

# TN analyzer

## Liquiline System CA80TN

Total nitrogen analyzer for environmental monitoring, industrial and municipal wastewater



More information and current pricing:  
[www.us.endress.com/CA80TN](http://www.us.endress.com/CA80TN)

### Benefits:

- Standardized alkaline persulfate digestion and UV-photometric measurement according to HJ636 offer direct comparability to most cuvette tests.
- Robust: Titanium reactor with sapphire glass windows ensures a long lifetime.
- Flexible: Integrated dilution module covers a wide measuring range.
- Fast and easy process integration: Direct installation of self-priming version or y-strainer for bypass applications.
- Easy upgrade to a complete measuring station - simply by adding modules and connecting Memosens sensors.

### Specs at a glance

- **Measurement range** 0 to 10 mg/l N 0 to 50 mg/l N 0 to 200 mg/l N
- **Process temperature** 4 to 40 °C (39.2 to 104 °F)
- **Process pressure** At atmospheric pressure, < 0.2 bar

**Field of application:** Nitrogen is a lead parameter to determine surface water quality and wastewater effluent values. Both, organic and inorganic substances contribute to the total nitrogen load. Increased nitrogen contents indicate influences from wastewater, landfill leachate or agriculture. Liquiline System CA80TN analyzer offers precise online measurement of total nitrogen and ensures highest process safety. Advanced diagnostics with remote access support you in providing process documentation to the authorities.

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## Features and specifications

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### Analyser

**Measuring principle**

UV photometric

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**Characteristic**

Process analyzer for total nitrogen in aqueous solutions

UV photometric method following HJ636-2012

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**Size**

Housing (open version):

793 x 530 x 417 mm

31.22 x 20.87 x 16.42 in

Housing (closed version):

793 x 530 x 463 mm

31.22 x 20.87 x 18.23 in

Housing with base:

1723 x 530 x 463 mm

67.83 x 20.87 x 18.23 in

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**Design**

Open design, cabinet and stand housing

High-Performance plastic ASA-PC, additional stand coated steel

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**Process temperature**

4 to 40 °C (39.2 to 104 °F)

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**Ambient temperature**

5 to 40 °C (41 to 104 °F)

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**Process pressure**

At atmospheric pressure, < 0.2 bar

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**Sample flow rate**

Min. 15 ml/min (0.51 fl.oz/min)

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**Consistency of the sample**

Aqueous, homogeneous

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## Analyser

### Application

Monitoring of wastewater treatment plant outlet  
Monitoring of the surface water quality  
Monitoring of industrial water treatment  
Monitoring and optimization of industrial wastewater treatment plants

### Power supply

100 to 120 VAC / 200 to 240 VAC  $\pm$  10%  
50  $\pm$  1 or 60  $\pm$  1,2 Hz

### Output / communication

2x 0/4 to 20 mA  
Modbus RS485/TCP (optional)  
Webserver (optional)  
Ethernet/IP  
Profibus DP  
Alarm relay

### Input

1 measuring channel  
1 to 4 digital sensor inputs for sensors with Memosens protocol (optional)

### Measurement range

0 to 10 mg/l N  
0 to 50 mg/l N  
0 to 200 mg/l N

### Consumables

Reagents and standard solutions CY80TN as well as cleaner CY800 are necessary for the operation  
Regular maintenance is done with the parts of the maintenance kit CAV880

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