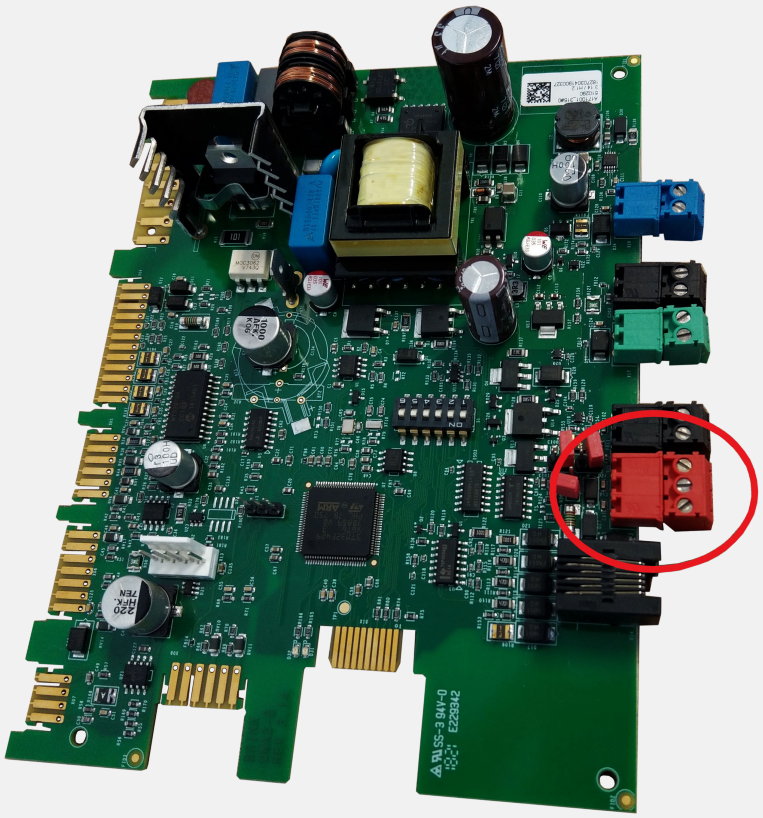
BRINK

Air for life

Installation regulations

Modbus UWA2-B/UWA2-E

English

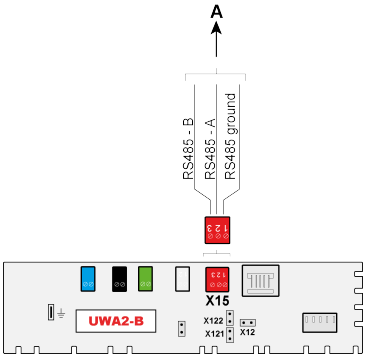


Contents

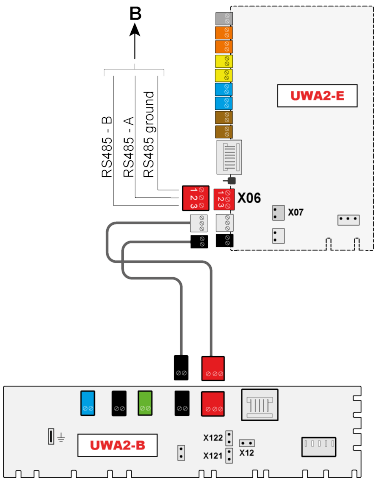
1 Modbus description

1.1 Modbus General

It is possible to connect a Brink HRA (Heat Recovery Appliance) with a Modbus network, for instance a building automation system (BAS).
The PCB UWA2-B in the Brink HRA is equiped with its own Modbus connection X15; when the Brink HRA is supplied as a Plus version the Modbus connection X06 should be used from the Plus PCB UWA2-E (for correct Modbus connections see figures below).
Used is the Modbus RS485 RTU protocol.



Modbus connecting (A) with a standard Brink HRA with only fitted the PCB UWA2-B



Modbus connection (B) with a Brink HRA Plus with PCB UWA2-B and Plus PCB UWA2-E

If the Brink appliances are cascaded , the Modbus connection must be connected to the Master appliance with Plus PCB UWA2-E .

Procedure connecting Brink appliance to building automation system

Warning!
When working on the appliance, always first take the voltage from the appliance by pulling the power plug.

