


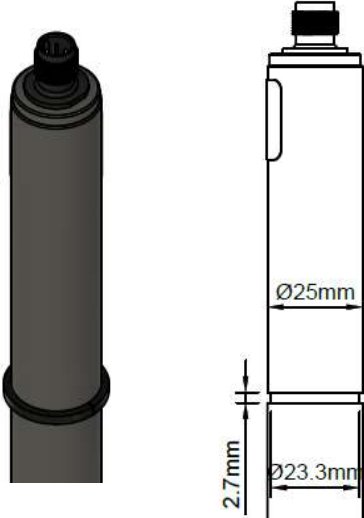
	<h1>TARAtec OZ10.1</h1>												
<p>indicator</p>	<p>ozone</p>												
<p>Application</p>	<p>All kinds of water treatment, also sea water, e. g.</p> <ul style="list-style-type: none"> • Tap water • Deionised water • RO-water <p>The membrane system is mechanical resistant. The membrane system is highly resistant to surfactants (tensides).</p>												
<p>Measuring system</p>	<p>Membrane covered, amperometric 2-electrode system</p>												
<p>Electronic</p>	<p>Analog version:</p> <ul style="list-style-type: none"> - voltage output - not galvanically isolated electronics - analog internal data processing <p>Digital version:</p> <ul style="list-style-type: none"> - output signal: analog (analog-out/analog) - electronic is completely galvanically isolated - digital internal data processing - output signal: analog (analog-out/digital) or digital (digital-out/digital) <p>mA-version:</p> <ul style="list-style-type: none"> - current output analog - not galvanically isolated electronics - output signal: analog (analog-out/analog) 												
<p>Information about the measuring range</p>	<p>The actual slope of a sensor can vary production-related between 65% and 150% of the nominal slope</p> <p>Note: With a slope > 100% the measuring range is reduced accordingly. (Ex.: 150% slope → 67% of the specified measuring range)</p>												
<p>Accuracy after calibration at repeatability conditions (15°C, pH 7.2 in drinking water) of the upper full scale</p>	<table border="0"> <tr> <td>– Measuring range 2 mg/l:</td> <td>at 0.4 mg/l</td> <td><1%</td> </tr> <tr> <td></td> <td>at 1.6 mg/l</td> <td><3%</td> </tr> <tr> <td>– Measuring range 20 mg/l:</td> <td>at 4 mg/l</td> <td><1%</td> </tr> <tr> <td></td> <td>at 16 mg/l</td> <td><2%</td> </tr> </table>	– Measuring range 2 mg/l:	at 0.4 mg/l	<1%		at 1.6 mg/l	<3%	– Measuring range 20 mg/l:	at 4 mg/l	<1%		at 16 mg/l	<2%
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– Measuring range 20 mg/l:	at 4 mg/l	<1%											
	at 16 mg/l	<2%											
<p>Limit of detection</p>	<table border="0"> <tr> <td>– Measuring range 2 mg/l:</td> <td>0.02 ppm</td> </tr> </table>	– Measuring range 2 mg/l:	0.02 ppm										
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<p>Working temperature</p>	<table border="0"> <tr> <td>Measuring water temperature:</td> <td>0 ... +45 °C (no ice crystals in the measuring water)</td> </tr> <tr> <td>Ambient temperature:</td> <td>0 ... +55 °C</td> </tr> </table>	Measuring water temperature:	0 ... +45 °C (no ice crystals in the measuring water)	Ambient temperature:	0 ... +55 °C								
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<p>Temperature compensation</p>	<p>Automatically, by an integrated temperature sensor Response time t_{90} = approx. 8 min. Sudden temperature changes must be avoided</p>												


