



## 3S ANALYZERS 3S-CLR Online Color Sensor User Manual

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### 3S-CLR

3S Analyzers S.r.l. Italy

[www.3s-analyzers.eu](http://www.3s-analyzers.eu)



Electrical equipment marked with this symbol can not be disposed of through home or public waste disposal systems after 12 August 2005. In accordance with local and national European regulations (EU Directive 2002/96 / EC), users must return the equipment which is unsuccessful or can no longer be used to the manufacturer, which have to provide free of charge disposal.

Note: To return devices at the end of their useful life, accessories supplied by the manufacturer and all auxiliary items for recycling, contact the manufacturer or the vendor of the device to arrange proper disposal.

## 1 - SAFETY INFORMATION

### 1.1 Warnings and safety information

Before installing and operating the analyzer, read this manual thoroughly. Please pay particular attention to all the labels applied to the analyzer and to all the hazard information indicators in this manual.



This symbol indicates that you must refer to this manual for proper use of the equipment. Only qualified operators, properly trained on the use and maintenance of the analyzer can carry out service activities on the equipment.



The instrument operates with low power UV radiation. Do not look directly at the light source and do not disassemble the light source enclosure.

The manufacturer shall not be held responsible under any circumstances for improper use of the equipment.

The head of department and the machine operator must comply with the following rules and with the provisions of current legislation on the safety and health of workers.

The use, maintenance, and repair of the instrument are permitted only to persons authorised for such operations. These operators must be physically and mentally capable to perform such activities, which can not be performed under the influence of alcohol and drugs.

When the instrument is not being used it must be protected from voluntary or involuntary activation, after disconnecting the power supply.

Failure to follow the instructions given and/or failure to pay attention to the hazard indicators may cause serious risks of physical damage to operators and breaks or malfunctioning of the analyzer.

All the components of the instrument are placed within a panel closed by a door with a special key, supplied only to maintenance operators.

The instrument must then be used under operating conditions with the door closed.

## 2 - GENERAL INFORMATION

### 2.1 Technical specifications

Measured parameters	Color intensity
Measuring principle	Absorption photometry.
Measuring range	0 - 500 Hazen
Analysis Frequency	Continuous (aquisition time < 1 s)
Sample	Pressure-free vessel (up to 3 bar) Temperature: 0 - 50 °C (32 - 122 °F)
Dimensions	Ø 46 mm, L 189.6 mm

Weight	Approx. 1 kg (2.2 lbs)
Body Material	Titanium
Power Supply	Voltage: 12 - 24 VDC Power consumption: max. 0.5 VA
Output	Modbus via RS485
Operating temperature	0 - 50 °C (32 - 122 °F)
Installation	Flow cell, immersion pipe or brackets (optional accessories)
Protection Grade	IP68

## 2.2 Instrument description

The 3S-CLR is a sensor for water monitoring. The probe needs minimum maintenance and can be installed right out of the box, without initial configuration. The design is compact and robust, the titanium body offers great protection up to a depth of 60 m.

Data is transmitted using the widespread industrial Modbus protocol.

## 2.3 Applications

The sensor works with the principle of UV absorption and can be used to measure the color intensity in water samples. Common applications include civil and industrial wastewaters, surface waters and treatment and distribution of potable water.

## 2.4 Method description

The method is based on the photometric determination of the color intensity.. The light radiation that passes through the sample water is absorbed and the absorption is proportional to the color intensity. The measurement is expressed in Hazen scale (platinum-cobalt scale). The maximum range of the probe is 500 Hazen.

# 3 - INSTALLATION

## 3.1 Opening the package

For safety reasons, when removing the packaging of the equipment, please check for any visible defects and, if

necessary, inform the supplier.

Parts inside the package apart from the user manual:

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## Documents / Resources

	<p><b><a href="#">3S ANALYZERS 3S-CLR Online Color Sensor</a></b> [pdf] User Manual 3S-CLR-1.0, 3S-CLR Online Color Sensor, 3S-CLR, Online Color Sensor, Color Sensor, Sensor</p>
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## References

- [🌐 Domain Details Page](#)
- [User Manual](#)

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