- Connect the HRA with Modbus building automation system.
- Remove the Modbus RS485 terminator resistor X12 from the PCB UWA2-B if not necessary. When the Brink HRA is suplied as a Plus version remove the terminator resistor X07 from the PCB UWA2-E if necessary; in case of a Plus print, the jumpers X12, X121 and X122 must be placed on the UWA2-B print.
- Connect the HRA / building automation system to the mains.
- If required, set Step no. 14.1 - 14-4 (see table below) with the touchscreen display (or if applicable the Brink user interface) of the HRA ; for correct procedure set these values see the relevant installation instructions on the Brink website: http:/www.brinkclimatesystems.com .

Settings in Brink HRA				
Step No	**Description**	**Factory settings**	**Setting range**	**Comment**
14	**Communication**			
14.1	Type of Bus connection	ModBus	OFF/ InternalBus/ Modbus	
14.2	Slave address	20	1 - 247	For Modbus
14.3	Baudrate	19k2	1200/ 2400/ 4800/ 9600/ 19k2/ 38k4/56k/115k2	For Modbus
14.4	Parity	Even	No/ Even/ Odd	For Modbus

Observe the following steps when connecting a Brink HRA to a Modbus network.
- Connect Brink HRA a to a Modbus network.
- Change Modbus adres in a unique adress.
- If there are more Brink aplliances to be connected to Modbus Network repeat above steps.

Reading values HRA through building automatic system
With Modbus nr. 4000 - 4544 it is possible to **read** out for example the actual data/ values/ flow rates/ switch positions (→ External Modbus - Input registers page 6).

Setting and controlling HRA through building automatic system
With Modbus nr. 6000 - 7992 it is possible to **read and write** setting parameters from the HRA (→ External Modbus - Holding registers page 11).

Sending commands to HRA through building automatic system
With Modbus nr 8000 - 8011 it is possible to send commands to the HRA (→ External Modbus - Remote control registers page 17)

If the Brink HRA has been disconnected from the mains, Modbus adress 8000 - 8011 and the desired air flows must be set again.

2 Modbus settings

2.1 External Modbus - Input registers

Actual data / reading values, such as, for example, flow rates / temperatures / switch positions which can be read out.

Setting values (Function code 0x04)			
Modbus address	**Description**	**Data**	**Description**
4000	Software version number Base Module UWA2-B	Type and major version number	Type in ASCII (e.g. "S1"), major nr in byte range[0..9]
4001		Minor and fix version number	Numbers in bytes, range [00..99]
4002		Build number number	Build number in word, [0000..9999]
4003	Hardware version number Base Module UWA2-B (e.g. "H1.1")	Major and minor	Numbers in bytes range [00..99]. High byte =major, low byte = minor
4004	Appliance Type	Range: 0 – 65535 Type: Unsigned	Device type is an internal number representing the functional appliance. It has no external value.
4005	Dipswitch value	Range: 0 – 63 Type: Unsigned	The dipswitch is used to select the type and subtype of HRA (Heat Recovery Appliance).
4010	Serial number (for example 123456789012)	Serial number digits [0–3]	Numbers in BCD, range [0..9]
4011		Serial number digits [4–7]	
4012		Serial number digits [8–11]	
4020	HRA (Heat Recovery Appliance) Active Function	0: Standby/ 1: Bootloader/ 2: Non Blocking Error/ 3: Blocking Error/ 4: Manual/ 5: Holiday/ 6: Night Ventilation/ 7: Party/ 8: Bypass Boost/ 9: Normal Boost/ 10: Auto CO_2/ 11: Auto eBus/ 12: Auto Modbus/ 13: Auto LAN/ WLAN Portal/ 14: Auto LAN/ WLAN Local	
4021	Fan control type	0: Initializing 1: Constant flow 2: Constant PWM 3: Off 4: Error 5: MassBalance 6: Standby	This value indicates the type of method used to control the fans in the HRA (Heat Recovery Appliance).
4022	Ventilation mode	0: Holiday 1: Low 2: Normal 3: High 4: Auto	
4023	Current supply pressure	Range: 0-5000 Type: Signed	The value is a value in tenths of Pascal; it therefore has to be divided by 10 in order to get the pressure in Pascal.
4024	Current exhaust pressure		

