Water Sensor 8

(ZWA056)

REVISION RECORD		
Version	Date	Brief description of changes
0.1	2024.12.26	First revision.
0.2	2025.09.02	Add Notification Type
0.3	2025.12.16	Update Relative Humidity
0.4	2025.12.19	Update Mold Detection Trigger Conditions

Table of Content

1 OVERVIEW 1

2 SPECIFICATIONS 2

2.1 Structural 2

2.2 Hardware 2

2.3 Software 2

3 QUICK START 4

3.1 Important safety information 4

3.2 How to install the product 4

3.2.1 Choosing a position for the dry contact 4

3.2.2 install the product 4

3.3 How to add the product 4

3.4 How to remove the product 4

3.5 About SmartStart 4

3.6 About Product 5

3.7 How to factory reset 5

3.8 Safety Warning for Batteries 5

3.9 Product Usage 5

3.10 Long Range 5

3.11 About Z-Wave Role Type 5

4 SOFTWARE FUNCTION DEFINITION 6

4.1 User Behavior Interaction 6

4.2 Supported Command Classes 7

4.3 Basic Command Class mapping 8

4.4 Z-Wave Plus Info 8

4.5 Manufacturer Specific 8

4.6 Version 9

4.7 Association Group Info 9

4.8 Notification 10

4.9 Binary Sensor 10

4.10 Multilevel Sensor 11

4.11 Wake Up 11

4.12 Battery 11

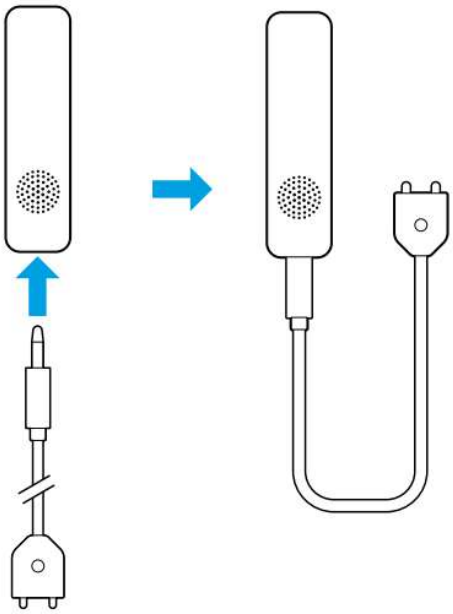
4.13 Indicator 12

4.14 Configuration 12

1 OVERVIEW

Aeotec Water Sensor 8 is a sensor, which detects dry contact, measures temperature and humidity. The sensor is easily retrofittable. Thanks to its slim design, Aeotec Water Sensor 8 can be installed in any bathroom, behind a kitchen sink or in any other tight space. The sensor just has to be installed on the wall and the sensor probe must be put on the floor.By using the internal temperature and humidity sensor, the device will report on any significant change. Twice clicking the action button includes (adds) and excludes (removes) the device. A single click on the button will wake up the device.

This product supports Security 2 Command Class. While a Security S2 enabled Controller is needed in order to fully use the security feature. This product can be operated in any Z-Wave® network with other Z-Wave/ Z-Wave Plus® certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network. This device also supports SmartStart.



Terminology	Description
Action button	Used for networking ,resetting and protect the device.
Led (Green, Red)	Used for indicating the current state of the product.
Battery	Power supply
USB	Power supply
tamper switch	Trigger tampering report
Dry Contact	A probe is connected to product with wire and used to test dry contact state.

