



## Sea-Bird Scientific SUNA - optische In-situ Nitratmessung

- **Produktart**  
Fest installiert, Mobil
- **Messparameter**  
Nitrat
- **Produkt Highlights**  
Hohe Genauigkeit, optische in-situ Nitratmessung, keine Reagenzien nötig
- **Schnittstellen**  
SDI-12, RS-232

Dank verbesserter optischer Messzelle sowie integrierter adaptiver Messintelligenz sind mit der SUNA V2 Sonde hochgenaue und stabile Nitratmessungen in fast jeder Umgebung möglich. Mit einer Vielzahl an Erweiterungsmöglichkeiten bietet die SUNA V2 eine kosteneffiziente Alternative für die Standard-Nitratmessung.

Mechanical	SUNA with Wiper
Material	Titanium
Rated Depth	100 m
Weight (in air)	4.8 kg
Pathlength	10 mm or 5 mm
Length	588 mm/ 583 mm
Diameter	63 mm
Temp Range, Operation	-2 - 35 °C
Temp Range, Storage	-20 - 50 °C

Electrical	
Input	8 - 18 VDC
Input, Sensor with Wiper	8 - 15 VDC
Current Draw, Operation	~ 625 mA at 12V
Current Draw, Standby	~ 20 mA at 12V
Light Source	UV Deuterium Lamp (900 hr lifetime)
Communication Interface	RS232; Analog 4 - 20 mA; (USB, SDI-12 optional)
Data Storage	2GB (optional)

Optical	
Spectral Range	190-370 nm
Pathlength	10 mm (5 mm optional)

## Nitrate Measurement Accuracy

Concentration Range	10 mm pathlength
Calibration	Sensor Specific*
up to 14 mg N/L	0.028 mg N/L or 10%
up to 28 mg N/L	0.028 mg N/L or 15%
up to 42 mg N/L	0.028 mg N/L or 20%
up to 56 mg N/L	out of range
Calibration	Class Based**
up to 14 mg N/L	0.035 mg N/L or 20%
up to 28 mg N/L	0.035 mg N/L or 25%
up to 42 mg N/L	0.035 mg N/L or 30%
up to 56 mg N/L	out of range

Concentration Range	5 mm pathlength
Calibration	Sensor Specific*
up to 14 mg N/L	0.056 mg N/L or 10%
up to 28 mg N/L	0.056 mg N/L or 15%
up to 42 mg N/L	0.056 mg N/L or 15%
up to 56 mg N/L	0.056 mg N/L or 15%
Calibration	Class Based**
up to 14 mg N/L	0.063 mg N/L or 20%
up to 28 mg N/L	0.063 mg N/L or 25%
up to 42 mg N/L	0.063 mg N/L or 25%
up to 56 mg N/L	0.063 mg N/L or 25%
* A sensor specific calibration uses extinction coefficients from the sensor itself	
** A class based calibration uses extinction coefficients that are the averager of many sensors	

## Nitrate Measurement Precision

Processing Configuration	Seawater or Freshwater with T-S Correction
Short-term precision (3 sigma)	0.004 mg N/L
Change ("drift") per hr of lamp time	<0.004 mg N/L
Processing Configuration	Seawater (0-40PSU)
Short-term precision (3 sigma)	0.034 mg N/L
Change ("drift") per hr of lamp time	<0.014 mg N/L
Limit of Detection and Limit of Quantification	

Processing Configuration	Seawater or Freshwater with T-S Correction
Limit of Detection	0.004 mg N/L
Limit of Quantification	0.014 mg N/L

Processing Configuration	Seawater (0-40 PSU)
Limit of Detection	0.034 mg N/L
Limit of Quantification	0.112 mg N/L