Ammonium- und Nitratsensor: ISE-Kombisensor - WTW





Ammonium and nitrate sensor: ISE combination sensor
Rating: Not Rated Yet
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ManufacturerBorgmann Aquaponik Hydroponik

Description

ISE combination sensor for ammonium and nitrate - WTW

Digital ISE sensor for NH4 and NO3

- ISE: Ion selective electrode
- Digital ISE sensor for NH4 and NO3
  Reagent-free ammonium and nitrate ion-selective measurement with automatic compensation of

potassium/chloride with the VARiON® Plus 700 IQ:
• Ammonium and nitrate measurement directly in the process
• Simultaneous compensation of potassium, chloride
• No sampling, reagent-free
• Calibration-free , long-term stable



The particularly stable electrodes guarantee a long service life and easy cleaning. To measure, simply install the corresponding electrode into the IQ SENSOR NET sensor; everything else happens automatically. The values ??that have already been compensated are shown in the measured value display, either with potassium or chloride output. These values ??are also directly available for signal output via 0/4–20 mA output or digital output (Profibus, Modbus RTU, Ethernet/IP, Modbus TCP).

	Ammonium measurement	**Nitrate measurement**
Measuring principle	Electrochemical	
Maximum configuration of a sensor	Common reference electrode, two measuring electrodes, one compensation electrode	
Integrable measuring chains: reference	VARiON ® Plus Ref	
measuring electrode	VARiON® Plus NH_4^+	VARiON ® Plus NO_3^-
compensation	VARiON ® Plus K	VARiON ® Plus Cl
Measuring	NH_4-N :	NO_3-N:

ranges/resolution	1 ... 2,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NH_4^+ : 1 ... 2,580 mg/l / 1 mg/l; 0.1 ... 129.0 mg/l / 0.1 mg/l	1 … 1,000 mg/l / 1 mg/l; 0.1 ... 100 mg/l / 0.1 mg/l NO_3 -: 5 … 4500 mg/l / 1 mg/l; 0.5 ... 450.0 mg/l / 0.1 mg/l
Compensation areas	K^+ : 0.1 ... 1,000 mg/l / 0.1 mg/l	Cl^- : 0.1 ... 1,000 mg/l / 0.1 mg/l
Measurement accuracy in laboratory standards	± 5% of measured value ± 0.2 mg/l in standard solutions	
Calibration types	Matrix adjustment against any reference value, 2-point calibration with combined standards possible	
Downtime (typical)	Reference electrode: 18 months, measuring and compensation electrode: 18 months for typical application (municipal sewage treatment plants)	
Temperature measurement and compensation	Integrated NTC, range 0 °C … +40 °C, accuracy ±0.5 K, resolution 0.1 K, t_{95} < 20 s	
Compressive strength	Maximum 0.2 bar (including sensor connection cable, with built-in measuring chains)	
Environmental conditions	Operating temperature: 0 °C … +40 °C, storage temperature: 0 °C … +40 °C	
Electrical connection	2-core shielded cable with quick release on the sensor	
Electromagnetic compatibility	EN 61326, Emission: Class B, FCC Class A Immunity for essential operation	
Test mark	CE	
mechanics	Housing shaft: V4A stainless steel 1.4571 Protective basket: POM, temperature sensor: V4A stainless steel 1.4571 Protection class: IP 68 (0.2 bar, with built-in measuring chains) Measuring chain holder: POM	
Weight	Approx. 670 g (without measuring chains, without sensor connection cable)	
guarantee	VARiON ® *Plus* 700 IQ: 2 years Electrodes: 1 year for material defects in accordance with § 10 General Terms and Conditions	

data sheet	

Units in box: 1