



DIGITAL SENSORS DIGISENS, Smart sensors for water control

ADVANTAGES



- Universal communication Modbus RS485 / SDI-12
- Compatible with all types of transmitters, recorders, remote control, controller equipped with a RS485 input or SDI-12 ...
- Integrated transmitter (recording of calibration data, history and measurement processing in the sensor)
- Ultra-low power technology

Digital communication

the DIGISENS sensors can connect to any type of recorder, transmitter or controller with a Modbus RS485 input, making data transfer more reliable.

More than 240 indexed sensors can be connected on the same RS485 input.

The digital signal processing combined with the pre-amplification of the measurement allow high reliability.

Integrated transmitter

All calibration data for (offset, slope), history, users and measures be processed directly in the sensor and transmitted via Modbus RS-485.

Mechanical

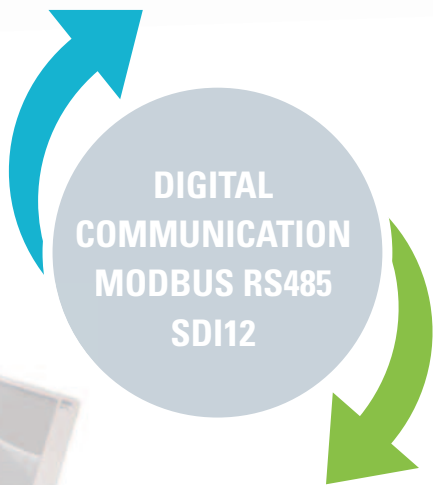
Digital sensors are compact, rugged and light. They are made of stainless steel or PVC materials for portable or stationary use in the most fouling environments.

Application areas

Wastewater, Industrial effluent, Monitoring of surface water, Fish farming, Drinking water



DIGITAL OUTPUT SENSOR



DIGITAL INPUT SYSTEM





Technical specifications					
	Parameter	Dimensions	Range	Accuracy	Sensor
PH/ORP/T°C	Temperature	Diameter : 27 mm	0,00 to + 50,00 °C	± 0,5°C	NTC
	pH	Length without cable : 207 mm	0,00 to 14,00 pH	± 0,1	Combined electrode (pH/reference) : special glass Reference Ag/AgCl. Electrolyte plastogel (KCl)
	ORP	Weight : 350 g (sensor + cable)	- 1000,0 to + 1000,0 mV	± 2 mV	Combined electrode (Redox/reference) : Platinum electrode, Reference Ag/AgCl. Electrolyte plastogel (KCl)
EHAN	ORP & T°	Diameter: 27 mm Length: 262 mm Weight: 350 g (Sensor + cable 3 m)	-1000,0 to + 1000,0 mV	± 10mV	Combination Electrode (ORP/reference) platinum ring, Reference Ag/AgCl. Gelled electrolyte (KCl)
C4E	Conductivity	Diameter : 27 mm Length without cable : 157 mm Weight : 350 g (sensor + cable)	0,0 to 200,0 µS/cm 0 to 2 000 µS/cm 0,00 to 20,00 mS/cm 0,0 to 200,0 mS/cm AUTOMATIC RANGE	± 1 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
	Salinity		5-60g /kg	± 0,5 % of the full scale	C4E Technology 4 electrodes (2 platinum and 2 graphite)
CTZN	Conductivity	Diameter: 39.80 mm Length without cable : 196 mm	0,0 -100,0 ms/cm	< 5%	Inductive conductivity sensor compensated in temperature
	Salinity	Weight : 700 g (sensor + cable)	5-60g /kg		
NTU	Turbidity	Diameter : 27 mm Length without cable : 147 mm Weight : 300 g (sensor + cable)	5 to 50 NTU 5 to 200 NTU 5 to 1000 NTU 5 to 4000 NTU AUTOMATIC RANGE	± 1 % of the full scale	IR 90° technology ISO 7027 compliance
OPTOD	Dissolved Oxygen/T°C	Diameter : 25 mm Length without cable : 146 mm Weight : 450 g (sensor + cable)	0,00 to 20,00 mg/L 0,0 to 200,0 % SAT	± 0,1 mg/L ± 1 %	PONSEL OPTOD® optical luminescence technology ASTM D888 – 05 Compliance ISO 17289
MES5 / VB5	MES5: suspended solids VB5: sludge blanket	Diameter: 63 mm Length: 212 mm Weight: 750 g	TSS: 0-50g/l Turbidity: 0-4000FAU Sludge blanket: 0-100%	TSS: 0-1 SS < 10 % Turbidity: ±5% (range 200 -4000 FAU) Sludge blanket: ±2%	Optical IR (870 nm) based on IR absorption
STACSENSE	SAC254, COD, BOD, COT, Turbidity	Diameter : 48 mm Length : 371 mm (2mm), 419 mm (50mm) Weight : 1600 - 1800 g depends of the optical path	2mm Optical path SAC254 : 0-750 Abs/m COD : 0-1300 mg/L BOD : 0-350 mg/L COT : 0-500 mg/L Turbidity : 0-500 FAU	2mm Optical path SAC254 : 1.0 +/- 3% COD : 2.0 +/- 3% BOD : 1.0 +/- 3% COT : 1.0 +/- 3% Turbidity : 5.0 +/- 7%	UV 254 spectral absorption
			50 mm Optical path SAC254 : 0-30 Abs/m COD : 0-50 mg/L BOD : 0-15 mg/L COT : 0-20 mg/L Turbidity : 0-40 FAU	50 mm Optical path SAC254 : 0.1 +/- 3% COD : 0.2 +/- 3% BOD : 0.1 +/- 3% COT : 0.1 +/- 3% Turbidity : 1.0 +/- 7%	

