater for the readings (standard solution)
	Temperature: ±0.3°C (equivalent input)
Temperature compensation	Compatible temperature element: platinum resistor: 1 kΩ (0°C)
	Temperature measurement range: 0°C to 40°C
	Temperature calibration function: 1 point calibration for comparison with the reference thermometer
Chloride ion concentration compensation	Compensation range: when the chloride ion concentration is 100 times greater than the nitrate ion concentration, a compensation factor must be applied to account for interference
	Compensation error: ±20% (reading)
Measurable pH range	pH 2 to pH 12
	When the pH is between pH 2 to pH 4 or pH 9 to pH 12, use sensor cap AM-CAP-PVC. Chloride tip can be used in the pH 2 to pH 8. However, when used at pH 2 to pH 4, the lifetime of the tip may be shortened.
Measurement inhibitors	Component: if the surfactant concentration is 10 mg/L or higher, sensor performance may degrade, and measurement may not be possible
Calibration	Reference solution calibration of the ammonia nitrogen (2 points)
	Type of the reference solution: select 1 mg/L to 10 mg/L or 10 mg/L to 100 mg/L
	Additional functions: automatic defect calibration judgment, calibration history
Adjustment	Sample adjustment using manual analysis (1 point, 2 points), standard curve input function (primary system)
	Additional functions: adjustment history (number of days elapsed from the previous adjustment, sample adjustment coefficient)
Abnormal detection	Calibration error, sensor diagnosis error, transmitter error

Ammonia nitrogen sensor

Model	AM-2000-A
Measurement range	Temperature: 0°C to 40°C (no freezing)
Measurement depth	0 m to 10 m
Material	SUS316, FKM, PVC
Mass	Approx. 2.7 kg (including 10 m cable)

Nitrate nitrogen sensor

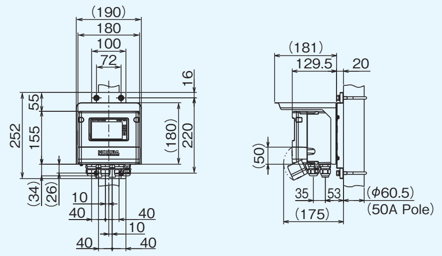
Model	NO-2000
Measurement range	Temperature: 0°C to 40°C (no freezing)
Measurement depth	0 m to 10 m
Material	SUS316, FKM, PVC, POM
Mass	Approx. 2.7 kg (including 10 m cable)

Common specifications (transmitter)

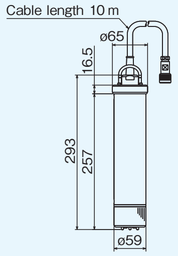
Transmission output	3 points, 4 mA to 20 mA DC, input/output isolation type, 900 Ω (max) Select 3 items from below. Ammonia nitrogen concentration: arbitrary setting within the measurement range is possible Nitrate nitrogen concentration: arbitrary setting within the measurement range is possible Chloride concentration: arbitrary setting within the measurement range is possible Temperature reading of the ammonia nitrogen meter: arbitrary setting within the range from –10°C to 110°C is possible Temperature reading of the nitrate nitrogen meter: arbitrary setting within the range from –10°C to 110°C is possible
Operating temperature range	–20°C to 55°C (no freezing)
Power supply	100 V to 240 V AC ±10% 50/60 Hz, Power consumption: 28 VA (max)
Compatible standards	CE marking, FCC Rules
Structure	Outdoor installation type, IP65, 50A pole-mounted or wall-mounted, material of case: aluminium alloy, material of the mounting brackets and hood: SUS304
Mass	Mainframe: approx. 3.5 kg, hood, mounting bracket: approx. 1 kg

External dimensions (unit: mm)

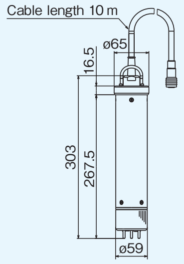
● Transmitter
HC-200N



● Ammonia nitrogen sensor
AM-2000-A



● Nitrate nitrogen sensor
NO-2000



Spare parts

Model	Product name
7691	Ammonium ion tip
7692	Potassium ion tip
7693	Nitrate ion tip
7694	Chloride ion tip
7211	Reference tip
C-7211	Junction cap for 7211
NO-CAP-POM	NO-2000 spare part (sensor tip)
AM-CAP-PVC	AM-2000-A spare part (sensor tip)

IMS HORIBA Group is certified Quality Management System ISO9001, Environmental Management System ISO14001, and Occupational Health and Safety Management System ISO45001 and operate as Integrated Management System (IMS).

