**Revision history**

| Release date | CU Firmware version | Changes |
|---|---|---|
| 16.1.2023 | | First draft |
| 27.2.2023 | | Added status registers |
| 30.4.2023 | | Cleanup + some additions |
| 16.8.2023 | | Updates |
| 30.10.2023 | | Cleanup |
| 5.11.2023 | | Minor changes to match phone app requirments better |
| 2.12.2023 | | Floor limit moved to zone, naming in 20000 and 20001, limits in 0zz15/16 and 20000-20003 |
| 20.12.2023 | | Group vs. Custom reversed, week clock defaults + small fixes |
| 11.1.2024 | | Floor limit activated + future reservations for RH |
| 19.1.2024 | | OTA packet version number added |
| 8.2.2024 | | Hop count and ota progress added |
| 9.2.2024 | | CU and RU HW types added |
| 11.3.2024 | | Zone helper update |
| 15.5.2024 | | Floor max default + some fixes |
| 14.6.2024 | | 0ZZ08 description corrected. Removed "future reservations" from dew point monitoring, since that has been implemented. |
| 26.6.2024 | | Modbus slave ID range corrected |

**Definitions**

| | | |
|---|---|---|
| CU | Control Unit | General term for Receiver. 8 channels. |
| CU8 | 8 channel Control Unit | A CU8 can act as stand-alone master, a slave in a network or as master which hosts a radio based network of CU's. It also supports Modbus RTU with access to the whole network. |
| RU | Room Unit | General term for Room Unit = Thermostat |
| Zone | Area controlled by one RU | Max 8 zones per CU. Up to 64 zones available in a network consisting of 8 CU's. Zone numbers will be assinged in order of pairing within each CU. |
| Master | Main CU in network | If only one CU is used, this will still be set as Master. The master is always CU1 |
| Slave | Secondary CU in network | A slave will be assinged number CU2 … CU8 in order of pairing |

**General information**

Dialect Modbus RTU, RS485
Modbus address is adjustable between 1 - 63. Default: 1
The baud rate is adjustable to 9600, 19200, 38400, 115200  baud. Default: 38400
Parity is adjustable to: None, Odd, Even. Default: N
Stop Bits is adjustable to 1 or 2. Default: 1
Data Bits: 8
Note, a setpoint of the room temperature will have resolution of 0.5 degrees when the value sent to our room thermostat from the BMS sytem. (20.0, 20.5, etc.)