Modbus address	Description	Data	Description
4030	Fan Inlet Status	2: No Communication 3: Idle 4: Running 5: Blocked 6: Fan Error	
4031	Setpoint supply air	Range: 0 – 65535 Type: Unsigned	This is the desired value for the relevant fan. [m^3/h]
4032	Current value of supply air		This is the value that is measured or calculated for the relevant fan. [m^3/h]
4033	MassFlow inlet, actual value	Range: 0 – 65535 Type: Unsigned	This is the value measured or calculated for the corresponding fan. (kg/h)
4034	Speed supply fan	Range: 0 – 65535 Type: Unsigned	Inlet fan speed in RPM
4035	Speed inlet anemometer	Range: 0 – 65535 Type: Unsigned	Inlet anemometer speed in RPM
4036	Temperature sensor supply fan	Range: -32768 – 32767 Type: Signed	The effective range is much smaller. The value is a value in tenths of degrees; it therefore has to be divided by 10 in order to get the temperature in degrees Celsius.
4037	Fan inlet sensor rel. humidity	Range: 0-1000 Type: Unsigned	Relative humidity in tenth of percentage. The value is in percentage when divided by ten.
4040	Fan exhaust Status	2: No Communication 3: Idle 4: Running 5: Blocked 6: Fan Error	
4041	Setpoint flow exhaust air	Range: 0 – 65535 Type: Unsigned	This is the desired value for the relevant fan. [m^3/h]
4042	current value flow exhaust air		This is the value that is measured or calculated for the relevant fan. [m^3/h]
4043	MassFlow exhaust, actual value	Range: 0 – 65535 Type: Unsigned	This is the value measured or calculated for the corresponding fan. (kg/h)
4044	Speed exhaust fan	Exhaust fan speed in RPM (0-65535)	
4045	Speed exhaust anemometer	Range: 0 – 65535 Type: Unsigned	Exhaust anemometer speed in RPM
4046	Temperature sensor exhaust fan	Range: -32768 – 32767 Type: Signed	The effective range is much smaller. The value is a value in tenths of degrees; it therefore has to be divided by 10 in order to get the temperature in degrees Celsius.
4047	Fan exhaust sensor rel. humidity	Range: 0-1000 Type: Unsigned	Relative humidity in tenth of percentage. The value is in percentage when divided by ten.
4050	Bypass status	0: initialize / 1: open / 2: close/ 3: open / 4: closed	
4051	Bypass Step Position	Range: 0 – 0xFFFF	Gives the position relative to point zero
4060	Status preheater	0: Initialize / 1: Inactive / 2: Active / 3: Test mode	
4061	Capacity of preheater	Range: 0 - 100 Type: Unsigned	The capacity is a percentage of the maximum capacity.

Modbus address	Description	Data	Description
4070	Frost status	0: NotInitialized/ 1: PowerUp Delay/ 2: No Frost/ 3: NoFrost Delay/ 4: FrostControl Start Delay/ 5: Wait For Icing/ 6: Ice Detected Delay/ 7: Heating/ 8: Wait for Free Heater/ 9: FanControl Start Delay/ 10: FanControl Wait Delay/ 11: FanControl/ 12: Fan Off Delay/ 13: Fan Off/ 14: Fan Restarting/ 15: Error/ 16: Test Mode	Depending on the type of HRA (Heat Recovery Appliance) some states are supported or not.
4071	Frost heaterpower	Range: [0..100] Type: Unsigned	Heater output in %
4072	Fan Frost Reduction	Range: [0..100] Type: Unsigned	This is the percentage with which the fan is reduced, 0% means no reduction. 100% means maximum reduction
4080	Flow switch position	Range: 0-3 Type: Unsigned 0: Holiday/ 1: Low/ 2: Normal/ 3: High/ 255: Invalid position	The flow switch is a mechanical switch used to select a predefined flow. If multiple switches are used it is possible that more than one contact is closed, meaning invalid position cannot be detected.
4081	NTC1 temperature	Range: - 32768 – 32767 Type: Signed	The effective range is much smaller. The value is a value in tenths of degrees; it therefore has to be divided by 10 in order to get the temperature in degrees Celsius.
4082	NTC2 temperature	Range: -32768 – 32767 Type: Signed	
4083	RHT Sensor Humidity	Range: 0-1000 Type: Unsigned	Relative humidity in tenth of percentage. The value is in percentage when divided by ten.
4090	Signal output	0: 0V 1: 24V	
4100	Status filter	0: Not dirty 1: Dirty	
4101	eBus power status	0: Power Up 1: Initialize Power 2: Power Off 3: Power On 4: Wait For Power Off 5: Slave Power Off	
4110	Current time	Time	Time in byte format high byte = hours, low byte= minutes
4111	Current date	Date high nibble Date lower nibbles	Date in byte format high byte = days, low byte =years in byte format, only decennia
4112			
4113	Operating time	Range [0..4294967295] Type: Unsigned	Operating time in hours
4114			
4115	Filters used in hours	Range: 0-65535 Type: Unsigned	Number of hours the appliance is on since last filter reset.
4116	Filters used in m^3/h	Range [0..4294967295] Type: Unsigned	Amount of flow in units of m^3/h since last filter reset
4117			
4118	Total flow in m^3/h	Range: [0..4294967295] Type: Unsigned	Amount of flow in units of m^3/h since putting into use.
4119			

