

#### APPLICATIONS



Surface water monitoring



Urban wastewater treatment



Industrial effluent treatment



Sea water monitoring, fish farming, aquarium



## 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 triggering



ADVANTAGES

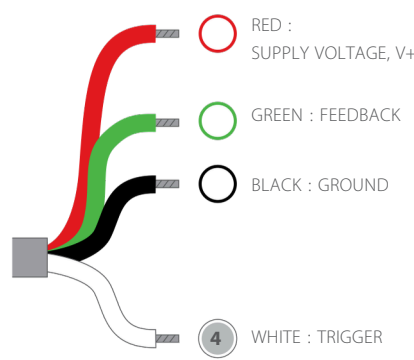
The HYDROCLEAN\_P is a mechanical wiper system designed to fit easily to the numerical sensor of Turbidity NTU & Oxygen OPTOD. Using a regular gentle brushing action, the HYDROCLEAN\_P keeps the optical window of the instrument clean from bio-fouling and other unwanted deposits such as mud.

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 contains 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/SOCI2 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 mm
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 mm
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, > 1 s
Back cleaning	5 V
Consumption	2 mA
Protection	IP54
Cabling	 <p>RED : SUPPLY VOLTAGE, V+</p> <p>GREEN : FEEDBACK</p> <p>BLACK : GROUND</p> <p>4 WHITE : TRIGGER</p>

## 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 cleaning frequency
- 2 battery Li/SOCI2 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