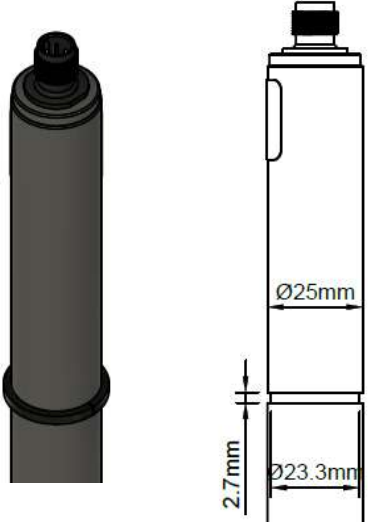


	TARAtec OZ10.1														
indicator	ozone														
Application	All kinds of water treatment, also sea water, e. g. • Tap water • Deionised water • RO-water The membrane system is mechanical resistant. The membrane system is highly resistant to surfactants (tensides).														
Measuring system	Membrane covered, amperometric 2-electrode system														
Electronic	Analog version: - voltage output - not galvanically isolated electronics - analog internal data processing - output signal: analog (analog-out/analog) Digital version: - electronic is completely galvanically isolated - digital internal data processing - output signal: analog (analog-out/digital) or digital (digital-out/digital) mA-version: - current output analog - not galvanically isolated electronics - output signal: analog (analog-out/analog)														
Information about the measuring range	The actual slope of a sensor can vary production-related between 65% and 150% of the nominal slope Note: With a slope > 100% the measuring range is reduced accordingly. (Ex.: 150% slope → 67% of the specified measuring range)														
Accuracy after calibration at repeatability conditions (15°C, pH 7.2 in drinking water) of the upper full scale	<table><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%
– 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%													
Limit of detection	<table><tr><td>– Measuring range 2 mg/l:</td><td>0.02 ppm</td></tr></table>			– Measuring range 2 mg/l:	0.02 ppm										
– Measuring range 2 mg/l:	0.02 ppm														
Working temperature	Measuring water temperature:	0 ... +45 °C (no ice crystals in the measuring water)													
	Ambient temperature:	0 ... +55 °C													
Temperature compensation	Automatically, by an integrated temperature sensor Response time t_{90} = approx. 8 min. Sudden temperature changes must be avoided														

		TARAtec OZ10.1	
Max. allowed working pressure	Operation without retaining ring: – 0.5 bar – no pressure impulses and/or vibrations		
	Operation with retaining ring in TARAflow FLC: – 1.0 bar, – no pressure impulses and/or vibrations (see option 1)		
Flow rate (Incoming flow velocity)	approx. 15-30 l/h (15 – 30 cm/s) in TARAflow FLC, small flow rate dependence is given		
pH-range	pH 4 – pH 9		
Run-in time	First start-up approx. 1 h		
Response time	T ₉₀ : approx. 8 min.		
Zero point adjustment	Not necessary		
calibration	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		
interferences	Cl ₂ : OZ10.1H: factor 0.015 OZ10.1N: negligible ClO ₂ : OZ10.1N: factor 0.06		
Absence of the disinfectant	Max. 24 h		
Connection	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		
max. length of sensor cable (depending on internal signal processing)	analog	< 30 m	
	digital	> 30 m are permissible Maximum cable length depends on application	
Protection type	5-pole M12 plug-on flange:		IP68
	2-pole terminal with mA-hood:		IP65
material	Elastomer membrane, PVC-U, stainless steel 1.4571		
Size	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)	

	TARAtec OZ10.1	
Transport	+5 ... +50 °C (Sensor, electrolyte, membrane cap)	
storage	Sensor:	dry and without electrolyte no limit at +5 ... +40 °C
	Electrolyte:	in original bottle protected from sunlight at +5 ... +35 °C min 1 year or until specified EXP-Date
	Membrane cap:	in original packing no limit at +5 ... +40 °C (used membrane caps can not be stored)
maintenance	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	
	EMC tested RoHS compliant	

Option 1: Retaining ring	– When operating with pressures >0.5 bar in TARAflow 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)

	Measuring range	Resolution	Output Output resistance	Nominal slope	Voltage supply	Galvanic isolation required in the measuring device/controller *	Connection
	in ppm	in ppm		in mV/ppm			
OZ10.1H-M12	0.005...2.000	0.001	0...-2000 mV 1 kΩ	-1000	±5 - ±15 VDC 10 mA	yes	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			

* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website www.reiss-gmbh.com)

(Subject to technical changes!)