Modbus address	Description	Data	Description
4150	Geo heat exchanger Status	0: Open low 1: Closed 2: Open high	Extension module if function is supported.
4200	CO_2 sensor 1 status	0: Error/ 1: Not Initialized/ 2: Idle/ 3: Warming Up/ 4: Running/ 5: Calibrating/ 6: Self Test	
4201	Value CO_2 sensor 1	Range: 0-65535 Type: Unsigned	
4202	CO_2 sensor 2 status	0: Error/ 1: Not Initialized/ 2: Idle/ 3: Warming Up/ 4: Running/ 5: Calibrating/ 6: Self Test	
4203	Value CO_2 sensor 2	Range: 0-65535 type: Unsigned	
4204	CO_2 sensor 3 status	0: Error/ 1: Not Initialized/ 2: Idle/ 3: Warming Up/ 4: Running/ 5: Calibrating/ 6: Self Test	
4205	Value CO_2 sensor 3	Range: 0-65535 Type: Unsigned	
4206	CO_2 sensor 4 status	0: Error/ 1: Not Initialized/ 2: Idle/ 3: Warming Up/ 4: Running/ 5: Calibrating/ 6: Self Test	
4207	Value CO_2 sensor 4	Range: 0-65535 Type: Unsigned	
4400	Software version number UIF Module (e.g. "S1.01.03.0001")	Type and major version number	Type in ASCII (e.g. "S1"), major nr in byte, range[0..9]
4401		Minor and fix version number	Numbers in bytes, range [00..99]
4402		Build number number	Build number in word, [0000..9999]
4403	Hardware version number UIF Module (e.g. "H1.1")	Major and minor in BCD format	Numbers in BCD, range [00..99]
4404	Device Type	Range: [0..65535] Type: Unsigned	Device type is an internal number representing the type of device.
4405	Dipswitch value	Range: 0 – 999 Type: Unsigned	The dipswitch is used to select the type and subtype of HRA (Heat Recovery Appliance).
4410	Language Data version UIF Module (e.g. "S1.01.03.0001")	Type and major version number	Type in ASCII (e.g. "S1"), major nr in byte, range[0..9]
4411		Minor and fix version number	Numbers in bytes, range [00..99]
4412		Build number number	Build number in word, [0000..9999]
4413	Software version nr UIF Module (e.g. "S1.01.03.0001")	Type and major version number	Type in ASCII (e.g. "S1"), major nr in byte, range [0..9]
4414		Minor and fix version number	Numbers in bytes, range [00..99]
4415		Build number number	Build number in word, [0000..9999]
4420	Local UIF Switch	Range: 0-65535 Type: Unsigned	Currently range: 0 – 3, value set by switch on the display.
4421	Local Button value		
4500	Software version n Extension Module UWA2-E (e.g. "S1.01.03.0001")	Type and major version number	Type in ASCII (e.g. "S1"), major nr. in byte, range [0..9]
4501		Minor and fix version number	Numbers in bytes, range [00..99]
4502		Build number number	Build number in word, [0000..9999]

Modbus address	Description	Data	Description
4503	Hardware version nr Extension Module UWA2-E (e.g. "H1.1")	Major and minor in BCD format	Numbers in bytes, range [00..99]
4504	Device Type	Range: [0..65535] Type: Unsigned	Device type is an internal number representing the type of device.
4505	Dipswitch value	Range: 0 – 63 Type: Unsigned	The dipswitch is used to select the type and subtype of HRA (Heat Recovery Appliance).
4520	Temperature NTC Extension	Range: -32768 – 32767 Type: Signed	The effective range is much smaller. The value is a value in tenth of degrees, so it should be divided by 10 to get the temperature in degrees Celsius.
4521	Extension contact 1	0: Contact 1 open 1: Contact 1 closed	Extension module UWA2-E
4522	Extension contact 2		
4523	Extension Analogue Input 1	Range 0 – 100; Corresponds with: 0.0 – 10.0 V	
4524	Extension Analogue Input 2		
4541	Extension Relay output 1	0: 0V; 1: 24V	Extension module UWA2-E
4542	Extension Relay output 2		
4543	Extension Analogue Output 1	Range 0 – 100; Corresponds with: 0.0 – 10.0V	
4544	Extension Analogue Output 2		

2.2 External Modbus - Holding registers

Setting parameters which can be both read and written.

