

OTT ecoN

Applications

Fresh Surface Water Groundwater



Low maintenance UV nitrate sensor

Reliable and high quality nitrate measurement

Individual absorption channels to deliver cost-effective data

Separate reference signal provides greater accuracy

Smart channel processing reduces drift and eliminates bias

Anti-fouling wiper minimizes likelihood of noisy data from debris

Precise high quality stainless steel construction for a robust instrument

Important - this sensor is only for use in environmental fresh surface water and groundwater applications

Move locations with ease

The OTT ecoN can be easily moved from one environmental monitoring site to the next due to its 4 different adaptable path lengths. It is portable thanks to its integrated logger and low power requirements.

Worry-free operation

The sensor does not require annual calibration, making it an ideal solution to 'set and forget'. It also leverages browser based software for greater flexibility in viewing and accessing data without a need for software installation through IT.

Access data remotely with ease

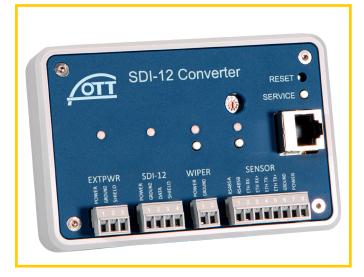
Access data via Modbus or SDI-12 protocols. For SDI-12, the OTT ecoN Converter accessory allows you to access your data by acting as an interface between your OTT ecoN and the SDI-12 interface of the peripherals. View nitrate measurements and sensor status information in near real-time.



HY-OT-WQ-ds-ecoN-EN-201124

Technical Specifications

Light source Light source Aephoto diodes + filter Measurement principle Attenuation Optical path Parameter NO3+N, NO3, NOX-N, NOX, (calibrated with NO3 standard solution) Measuring range Imm path: 0.560 mg/L NO3-N 2 mm path: 0.560 mg/L NO3-N 5 mm path: 0.56 mg/L NO3-N 10 mm path: 0.56 mg/L NO3-N 10 mm path: 0.56 mg/L NO3-N 10 mm path: 0.56 mg/L NO3-N) 2 mm ± (5 % + 1.0 mg/L NO3-N) 5 mm = ± (5 % + 0.2 mg/L NO3-N) 10 mm = ± (5 % + 0.1 mg/L	•	
Detector 4 photo diodes + filter Measurement principle Attenuation Optical path 1 mm, 2 mm, 5 mm, 10 mm Parameter NO3-N, NO3, NOx-N, NOx (calibrated with NO3 standard solution) Measuring range 1 mm path: 0.560 mg/L NO3-N 2 mm path: 0.112 mg/L NO3-N 10 mm path: 0.056 mg/L NO3-N Measurement accuracy 1 mm = ± (5 % + 1.0 mg/L NO3-N) 5 mm path: 0.056 mg/L NO3-N) 5 mm path: 0.2530 mg/L NO3-N) 1 mm = ± (5 % + 0.5 mg/L NO3-N) 5 mm path: 0.112 mg/L NO3-N) 1 mm = ± (5 % + 0.1 mg/L NO3-N) 6 mm = ± (5 % + 0.1 mg/L NO3-N) 1 mm = ± (5 % + 0.1 mg/L NO3-N) 7 turbidity compensation Yes Data logger 2 GB 7 100 response time 20 s Measurement interval ≥ 10 s Housing material Stainless steel (1.45717).404) Dimensions (L x Ø) 470 mm x 48 mm (10 mm path) (with 10 mm path)	Feature	Value
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Optical path 1 mm, 2 mm, 5 mm, 10 mm Parameter NO3-N, NO3, NOx-N, NOx (calibrated with NO3 standard solution) Measuring range 1 mm path: 0.560 mg/L NO3-N 2 mm path: 0.112 mg/L NO3-N 5 mm path: 0.112 mg/L NO3-N 10 mm path: 0.0.56 mg/L NO3-N Measurement accuracy 1 mm = ± (5 % + 1.0 mg/L NO3-N) 2 mm = ± (5 % + 0.5 mg/L NO3-N) 5 mm = ± (5 % + 0.2 mg/L NO3-N) Turbidity compensation Yes Data logger 2 GB T100 response time 20 s Measurement interval ≥ 10 s Housing material Stainless steel (1.4571/1.4404) Dimensions (L x Ø) 470 mm x 48 mm (10 mm path) 18.5 inch x 1.9 inch (with 10 mm path) Weight 3 kg (6.6 lbs) Interface digital Ethernet (TCP/IP) RS-485 (Modbus RTU)	Detector	4 photo diodes + filter
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$2 \text{ mm} = \pm (5 \% + 0.5 \text{ mg/L NO3-N})$ $5 \text{ mm} = \pm (5 \% + 0.2 \text{ mg/L NO3-N})$ $10 \text{ mm} = \pm (5 \% + 0.1 \text{ mg/L NO3-N})$ $10 \text{ mm} = \pm (5 \% + 0.1 \text{ mg/L NO3-N})$ 2 GB 2 GB $7100 \text{ response time}$ 20 s $\text{Measurement interval}$ 210 s Housing material Stainless steel $(1.4571/1.4404)$ $(1.4571/1.4404)$ $\frac{470 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$ $\frac{480 \text{ mm} \times 48 \text{ mm} (10 \text{ mm} \text{ path})}{18.5 \text{ inch x 1.9 inch (with 10 mm path)}}$	Measuring range	2 mm path: 0.2530 mg/L NO3-N 5 mm path: 0.112 mg/L NO3-N
Data logger T100 response time 20 s Measurement interval Housing material Stainless steel (1.4571/1.4404) Dimensions (L x Ø) 470 mm x 48 mm (10 mm path) 18.5 inch x 1.9 inch (with 10 mm path) Weight Interface digital Ethernet (TCP/IP) RS-485 (Modbus RTU)	Measurement accuracy	2 mm = ± (5 % + 0.5 mg/L NO3-N) 5 mm = ± (5 % + 0.2 mg/L NO3-N)
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Housing material Stainless steel (1.4571/1.4404) Dimensions (L x Ø) 470 mm x 48 mm (10 mm path) 18.5 inch x 1.9 inch (with 10 mm path) Weight 3 kg (6.6 lbs) Interface digital Ethernet (TCP/IP) RS-485 (Modbus RTU)	T100 response time	20 s
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Weight 3 kg (6.6 lbs) Interface digital Ethernet (TCP/IP) RS-485 (Modbus RTU)	Housing material	
Interface digital Ethernet (TCP/IP) RS-485 (Modbus RTU)	Dimensions (L x Ø)	
	Weight	3 kg (6.6 lbs)
SUI-12	Interface digital	Ethernet (TCP/IP) RS-485 (Modbus RTU) SDI-12
Power consumption ≤ 7 W	Power consumption	≤ 7 W
Power supply 1224 VDC (± 10 %)	Power supply	1224 VDC (± 10 %)
System compatibility Modbus RTU	System compatibility	Modbus RTU
Warranty US: 2 years	Warranty	US: 2 years
Max. pressure3 bar (43.5 psig)	Max. pressure	3 bar (43.5 psig)
Protection type IP68 NEMA 6P	Protection type	IP68 NEMA 6P
Sample temperature +2+40 °C	Sample temperature	+2+40 °C



OTT ecoN Modbus to SDI-12 Protocol Converter



Local access to settings with the G2 interface