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

	Measuring range	Resolution	Output Output resistance	Nominal slope	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
	in ppm	in ppm		in mV/ppm			
OZ10.1H-An-M12	0.005...2.000	0.001	analog 0...-2 V (max. -2.5 V)	-1000	9-30 VDC approx. 7-30 mA	no	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	1 kΩ	-100			
OZ10.1H-Ap-M12	0.005...2.000	0.001	analog 0...+2 V (max. +2.5 V)	+1000			
OZ10.1N-Ap-M12	0.05...20.00	0.01	1 kΩ	+100			

* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website www.reiss-gmbh.com)

(Subject to technical changes!)

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

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Power supply	Galvanic isolation required in the measuring device/controller *	Connection
OZ10.1H-M0c	0.005...2.000	0.001	Modbus RTU	9-30 VDC	no	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	There are no terminating resistors in the sensor.	approx. 7-30 mA		

* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website www.reiss-gmbh.com)

(Subject to technical changes!)

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

4.1 Electrical connection: 2 pole terminal clamp

	Measuring range	Resolution	Output Output resistance	Nominal slope	Voltage supply	Galvanic isolation required in the measuring device/controller *	Connection
	in ppm	in ppm		in mA/ppm			
OZ10.1MA0.5	0.005...0.500	0.001	4...20 mA uncalibrated	32.0	12...30 VDC R _L = 50Ω (12V) ... R _L 900Ω (30V)	yes	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			

* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website www.reiss-gmbh.com)

(Subject to technical changes!)

4.2 Electrical connection: 5 pole M12 plug-on flange

	Measuring range	Resolution	Output Output resistance	Nominal slope	Voltage supply	Galvanic isolation required in the measuring device/controller *	Connection
	in ppm	in ppm		in mA/ppm			
	OZ10.1MA0.5-M12	0.005...0.500	4...20 mA uncalibrated	32.0	12...30 VDC $R_L = 50\Omega (12V) \dots R_L 900\Omega (30V)$	yes	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		8.0			
	OZ10.1MA5-M12	0.05...5.00		3.2			
	OZ10.1MA10-M12	0.05...10.00		1.6			
	OZ10.1MA20-M12	0.05...20.00		0.8			

* for further information see brochure 'Technical information // galvanic isolation' (in the download area of our website www.reiss-gmbh.com)

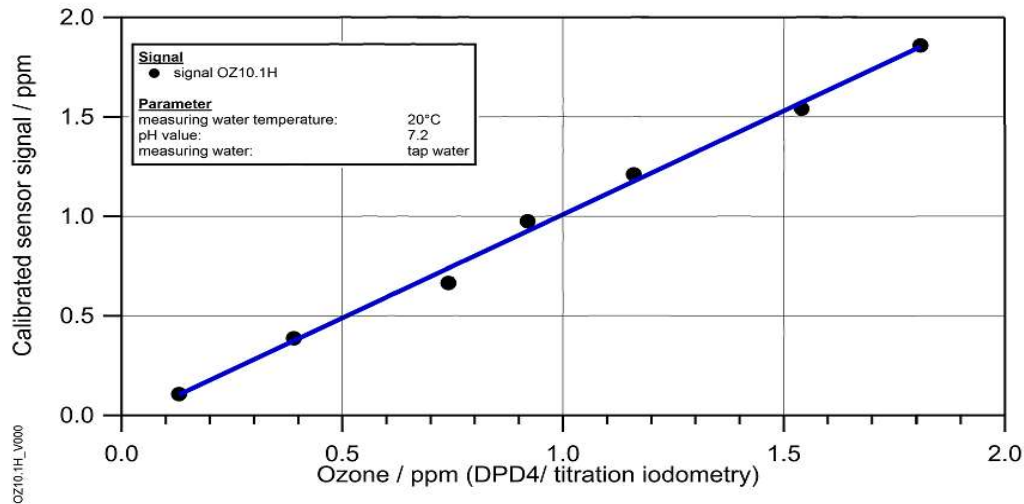
(Subject to technical changes!)

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

