OJ-Air AHC-3000-X Software 1.02

Software 1.02 is now released for up-grade by the free PC tool. In the production at OJ Electronics is version 1.00 still used until further notice.

Changes

Compared to version 1.01 there were following improvements:

Functionality

- AHU type Mixing, Supply and Extract.
- Features requiring flow measurements on fans
  - Counterflow pressure de-icing added.
  - Flow dependent filter pressure alarm (Pressure dynamic)
  - VOC/CO_2 control loop.
  - Humidity control loop.
- Supply Air unit Mixing damper.
- Pump for Heater/Cooling water coil is now controlled by DO1.
- Heater electric coil analogue output AO2 is forced to 0V if no Air flow or digital input "Supply Fan alarm" is active.
- OJ-Air2Ext address 3: Din1 is now "not used" and Din2 is "Frost thermostat"
- Filter switch alarm digital inputs can be selected Normally open (NO) or Normally closed (NC)
- Fan alarm digital input can be selected Normally open (NO), Normally closed (NC) or Tacho.
- Maximum Electric heating coil power is reduced at low fan speed if fan control loop is "Constant motor speed%"
- Room temperature symbol is only shown if sensor is installed
- Digital inputs "El-heater alarm" and "Cooler alarm" added.
- Exhaust fan Modbus address corrected to 55 dec.
- BMS Modbus RTU communication.
- Flow selection m3/h, l/s and CFM shows automatically correct values. **OBS**: k-factors for fans shall always be entered in l/s.
- Datalog includes 78 parameters. PC-tool vers. 1.1 shall be used for read-out with correct headers.

OBS: All changes in the configuration shall be made in Service Stop.

Alarms

- DRHX alarm is now released after 3 seconds if motor cable is disconnected.
- Alarms added for CO_2, Temperature and Humidity sensor error on 0-10V input AI1, AI2 and AI3.

Software versions

- AHC-3000-X software 1.02
- AHC-3000-HMI-35T software 1.01

Affected articles

AHC-3000-T
AHC-3000-B
AHC-3000-S
AHC-3000-HMI-35T

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Coming into force
Version 1.02 is released in week 19 2019.

Features to be released in the summer 2019
- BasicBMS and Satellites
- VOC/CO_2 control loop without flow measurement.
- Humidity control loop without flow measurement.
- AHC-3000-S together with OJ-Air2-HMI-20T
- AHC-3000-S VOC/CO_2 and humidity control loops

Software Upgrade
The software file are available at OJ Electronics Customer log-in, and can be upgraded using PC-Tool vers. 1.0 or higher.

- AHC3000_MCUSW_102_00_0000.zip

OBS: In order to make a safe software update please follow this procedure:
1. Remove power plug from AHC-3000
2. Connect USB to RS485 cable to AHC-3000 HMI port
3. Power up AHC-3000
4. Update the AHC-3000 controller by the PC tool
5. Remove power plug from AHC-3000
6. Remove USB to RS485 cable from AHC-3000 HMI port
7. Power up AHC-3000
8. Wait until red flashing LED at the power plug starts flashing green
9. Hot plug the HMI to the AHC-3000 HMI port
10. Wait until the HMI stops flashing White/black
11. The HMI is now updated and the new version can be read out in the sw menu.

Converting k-factor to l/s
The k-factor used for air volume calculation shall always be entered in l/s. Available k-factors in another engineering unit shall be converted to l/s before entering. This is done by multiplying the k-factor by the correct value in the table below:

	..to l/s multiply by	..to CFM multiply by	..to m^3/h multiply by
From m^3/h..	0,277778	0,588578	1
From l/s..	1	2,11888	3,6
From CFM..	0,471947	1	1,699009

Contact
If further technical information is required please contact our support at: support@oj.dk.