	<h1>TARAtec OZ10.1</h1>	
<p>Max. allowed working pressure</p>	<p>Operation without retaining ring:</p> <ul style="list-style-type: none"> - 0.5 bar - no pressure impulses and/or vibrations 	
	<p>Operation with retaining ring in TARAFLOW FLC:</p> <ul style="list-style-type: none"> - 1.0 bar, - no pressure impulses and/or vibrations (see option 1) 	
<p>Flow rate (Incoming flow velocity)</p>	<p>approx. 15-30 l/h (33 – 66 cm/s) in TARAFLOW FLC, small flow rate dependence is given</p>	
<p>pH-range</p>	<p>pH 4 – pH 9</p>	
<p>Run-in time</p>	<p>First start-up approx. 1 h</p>	
<p>Response time</p>	<p>T₉₀: approx. 8 min.</p>	
<p>Zero point adjustment</p>	<p>Not necessary</p>	
<p>calibration</p>	<p>At the device, by analytical determination, e. g. DPD-4 method (DPD-1 + DPD-3) Advice: when used in sea water DPD-4 method (DPD-1 + DPD-3) is not selective to ozone</p>	
<p>interferences</p>	<p>Cl₂: OZ10.1H: factor 0.015 OZ10.1N: negligible ClO₂: OZ10.1N: factor 0.06</p>	
<p>Absence of the disinfectant</p>	<p>Max. 24 h</p>	
<p>Connection</p>	<p>mV version: 5-pole M12, plug-on flange Modbus version: 5-pole M12, plug-on flange 4-20 mA version: 2-pole terminal or 5-pole M12, plug-on flange</p>	
<p>max. length of sensor cable (depending on internal signal processing)</p>	<p>analog</p>	<p>< 30 m</p>
	<p>digital</p>	<p>> 30 m are permissible Maximum cable length depends on application</p>
<p>Protection type</p>	<p>5-pole M12 plug-on flange: IP68 2-pole terminal with mA-hood: IP65</p>	
<p>material</p>	<p>Elastomer membrane, PVC-U, stainless steel 1.4571</p>	
<p>Size</p>	<p>diameter: approx. 25 mm Length: mV version approx. 190 mm (analog signal processing) approx.. 205 mm (digital signal processing) Modbus version approx. 205 mm 4-20 mA version approx. 220 mm (2-pole-terminal) approx. 190 mm (5-pole-M12)</p>	

	<h1>TARAtec OZ10.1</h1>
<p>Transport</p>	<p>+5 ... +50 °C (Sensor, electrolyte, membrane cap)</p>
<p>storage</p>	<p>Sensor: dry and without electrolyte no limit at +5 ... +40 °C</p>
	<p>Electrolyte: in original bottle protected from sunlight at +5 ... +35 °C min 1 year or until specified EXP-Date</p>
	<p>Membrane cap: in original packing no limit at +5 ... +40 °C (used membrane caps can not be stored)</p>
<p>maintenance</p>	<p>Regularly control of the measuring signal, min. once a week The following specifications depend on the water quality: Change of the membrane cap: once a year Change of the electrolyte: every 3 - 6 months</p>
	<p>EMC tested RoHS compliant</p>

<p>Option 1: Retaining ring</p>	<ul style="list-style-type: none"> - When operating with pressures >0.5 bar in TARAtflow FLC - Dimensions retaining ring 29 x 23.4 x 2.5 mm, slitted, PETP - Different positions for groove selectable (on request) 	
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Technical Data
1. OZ10.1 (Analog output, analog internal signal processing)

A potential-free electrical connection is necessary as the sensor electronic is not equipped with a galvanical isolation.


	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope in mV/ppm	Voltage supply	Connection
OZ10.1H-M12	0.005...2.000	0.001	0...-2000 mV 1 kΩ	-1000	±5 - ±15 VDC 10 mA	5-pole M12 plug-on flange Function of wires: PIN1: measuring signal PIN2: +U PIN3: -U PIN4: signal GND PIN5: n. c.
OZ10.1N-M12	0.05...20.00	0.01		-100		
OZ10.1HUp-M12	0.005...2.000	0.001	0...+2000 mV 1 kΩ	+1000	10 - 30 VDC 10 mA	5-pole M12 plug-on flange Function of wires: PIN1: measuring signal PIN2: +U PIN3: power GND PIN4: signal GND PIN5: n. c.
OZ10.1Up-M12	0.05...20.00	0.01		+100		

(Subject to technical changes!)

2. OZ10.1 (analog output, digital internal signal processing)

analog-out / digital


- The power supply is galvanically isolated inside of the sensor.
- The output signal is galvanically isolated too, that means potential-free.

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal Slope in mV/ppm	Power supply	Connection
OZ10.1H-An-M12	0.005...2.000	0.001	analog 0...-2 V (max. -2.5 V) 1 kΩ	-1000	9-30 VDC approx. 20-56 mA	5-pole M12 plug-on flange Function of wires: PIN1: measuring signal PIN2: +U PIN3: power GND PIN4: signal GND PIN5: n. c.
OZ10.1N-An-M12	0.05...20.00	0.01		-100		
OZ10.1H-Ap-M12	0.005...2.000	0.001	analog 0...+2 V (max. +2.5 V) 1 kΩ	+1000		
OZ10.1N-Ap-M12	0.05...20.00	0.01		+100		

(Subject to technical changes!)

3. OZ10.1 (digital output, digital internal signal processing)

- The power supply is galvanically isolated inside of the sensor.
- The output signal is galvanically isolated too, that means potential-free.