Please read the operation manual before using this product to assure safe and proper handling of the product.

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HORIBA

NEW

Outdoor-use type Water quality meter

H-1 Series

Ammonia/Nitrate Nitrogen Meter

HC-200N NH_4-N NO_3-N

Ammonia Nitrogen and Nitrate Nitrogen concentrations are Measured Simultaneously with Stability and Durability

Outdoor-use type **Water quality meter** H-1 Series

Ammonia/Nitrate Nitrogen Meter

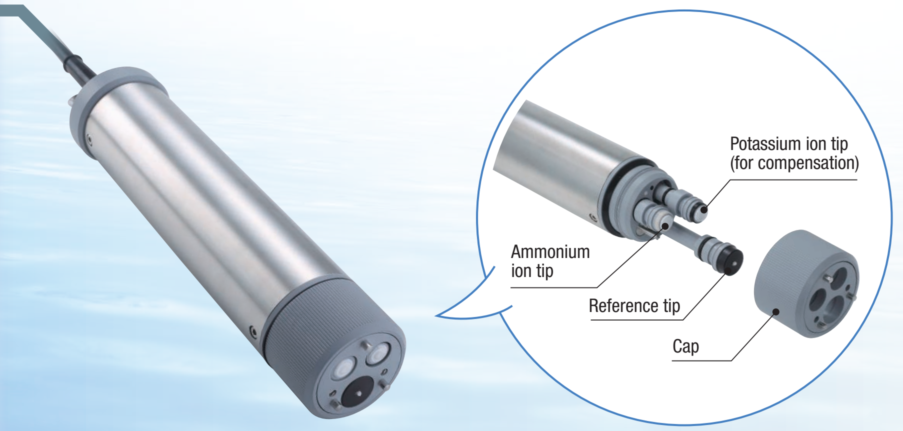
HC-200N NH₄-N NO₃-N

Key Points
- Replaceable tip without the need for tools
- Unique tip internal solution enables stable measurement
- Sample adjustment function
- No measurement reagent necessary

Ammonia nitrogen sensor AM-2000-A

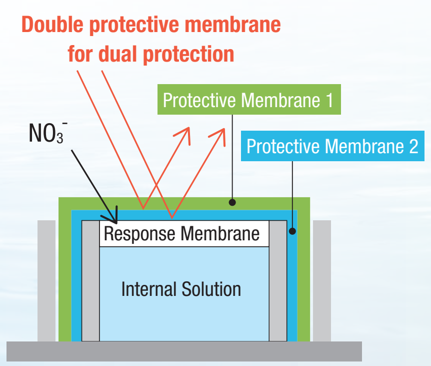
Flat sensor surface[*1] prevents bubbles and stain accumulation. Sensor degradation diagnosis[*1*2] during measurement reduces the risk of sudden shutdowns.

*1 Patent applied with the Tokyo Metropolitan Government Bureau of Sewerage.
*2 Compatible with ammonia nitrogen sensors only.



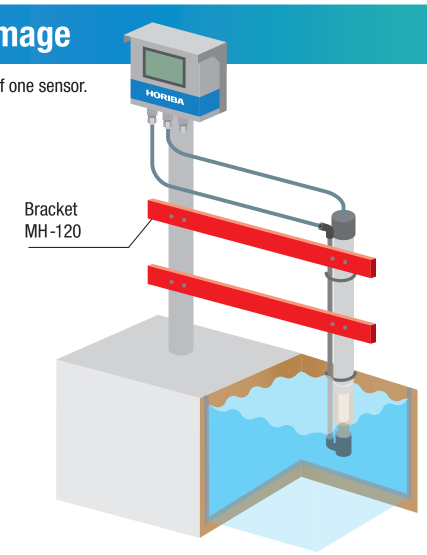
Nitrate nitrogen sensor NO-2000

Uses HORIBA's unique double protective structure.
The double protective membrane makes it dirt-resistant and highly durable.