Interface Signal: RS485 Modbus or SDI-12, Sensor power supply: to 5-12 volts, Max. 5 bars, Cable 9 armoured connectors, polyurethane sheath, bare wire, Protection: IP 68

Accessories

CALSENS Software : CALSENS software is designed for the optimization and exploiting the data of the PONSEL DIGISENS range (digital sensors). Simple, friendly and intuitive this is a support to configure the sensors, the calibration menu, to follow in real time the measurement of the selected parameters and to record the measured parameters.

Box of communication and power supply mono and multichannel Modbus : Destined to the permanent instrument installations and supplementing the offer of digital sensors PONSEL, the junction boxes mono and multichannel PONSEL are easy to install. The module 4001 allows the connection of digital sensors PONSEL with all types of dataloggers, transmitter and remote systems or automates with an input Modbus RS485.



References

Module 4001 - 5 SENSORS BARE WIRE CABLE/1 CONNECTOR FOR ODEON CABLE
CABLE MODULE 4001 - ODEON
MODULE 4200 RS485/USB CONVERTOR FOR ONE SENSOR
MODULE 4200 RS485/USB CONVERTOR FOR TWO SENSORS
CALSENS SOFTWARE
CABLE TO CONNECT A BARE WIRE SENSOR TO ODEON

PF-ACC-C-00255
PF-ACC-C-00284
NC-FIX-C-00020
NC-FIX-C-00021
LO-EMB-C-00031
PF-ACC-C-00082



PHEHT: PH, ORP & TEMPERATURE, DIGITAL technology for optimized measures

The PHEHT sensor has been designed to perform under hard conditions from pure mountains water with conductivity as low as 20 $\mu\text{S/cm}$, lakes and rivers (100 – 2000 $\mu\text{S/cm}$), seawater with conductivities of 50 mS/cm and to wastewater with conductivity higher than 200 mS/cm.

This sensor features a "long life" reference. The Plastogel® PONSEL technology increase the lifetime of the probe the need to refill. This sensor has been designed also for handheld and in situ applications which have been the most difficult situations for a pH/ORP sensor in term of sensor resistance, quick time response, minimal flow dependence and low power consumption.

Digital Technology

The "smart" pH/ORP/Temp sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration. Thanks to the Universal Modbus RS485 protocol, the PONSEL pH/ORP/T sensor can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).

