

# BlueSense Transducer

The **BlueSense** transducer facilitates the processing and calculation of measurement values of physical and chemical sensors. In addition, the transducer features a full controller function that can cover all process-oriented tasks.

The BlueSense transducer is compatible with analogue and digital sensors and actuators of all manufacturers.



## Application Areas



### Drinking Water

- Quality control
- Alarm systems



### Wastewater

- Effluent monitoring
- Trend analysis
- Early detection of discharge (fingerprint)



### Process Measurement & Control Technology

- Process monitoring in industrial facilities
- Control of process water treatment
- Process optimization



### Environmental Monitoring

- River water
- Surface water

## Parameters / Sensors

- Blue-green algae
- Chlorine
- Chlorine dioxide
- Chlorophyll a
- Conductivity
- Dissolved organic substances
- Dissolved oxygen
- ISE
- Level
- Oil in water
- Ozone
- pH
- Redox (ORP)
- Salinity
- Temperature
- Turbidity
- Water pressure

## Main Functions & Features



Monitoring Function



PID-Controller Function



SD Card Data Logger



2 Sensor Inputs



Intelligent Event Handling



Cloud Data Service



Modular & Expandable



CAN bus, Modbus & Profibus

## Technical data

Power supply	12 V DC (9 - 18 V) 24 V DC (18 - 36 V) 230 V AC (90 - 260 V)
Power consumption (typical)	8 W
Dimensions (wxhxd)	23.5 x 18.5 x 11.9 cm
IP protection class	IP 65
Graphic touch display	240 x 128 pixel
Ambient temperature	-10 to +45 °C

## Optional interfaces

1x RS-232, RS-485, var. protocols e.g. Modbus
1x CAN bus for connection to ISA, BlueBox, BlueMon & MPS
1x Ethernet [TCP/IP], Modbus [TCP/IP]
Profibus
GPRS / UMTS / LTE modem

## Inputs

2x Sensor input for selectable parameters
2x Digital-In (static) potential-free contacts
2x Pulse-In (PNP/NPN selectable)

## Outputs

2x Current output 4-20 mA
2x Relay with a switching capacity of 230 V AC/DC; 2 A
2x Relay with a switching capacity of 24 V AC /DC; 0,5 A

## Features & functions

PID controller
Signal compensation
Data storage on SD card
Multipoint calibration

## Product configuration

The BlueSense transducer can optimally be adapted to the customer specific application through the modular configuration of the sensor inputs.



BlueSense

Art. no. 485 0001

# Chlorine sensor for the measurement of free chlorine

Article-No. 461 7001



## Properties

- tenside will be accepted partially
- appropriate chlorinate agent (inorganic chlorine compounds):  
NaOCl (=chlorine bleaching lye)  
Ca(OCl)<sub>2</sub>  
chlorine gas  
chlorine produced by electrolysis

## Applications

- swimming bathes
- drinking water monitoring

Technical data	
Measuring principle	Membrane covered, amperometric working potentiostatic 3-electrode system with integrated electronic
Measurand	free chlorine
Operating temperature	>5°C to <45°C
Temperature compensation	by automatically integrated temperature sensor
max. operating pressure	0,5 bar, no pressure surges and/or vibrations
Mass flow	approx. 30 L/h, low flow dependency exists
pH-range	pH 6 – pH 8, reduced pH-value-dependence
Running-in time	on first starting up approx. 2 h
Response time	T <sub>90</sub> : approx. 30 s
Zero compensation	not necessary
Slope matching	On the meter by means of analytical determination of chlorine (DPD-1 method)
Disturbance	ClO <sub>2</sub> : will be recorded O <sub>3</sub> : will be measured with a slope of approx. 80 % (factor 0,8 referring to the slope of chlorine)
Dimensions	Diameter: approx. 25 mm Length: approx. 175 mm (4-pol-plug-adapter-connection) approx. 220 mm (4 - 20 mA, 2-pole clamp connection)
Storage	unlimited storable when frost free, dry and without electrolyte Benutzte Membrankappen sind nicht lagerfähig!
Maintenance	regular inspection of the measuring signal min. once a week replacement of the membrane cap: once a year (depends on the water quality) electrolyte replacement: every 3 - 6 months