Setting value (Function code 0x03/0x06s)			
Modbus address	**Name**	**Data**	**Description**
6000	Flow preset 0	Minimum flow setting Maximum flow setting Default flow setting Step size: 5 Extra value: 0 Type: unsigned *(Flow setting depends on type of HRA)*	Extra rules: Flow preset 0 <= Flow preset 1 Extra value: 0
6001	Flow preset 1	Minimum flow setting Maximum flow setting Default flow setting Step size: 5 Extra value: 0 Type: unsigned *(Flow setting depends on type of HRA)*	Extra rules: Flow preset 1 >= Flow preset 0 Flow preset 1 <= Flow preset 2
6002	Flow preset 2	Minimum flow setting Maximum flow setting Default flow setting Step size: 150 Extra value: 0 Type: unsigned *(Flow setting depends on type of HRA)*	Extra rules: Flow preset 2 >= Flow preset 1 Flow preset 2 <= Flow preset 3
6003	Flow preset 3	Minimum flo settingw Maximum flow setting Default flow setting Step size: 5 Extra value: 0 Type: unsigned *(Flow setting depends on type of HRA)*	Extra rules: Flow preset 3 >= Flow preset 2
6010	PWM inlet preset 0	Minimum: 15 Maximum: 100 Step size: 1 Extra value: 0 Type: unsigned	Extra rules: PWM Inlet preset 0 < = PWM Inlet preset 1
6011	PWM exhaust preset 0		Extra rules: PWM Exhaust preset 0 < = PWM Exhaust preset 1

Modbus address	Name	Data	Description
6012	PWM inlet preset 1	Minimum: 15 Maximum: 100 Step size: 1 Type: unsigned	Extra rules: PWM Inlet preset 1 > = PWM Inlet preset 0 PWM Inlet preset 1 < = PWM Inlet preset 2
6013	PWM exhaust preset 1		Extra rules: PWM Exhaust preset 1 > = PWM Exhaust preset 0 PWM Exhaust preset 1 < = PWM Exhaust preset 2
6014	PWM inlet preset 2		Extra rules: PWM Inlet preset 2 >= PWM Inlet preset 1 PWM Inlet preset 2 <= PWM Inlet preset 3
6015	PWM exhaust preset 2		Extra rules: PWM Exhaust preset 2 >= PWM Exhaust preset 1 PWM Exhaust preset 2 <= PWM Exhaust preset 3
6016	PWM inlet preset 3		Extra rules: PWM Inlet preset 3 >= PWM Inlet preset 2
6017	PWM exhaust preset 3		Extra rules: PWM Exhaust preset 3 >= PWM Exhaust preset 2
6030	Flow type	0: Constant PWM 1: Constant flow 2: Constant massFlow	Default: 1
6031	Switch default position	Minimum: 0 Maximum: 1 Default: 1 Step size: 1 Type: unsigned	This defines the default position of the 4-position switch. This will be the position set if no switch is connected.
6032	Use display as switch	0: No 1: Yes Default: No	
6033	Imbalans allowed	0: Imbalance not permitted 1: Imbalance permitted Type: unsigned	
6034	Imbalance value	Minimum: 0 Maximum: 20 Default: 0 Step size: 1 Type: unsigned	The imbalance value is a percentage for the inlet to increase the flow in respect to the exhaust.
6035	Offset imbalance supply	Minimum: -15 Maximum: 15 Default: 0 Step size: 1 Type: signed	Value is in percentages; 0% means that no correction has been applied
6036	Offset imbalance exhaust		
6100	Bypass mode	0: Automatic function 1: Bypass closed 2: Bypass open	Default: 0
6101	Bypass temperature from dwelling	Minimum: 150 Maximum: 350 Step size: 5 Default: 220 Type: signed	Value is in tenth of degrees Celsius, So range is really: 15.0 - 35.0 °C