2 SPECIFICATIONS

2.1 Structural

Parameter	Value
Product Identifier	ZWA056
Dimensions	70x18x19mm
Color	White
Usage	For indoor use.
Operating Temperature	32~104°F (0~40°C)
Relative Humidity	8%~80%

2.2 Hardware

Parameter	Value
Z-Wave Module	EFR32ZG23
Z-Wave TX Power	Max: 14dBm
Z-Wave Classic Antenna Distance	40m (Indoor) /150m (Outdoor)
Buttons	Action Button x1
Indicator Light Color	Green, Red
Connectors	Detecting Head x1
Temperature Sensor	-20 to 85°C (+- 1°C)
Relative Humidity Sensor	0 to 100% RH +- 3%
Dew Point Temperature	-20 to 85°C (+- 1°C) Td = T – (100-RH) / 5 (Td=Dew Point, T=Temperature, RH=Relative Humidity)
Mold Detection	When humidity greater than or equal to 60% + configuration 13, it will trigger mold danger.
Power Type	USB or 1*CR14250

USB Power Supply:

Parameter	Value
Work Current	12mA
Standby Current	6mA

Battery Supply:

Parameter	Value
Work Current	12mA
Standby Current	5uA

2.3 Software

Parameter	Value
Wireless Technology	Z-Wave
Certification Type	Z-Wave Plus v2 Certification
Z-Wave SDK Version	7.23.2
Z-Wave Library Type	Enhanced 232 Slave
Z-Wave Role Type	Always On Slave(USB Power Supply), Reporting Sleeping Slave(Battery Supply).
Generic Product Type	GENERIC_TYPE_SENSOR_NOTIFICATION [0x07]
Specific Product Type	SPECIFIC_TYPE_NOTIFICATION_SENSOR [0x01]

Security Class	Non-Security, S2 Unauthenticated, and S2 Authenticated
SmartStart Compatible	Support. After powering on, SmartStart is auto activated.
Over The Air (OTA)	Support. Firmware can be updated via RF.
Multi Channel Product	No
Association	Support. Refer to Section 4.7 Association Group Info.
Factory Reset	Support. Refer to Section 3.7 How to factory reset.
Power-down Memory	Support. All command settings will stay unchanged even power down.
Sensor State Report	Support. Send out notification via Group 1 when dry contact closed or open.
Control other product	Support. Control other Z-Wave product directly via Association Group 2 when dry contact state change closed or open.

3 QUICK START

3.1 Important safety information

Please read this manual carefully. Failure to follow the recommendations in this manual may be dangerous or may violate the law. The manufacturer, importer, distributor and seller shall not be liable for any loss or damage resulting from failure to comply with the instructions in this manual or any other material. Use this equipment only for its intended purpose. Follow the disposal instructions. Do not dispose of electronic equipment or batteries in a fire or near open heat sources.

3.2 How to install the product

3.2.1 Choosing a position for the dry contact

This is a secure **Alarm Sensor**. To run this device please insert fresh 1*CR14250 batteries. Please make sure the internal battery charge is full . The DSK for the S2 inclusion can be found inside the sensors packaging.

If your Z-Wave gateway supports SmartStart: scan the QR code on product using the gateway's app. Your sensor will join your Z-Wave network automatically.

3.2.2 install the product

The sensor can be mounted on the wall. Mounting can be accomplished either using the tape by peeling off the

protection foil or using two screws with the holes inside the battery compartment.

Dry contact which is hardwired to the Main Unit must be put on the floor or onto any other surface, where dry contact must be detected.

3.3 How to add the product

The following will step you through adding the product to your Z-Wave network.

1. Open the housing.

2. Remove the battery protection.

3. Press the action button on the side of the appliance twice quickly.

3.4 How to remove the product

1. Open the housing.

2. Press the action button on the side of the appliance twice quickly.

3.5 About SmartStart

SmartStart enabled products can be added into a Z-Wave network by scanning the Z-Wave QR Code present on the product with a controller providing SmartStart inclusion. No further action is required and the SmartStart product will be added automatically within 10 minutes of being switched on in the network vicinity. You can find the QR code on the back of the product, like this:

PIN: 05065

The DSK information will be like this: **05065**-41336-16018-47313-50335-02212-29424-38760

3.6 About Product

This product can be operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers. All mains operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.

3.7 How to factory reset

Reset procedure allows to restore the product back to its factory settings, which means all information about the Z-Wave controller and user configuration will be deleted.