| Address 4x | R/W | Register name | Min | Max | Default | Unit | Format | Description |
|---|---|---|---|---|---|---|---|---|
| **System holding registers** | | | | | | | | |
| 1 | R/W | Date Year | 2010 | 2099 | 2023 | year | uint16 | |
| 2 | R/W | Date Month | 1 | 12 | 2 | month | uint16 | |
| 3 | R/W | Date Day | 1 | 31 | 17 | day | uint16 | |
| 4 | R/W | Time Hour | 0 | 23 | 0 | h | uint16 | |
| 5 | R/W | Time Minute | 0 | 59 | 0 | min | uint16 | |
| 6 | R/W | Time Second | 0 | 59 | 0 | s | uint16 | |
| 7 | R/W | Time Week Day Number | 1 | 7 | | | uint16 | 1 is Monday |
| 901 | R | Modbus slave ID | 1 | 63 | 1 | | uint16 | Set with 6 LSB dip switches, read register only |
| 902 | R | Modbus baudrate | 0 | 3 | 1 | | uint16 | Set with 2 MSB dip switches. 0=115200 bits/s, 1=38400, 2=19200, 3=9600, read register only. |
| 903 | R/W | Modbus parity | 0 | 2 | 0 | | uint16 | 0=None, 1=Odd, 2=Even |
| 904 | R/W | Modbus stop bits | 1 | 2 | 1 | | uint16 | |
| **Zone (RU) holding registers** | | | | | | | | |
| Address: Replace ZZ with zone number Zone1=10, Zone2=11, Zone64=73 | | | | | | | | Zones 1-8 belong to the CU1, Zones 9-16 to the CU2 and so on. If all Zones of a CU are not used the remaining ones are skipped. For example 1st and 2nd RU in 1st CU are Zones 1 and 2, 3rd and 4th RUs in 2nd CU are Zones 9 and 10. |
| 0ZZ01 | R/W | Home Temp | 0 | 400 | 210 | 0.1 deg C | uint16 | 220 is 22 C |
| 0ZZ02 | R/W | Away Temp | 0 | 400 | 190 | 0.1 deg C | uint16 | 190 is 19C |
| 0ZZ03 | R/W | RU operation mode | 0 | 2 | 0 | | uint16 | 0=home, 1=away, 2=week clock |
| 0ZZ04 | R/W | RU custom settings mode vs. group settings | 0 | 1 | 1 | | uint16 | 0=group mode,1=custom mode |
| 0ZZ05 | R/W | RU Adaptivity | 0 | 1 | 0 | | uint16 | 0=adaptivity off, 1=adaptivity on |
| 0ZZ06 | R/W | RU fireplace mode | 0 | 1 | 0 | | uint16 | 0=fireplace mode off, 1=fireplace mode on |
| 0ZZ07 | R/W | RU bypass mode | 0 | 2 | 0 | | uint16 | 0=bypass mode off, 1=bypass mode constantly activated, 2= bypass mode time |
| 0ZZ08 | R/W | Extenal sensor | 0 | 2 | 0 | | uint16 | 0=off - room temperature regulation, 1=floor - floor temperature regulation, 2=combi mode - room temperature regulation with supervision for floor min and max |
| 0ZZ09 | R/W | RU identify | 0 | 1 | 0 | | uint16 | 0=RU identify mode off, 1=RU identify mode on. Used to help pairing. |
| 0ZZ10 | R/W | RU active state brightness | 0 | 3 | 2 | | uint16 | 0=brightness level 1, 1=brightness level 2, 2=brightness level 3, 3=brightness |
| 0ZZ11 | R/W | RU fireplace config 1 | 0 | 100 | 50 | % | uint16 | Fireplace mode percentage |
| 0ZZ12 | R/W | RU fireplace config 2 | 0 | 255 | 16 | h | uint16 | Fireplace mode length: 1-99h, 255= continuous |
| 0ZZ13 | R/W | Cooling allowed for zone | 0 | 1 | 1 | | uint16 | 0=cooling not allowed, 1=cooling allowed. This can be used to block cooling in zone. If cooling is blocked actuator in that zone stays closed. |
| 0ZZ14 | R/W | Selected week clock number | 0 | 3 | 0 | | uint16 | 0=week clock not selected/programmed. 1=week clock 1, 2=week clock 2, |
| 0ZZ15 | R/W | Floor min temperature | 10 | 390 | 50 | 0.1 deg C | uint16 | 1-39C, default 5 C, in floor regulation mode also limit for temp setpoint |
| 0ZZ16 | R/W | Floor max temperature | 20 | 400 | 350 | 0.1 deg C | uint16 | 2-40C, default 35C, in floor regulation mode also limit for temp setpoint |
| 0ZZ17 | R/W | Dew point monitoring | 0 | 1 | 0 | | uint16 | 0=Dew point monitoring OFF, 1=Dew point monitoring ON. |
| 0ZZ18 | R/W | Dew point temperature margin | 0 | 300 | 10 | 0.1 deg C | uint16 | Dew point temperature margin. Default 1 degree. |

**System level holding registers**
**Three week clocks**
Address: Replace W with week clock number 1, 2 or 3

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 1W000 | R/W | Week-clock Monday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W001 | R/W | Week-clock Monday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W002 | R/W | Week-clock Monday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W003 | R/W | Week-clock Monday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W004 | R/W | Week-clock Monday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W005 | R/W | Week-clock Monday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W006 | R/W | Week-clock Monday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W007 | R/W | Week-clock Monday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W008 | R/W | Week-clock Monday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W009 | R/W | Week-clock Monday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W010 | R/W | Week-clock Tuesday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W011 | R/W | Week-clock Tuesday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W012 | R/W | Week-clock Tuesday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W013 | R/W | Week-clock Tuesday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W014 | R/W | Week-clock Tuesday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W015 | R/W | Week-clock Tuesday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W016 | R/W | Week-clock Tuesday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W017 | R/W | Week-clock Tuesday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W018 | R/W | Week-clock Tuesday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W019 | R/W | Week-clock Tuesday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W020 | R/W | Week-clock Wednesday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W021 | R/W | Week-clock Wednesday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W022 | R/W | Week-clock Wednesday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W023 | R/W | Week-clock Wednesday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W024 | R/W | Week-clock Wednesday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W025 | R/W | Week-clock Wednesday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W026 | R/W | Week-clock Wednesday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W027 | R/W | Week-clock Wednesday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |

