

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

Main Functions & Features



Monitoring Function



PID-Controller Function



SD Card Data Logger



2 Sensor Inputs



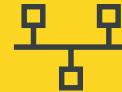
Intelligent Event Handling



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

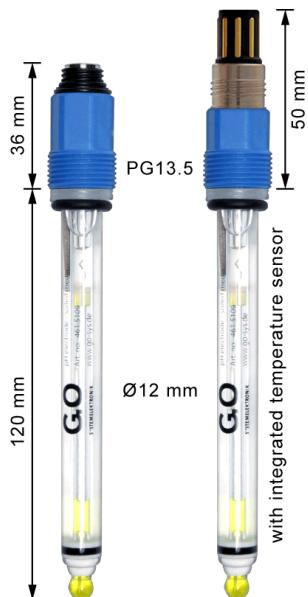
Art. no. 485 0001

Sensor Data Sheet

pH Electrode single-rod measuring cell with zircon diaphragm
(optional with integrated temperature sensor)

DOC 461 5108-X-E-1.2-DS

Article-No. 461 5108-X



Properties

- Low maintenance due to gel filling
- Long service life
- High accuracy through the use of high alkali high temperature glass
- High quality zircon diaphragm for reliable measurement results

Applications

Especially for measurements in:

- Drinking water
- Clear water
- Water with low solids content/suspended matter

Measurement parameter	pH	Temp. (optional)
Measuring principle	Glass electrode	Pt 1000
Measuring range	pH 0 – pH 14	-5 °C to 80 °C
Measuring resolution	0.01	
Measuring interval	≥ 1 s	≥ 1 s
Ambient pressure	max. 2 bar at 20 °C	
Probe conductivity	> 150 µS/cm	
Temperature range	-5 °C to 70 °C	

Electrode Body	pH	Temp. (optional)
Diaphragm	Zircon	
Shaft material	Glass	
Shaft length	120 mm	
Shaft diameter	12 mm	
Electrode Material	AH glass ball	
Reference system	Ag / AgCl / Tepox Gel	
Cable connector	S7 plug 2 poles	Variopin see Page 2
Mounting thread	PG13.5	