1. Make sure the product is powered.

2. Press and hold the button for at least 12s, and then Factory Reset is performed. The product will issue a Device Reset Locally Command via its Lifeline to notify the Lifeline destination that the product has been reset to its factory default state. And it will perform the reset operation regardless of whether or not the delivery of the Device Reset Locally Notification is successful.

Note:

If you press and hold the button, 5 to 12 seconds, the Green LED will fast flash, and then Green LED light 2 seconds until the factory settings are restored.

Resetting the product is not the recommended way of removing the product from the Z-Wave network. Use reset procedure only if the primary controller is missing or inoperable. Certain product removal can be achieved by the procedure of removing described in “How to remove the product”.

3.8 Safety Warning for Batteries

The product contains batteries. Please remove the batteries when the device is not used. Do not mix batteries of different charging level or different brands.

3.9 Product Usage

Once installed the sensor will report sensor status changes to a central Z-Wave controller using notification commands. Additionally, the sensor can directly control other devices using association group 2.

3.10 Long Range

ZWA056 A (US_LR) can be included using Z-Wave Long Range.
ZWA056 C (EU_LR) can be included using Z-Wave Long Range.

3.11 About Z-Wave Role Type

1. When include to the network using USB power, the role type of the product is Always On. Changing to battery power will keep the role type in its network, which is also a Always On Slave.

2. When powered by battery and include to the network, the role type of the product is Reporting Sleeping. Changing to USB power supply will keep the role type in its network, which is also Reporting Sleeping Slave.

4 SOFTWARE FUNCTION DEFINITION

4.1 User Behavior Interaction

The following brightness levels are all 100% unless otherwise specified.

User behavior / status	Out of the Z-Wave network	In the Z-Wave network
Power OFF	N/A	N/A
Power ON	1, The red and green led will on for 1 second, indicating self inspection. 2, The green led breathing 3 times and then turn off, indication out of the Z-Wave network. 3, Send Inclusion Requests for SmartStart Learn Mode.	1, The red and green led will on for 1 second, indicating self inspection 2, LED will light up green for 1 seconds and turn off, indicating in the Z-Wave network. 3, Send Wake Up Notification. 4, Send all sensor data LED will become flash green once, and device will wake up for 15 seconds.
Click Z-Wave button once	**1, Exit Classic Inclusion Learn Mode:** If during the Classic Inclusion Learn Mode, the Classic Learn Mode will exit. LED will turn off. **2, Indicate network status** The green led breathing 3 times and then turn off.	**1, Exit Classic Inclusion Learn Mode:** If during the Classic Inclusion Learn Mode, the Classic Learn Mode will exit. LED will turn off. **2, Send Wake Up Notification** green led will on for 1 second, and device will wake up for 15 seconds(if received wakeup no more information, will go to sleep immediately).
Click Z-Wave button twice	**1. Send Node Info for Adding.** LED will blink green for 30s until it is added into the network. If Adding succeeds, LED will light up green for 2 seconds If Adding fails, LED will turn off. Device will auto-reset and then activate SmartStart Learn Mode again. **2.Exit Classic Inclusion Learn Mode:** If Z-Wave button is clicked again during the Classic Inclusion Learn Mode, the Classic Learn Mode will exit. LED will turn off. Device will auto-reset and then activate SmartStart Learn Mode again.	**1. Send Node Info for Removing.** LED will blink green for 30 seconds until it is removed from the network. If Removing succeeds, LED will light up green for 2 seconds and become breathing light 3 times. If Removing fails, LED will light up green for 1 seconds and turn off **2.Exit Classic exclusion Learn Mode:** If Z-Wave button is clicked again during the Classic exclusion Learn Mode, the Classic Learn Mode will exit. LED will turn off.
Press and hold Z-Wave button for (0, 1s]	LED: OFF	LED: OFF
hold Z-Wave button for (1, 3s]	Green light on 10%	Green light on 10%