Modbus address	Name	Data	Description
6102	Bypass temperature from outside	Minimum: 70 Maximum: 150 Step size: 5 Default: 100 Type: signed	Value is in tenth of degrees Celsius, So range is really: 7.0 - 15.0 °C
6103	Bypass temperature hysteresis	Range: [0..50] Default: 20 Step size: 5 Type: signed	Value is in tenth of degrees Celsius, So range is really: 0.0 - 5.0 °C
6104	Bypass boost	0: Off 1: On	Default: 0
6105	Bypass boost switch position	Range: [0..3] Default: 3 Step size: 1 Type: unsigned	If the bypass boost function is activated, the bypass opens and the fan will run at this preset setting.
6110	Frost control temperature	Range: [0..30] Default: 0 Step size: 5 Type: signed	Value is in tenth of degrees Celsius, So range is really: 0.0 - 3.0 °C
6111	Frost control minimum inlet temperature	Range: [70..220] Default: 170 Stepsize: 5 Type: signed	Value is in tenth of degrees Celsius, So range is really: 7.0 - 22.0 °C
6120	Days before filter warning	Range: [1..365] Default: 90 Step size: 1 Type: unsigned	
6130	External heater mode	0: Not available 1: Pre-heater 2: Post-heater	Default: 0
6131	Postheater setpoint	Range: [150..300] Default: 210 Step size: 5 Type: signed	Value is in tenth of degrees Celsius, So range is really: 15.0 - 30.0 °C
6140	RHT (humidity) sensor mode	0: Off 1: On	Default: 0
6141	RHT (humidity) sensor sensitivity	Range: [-2..2] Default: 0 Step size: 1 Type: signed	
6150	CO_2 sensor mode	0: OFF 1: ON Type: unsigned	Default: OFF

Modbus address	Name	Data	Description
6151	CO_2 sensor 1 low level	Minimum: 400 Maximum: 2000 Type: unsigned	Default: 400
6152	CO_2 sensor 1 high level		Default: 2000
6153	CO_2 sensor 2 low level		Default: 400
6154	CO_2 sensor 2 high level		Default: 2000
6155	CO_2 sensor 3 low level		Default: 400
6156	CO_2 sensor 3 high level		Default: 2000
6157	CO_2 sensor 4 low level		Default: 400
6158	CO_2 sensor 4 high level		Default: 2000
6170	Signal output	0: Off 1: Filter warning 2: Error status 3: Filter warning and error status Type: unsigned	Default: Off
6171	CV (Central Heating) - HRA (Heat Recovery Appliance)	0: Disabled 1: Enabled Type: unsigned	Default: Off If a CV exhaust is connected to the exhaust channel of the HRA this parameter must be set to enabled.
6200	Switch type Input 1	0: Normally open 1: Normally closed Type: unsigned	Default: Normally open
6201	Digital Input 1 function	0: Off 1: On 2: On if conditions bypass open are satisfied 3: Bypass control 4: External valve control Type: unsigned	3: Bypass opens if input is set 4: External valve opens if input is set
6202	Digital input 1 supply fan function	0: Fan off 1: Absolute minimum flow setting 2: Flow set to predefined value mode 1 3: Flow set to predefined value mode 2 4: Flow set to predefined value mode 3 5: According to position switch setting 6: Absolute maximum flow setting 7: Fan setting unchanged Type: unsigned *(Flow setting depends on type of HRA)*	
6203	Digital Input 1 exhaust fan function		
6210	Switch type Input 2	0: Normally open 1: Normally closed Type: unsigned	Default: Normally open
6211	Digital input 2 function	0: Off 1: On 2: On if conditions bypass open are satisfied 3: Bypass control 4: External valve control Type: unsigned	3: Bypass opens if input is set 4: External valve opens if input is set

