

## Automatic measuring station at lake Arendsee

### Automatische Messstation am Arendsee

from: 2011-09-16      ongoing

#### Metadata description for "Arendsee Messstation" (37)

Since 2011 operates the automatic measuring station at the deepest point (49m) of the lake. The meteorological parameters are measured with the MeteoMS multisensor and the CMP3 pyranometer from ecotech, Bonn. The water parameters are measured by the multiparameter probe YSI 6600-V2(4) at app. 1.5m depth. The measurements are made in 10 min intervals.

**Gaps in the measuring series:** 03.02.2012 – 15.02.2012  
03.02.2014 – 12.02.2014  
14.11.2014 – 20.11.2014  
26.11.2014 – 01.12.2014  
07.02.2016 – 15.03.2016

#### Informations about the Dataset:

- Non-existent data marked with NaN
- 2017: After storm Xavier the wind direction is not completely correct ( 05.10. - 11.10.2017)

#### Technical data MeteoMS (Measurement of the 6 most important weather parameters in one device):

	measuring range	resolution	accuracy
• Wind velocity:	0 ... 60 m/s	0,1 m/s	±3% at 10 m/s
• Wind direction:	0 ... 360°	1°	±3°
• Precipitation:	0 ... 200 mm/h	0,01 mm	5%
• Temperature:	-52 ... 60 °C	0,1°C	±0,3°C at 20°C
• Relative moisture:	0 ... 100 % rF	0,1% rF	±3% bei 0...90% rF
• Air pressure:	600 ... 1100 hPa	0,1 hPa	±0,5 hPa at 0...+30°C



**Technical data pyranometer CMP3 (Solar sensor to measure global radiation, based on the thermopile principle):**

- Measuring range: 0...2000 W/m<sup>2</sup>
- Sensitivity: 5...20 μV/W/m<sup>2</sup>
- Spectral range: 300...2800 nm

**Technical data YSI 6600 V2 (4):**

	measuring range	resolution	accuracy
• Optical Dissolved Oxygen:			
• % Saturation	0 ... 500 %	0,1 %	±1 % to 200 %
• mg L <sup>-1</sup>	0 ... 50 mg L <sup>-1</sup>	0,01 mg L <sup>-1</sup>	±0,1 % to 20 mg L <sup>-1</sup>
• Conductivity:	0 ... 100 mS cm <sup>-1</sup>	range dependent	±5 %
• Temperature:	-5 ... +50°C	0,01°C	±15°C
• pH:	0 ... 14 units	0,01 unit	±0,2 unit
• Turbidity:	0 ... 1000 NTU	0,1 NTU	±2 %
	Range	detection limit	resolution
• Phycocyanin:	0 ... 100 RFU		0,1 RFU
• Chlorophyll	ca. 0 ... 400 μg L <sup>-1</sup>	ca. 0,1 μg L <sup>-1</sup>	0,1 μg L <sup>-1</sup>



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