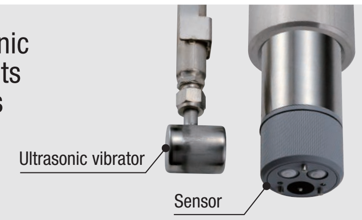
Installation Image

*Image shows installation of one sensor.



Using it with the ultrasonic cleaner UH-16A* prevents dirt buildup and reduces maintenance burden.

*Optional



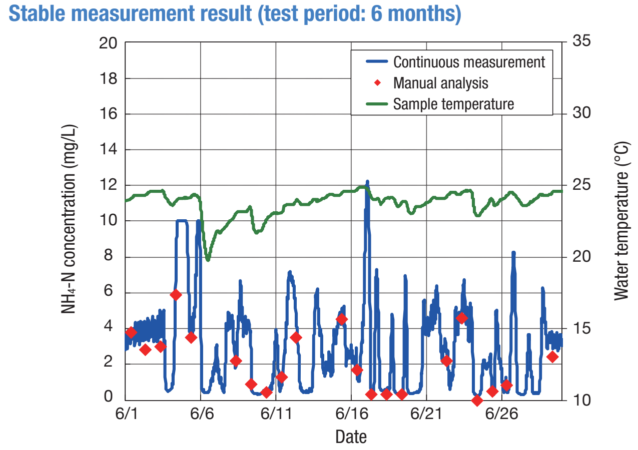
Field Test Data

Confirmed correlation with manual analysis in field tests. Good correlation was evident for both ammonia nitrogen and nitrate nitrogen.

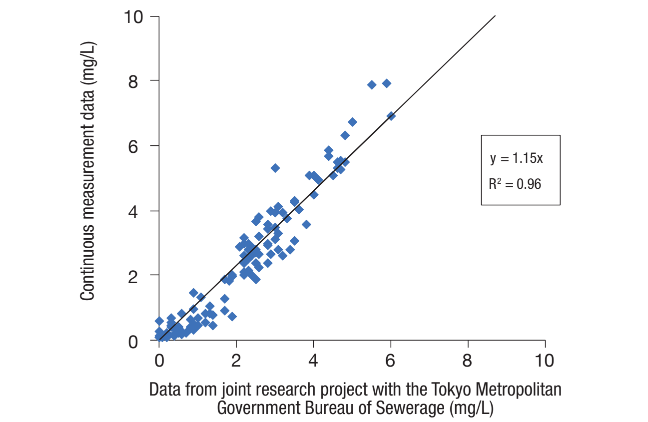
Ammonia nitrogen

Data from joint research with the Tokyo Metropolitan Government Bureau of Sewerage

Stable measurement result (test period: 6 months)



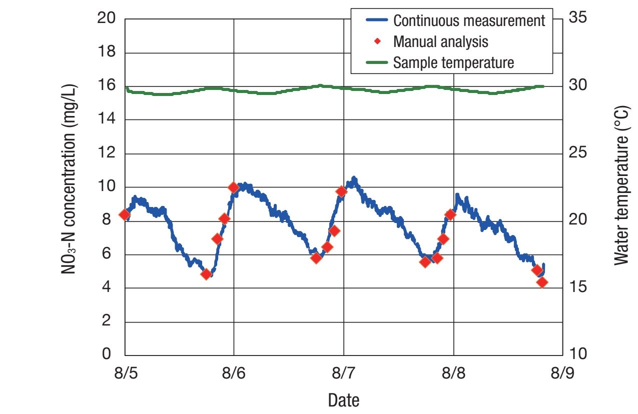
Manual analysis correlation



Nitrate nitrogen

HORIBA evaluation data

Stable measurement result (test period: 6 months)



Manual analysis correlation