Range : • pH : 0 to 14 units • ORP : - 1000 to + 1000 mV • T°C : 0°C to +50°C

Applications

Urban wastewater treatment (inlet/ outlet controls), Sanitation network, Industrial effluent treatment, Surface water monitoring, Fish farming, Drinking water



Technical specifications Measures pH	
Measure principle	Combined electrode (pH/ref) : special glass, Ag/AgCl ref. Gelled electrolyte (KCl)
Range	0 – 14 pH
Resolution	0,01 pH
Accuracy	$\pm 0,1$ pH
Technical specifications Measures ORP	
Measure principle	Combined electrode (ORP/reference) : Platinum tip, Ag/AgCl AgAgCl. Gelled reference (KCl)
Range	- 1000 to + 1000 mV
Resolution	0,1 mV
Accuracy	± 2 mV
Technical specifications Measures Temperature	
Technology	NTC
Range	0,00 °C to + 50,00°C
Resolution	0,01 °C
Accuracy	$\pm 0,5$ °C
Response time	< 5 s
Storage temperature	0°C to + 60°C
Protection	IP 68
Interface	Modbus RS-485 / SDI-12
Power supply	5 to 12 volts
Power consumption	Standby : 25 μ A Average RS485 (1 measure/second) : 3,9 mA Average SDI12 (1 measure/second) : 6,8 mA Current pulse : 500 mA
Technical specifications Sensor	
Dimensions	Diameter : 27 / 21 mm ; Length : 207 mm
Weight	350 g (sensor + 3 m cable)
Material	PVC, DELRIN, special pH glass, platinum, polyamide
Pressure	5 bars
Cable	Coaxial armoured, Polyurethane, bare wire or Fisher connector
Protection	IP68

ADVANTAGES



- Combination pH/ORP/Temp sensor
- Digital Sensor : Modbus RS 485 / SDI-12
- Calibration data inside
- pH/ORP Cartridge

References

pH/ORP/T Digital Adapter - 3 m cable without pH/ORP sensor	PF-CAP-C-00143
pH/ORP/T Digital Adapter - 7 m cable without pH/ORP sensor	PF-CAP-C-00144
pH/ORP/T Digital Adapter - 15 m cable without pH/ORP sensor	PF-CAP-C-00161
pH/ORP/T Sensor (Cartridge)	PF-CAP-C-00155
pH-ORP sensor, 3 meters cable, bare wire	PF-CAP-C-00171
pH-ORP sensor, 7 meters cable, bare wire	PF-CAP-C-00172
pH-ORP sensor, 15 meters cable, bare wire	PF-CAP-C-00162



EHAN: ANNULAR ORP SENSOR, ORP potential and temperature

- **Combination sensor:** ORP & Temperature
- **Measuring ranges:** ORP: - 1000 to + 1000 mV ; T ° C: 0.00 to + 50.00 ° C
- **Interchangeable Cartridge with "PLASTOGEL®"**
- **Digital communication RS-485 Modbus / SDI-12**

Digital Technology

The electrolyte "PLASTOGEL®" of DIGISENS Ponsel sensor communicates directly with the external environment without interposition of capillary or porous. There is therefore no risk of clogging or reference defusing. Temperature: Measures via NTC.

Applications

Treatment of urban waste water (entrance, aeration tank, exit), industrial sewage treatment (optimization process of nitrifying / denitrifying), deodorization channels.



Technical specifications	
Measures ORP	
Measuring principle ORP	combination electrode (ORP / reference): Platinum Ring Reference Ag / AgCl. gelled electrolyte (KCl)
Measurement range	-1000.0 to + 1000.0 mV
Resolution	± 0.1 mV
Accuracy	± 10mV
Response time	90 s
Temperature Measurement	
Measuring principle T°C	NTC
Operating Temperature	0.00 ° C to 50.00 ° C
Resolution	0,01 °C
Storage temperature	0°C to + 60°C
Protection	IP 68
Interface signal	RS-485 Modbus / SDI-12
Refresh rate measurement	Maximum <1 second
Sensor supply	5-12 volts
Consumption	Standby : 25µA, RS485 Average (1 measure / second) : 20 mA, Pulse current : 500 mA, Meating : 100 mS
Sensor	
Dimension of equipped sensor	Upper part: 27 mm diameter; Length 103 mm Cartridge Length: 173 mm; Equipped sensor Length: 262 mm without gland
Weight	350 g (cable + sensor)
Materials in contact with the environment	PVC, POM-C, platinum, Polyurethane
Maximum pressure	5 bars
Cable / connector	9 armored connectors, polyurethane sheath, bare wires or sealed metal Fischer connector

