

	<h1>TARAtec WP7</h1>
indicator	Hydrogen peroxide
Application	All kinds of water treatment, also sea water (e. g. bottle washing machine, CIP-plants) The membrane system is mechanical resistant. Surfactants (tensides) are partially tolerated.
Measuring system	Membrane covered, amperometric 2-electrode system
Electronic	<p>Analog version:</p> <ul style="list-style-type: none"> <li>- voltage output</li> <li>- not galvanically isolated electronics</li> <li>- analog internal data processing</li> <li>- output signal: analog (analog-out/analog)</li> </ul> <p>Digital version:</p> <ul style="list-style-type: none"> <li>- electronic is completely galvanically isolated</li> <li>- digital internal data processing</li> <li>- output signal: analog (analog-out/digital) or digital (digital-out/digital)</li> </ul> <p>mA-version:</p> <ul style="list-style-type: none"> <li>- current output analog</li> <li>- not galvanically isolated electronics</li> <li>- output signal: analog (analog-out/analog)</li> </ul>
Information about the measuring range of sensors with 4-20 mA	<p>Slope of a sensor can vary production-related or application-related between 65% and 150% of the nominal slope</p> <p>-&gt; Recommendation to determine the suitable measuring range or the suitable sensor: Concentration to be measured x factor 1.5 = measuring range of the sensor</p> <p>Example: Concentration to be measured 1.6 ppm x 1.5 = 2.4 -&gt; recommended sensor with a measuring range of 5 ppm</p>
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 Max. change in temperature: 5 °C per hour, 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: 1.0 bar, no pressure impulses and/or vibrations
Flow rate	approx. 15-30L/h in TARAflow FLC, small flow rate dependence is given




	<h1>TARAtec WP7</h1>
<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-Testing DIN EN 61326-1, 61326-2-3          RoHS compliant</p>

**Technical Data**
**1. WP7 (Analog output, analog internal signal processing)**

analog-out / analog

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
WP7H	0.5...200.0	0.1	0...-2000 mV 1 kΩ	-10	±5 - ±15 VDC 10 mA	4-pole screw connector
WP7N	5...2000	1		-1		
WP7Up	5...2000	1	0...+2000 mV 1 kΩ	+1	10 – 30 VDC 10 mA	

(Subject to technical changes!)

**2. WP7 (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
WP7H-An	0.5... 200.0	0.1	analog 0...-2 V (max. -2.5 V)	-10	9-30 VDC approx. 56-20 mA	4-pole screw connector
WP7N-An	5... 2000	1	1 kΩ	-1		
WP7H-Ap	0.5... 200.0	0.1	analog 0...+2 V (max. +2.5 V)	+10		
WP7N-Ap	5... 2000	1	1 kΩ	+1		

(Subject to technical changes!)

### 3. WP7 (digital output, digital internal signal processing)

digital-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	Power supply	Connection
WP7H-M0c	0.5... 200.0	0.1	Modbus RTU	9-30 VDC	5-pole M12 plug-on flange
WP7N-M0c	5... 2000	1	There are no terminating resistors in the sensor.	approx. 56-20 mA	


(Subject to technical changes!)

### 4. WP7 4-20 mA (Analog output, analog internal signal processing)

analog-out / analog


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	Resolution	Output Output resistance	Nominal slope	Voltage supply	Connection
WP7MA-CC	0.5...200.0 ppm	0.1 ppm	4...20 mA  uncalibrated	0.08 mA/ppm	12...30 VDC  R <sub>L</sub> 50Ω...R <sub>L</sub> 900Ω	2-pole terminal (2 x 1 mm <sup>2</sup> )  Recommended: Round cable ∅ 4 mm 2 x 0.34 mm <sup>2</sup>
WP7MA-D	5.0...500.0 ppm	0.1 ppm		0.032 mA/ppm		
WP7MA-MM	5...2000 ppm	1 ppm		0.008 mA/ppm		
WP7MA-XM	0.005...1% (10000 ppm)	0.001 % (10 ppm)		16 mA/% (0.0016 mA/ppm)		

(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
WP7MA-CC-M12	0.5...200.0 ppm	0.1 ppm	4...20 mA  uncalibrated	0.08 mA/ppm	12...30 VDC  R <sub>L</sub> 50Ω...R <sub>L</sub> 900Ω	5-pole M12 plug-on flange  Function of wires: PIN2: +U PIN3: -U
WP7MA-D-M12	5.0...500.0 ppm	0.1 ppm		0.032 mA/ppm		
WP7MA-MM-M12	5...2000 ppm	1 ppm		0.008 mA/ppm		
WP7MA-XM-M12	0.005...1% (10000 ppm)	0.001 % (10 ppm)		16 mA/% (0.0016 mA/ppm)		

(Subject to technical changes!)

#### Spare Parts

Type	Membrane cap	Electrolyte	Emery	O-ring
WP7H	M7.1N Art. No. 11014.1	EWP7/W, 100 ml Art. no. 11201	S2 Art. no. 11906	14 x 1.8 NBR Art. no. 11806
WP7HUn				
WP7N				
WP7Un				
WP7Up				
WP7MA-CC				
WP7MA-D				
WP7MA-MM				
WP7MA-XM	M7.1D Art. no. 11015.1			

(Subject to technical changes!)