hold Z-Wave button for (3, 5s]	Green light on 100%	Green light on 100%, Release and enter sensor reporting mode, Send battery report, multilevel sensor report(Temperature/Humidity/ Dew Point Temperature)
Press and hold Z-Wave button for (5, 12s]	Green Led will accelerate Flash.	Green Led will accelerate Flash.
Press and hold Z-Wave button for >12s	**Factory Reset And Restart** Green Led will become constantly light for 1 second, and become breathing light indicates the reset is success.	**Factory Reset AND Restart.** Green Led will become constantly light for 1 second, and become breathing light. The device will issue a Device Reset Locally Command via its Lifeline to notify the Lifeline destination that the device has been reset to its factory default state. And it will perform the reset operation regardless of whether or not the delivery of the Device Reset Locally Notification is successful.
wakeup notification of Periodic	N/A	LED will light up green for 1 seconds and turn off
Multilevel report of Periodic	N/A	LED will light up green for 1 seconds and turn off
Mold danger alarm or idle	N/A	LED will light up red for 1 seconds and turn off
Plug in or unplug the USB	The red led will light up green for 1 seconds and the green led breathing 3 times and then turn off.	LED will light up red for 1 seconds and turn off
Tamper triggered or released	The red led will light up green for 1 seconds and the green led breathing 3 times and then turn off.	LED will light up red for 1 seconds and turn off
dry contact closed or open	The red led will light up green for 1 seconds and the green led breathing 3 times and then turn off.	LED will light up red for 1 seconds and turn off

4.2 Supported Command Classes

Command Class	Version	Securely 2 added	
		Non-secure	Secure
ZWAVEPLUS_INFO	2	Support	Support
ASSOCIATION	2		Support
MULTI_CHANNEL_ASSOCIATION	3		Support
ASSOCIATION_GRP_INFO	3		Support
TRANSPORT_SERVICE	2	Support	Support
VERSION	3		Support
MANUFACTURER_SPECIFIC	2		Support
DEVICE_RESET_LOCALLY	1		Support
INDICATOR	3		Support

POWERLEVEL	1		Support
BATTERY	1		Support
SENSOR_BINARY	2		Support
CONFIGURATION	4		Support
SECURITY_2	1	Support	Support
NOTIFICATION	8		Support
WAKE_UP	2		Support
SUPERVISION	1	Support	Support
FIRMWARE_UPDATE_MD	5		Support
MULTILEVEL SENSOR	11		Support

4.3 Basic Command Class mapping

Basic Command Class is not mapped to any of the supported command classes.

4.4 Z-Wave Plus Info

Parameter	Value
Z-Wave Plus Version	0x02
Role Type	USB Supply: 5 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_END_NODE_ALWAYS_ON) Battery Supply: 6 (ZWAVEPLUS_INFO_REPORT_ROLE_TYPE_SLAVE_SLEEPING_REPORTING)
Node Type	0x00 [ZWAVEPLUS_INFO_REPORT_NODE_TYPE_ZWAVEPLUS_NODE)

Notification Type	Parameter	Value
Water Alarm	Installer Icon Type	0x0C05 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_WATER_ALARM]
	User Icon Type	0x0C05 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_WATER_ALARM]
Smoke Alarm	Installer Icon Type	0x0C01 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_SMOKE_ALARM]
	User Icon Type	0x0C01 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_SMOKE_ALARM]
CO Alarm	Installer Icon Type	0x0C02 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_CO_ALARM]
	User Icon Type	0x0C02 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_CO_ALARM]
CO2 Alarm	Installer Icon Type	0x0C03 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_CO2_ALARM]
	User Icon Type	0x0C03 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_CO2_ALARM]
Access Control	Installer Icon Type	0x0C06 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_ACCESS_CONTROL]
	User Icon Type	0x0C06 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_ACCESS_CONTROL]
Home Security	Installer Icon Type	0x0C07 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_HOME_SECURITY]
	User Icon Type	0x0C07 [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_HOME_SECURITY]
Emergency Alarm	Installer Icon Type	0x0C0A [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_EMERGENCY_ALARM]
	User Icon Type	0x0C0A [ICON_TYPE_SPECIFIC_SENSOR_NOTIFICATION_EMERGENCY_ALARM]

Mark:

1. When include to the network using USB power, the role type of the product is Always On. Changing to battery power will keep the role type in its network, which is also a Always On Slave.