References

EHAN sensor Fisher connector 3m cable without cartridge PF-CAP-C-00268
 EHAN sensor Fisher connector 7m cable without cartridge PF-CAP-C-00269
 EHAN sensor Fisher connector 15m cable without cartridge PF-CAP-C-00270
 EHAN sensor bare wires 3m cable without cartridge PF-CAP-C-00271

EHAN sensor bare wires 7m cable without cartridge PF-CAP-C-00272
 EHAN sensor bare wires 15m cable without cartridge PF-CAP-C-00273
 Annular digital sensor cartridge ORP PF-CAP-C-00263



Rental available



C4E: CONDUCTIVITY/SALINITY, Digital technology for optimized measures

- **Mounting at 4 electrodes:** The electrode works with a technology in 4 electrodes: an alternating current of constant-voltage is established between a primary's pair of electrodes in graphite. The secondary's electrodes in platinum allow of regulate the voltage imposed to primary's electrodes to reflect of the fouling. The voltage measured between the primary's electrodes is in function of the resistance of place and so, of the conductivity.
- **Digital Technology:** The "smart" Digital C4E sensor stores calibration and history data within the sensor. This allows you a "plug and play" system without re-calibration.

Thanks to the Universal Modbus RS485 protocol, the PONSEL Digital C4E can be connected to all devices commonly used (Datalogger, Controller, Automat, Remote System...).

Applications

- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring
- Sea water
- Drinking water



Technical specifications measures	
Measure principle	Conductivity sensor with 4 electrodes (2 graphic, 2 platinum)
Measure ranges conductivity	<ul style="list-style-type: none"> • 0-200,0 µS/cm • 0 -2000 µS/cm • 0,00 -20,00 mS/cm • 0,0 -200,0 mS/cm • AUTOMATIC RANGE
Resolution	0,01 to 1 according the range
Accuracy	± 1 % of the full range
Measure range salinity	5-60 g/Kg
Measure range TDS -KCl	0-133 000 ppm
Response time	< 5 s
Working temperature	0°C to + 50°C
Temperature compensation	NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Maximum refreshing time	Max < 1 s
Sensor power-supply	5 to 12 volts
Electric consumption	Standby : 25 µA Average RS485 (1 measure/second) : 6,3 mA Average SDI12 (1 measure/second) : 9,2 mA Current pulse : 500 mA
Technical specifications sensor	
Dimensions	Diameter : 27 mm ; Length : 177 mm
Weight	300 g (sensor + cable 3 meters)
Material	PVC, DELRIN, stainless steel
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector
Degree of protection	IP68

ADVANTAGES



- 4 electrodes (2 graphic, 2 platinum)
- Range 0 to 200 mS/cm and automatic range
- Digital sensor Modbus RS-485 / SDI-12
- Robust and Watertight

References

- C4E SENSOR WITH FISCHER CONNECTOR Conductivity/TPF-CAP-C-00149 Digital Probe - 3 m cable
- C4E SENSOR WITH FISCHER CONNECTOR Conductivity/TPF-CAP-C-00150 Digital Probe - 7 m cable
- C4E SENSOR WITH FISCHER CONNECTOR Conductivity/TPF-CAP-C-00167 Digital Probe - 15 m cable
- C4E SENSOR, 3 meters cable, bare wire PF-CAP-C-00169
- C4E SENSOR, 7 meters cable, bare wire PF-CAP-C-00170
- C4E SENSOR, 15 meters cable, bare wire PF-CAP-C-00156





CTZN : INDUCTIVE CONDUCTIVITY, Inductive conductivity no sensitive to the fouling

- **Measured parameters:** Conductivity compensated in temperature (mS/cm), Conductivity non-compensated in temperature (mS/cm), Salinity (g/Kg), Temperature (°C)
- **Inductive method:** A ring-type coil is excited at fixed intervals and the response is retrieved on a second coil, which is linked to the excited coil. The connectivity between the coils (determined by the degree of conductivity) takes place via the conducting solution. Economic and successful technology that requiring not enough maintenance and not consumable.
- **Digital Technology:** The “smart” Digital CTZN sensor stores calibration and history data within the sensor. This allows you a “plug and play” system without re-calibration. Thanks to the Universal Modbus RS485 protocol, the PONSEL Digital CTZN