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|---|---|---|---|---|---|---|---|
| 1W028 | R/W | Week-clock Wednesday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W029 | R/W | Week-clock Wednesday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W030 | R/W | Week-clock Thursday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W031 | R/W | Week-clock Thursday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W032 | R/W | Week-clock Thursday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W033 | R/W | Week-clock Thursday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W034 | R/W | Week-clock Thursday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W035 | R/W | Week-clock Thursday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W036 | R/W | Week-clock Thursday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W037 | R/W | Week-clock Thursday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W038 | R/W | Week-clock Thursday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W039 | R/W | Week-clock Thursday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W040 | R/W | Week-clock Friday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W041 | R/W | Week-clock Friday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W042 | R/W | Week-clock Friday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W043 | R/W | Week-clock Friday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W044 | R/W | Week-clock Friday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W045 | R/W | Week-clock Friday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W046 | R/W | Week-clock Friday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W047 | R/W | Week-clock Friday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W048 | R/W | Week-clock Friday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W049 | R/W | Week-clock Friday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W050 | R/W | Week-clock Saturday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W051 | R/W | Week-clock Saturday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W052 | R/W | Week-clock Saturday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W053 | R/W | Week-clock Saturday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W054 | R/W | Week-clock Saturday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W055 | R/W | Week-clock Saturday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W056 | R/W | Week-clock Saturday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W057 | R/W | Week-clock Saturday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W058 | R/W | Week-clock Saturday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |

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|---|---|---|---|---|---|---|---|
| 1W059 | R/W | Week-clock Saturday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W060 | R/W | Week-clock Sunday Event 1 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W061 | R/W | Week-clock Sunday Event 1 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W062 | R/W | Week-clock Sunday Event 2 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W063 | R/W | Week-clock Sunday Event 2 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W064 | R/W | Week-clock Sunday Event 3 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W065 | R/W | Week-clock Sunday Event 3 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W066 | R/W | Week-clock Sunday Event 4 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W067 | R/W | Week-clock Sunday Event 4 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| 1W068 | R/W | Week-clock Sunday Event 5 time | 0 | 34208 | 0 min | uint16 | MSB=0 event not in use, MSB=1 event in use. LSBs=Time in minutes i.e. 22:25 = |
| 1W069 | R/W | Week-clock Sunday Event 5 setpoint | 0 | 65535 | 65535 0.1 deg C | uint16 | Thermostat target temperature i.e. setpoint 220=22.0 deg C. If event not defined 65535 0xFFFF. |
| **Other global settings** | | | | | | | |
| 20000 | R/W | Room regulation temp setpoint minimun | 10 | 390 | 50 0.1 deg C | uint16 | 1-39C, default 5 C |
| 20001 | R/W | Room regulation temp setpoint maximum | 20 | 400 | 400 0.1 deg C | uint16 | 2-40C, default 40 C |
| 20002 | R/W | Alarm min temperature | 10 | 390 | 50 0.1 deg C | uint16 | 1-39C, default 5 C |
| 20003 | R/W | Alarm max temperature | 20 | 400 | 400 0.1 deg C | uint16 | 2-40C, default 40 C |
| 30000 | R/W | System cooling mode | 0 | 1 | 0 | uint16 | 0=heating mode, 1=cooling mode |