2. When powered by battery and include to the network, the role type of the product is Reporting Sleeping. Changing to USB power supply will keep the role type in its network, which is also Reporting Sleeping Slave.

4.5 Manufacturer Specific

Parameter	Value
Manufacturer ID 1	0x03
Manufacturer ID 2	0x71
Product Type ID 1	0x00 [EU], 0x01 [US], 0x02 [AU]
Product Type ID 2	0x02 [PRODUCT_TYPE_ID_SENSOR]

Product ID 1	0x00
Product ID 2	0x38 (56)

4.6 Version

Parameter	Value
Z-Wave Protocol Library Type	0x03
Z-Wave Protocol Version	0x07
Z-Wave Protocol Sub Version	0x16
Firmware 0 Version	0x01 [Z-Wave Chip Firmware Version]
Firmware 0 Sub Version	0x00 [Z-Wave Chip Firmware Sub Version]
Hardware Version	0x38 (56)
Number of firmware targets	0x00

4.7 Association Group Info

Root product

ID	Name	Node count	Profile	Function
1	Lifeline	5	General: Lifeline (0x0001)	**Device Reset Locally Notification:** Issued when Factory Reset is performed. **Battery Report:** Issued when battery becomes low. **Sensor Binary Report:** Issued when dry contact state is changed. **Multilevel Sensor Report** Issued when button pressed to wake up or auto report enable or detect temperature/humidity change exceeds the set value. **Notification Report** Issued when Tamper Alarm, Dry Contact Alarm, Weather Alarm, Power Management Alarm
2	Control	5	Notification: Type(refer to Configuration 10)	**Basic Set:** Issued when dry contact closed or open.
3	Alarm	5	Notification: Type(refer to Configuration 10)	**Notification Report:** Sends out alarm message when dry contact state is changed.
4	Tamper	5	Notification: Home security (0x7107)	**Notification Report:** Sends alarm messages when tamper is trigger.
5	Temperature High Trigger	5	Notification: Heat alarm(0x7104)	**Basic Set** Issued when the temperature detected is higher than set value by Configuration parameter 14.
6	Temperature Low Trigger	5	Notification: Heat alarm(0x7104)	**Basic Set** Issued when the temperature detected is lower than set value by Configuration parameter 15.
7	Humidity High Trigger	5	Notification: Weather alarm(0x7110)	**Basic Set** Issued when the humidity detected is higher than set value by Configuration parameter 16.
8	Humidity Low Trigger	5	Notification: Weather alarm(0x7110)	**Basic Set** Issued when the humidity detected is lower than set value by Configuration parameter 17.
9	Mold danger	5	Notification: Weather alarm(0x7110)	**Notification Report:** Sends alarm messages when Mold danger. (When humidity greater than or equal to 60% + configuration 13, it will trigger mold danger.)
10	Air Temperature	5	Notification: Heat alarm(0x7104)	**Multilevel Sensor Report** Issued when timed report, threshold report, limit report.

4.8 Notification

Notification Type		Notification Events		Description
Water Alarm	0x05	Water leak detected	0x02	Water leak detected
		State idle	0x00	Going to idle
Home Security	0x07	Tamper Removed	0x03	Tamper removed
		State idle	0x00	Going to idle
Power Management	0x08	State Idle	0x00	Issued when replace new battery that battery power more than 90%.
		Power has been applied	0x01	Power has been applied
		AC mains disconnected	0x02	Supply by battery
		AC mains re-connected	0x03	Supply by USB
		Replace battery now	0x0B	Issued when battery level is less than the value of configuration parameter 23
Weather Alarm	0x10	State Idle	0x00	Issued when Moisture Alarm removed.
		Moisture Alarm	0x02	When humidity greater than or equal to 60% + configuration 13, it will trigger mold danger.
Heat Alarm	0x04	State Idle	0x00	Issued when overheat or under heat alarm removed.
		Overheat detected	0x02	Issued when detect temperature is higher than set value by Configuration parameter 14.
		Under heat detected	0x06	Issued when detect temperature is lower than set value by Configuration parameter 15.