Applications

Urban wastewater treatment, Industrial effluent treatment, Surface water monitoring, Sea water, Fish farming

ADVANTAGES



- Sensor regulated in temperature
- Ranges 0 to 100 mS/cm
- Numerical communication Modbus RS-485 and SDI12
- Compact, robust and watertight



Technical specifications measures

Measure principle	Inductive conductivity sensor regulated in temperature		
Measure ranges conductivity	0,0 –100,0 mS/cm		
Resolution	0,1		
Measure ranges salinity	5-60 g/Kg		
Working temperature	0 to 50 °C		
Temperature compensation	With NTC		
Accuracy T°C	± 0.5 °C		
Response time	90% of the value in less than 30 seconds		
Stocking temperature	-10°C to + 60°C		
Signal interface	Modbus RS-485 and SDI-12		
Sensor power-supply	5 to 28 volts, max 30 V		
Electric consumption	Automatic Standby < 50 µA , Heating time 100 mS Average Modbus RS485		
	1 measure/s :	Vin 5V	Vin 12 V
	1 measure/s	31 mA	15,5 mA
			Vin 24 V
			11,5 mA
	Max current pulse 700 mA during 2 mS, 350 mA during 150 mS		

Technical specifications sensor

Dimensions	Diameter max. 62,4 mm, Length : 196 mm
Weight	700 g
Material	EPDM, PVC, Stainless steel
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fisher connector
Degree of protection	IP68

References

CTZN SENSOR, 3 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00265
CTZN SENSOR, 3 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00259
CTZN SENSOR, 7 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00266
CTZN SENSOR, 7 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00261
CTZN SENSOR, 15 METERS CABLE, BARE WIRE - STAINLESS STEEL IN PIPE INSTALLATION	PF-CAP-C-00256
CTZN SENSOR, 15 METERS CABLE, BARE WIRE - VERSION IMMERSION/PVC IN PIPE INSTALLATION	PF-CAP-C-00253



Rental available



OPTOD: OPTICAL DISSOLVED OXYGEN, Optical technology for optimized measurements

Applications

- Urban wastewater treatment
- Industrial effluent treatment
- Surface water monitoring
- Drinking water

Optical technology

The OPTOD (Optical Dissolved Oxygen technology) is based on luminescent optical technology. The OPTOD sensor is approved by the ASTM International Method D888-05 and Norm ISO 17289.

Without calibration requirements and thanks to an ultra low power technology, the OPTOD sensor meets the demands of field works and short or long term campaigns.

Without oxygen consumption, this technology allows you an accurate measure in all situation and especially in very low oxygen concentrations

ADVANTAGES



- Optical Technology without calibration
- Digital Technology (Modbus RS-485 / SDI-12)
- No drift, Reduced maintenance
- Body in Stainless steel (316 L) or Titanium

Mecanic

Compact, strong and light, the sensor allows a in fixed/permanent use.

Body in Stainless steel 316 L (passivation treatment) or in Titanium for applications in corrosive environment.



Technical specifications measures	
Measure principle	Optical measure by luminescence
Measure ranges	0,00 to 20,00 mg/L • 0,00 to 20,00 ppm • 0-200%
Resolution	0,01
Accuracy	+/- 0,1mg/L • +/- 0,1 ppm • +/- 1 %
Response time	90% of the value in less than 60 seconds
Frequency of recommended measure	>5 s
Water move	No necessary move
Temperature compensation	Via NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Sensor power-supply	5 to 12 volts
Consumption	Standby 25 µA Average RS485 (1 measure/ second) : 4,4 mA Average SDI12 (1 measure/ second) : 7,3 mA Current pulse : 100 mA
Technical specifications sensor	
Dimensions	Diameter : 25 mm ; length : 146 mm
Weight	Stainless steel version 450g (sensor + cable 3 m) Titanium version 300 g (sensor + cable 3 m)
Material	Stainless steel 316L, New : body in Titanium
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare wires or waterproof Fisher connector
Protection	IP68