Modbus address	Name	Data	Description
6212	Digital input 2 supply fan function	0: Fan off 1: Absolute minimum flow setting 2: Fow set to predefined value mode 1 3: Flow set to predefined value mode 2 4: Flow set to predefined value mode 3 5: According to position switch setting 6: Absolusetting 7: Fan setting unchanged Type: unsigned *(Flow setting depends on type of HRA)*	
6213	Digital input 2 exhaust fan function		
6220	Analogue Input 1 Mode	0: Off 1: On Type: unsigned	Default: Off
6221	Analogue input 1 Vmin	Range: 0 - 100 Default: 0 Stepsize: 5 Type: unsigned	Value is in tenth of Volt, So range is really: 0.0 - 10.0 V
6222	Analogue input 1 Vmax	Range: 0 - 100 Default: 100 Stepsize: 5 Type: unsigned	Value is in tenth of Volt, So range is really: 0.0 - 10.0 V
6230	Analogue input 2 Mode	0: Off 1: On Type: unsigned	Default: Off
6231	Analogue input 2 Vmin	Range: 0 - 100 Default: 0 Stepsize: 5 Type: unsigned	Value is in tenth of Volt, So range is really: 0.0 - 10.0 V
6232	Analogue input 2 Vmax	Range: 0 - 100 Default: 100 Stepsize: 5 Type: unsigned	Value is in tenth of Volt, So range is really: 0.0 - 10.0 V
6240	Geo-heat exchanger	0: Exchanger OFF 1: Exchanger ON Default: 0 Type: unsigned	Only possible with Plus pcb UWA2-B
6241	Minimum temperature geo-heat exchanger	Minimum: 0 Maximum: 100 Default: 50 Type: signed	Value is in tenths of degrees Celsius. Range is : 0.0 - 10.0 °C
6242	Maximum temperature geo-heat exchanger	Minimum: 150 Maximum: 400 Default: 250 Type: signed	Value is in tenths of degrees Celsius. Range is: 15.0 - 40.0 °C
6243	Default geo heat exchanger Valve Position	0: Closed 1: Open Type: unsigned	This is the position of the valve when output is 0 V
6244	Geo heat exchanger valve output	0: Analogue Output 1 1: Analogue Output 2 2: Relay Output 1 3: Relay Output 2 Type: unsigned	

Modbus address	Name	Data	Description
6900	Language	0: English 1: Dutch Type: unsigned	
6901	Date format	0: dd-mm-yyyy 1:mm-dd-yyyy Type: unsigned	
6902	Time notation	0: 12 hour 1: 24 hour Type: unsigned	
6903	Date Month Day	MSB: Month LSB: Day	
6904	Date Year	Year	
6905	Time	MSB: Hours LSB: Minutes	
6906	DateTime Rest	MSB: Day of Week LSB: Seconds	
7990	Modbus interface type	0 = Modbus internal 1 = Modbus external connect 2 = External customer Type: unsigned	
7991	Modbus slave address	Minimum: 1 Maximum: 247 Type: unsigned	Default: 20
7992	Modbus speed	0 = 1200 Baud; 1 = 2400 Baud; 2 = 4800 Baud; 3 = 9600 Baud; 4 = 19k2 Baud; 5 = 38k4 Baud; 6 = 56k Baud; 7 = 115k Baud Type: unsigned	

2.3 External Modbus - Remote control registers

Commands that can be sent to the Brink HRA device such as, for example, flow and / or reset device / filter reset.

Setting values (Function code 0x03/0x06)				
Modbus address	**Name**	**Write data**	**Read data**	**Description**
8000	Modbus control switched on	0: Modbus control switched off 1: Modbus control switch 2: Modbus control flow rate value	0: Modbus control switched off 1: Modbus control switch 2: Modbus control flow rate value	Standard: 0 The reading value is the last accepted value
8001	Request change in switch position	0: Holiday 1: Low 2: Normal 3: High	0: Holiday 1: Low 2: Normal 3: High	Set the desired air flow rate; Set Modbus control setting to 1 (switch) The reading value is the last accepted value
8002	Desired flow rate setting	Typ HRA: 0;min. flow - max. flow	Typ HRA: 0;min. flow - max. flow	Set desired Modbus flow rate Modbus control must be set to 2 (flow rate value)
8003	Request Standby	0: No action 1: Set appliance in standby 2: Set appliance in normal mode	0: Appliance not in standby 1: Appliance in standby mode	Default: 0 The read back value is the actual standby status of the appliance. Beware that the appliance can also be set or reset from standby mode through other interfaces.
8010	Reset filter warning	0: No reset 1: Reset filter warning	0: No action 1:Filter warning action executed 0xFF: Action failed. Reset cannot be carried out	Reset filter warning Once the value has been read out and this is not equal to "0" this will be reset to "0".
8011	Appliance reset	0: No reset 1: Appliance reset	0: No reset 1: Appliance reset carried out 0xFF: Action failed; reset cannot be carried out	Appliance reset Once the value has been read out and this is not equal to "0" this will be reset to "0".

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