Configuration 10	Notification Type	Notification Events		Description
0	Water Alarm	Water leakage Detected	0x02	Water leakage Detected
		State idle	0x00	State idle
1	Smoke Alarm	Smoke detected	0x02	Smoke detected
		State idle	0x00	State idle
2	CO Alarm	Carbon monoxide detected	0x02	Carbon monoxide detected
		State idle	0x00	State idle
3	CO2 Alarm	Carbon dioxide detected	0x02	Carbon dioxide detected
		State idle	0x00	State idle
4	Access Control	Window/door is open	0x16	Window/door is open in regular position
		State idle	0x00	State idle
5	Access Control	Window/door is open	0x16	Window/door is open in tilt position
		State idle	0x00	State idle
6	Home Security	Motion detection	0x08	Motion detection
		State idle	0x00	State idle
7	Home Security	Glass Break	0x06	Glass Break
		State idle	0x00	State idle
8	Emergency Alarm	Panic alert	0x04	Panic alert
		State idle	0x00	State idle

4.9 Binary Sensor

Sensor Type	Sensor Value	Description
General purpose	0xFF	Mold danger
	0x00	Mold Idle

Configuration 10	Notification Type	Sensor Type	Value	Description
0	Water Alarm	Water	0xFF	Water leakage Detected
			0x00	State idle
1	Smoke Alarm	Smoke	0xFF	Smoke detected
			0x00	State idle
2	CO Alarm	CO	0xFF	Carbon monoxide detected
			0x00	State idle
3	CO2 Alarm	CO2	0xFF	Carbon dioxide detected
			0x00	State idle
4	Access Control	Door/Window	0xFF	Window/door is open in regular position
			0x00	State idle
5	Access Control	Tilt	0xFF	Window/door is open in tilt position
			0x00	State idle
6	Home Security	Motion	0xFF	Motion detection
			0x00	State idle
7	Home Security	Glass break	0xFF	Glass break
			0x00	State idle
8	Emergency Alarm	General purpose	0xFF	Panic alert
			0x00	State idle

4.10 Multilevel Sensor

Sensor Type		Support Scale	Measure Range
Temperature	0x01	Celsius (°C)	-20 to 85°C (+- 1°C)
		Fahrenheit (°F)	-4 to 185°F (+- 1.8°F)
Relative Humidity	0x05	Percentage value (%)	0 to 100% RH +- 3%
Dew Point Temperature	0x0B	Celsius (C)	-20 to 85°C (+- 1°C)
		Fahrenheit (F)	-4 to 185°F (+- 1.8°F)

4.11 Wake Up

Parameter	Value	Time
Min Wake Up Interval Seconds	0x000E10	3600s [1 hour]
Max Wake Up Interval Seconds	0xEFF100	15724800s [82days]
Default Wake Up Interval Seconds	0x093A80	604800s [1 week]
Wake Up Interval Step Seconds	0x0000F0	240s [4 minutes]

4.12 Battery

1. The 2.90V or more battery voltage corresponds to 100% battery level, and 2.60V or less corresponds to 0%.
2. If send Battery Get to the device, it will issue Battery Report with battery level to the requester when waked up.
3. If waked up or power on, it will detect battery level, and issue Battery Report via Lifeline when battery level change over 10%.
4. if the battery level is less then the value of configuration parameter 23, send Battery Report 0xFF and Notification Report of replace battery now via Lifeline.