Accessory

Hydroclean : Anti-fouling system for numerical sensor Optod



References

Optod digital sensor Odeon Fisher plug 3m	PF-CAP-C-00140	Optod digital sensor Odeon titanium Fisher plug 3m	PF-CAP-C-00240
Optod digital sensor Odeon Fisher plug 7m	PF-CAP-C-00141	Optod digital sensor Odeon titanium Fisher plug 7m	PF-CAP-C-00241
Optod digital sensor Odeon Fisher plug 15m	PF-CAP-C-00163	Optod digital sensor Odeon titanium Fisher plug 15m	PF-CAP-C-00242
Optod digital sensor 3m bare wires	PF-CAP-C-00160	Optod titanium digital sensor 3m bare wires	PF-CAP-C-00243
Optod digital sensor 7m bare wires	PF-CAP-C-00168	Optod titanium digital sensor 7m bare wires	PF-CAP-C-00244
Optod digital sensor 15m bare wires	PF-CAP-C-00164	Optod titanium digital sensor 15m bare wires	PF-CAP-C-00245





NTU: NEPHELOMETRIC TURBIDITY,

Optical technology for optimized measures

Optical technology: The measure principle is based on IR nephelometry ISO 7027 / 850 nm. The sensor can be calibrated with a formazine standard solution. The NTU sensor integrates a low-cost optical technology, with a very few maintenance and no consumables.

Applications

- Urban wastewater treatment (inlet/ outlet controls)
- Sanitation network
- Industrial effluent treatment
- Surface water monitoring
- Drinking water



Accessory

Hydroclean : Anti-fouling system for numerical sensor NTU



Technical specifications measures	
Measure principle	Diffusion IR at 90°
Measure ranges	5 - 50 NTU ; 5 - 200 NTU ; 5 - 1000 NTU ; 5 - 4000 NTU ; AUTOMATIC RANGE 0 to 4500 mg/L Calibration: Range 0-500 mg/L according to NF EN 872 Range >500 mg/L according to NF T 90 105 2
Resolution	0,01 to 1 NTU - mg/L
Accuracy	< 5% of the reading
Working temperature	0°C to + 50°C
Measure of temperature	Via NTC
Stocking temperature	-10°C to + 60°C
Signal interface	Modbus RS-485 and SDI-12
Maximum refreshing time	< 1 second
Sensor power-supply	5 to 12 volts
Electric consumption	Standby: 40 µA / Average RS485 (1 measure/second): 820 µA / Average SDI12 (1 measure/second): 4,2 mA / Current pulse: 500 mA
Consumption	<ul style="list-style-type: none"> • Standby : 40 µA • RS485 average (1 measure / sec) : 820 µA • SDI12 average (1 measure / sec) : 4,2 mA • Heating time : 100 mS • Current pulse : 500 mA
Technical specifications sensor	
Dimensions	Diameter : 27 mm; length : 170 mm
Weight	300 g (sensor + cable 3 meters)
Material	PVC, DELRIN, Quartz, PMMA, Polyamide
Maximum pressure	5 bars
Connection	9 armoured connectors, polyurethane jacket, bare-wires or waterproof Fischer connector
Degree of protection	IP68

ADVANTAGES



- IR optical sensor with optical fibre
- Range : 0 to 4000 NTU or 0-4500 mg/L
- Rugged and waterproof (IP68)
- Ultra low-power consumption
- Digital output Modbus RS-485 / SDI-12
- Nephelometry measurement

References

NTU sensor, 3 meters cable, bare wire	PF-CAP-C-00173
NTU sensor, 7 meters cable, bare wire	PF-CAP-C-00174
NTU sensor, 15 meters cable, bare wire	PF-CAP-C-00166
Turbidity/T Digital Probe Fischer Connector - 3 m cable	PF-CAP-C-00146
Turbidity/T Digital Probe Fischer Connector - 7 m cable	PF-CAP-C-00147
Turbidity/T Digital Probe Fischer Connector - 15 m cable	PF-CAP-C-00165