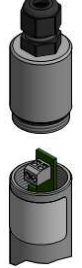
	Measuring range in ppm	Resolution in ppm	Output Output resistance	Power supply	Connection
OZ10.1H-M0c	0.005...2.000	0.001	Modbus RTU There are no terminating resistors in the sensor.	9-30 VDC approx. 20-56 mA	5-pole M12 plug-on flange Function of wires: PIN1: reserved PIN2: +U PIN3: power GND PIN4: RS485B PIN5: RS485A
OZ10.1N-M0c	0.05...20.00	0.01			

(Subject to technical changes!)

4. OZ10.1 4-20 mA (Analog output, analog internal signal processing)


A potential-free electrical connection is necessary as the sensor electronic is not equipped with a galvanical isolation.

4.1 Electrical connection: 2 pole terminal clamp

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope in mA/ppm	Voltage supply	Connection
OZ10.1MA0.5	0.005...0.500	0.001	4...20 mA uncalibrated	32.0	12...30 VDC $R_L = 50\Omega (12V) \dots R_L 900\Omega (30V)$	2-pole terminal (2 x 1 mm ²) Recommended: Round cable Ø 4 mm 2 x 0.34 mm ²
OZ10.1MA2	0.005...2.000	0.001		8.0		
OZ10.1MA5	0.05...5.00	0.01		3.2		
OZ10.1MA10	0.05...10.00	0.01		1.6		
OZ10.1MA20	0.05...20.00	0.01		0.8		

(Subject to technical changes!)

4.2 Electrical connection: 5 pole M12 plug-on flange

	Measuring range	Resolution	Output Output resistance	Nominal slope	Voltage supply	Connection
	in ppm	in ppm		in mA/ppm		
OZ10.1MA0.5-M12	0.005...0.500	0.001	4...20 mA uncalibrated	32.0	12...30 VDC R _L = 50Ω (12V) ... R _L 900Ω (30V)	5-pole M12 plug-on flange Function of wires: PIN1: n. c. PIN2: +U PIN3: -U PIN4: n. c. PIN5: n. c.
OZ10.1MA2-M12	0.005...2.000	0.001		8.0		
OZ10.1MA5-M12	0.05...5.00	0.01		3.2		
OZ10.1MA10-M12	0.05...10.00	0.01		1.6		
OZ10.1MA20-M12	0.05...20.00	0.01		0.8		

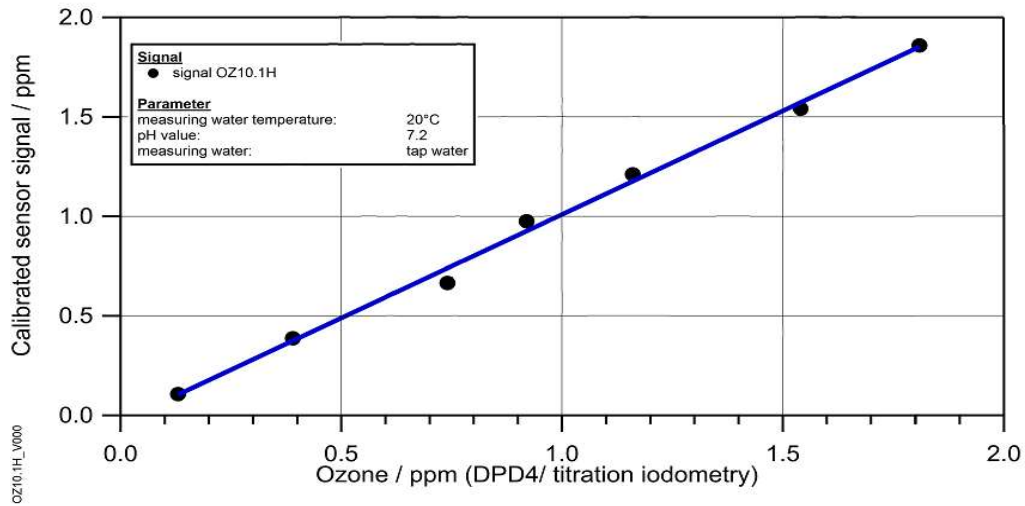
(Subject to technical changes!)

Spare Parts

Type	Membrane cap	Electrolyte	Emery	O-ring
All OZ10.1	M10.3N Art. no. 11057	EOZ7/W, 100 ml Art. no. 11102	S2 Art. no. 11906	20 x 1.5 silicone Art. no. 11803

(Subject to technical changes!)

Linearity of TARAtec OZ10.1H
(at low ozone concentrations)



Slope of TARAtec OZ10.1 versus Flow

Temperature: 25°C / pH value: 7.2 / Ozone: 0.2 ppm

