

HYDROCLEAN_P

Anti-fouling system for numerical sensor NTU & OPTOD

- Automatic cleaning system for numerical sensor NTU & OPTOD
- Ultra-low power consumption for long term deployments
- Easy to install and simple to operate.
- Autonomous system or by external Input.



Applications:

- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring,
- Sea water monitoring, fish farming, aquarium

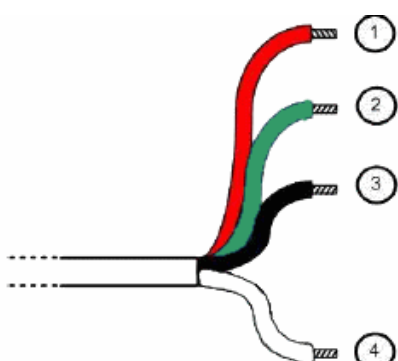
The **HYDROCLEAN-P** is a mechanical wiper system designed to fit easily to the numerical sensor of **Turbidity NTU & Oxygen OPTOD**. Using a regular gentle brushing action, the HYDROCLEAN_P keeps the optical window of the instrument clean from bio-fouling and other unwanted deposits such as mud.

The **HYDROCLEAN_P** system offers the following features:

- Ultra-low consumption for long term deployments,
- Brush design that has been extensively field proven in extreme conditions,
- On board self-monitoring for reliable operation: if the wiper arm is knocked in front of the instrument face, the wiper arm automatically moves to one side.

The system is coupled with a wiper control module integrated in a box which contain 2 Lithium battery for applications autonomous or in external mode of power supply 5 - 24 V.

Technical specifications

Specification autonomous system									
Wipe interval	User select (15, 30, 45, 60, 120, 180, 240, 300, 360 or 720 mins)								
Clock accuracy	+/- 1 minute per year (0-40°C)								
Power supply	2 batteries Li/SOCl ₂ A (17x50.5) ; 3,6 Ah								
Power consumption	Standby 0.3 mA, ~150 mA during cleaning								
Autonomy	Depends on the cleaning frequency. 4 months for a frequency of 120 minutes								
Dimensions (HxLxw)	60 x 113 x 80								
Weight	300g								
Material	Polycarbonate								
Protection	IP 67								
Operating Temperature	0-40 °C								
Storage Temperature	0-40°C								
Specification of the mechanical arm box									
Flexible brush	For sensors NTU & OPTOD Replaceable by the user Materials: nylon								
Arm	POMC								
Box	POMC								
Depth max	50 m								
Flow of water max	2 m/s								
Dimensions (HxLxw)	50x80x180								
Protection	IP68								
Rotation speed	15 rotations/min								
Rotation angle	110 °± 10 °								
Operating Temperature	2-30 °C								
Storage Temperature	0-40°C								
Cable	Connection battery case / wiper: sheathe EPDM Lenght 7 m as standard								
Specification external piloting									
Power supply	5 to 24 V								
Release of the cleaning	Input 5 to 24V, >1sec								
Back cleaning	5 V								
Consumption	2 mA								
Protection	IP54								
Cabling	 <table border="1" data-bbox="861 1836 1500 1960"> <tbody> <tr> <td>1-Red</td> <td>Supply voltage, V+</td> </tr> <tr> <td>2-Green</td> <td>FeedBack</td> </tr> <tr> <td>3-Black</td> <td>Ground</td> </tr> <tr> <td>4-White</td> <td>Trigger</td> </tr> </tbody> </table>	1-Red	Supply voltage, V+	2-Green	FeedBack	3-Black	Ground	4-White	Trigger
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Wiper control housing.

The wiper control housing contains:

- 1 watertight housing IP67
- 1 transparent lid easy to open and close
- 1 rotary selector to select the cleaning frequency.
- 2 battery Li/SOCl₂ A ; 3,6 Ah ; 3,6V
- 1 push-button to indicate the level of load of batteries.
- 1 Bargraphe of 5 green LEDs for the level of batteries.
- 1 electronics of piloting of the cleaning



Housing of external piloting for the cleaning.

- Compact housing IP54
- 4 threads of connection :
 - Supply voltage V+
 - Trigger
 - Failure
 - GND
- Connection of cable by terminal blocks.



Version for Oxygen sensor OPTOD