HYDROCLEAN BRUSH CLEANING SYSTEM

HydroClean_P autonomous version for sensor NTU on 7 m	PF-ACC-C-00421
Box of autonomous piloting for mechanical cleaning of the sensor of Turbidity (NTU) on 7 m of cable.	
HydroClean_P autonomous version for sensor NTU on 15 m	PF-ACC-C-00423
HydroClean_PEx to be integrated for NTU sensor on 7 m	PF-ACC-C-00425
Controller box to be integrated for mechanical cleaning of the turbidity sensor (NTU) on 7 m of cable.	
HydroClean_PEx to be integrated for NTU sensor on 15 m	PF-ACC-C-00427
Wall Mount System for HydroClean_P	PF-ACC-C-00435



Rental available



MES5 / VB5, Measurement of SS, turbidity and sludge blanket

Applications

- Treatment of urban waste water (Input / Network (SS, Turbidity) Aeration Tank (MES), Clarifier (Sludge Blanket), Outlet (Turbidity)).
- Industrial effluent treatment (Aeration Tank (SS), Decanter (Sludge Blanket), output (Turbidity))
- Sludge treatment channels.
- Monitoring of dredging sites ...



Optical Technology

The measuring principle is based on the attenuation of the IR signal through an optical slot. The sensor delivers measurement in Sludge concentration (g / l), Turbidity (FAU) and Sludge blanket in % of IR transmission. For a best accuracy, the optical measurements are temperature controlled. For a measure of Suspended Solids, the sensor is calibrated directly on the material to be measured (sludge sample). In Turbidity mode, the sensor provides measurements over a range of 0-4000 FAU (Formazin Attenuation Unit) and it is calibrated with Formazin solutions. Temperature: optical measurement and control via CTN.

ADVANTAGES



- Optical sensor based on IR absorptiometry
- Measuring ranges: SS: 0-50 g / L, Sludge Blanket 0-100% Turbidity 0-4000 FAU
- Digital communication RS-485 Modbus / SDI-12
- Robust sensor

Handheld device
Odeon



Technical specifications

Measures Sludge concentration, Turbidity, Sludge blanket detection	
SS Measuring principle	Optical IR (870 nm) based on absorptiometry
Measuring range	SS: 0-50 g / L Turbidity: 0-4000 FAU, Sludge blanket: 0-100% MES
Resolution	SS : 0.01 g / L Turbidity: 0.01 to 1 FAU, sludge blanket: 0.01 to 0.1% sludge blanket
Accuracy	SS : <10%; Turbidity: ± 5% (range 200-4000 FAU); Sludge blanket: ± 2%
Response time	< 35 seconds
Temperature Measurement	
Measuring principle T°C	NTC
Operating temperature	-5.00 °C to + 60,00°C
Resolution	0,01 °C
Accuracy	± 0.5 °C
Storage temperature	-10°C to + 60°C
Protection	IP 68
Interface signal	RS-485 Modbus or SDI-12
Refresh speed measurement	Maximum < 1 second
Sensor supply	5-28 volts
Consumption	Standby: 25 µA (5V), RS485 Average (1 measure / second): 4.5 mA (power supply 5V), SDI-12 Average (1 measure / second): 4.5 mA (power supply 5V) Pulse current 100 mA during 30 mS, Warm up time: 100 mS
Sensor	
Weight	750 g (sensor)
Materials in contact with the environment	DELFIN
Maximum pressure	5 bars
Cable / connector	9 armored connectors, polyurethane sheath, bare wires or sealed metal Fischer connector

References

Digital sensor MES5 Odeon Fisher plug 3m	PF-CAP-C-00276	Digital sensor MES5 bare wires 3m	PF-CAP-C-00279
Digital sensor MES5 Odeon Fisher plug 7m	PF-CAP-C-00277	Digital sensor MES5 bare wires 7m	PF-CAP-C-00280
Digital sensor MES5 Odeon Fisher plug 15m	PF-CAP-C-00278	Digital sensor MES5 bare wires 15m	PF-CAP-C-00281
Digital sensor VB5 Odeon Fisher plug 3m	PF-CAP-C-00283	Digital sensor VB5 bare wires 3m	PF-CAP-C-00286
Digital sensor VB5 Odeon Fisher plug 7m	PF-CAP-C-00284	Digital sensor VB5 bare wires 7m	PF-CAP-C-00287
Digital sensor VB5 Odeon Fisher plug 15m	PF-CAP-C-00285	Digital sensor VB5 bare wires 15m	PF-CAP-C-00288

