Register description

Alpha direct Balance Switch Modbus base station · https://faqdoc.info/en/systemauswahl/alpha-direct-en/alpha-direct-balance-switch-modbus-base-station/register-description/

Register	Address	Command	Description
0 – 7	0x0000 – 0x0007	R	Serial number (UID): The UID is a unique number that can be used to identify the device. (8 decimal values, 1 value per register)
8 – 15	0x0008 – 0x000F	R	Device type in plain text: ADBS230M, ADBS24 M (8 characters, 1 character per register)
16	0x0010	R	Major software version as decimal value
17	0x0011	R	Minor software version as decimal value
18	0x0012	R	reserved
19	0x0013	R / W	**Changeover: Control via Modbus** **Bit 0 = 0**: Control changeover via external input **Bit 0 = 1**: Control changeover via Modbus **Bit 1 = 0**: Control changeover via Modbus inactive (Heating mode) **Bit 1 = 1**: Control changeover via Modbus active (Cooling mode) **Bit 2 to bit 15**: reserved

20 – 31	0x0014 – 0x001F	R / W	Assignment of an input (room) to an output (for each output a register starting with 0x0014 for output 1) 0 = No room assigned 1 – 8 = Room number (default = 1, 1, 2, 2, 3, 3, 4, 4, 5, 6, 7, 8) Persistent storage possible via initialisation command
32 – 43	0x0020 – 0x002B	R	Info for initial state PWM (one register per output, starting with 0x0020 for output 1) Unit: % Value range: 0 – 100 Resolution: 1 Without load sharing: Activation actuator = 100 No actuation of actuator = 0 PWM accuracy: ±2 % Operating mode queried via register 0x002E
44	0x002C	W	**Trigger commands:** 0 = No Command 1 = Factory reset 2 = Initialisation 3 = FirstOpen function 4 = ManualOpen function (with parameter, see register 0x002D) 5 = Normal mode 6 = Input Simulation (see register 0x0034 … 0x003B)

45	0x002D	R / W	Parameters for command in register 0x002C Use for command ManualOpen: Bit mask for outputs to be activated, e.g. 0x00F0
46	0x002E	R	**Active Mode** 0 = Normal 1 = FirstOpen 2 = ManualOpen 3 = Input Simulation
47	0x002F	R / W	**Modbus address** 1 – 247 (default: 1) Persistent storage possible via command for initialisation
48	0x0030	R / W	**Baud rate** 0 = 4.800 1 = 9.600 2 = 19.200 3 = 38.400 (default) Persistent storage possible via command for initialisation
49	0x0031	R / W	**Parity** 0 = none* 1 = even (default) 2 = odd *2 stop bits automatically Persistent storage possible via command for initialisation

50	0x0032	R	**Information on whether outputs are participating in load balancing** Bit 0: Output 1 Bit 1: Output 2 … Bit 11: Output 12 Bit = 0 → load balancing inactive Bit = 1 → load balancing active
51	0x0033	R	**Info on whether inputs are participating in load balancing** Bit 0: Input 1 Bit 1: Input 2 … Bit 7: Input 8 Bit = 0 → load balancing inactive Bit = 1 → load balancing active

52 – 59	0x0034 – 0x003B	R / W	**Simulated PWM for the inputs** (a register for each input, starting with 0x0034 for input 1) Unit: % Range of values: 0 – 100 Resolution: 1 Evaluation of the 8 registers in Input Simulation mode Default: Pulse-pause ratio at the inputs No participation in load balancing when: - PWM = 0 % - PWM = 100 % When participating in load balancing, the input LED lights up if at least one heating zone assigned to the room is active. In cooling mode, the outputs are controlled according to the load balancing.
60	0x003C	R	reserved
61	0x003D	R	**Heating/cooling mode** 0 = heating 1 = cooling
62	0x003E	R	**Status of pump** 0 = pump off 1 = pump on
63	0x003F	R	**Status of boiler** 0 = boiler off 1 = boiler on
64	0x0040	R	**Mode Commissioning** 0 = Commissioning inactive 1 = Commissioning active

65	0x0041	R	**Status of dew point sensor** 0 = Condensation detected 1 = Monitoring the dew point is active
66	0x0042	R	**Status reduction** 0 = reduction inactive 1 = reduction active
67	0x0043	R / W	**Block cooling** Flag for each output Bit 0: Output 1 Bit 1: Output 2 ... Bit 11: Output 12 Persistent storage possible via initialisation command

R: Read, W: Write

- Register consisting of 16 bits
- Data types:
  - decimal
  - bit masks
  - explicitly stated otherwise (e.g. device type in plain text)
- Storing changes to persistent parameters AFTER the initialisation command