

# Controller AEGIS II

Treatment of cooling water in evaporation cooling systems - VDI 2047 and 42-compliant  
Federal Immission Control Ordinance (BImSchV)-compliant



The AEGIS II records all the necessary measuring parameters for cooling water treatment and controls the functions necessary for smooth operation:

- Measures the electrolytic conductivity – controls bleeding
- Biocide metering – time-dependent or as measurement and control, VDI 2047 and 42-compliant. Federal Immission Control Ordinance (BImSchV)-compliant (e.g. chlorine)
- Corrosion measurement – determines whether enough corrosion inhibitor is being metered
- pH measurement – measures and controls the pH value

## Your benefits

- Control of biocide metering over 1, 7 or 28 days, real-time clock
- If desired, the biocide concentration can be measured and controlled online.
- Measurement of conductivity, temperature and flow control with the CTFS type digital sensor.
- Serial web interface for unit configuration and remote maintenance with e-mail alarms (the controller must be connected to the Internet for e-mail alarms). WiFi as an option .
- Forced bleeding: performs bleeding before biocide metering, based on time or measured values.
- Bleed lock: blocks bleeding after biocide metering has taken place.

## Field of application

- Control of bleeding in evaporation cooling systems.
- Volume-proportional control or regulation of the metering of corrosion inhibitors, de-foamers and dispersants.
- Measurement and control of the inhibitor concentration through the use of a fluorescence sensor.
- Measurement and optionally control of the pH value and ORP voltage.
- Metering of biocides, based on time or measured values.



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## Technical Data

<b>Measuring range</b>	<b>Conductivity:</b> with digital sensor CTFS at input A and B and via serial module D1: 0.1 - 10 mS/cm via conductivity module L3 depending on sensor used (LMP, LFT): 50 µS/cm - 20 mS/cm via mA module AA with the inductive conductivity sensor ICT: 8 to 2 mS/cm, 20 mS/cm, 200 mS/cm <b>Connection type mV:</b> pH: 0,00 ... 14,00 ORP voltage: - 1,500 ... + 1,500 mV <b>Type of connection mA (amperometric measured variables, measuring ranges according to sensors, 2 ppm, 10 ppm):</b> Chlorine Chlorine dioxide Bromine <b>Temperature:</b> via Pt 100/Pt 1000, measuring range 0 ... 150 °C
<b>Resolution</b>	pH: 0,01 ORP voltage: 1 mV Temperature: 0.1 °C Amperometric analysis (chlorine etc.): 0.001/0.01 ppm, 0.01 Vol.%, 0.1 Vol.%
<b>Inputs and outputs</b>	3 plug-in module positions for 2-channel plug-in modules according to identity code 1 mA input for any analogue signals 5 output relays acting as changeover contacts, of which 3 are potential-free and 2 are AC/DC 4 pulse frequency outputs for controlling metering pumps 2 serial sensor inputs for CFTS conductivity sensors and CRS corrosion sensors 8 digital control inputs for contact water meter, flow switch and pause for locking
<b>Accuracy</b>	0.3 % based on the full-scale reading
<b>Measurement input</b>	pH/ORP (input resistance > 0.5 x 10 <sup>12</sup> Ω)
<b>Temperature compensation</b>	Pt 100/Pt 1000 for pH
<b>Temperature correction range</b>	0 ... 100 °C
<b>Control characteristic</b>	P/PID control
<b>Electrical connection</b>	90 – 253 V, 50/60 Hz, 25 VA, 24 V DC
<b>Field bus connection</b>	Modbus RTU, additional field buses via gateway
<b>Ambient temperature</b>	0 ... 50 °C (for use indoors or with a protective enclosure)
<b>Enclosure rating</b>	Wall-mounted: IP 67
<b>Tests and approvals</b>	CE, MET (corresponding to UL as per IEC 61010)
<b>Housing material</b>	PPE with flame-proof finish
<b>Dimensions</b>	H x W x D 240 x 360 x 110 mm
<b>Climate</b>	Permissible relative humidity: 95 %, non-condensing DIN IEC 60068 –2-30



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## Description of modules

### Module AA mA/mA sensor input (slot 1-3):

- 2 sensor inputs for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1

### Module V2 mV/mV temperature sensor input (slot 2-3):

- 2 sensor inputs for the connection of pH and ORP sensors and temperature sensors Pt100/Pt1000, e.g. of type PHER, RHER, PHEI, RHEIC, Pt100SE

### Module H1 mA/mA output (slot 1-3):

- 2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables

### Module D1 serial sensor monitoring module (slot 1-3):

- Module 2 digital sensor input for the connection of CTFS or CRS corrosion sensors

### Module V1 mV/temperature + mA module (slot 2-3):

- 1 sensor input for pH or ORP sensor and temperature sensor Pt100/Pt1000
- 1 sensor input for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1

### Module CM Modbus RTU + 2 mA outputs (slot 3):

- 1 Modbus RTU slave, for connection to a PLC Programmable Logic Controller or gateway
- 1 Modbus RTU master, for the connection of a Pyxis fluorometer sensor
- 2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables

### Module CA Modbus RTU + 2 mA outputs + 2 mA inputs (slot 3):

- 1 Modbus RTU slave, for connection to a PLC Programmable Logic Controller or gateway
- 1 Modbus RTU master, for the connection of a Pyxis fluorometer sensor
- 2 galvanically isolated analogue outputs 0/4-20 mA for the output of measured values of control variables
- 2 sensor inputs for the connection of, for example, chlorine sensors, such as CBR or pH switch-over pHV1

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