Controller AEGIS II

Treatment of cooling water in evaporation cooling systems

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
- 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

Measuring range	**Conductivity:** 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 **Connection type mV:** pH: 0,00 ... 14,00 ORP voltage: - 1,500 ... + 1,500 mV **Type of connection mA (amperometric measured variables, measuring ranges according to sensors, 2 ppm, 10 ppm):** Chlorine Chlorine dioxide Bromine **Temperature:** via Pt 100/Pt 1000, measuring range 0 ... 150 °C
Resolution	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.%
Inputs and outputs	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
Accuracy	0.3 % based on the full-scale reading
Measurement input	pH/ORP (input resistance > 0.5 x 10^{12} Ω)
Temperature compensation	Pt 100/Pt 1000 for pH
Temperature correction range	0 … 100 °C
Control characteristic	P/PID control
Electrical connection	90 – 253 V, 50/60 Hz, 25 VA, 24 V DC
Field bus connection	Modbus RTU, additional field buses via gateway
Ambient temperature	0 ... 50 °C (for use indoors or with a protective enclosure)
Enclosure rating	Wall-mounted: IP 67
Tests and approvals	CE, MET (corresponding to UL as per IEC 61010)
Housing material	PPE with flame-proof finish
Dimensions	H x W x D 240 x 360 x 110 mm
Climate	Permissible relative humidity: 95 %, non-condensing DIN IEC 60068 –2-30

DESCRIPTION OF MODULES

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

- 2 sensor inputs for connecting, e.g. chlorine sensors, such as CBR or pH transducer pHV1

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

- 2 sensor inputs for connecting 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 electrically isolated 0/4-20 mA analogue outputs for the output of measured values or control variables

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

- Module 2 digital sensor inputs for connecting 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 connecting, e.g. chlorine sensors, such as CBR or pH transducer pHV1

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