4.13 Indicator

Indicator ID		Property ID	
Node Identify (Green Led)	0x50	On Off Period	0x03
		On Off Cycles	0x04
		On time within an On/Off period	0x05

4.14 Configuration

Parameter	0x01 (1)			
Name	Set threshold Check Time			
Info	Set threshold Check Time			
Properties	Size	4	Min Value	0
	Format	Unsigned Integer	Max Value	2678400
	Read-only	False	Default Value	900
	Altering capabilities	False	Advanced	False
Description	Serve parameter 2/3/14/15/16/17 When using battery power, follow this configuration, the minimum time is 30 seconds. When using USB power supply, for real-time detection.			
	Value	Function		
	0	Disable		
	30~65535	Seconds		

Parameter	0x02 (2)			
Name	Minimum temperature change to report			
Info	Trigger temperature report			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	20(EU,ANZ) / 36(US)
	Altering capabilities	False	Advanced	False
Description	The check interval time is set by configuration parameter 1.			
	Value	Function		
	0	Disable		
	1~255	0.1~25.5 degree		

Parameter	0x03 (3)			
Name	Minimum humidity change to report			
Info	Trigger humidity report			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	50
	Altering capabilities	False	Advanced	False

Description	The check interval time is set by configuration parameter 1.	
	Value	Function
	0	Disable
	1~255	0.1-25.5%

Parameter	0x04 (4)							
Name	Enable led indication							
Info	Enable led indication							
Properties	Size		1		Min Value		0	
	Format		Bit field		Max Value		0x1F	
	Read-only		False		Default Value		0x1F	
	Altering capabilities		False		Advanced		False	
Description	This parameter defines when the green or red LED will indicate events. Disabling all indications may extend battery life. Value 0 means no indications. 0 - disable, 1 - enable							
	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	dry contact Status Change (red led)	Device Tampering (red led)	Mold danger Report (red led)	Wake up interval report (green led)	Periodic Reports (green led)

Parameter	0x05 (5)			
Name	Polarity for the dry contact sensor			
Info	Polarity for the dry contact sensor			
Properties	Size	1	Min Value	0
	Format	Enumerated	Max Value	1
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description	This parameter allows to set the states of alarm when the dry contact is closed			
	Value	Function		
	0	Alarm is triggered when the dry contact is closed, and Idle is triggered when the dry contact is open		
	1	Alarm is triggered when the dry contact is open, and Idle is triggered when the dry contact is closed		

Parameter	0x06 (6)			
Name	Group 2 trigger			
Info	Dry contact status that causes sending			
Properties	Size	1	Min Value	0
	Format	Enumerated	Max Value	2
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description	This parameter defines the status of the dry contact that causes sending a BASIC command to all devices of Association Group 2.			
	Value	Function		
	0	Switch after dry contact closed and open		
	1	Switch after dry contact closed		
	2	Switch after dry contact open		

Parameter	0x07 (7)			
Name	Command send to Group 2			
Info	Set which command to send			
Properties	Size	1	Min Value	0
	Format	Enumerated	Max Value	2
	Read-only	False	Default Value	2
	Altering capabilities	False	Advanced	False
Description	This parameter defines which commands is sent to 2nd Association Group			
	Value	Function		
	0	On		
	1	Off		
	2	On and Off		

Parameter	0x08 (8)			
Name	Basic On of Group 2			
Info	Value of basic set on			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	255
	Altering capabilities	False	Advanced	False
Description	This is the BASIC command value sent in case of On event.			
	Value	Function		
	0-255	Value		

Parameter	0x09 (9)			
Name	Basic Off of Group 2			
Info	Value of basic set off			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description	This is the BASIC command value sent in case of Off event.			
	Value	Function		
	0-255	Value		