| Address 3x | R | Register name | Min | Max | Default | Unit | Format | Description |
|---|---|---|---|---|---|---|---|---|
| **System status registers** | | | | | | | | |
| 1 | R | Global Pump State | | 0 | 1 | | uint16 | 0=off, 1=on |
| 2 | R | Global Boiler State | | 0 | 1 | | uint16 | 0=off, 1=on |
| 3 | R | Global Cooling State | | 0 | 1 | | uint16 | 0=off, 1=on |
| 4 | R | Number or Room units in system | | 0 | 64 | | uint16 | |
| 5 | R | Number of Control units in system | | 1 | 8 | | uint16 | |
| **Section status registers. Section is CU number. Replace S with SECT1=CU1=1, SECT2=CU2=2, SECT8=CU8=8** | | | | | | | | |
| 00S01 | R | CU alarms | | | | | uint16 | bit 0 = Zone error, bit 1 = CU communication timeout, bit 2 = RFLU communication error, bit 3 = actuator fuse blown error. |
| 00S02 | R | Setback switch state | | 0 | 1 | | uint16 | 0=switch open, 1=switch closed |
| 00S03 | R | Heating/cooling switch state | | 0 | 1 | | uint16 | 0=switch open, 1=switch closed |
| 00S04 | R | Section link quality | | 0 | 100 | % | uint16 | |
| 00S05 | R | CU Software version | | | | | uint16 | major.minor |
| 00S06 | R | CU serial number LSB 16 bits | | | | | uint16 | |
| 00S07 | R | CU serial number MSB 16 bits | | | | | uint16 | |
| 00S08 | R | Zone number that uses actuator 1 | | | | | uint16 | 0=none, 1-8=zone |
| 00S09 | R | Zone number that uses actuator 2 | | | | | uint16 | 0=none, 1-8=zone |
| 00S10 | R | Zone number that uses actuator 3 | | | | | uint16 | 0=none, 1-8=zone |
| 00S11 | R | Zone number that uses actuator 4 | | | | | uint16 | 0=none, 1-8=zone |
| 00S12 | R | Zone number that uses actuator 5 | | | | | uint16 | 0=none, 1-8=zone |
| 00S13 | R | Zone number that uses actuator 6 | | | | | uint16 | 0=none, 1-8=zone |
| 00S14 | R | Zone number that uses actuator 7 | | | | | uint16 | 0=none, 1-8=zone |
| 00S15 | R | Zone number that uses actuator 8 | | | | | uint16 | 0=none, 1-8=zone |
| 00S16 | R | Bypass currently active in actuators | | | | | uint16 | bit 0=actuator 1…bit7=actuator 8, 0=inactive, 1=active |
| 00S17 | R | Section data has been synced | | | | | uint16 | 0=no, 1=yes |
| 00S18 | R | Incoming water temperature | -32768 | 32767 | | 0.1 deg C | int16 | if no sensor present return -32767 |
| 00S19 | R | Outcoming water temperature | -32768 | 32767 | | 0.1 deg C | int16 | if no sensor present return -32767 |
| 00S20 | R | NC/NO switch state | 0 | 1 | | | uint16 | 0=NC Normally Closed, 1=NO Normally Open |
| 00S21 | R | OTA packet SW version | | | | | uint16 | major.minor |
| 00S22 | R | CU HW type | 0 | 65535 | | | uint16 | 1=CU8 |
| **Zone (room) status registers. Replace ZZ with zone number ZONE1=10, Zone2=11, Zone64=73** | | | | | | | | Zones 1-8 belong to the CU1, Zones 9-16 to the CU2 and so on. If all Zones of a CU are not used the remaining ones are skipped. For example 1st and 2nd RU in 1st CU are Zones 1 and 2, 3rd and 4th RUs in 2nd CU are Zones 9 and 10. |
| 0ZZ01 | R | RU SW version | | | | major.minor | uint16 | |
| 0ZZ02 | R | Room temperature | -32768 | 32767 | | 0.1 deg C | int16 | room sensor error return -32767 |
| 0ZZ03 | R | Floor temperature | -32768 | 32767 | | 0.1 deg C | int16 | if no sensor present return -32767 |
| 0ZZ04 | R | Battery level | 0 | 100 | | % | uint16 | |
| 0ZZ05 | R | Link Quality | 0 | 100 | | % | uint16 | |
| 0ZZ06 | R | Zone is defined in CU | 0 | 1 | | | uint16 | 0=no, 1=yes |
| 0ZZ07 | R | Regulation output | 0 | 100 | | % | uint16 | PI regulation output |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 0ZZ08 | R | Zone Alarms | 0 | 65535 | | uint16 | bit 0=room sensor error, bit 1=RU-CU communication error, bit 2=floor sensor error, bit 3=Battery low, bit 4=connected CU actuator fuse blown, bit 5=dew point limitation error (either problem with RH or outgoing water temp) |
| 0ZZ09 | R | Heat Status | 0 | 1 | | uint16 | 0= no heating, 1=heating active |
| 0ZZ10 | R | Current setpoint in use | 0 | 400 | 0.1 deg C | uint16 | 220 is 22 C. This shows currently active setpoint, coming either from home, away or schedule mode |
| 0ZZ11 | R | Relative humidity | 0 | 100 | % | uint16 | Relative humidity if RH sensor present. If sensor not present return 65535. |
| 0ZZ12 | R | Zone limits | 0 | 65535 | | uint16 | bit 0=floor max limit activated (1), bit 1=floor min limit activated, bit 2=Dew point limit activated. |
| 0ZZ13 | R | Hop count to master | | | | uint16 | Number of RF hops to master e.g. 2 RU-REPE-CU |
| 0ZZ14 | R | OTA progress | 0 | 100 | | uint16 | |
| 0ZZ15 | R | RU HW type | 0 | 65535 | | uint16 | 1=7seg, 2=knob |

