

WATER & ENVIRONMENTAL ANALYSIS SERIES

MODEL C620TUR

ONLINE TURBIDITY ANALYZER

Continuous Turbidity Monitoring
for Industrial and Environmental
Water Applications

The Blue Dragon Model C620TUR provides continuous measurement of turbidity in industrial process water, wastewater and environmental applications. The system combines a 90° scattered light sensor with an intelligent controller for real-time display, alarm functions, 4–20 mA output and RS485 Modbus RTU communication.



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90° Scattered Light Detection
Infrared LED 850 nm
ISO 7027 compliant measurement
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Self-Wiping Optical Sensor
Automatic cleaning cycle
Adjustable every 10–60 minutes
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Industrial & Environmental Integration
4–20 mA, RS485
Modbus RTU
Two relay outputs

WHY CHOOSE THE MODEL C620TUR?



Continuous Online Monitoring
Real-time turbidity measurement and alarm notification



0-4000 NTU Range
Designed for low to high turbidity applications



Fast Response
T90 response time <50 seconds



Self-Wiping Sensor
Reduces fouling and minimizes manual cleaning



Flexible Installation
Suitable for immersion or flow-through installation



Easy Plant Integration
Local display, analog output, alarms and digital communications

INDUSTRIES & APPLICATIONS



Oil & Gas

- Produced Water
- Separator performance
- Reinjection or discharge monitoring



Refineries

- Oily wastewater
- API separator outlets
- Treatment process monitoring



Petrochemicals

- Process effluent
- Hydrocarbon contamination
- Wastewater treatment



Industrial Wastewater

- Oil contamination alerts
- Treatment performance
- Final discharge monitoring



Power & Utilities

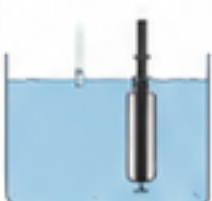
- Cooling Water
- Oily Drains
- Plant Wastewater



Environmental Monitoring

- Industrial outfalls
- Surface-water trends
- Contamination events

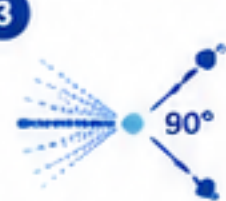
HOW IT WORKS

1

Sample Exposure
Sensor installed directly by immersion or inside an overflow flow-through tank

2

Infrared Light
The sensor emits infrared light at 850 nm toward the sample

3

90° Scattered Light
Particles scatter the light at 90° to the incident beam

4

Optical Detection
The detector measures scattered light intensity proportional to turbidity

5

Signal Processing
The controller converts and processes the signal, applies compensation

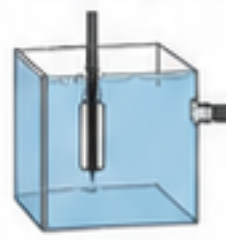
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Real-Time Output
Turbidity is displayed in NTU and transmitted via 4–20 mA, Modbus and relay outputs.

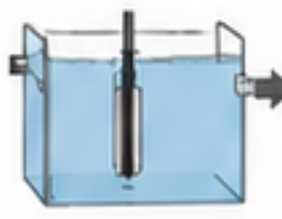
TECHNICAL SPECIFICATIONS

Measurement principle	90° scattered light
Light Source	Infrared LED 850 nm
Measurement range	0-4000 NTU
Accuracy	±2% of reading or ±0.1 NTU
Resolution	0.01 NTU
Response time	<10 seconds
Calibration	Zero-point, one-point or two-point
Sensor body	316L stainless steel
Sensor protection	IP68
Maximum immersion depth	30 m
Sensor pressure rating	Up to 4 bar
Cable Jacket	PUR cable
O-ring / seal	No O-ring
Analog output	4-20 mA
Digital communication	RS485, Modbus RTU
Relay outputs	Two
Power Supply	110-220 VAC
Controller protection	ABS enclosure, IP55
Controller dimensions	144 x 144 x 115 mm
Sensor dimensions	Ø48 x 198 mm (standard)
Mounting	Wall/panel controller; immersion or flow-through sensor

INSTALLATION OPTIONS



Immersion Installation
Direct sensor installation into a tank, channels or water body



Flow-Through Tank
Overflow chamber for controlled bypass-sample measurement



Instrument Box
Controller and flow-through components installed in a protected industrial enclosure

APPLICATION GUIDANCE



Site calibration recommended
Calibrate with a representative process sample for the best site-specific correlation



Turbidity consideration
Very high turbidity, approximately above 4000 NTU, is not recommended



Avoid Optical Interference
Bubbles, foam, unstable solids, heavy fouling and contaminated optical surfaces may influence readings



Safe-area instrument
The standard system is non-explosion-proof and intended for installation in a safe area



Factory test report supplied
Each analyzer is tested and verified before shipment

