

March 2022 (EN) V15

	TARAbase OZ1.2					
indicator	ozone					
Application	Swimming pool water, drinking water, service water, process water The water must not contain any 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/analog)         - digital internal data processing         - output signal:         - or         - digital (digital-out/digital)         - or         - output signal:         - 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 $\rightarrow$ 67% of the specified measuring range)					
Slope drift At repeatability conditions (25 °C, pH 7,2 in drinking water)	approx. <-1% per month					
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 Sudden temperature changes must be avoided					
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. 15-30L/h (33 – 66 cm/s) in TARAflow FLC, small flow rate dependence is given					



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	TARAbase OZ1.2					
pH-range	pH 2 – pH 11					
Run-in time	First start-up approx. 1 h					
Response time	T <sub>90</sub> : approx. 15 sec.					
Zero point adjustment	Not necessary					
calibration	At the device, by analytical determination					
interferences	Cl <sub>2</sub> : factor 0.03 ClO <sub>2</sub> : factor 0.7					
Absence of the disinfectant	Max. 24 h					
Connection	mV version:5-pole M12, plug-on flangeModbus version:5-pole M12, plug-on flange4-20 mA version:2-pole terminal or 5-pole M12, plug-on flange					
max. length of sensor cable	analog < 30 m					
(depending on internal signal processing)	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	Semipermeable membrane, PVC-U, ABS					
Size	diameter:approx.25 mmLength:mV versionapprox.190 mm (analog signal processing)Modbus versionapprox.205 mm (digital signal processing)4-20 mA versionapprox.205 mmapprox.205 mm (digital signal processing)approx.205 mmapprox.205 mmapprox.205 mmapprox.210 mm (2-pole-terminal)approx.190 mm (5-pole-M12)					
Transport	+5 +50 °C (sensor, electrolyte, membrane cap)					



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	TARAbase OZ1.2
	Sensor: dry and without electrolyte no limit at +5 +40 °C
storage	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 (depending on the water quality) Change of the electrolyte: every 3 - 6 months
CE	EMC tested RoHS compliant

Option 1: Retaining ring	<ul> <li>When operating with pressures &gt;0.5 bar in TARAflow FLC</li> <li>Dimensions retaining ring 29 x 23.4 x 2.5 mm, slitted, PETP</li> <li>Different positions for groove selectable (on request)</li> </ul>		Ø25mm Ø23.3mm
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# **Technical Data**

#### 1. OZ1.2 (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
				mmv/ppm		5-pole M12 plug-on
OZ1.2H-M12	0.0052.000	0.001		-1000		flange
OZ1.2N-M12	0.0520.00	0.01	02000 mV 1 kΩ	-100	±5 - ±15 VDC 10 mA	PIN1: measuring signal PIN2: +U PIN3: -U PIN4: signal GND PIN5: n. c.
OZ1.2HUp-M12	0.0052.000	0.001	0+2000 mV	+1000	10 - 30 VDC	5-pole M12 plug-on flange Function of wires:
OZ1.2NUp-M12	0.0520.00	0.01	0+2000 mV 1 kΩ +100		10 mA	PIN1: measuring signal PIN2: +U PIN3: power GND PIN4: signal GND PIN5: n. c.

(Subject to technical changes!)

## 2. OZ1.2 (analog output, digital 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
OZ1.2H-An-M12	0.0052.000	0.001	analog 02 V (max2.5	-1000		5-pole M12 plug-on flange
OZ1.2N-An-M12	0.0520.00	0.01	V) 1 kΩ	-100	9-30 VDC approx. 20-56 mA	Function of wires:
OZ1.2H-Ap-M12	0.0052.000	0.001	analog 0+2 V (max.	+1000		PIN1: measuring signal PIN2: +U PIN3: power GND
OZ1.2N-Ap-M12	0.0520.00	0.01	+2.5 V) 1 kΩ	+100		PIN4: signal GND PIN5: n. c.

(Subject to technical changes!)



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3. OZ1.2 (digital output, digital 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
OZ1.2H-M0c	0.0052.000	0.001	Modbus RTU	9-30 VDC	5-pole M12 plug-on flange Function of wires: PIN1: reserved
OZ1.2N-M0c	0.0520.00	0.01	There are no terminating resistors in the sensor.	approx. 20-56 mA	PIN1: reserved PIN2: +U PIN3: power GND PIN4: RS485B PIN5: RS485A

(Subject to technical changes!)

#### 4. OZ1.2 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	Output Output resistance	Nominal slope in mA/ppm	Voltage supply	Connection
OZ1.2MA0.5	0.0050.500	0.001		32.0		
OZ1.2MA2	0.0052.000	0.001		8.0		2-pole terminal (2 x 1 mm <sup>2</sup> )
OZ1.2MA5	0.055.00	0.01	420 mA uncalibrated	3.2	1230 VDC RL 50ΩRL 900Ω	Recommended: Round cable $\varnothing$ 4 mm 2 x 0.34 mm <sup>2</sup>
OZ1.2MA10	0.0510.00	0.01		1.6		
OZ1.2MA20	0.0520.00	0.01		0.8		

(Subject to technical changes!)



### 4.2 Electrical connection: 5 pole M12 plug-on flange

	Measuring range in ppm	Resolution in ppm	Output Output resistance	Nominal slope in mA/ppm	Voltage supply	Connection	
OZ1.2MA0.5-M12	0.0050.500	0.001		32.0		5-pole M12	
OZ1.2MA2-M12	0.0052.000	0.001	420 mA uncalibrated	8.0		plug-on flange	
OZ1.2MA5-M12	0.055.00	0.01		-	3.2	1230 VDC	wires: PIN1: n. c.
OZ1.2MA10-M12	0.0510.00	0.01		1.6		PIN2: +U PIN3: -U PIN4: n c.	
OZ1.2MA20-M12	0.0520.00	0.01		0.8		PIN5: n. c.	

(Subject to technical changes!)

## **Spare Parts**

Туре	Membrane cap	Electrolyte	Emery	O-ring
For all OZ1.2	M20.2	EOZ1/W, 100 ml	S1	14 x 1.8 silicone
	Art. no. 11011.1	Art. no. 11101	Art. no. 11908	Art. no. 11805

(Subject to technical changes!)

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