| | | Zone | ZZ in register |
|---|---|---|---|
| CU1 | C1.1 | 1 | 10 |
| | C1.2 | 2 | 11 |
| | C1.3 | 3 | 12 |
| | C1.4 | 4 | 13 |
| | C1.5 | 5 | 14 |
| | C1.6 | 6 | 15 |
| | C1.7 | 7 | 16 |
| | C1.8 | 8 | 17 |
| CU2 | C2.1 | 9 | 18 |
| | C2.2 | 10 | 19 |
| | C2.3 | 11 | 20 |
| | C2.4 | 12 | 21 |
| | C2.5 | 13 | 22 |
| | C2.6 | 14 | 23 |
| | C2.7 | 15 | 24 |
| | C2.8 | 16 | 25 |
| CU3 | C3.1 | 17 | 26 |
| | C3.2 | 18 | 27 |
| | C3.3 | 19 | 28 |
| | C3.4 | 20 | 29 |
| | C3.5 | 21 | 30 |
| | C3.6 | 22 | 31 |
| | C3.7 | 23 | 32 |
| | C3.8 | 24 | 33 |
| CU4 | C4.1 | 25 | 34 |
| | C4.2 | 26 | 35 |
| | C4.3 | 27 | 36 |
| | C4.4 | 28 | 37 |
| | C4.5 | 29 | 38 |
| | C4.6 | 30 | 39 |
| | C4.7 | 31 | 40 |
| | C4.8 | 32 | 41 |
| CU5 | C5.1 | 33 | 42 |
| | C5.2 | 34 | 43 |
| | C5.3 | 35 | 44 |
| | C5.4 | 36 | 45 |
| | C5.5 | 37 | 46 |
| | C5.6 | 38 | 47 |
| | C5.7 | 39 | 48 |
| | C5.8 | 40 | 49 |
| CU6 | C6.1 | 41 | 50 |
| | C6.2 | 42 | 51 |
| | C6.3 | 43 | 52 |
| | C6.4 | 44 | 53 |
| | C6.5 | 45 | 54 |
| | C6.6 | 46 | 55 |
| | C6.7 | 47 | 56 |
| | C6.8 | 48 | 57 |
| CU7 | C7.1 | 49 | 58 |
| | C7.2 | 50 | 59 |
| | C7.3 | 51 | 60 |
| | C7.4 | 52 | 61 |
| | C7.5 | 53 | 62 |
| | C7.6 | 54 | 63 |
| | C7.7 | 55 | 64 |
| | C7.8 | 56 | 65 |
| CU8 | C8.1 | 57 | 66 |
| | C8.2 | 58 | 67 |
| | C8.3 | 59 | 68 |
| | C8.4 | 60 | 69 |
| | C8.5 | 61 | 70 |
| | C8.6 | 62 | 71 |
| | C8.7 | 63 | 72 |
| | C8.8 | 64 | 73 |