Parameter	0x0A (10)			
Name	Notification Type			
Info	Set the notification type			
Properties	Size	1	Min Value	0x00
	Format	Enumerated	Max Value	0x08
	Read-only	False	Default Value	0x00
	Altering capabilities	True	Advanced	False
Description	This parameter will altering the capabilities of the product and needs to be exclude the network in order to update the product capabilities.			
	Value	Function		
	0	Water Alarm->Water leak detected->State idle ←→sensor type=Water Alarm		
	1	Smoke Alarm->Smoke detected->State idle ←→ sensor type=Smoke Alarm		

	2	CO Alarm->Carbon monoxide detected->State idle ←→ sensor type=CO Alarm
	3	C02 Alarm->Carbon dioxide detected->State idle ←→ sensor type=CO2 Alarm
	4	Access Control->Window/door is open in regular position-> Window/door is closed ←→ sensor type=Door/Window
	5	Access Control->Window/door is open in tilt position-> Window/door is closed ←→ sensor type=Tilt
	6	Home Security->Motion detection->State idle ←→ sensor type=Motion
	7	Home Security->Glass breakage->State idle ←→ sensor type=Glass Break
	8	Emergency Alarm->Panic alert-> State idle. ←→ sensor type=Aux

Parameter	0x0C (12)			
Name	Sensor Limit Enable			
Info	Sensor Limit Enable			
Properties	Size	1	Min Value	0
	Format	Bit field	Max Value	0x0F
	Read-only	True	Default Value	0
	Altering capabilities	False	Advanced	False

Description	0 - disable, 1 - enable							
	7	6	5	4	3	2	1	0
	Reserved	Reserved	Reserved	Reserved	Humidity lower limit	Temperature lower limit	Humidity upper limit	Temperature upper limit

Parameter	0x0D (13)			
Name	Offset value for Mold danger alarm			
Info	Increase the humidity threshold			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	40
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False

Description	The default Relative Humidity to trigger Mold danger alarm is 60%.	
	Value	Function
	0--40	0%--40%

Parameter	0x0E (14)			
Name	Temperature Upper Watermark value			
Info	Send BASIC Set to Group 5 if exceeded			
Properties	Size	2	Min Value	0x0000 (0)(EU/AU) 0x0020(32)(US)
	Format	Unsigned Integer	Max Value	0x03E8 (1000)(EU/AU) 0x0848(2120)(US)
	Read-only	False	Default Value	0x012C(300)(EU/AU) 0x035C (860)(US)
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	1~1000	0.1~100 degree		

Parameter	0x0F (15)			
Name	Temperature Lower Watermark value			
Info	Send BASIC Set to Group 6 if below			
Properties	Size	2	Min Value	0xFF38 (-200) (EU/AU) 0xFFD8(-40)(US)
	Format	Signed Integer	Max Value	0x03E8 (1000)(EU/AU) 0x0848(2120)(US)
	Read-only	False	Default Value	0 (EU/AU) 0x0140 (320) (US)
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	-200~1000	-20~+100 degree		

Parameter	0x10 (16)			
Name	Humidity Upper Watermark value			
Info	Send BASIC Set to Group 7 if exceeded			
Properties	Size	2	Min Value	0
	Format	Unsigned Integer	Max Value	1000
	Read-only	False	Default Value	700
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0~1000	0%~100.0%		

Parameter	0x11 (17)			
Name	Humidity Lower Watermark value			
Info	Send BASIC Set to Group 8 if below			
Properties	Size	2	Min Value	0
	Format	Unsigned Integer	Max Value	1000
	Read-only	False	Default Value	300
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0~1000	0%~100.0%		

Parameter	0x12 (18)			
Name	High Temperature Trigger BASIC Set Send			
Info	Set BASIC Set value send to Group5.			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0~255	Basic Set Value		

Parameter	0x13 (19)			
Name	Low Temperature Trigger BASIC Set Send			
Info	Set BASIC Set value send to Group6.			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	255
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0~255	Basic Set Value		

Parameter	0x14 (20)			
Name	High Humidity Trigger BASIC Set Send			
Info	Set BASIC Set value send to Group7.			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	Fasle	Default Value	0

	Altering capabilities	Fasle	Advanced	Fasle
Description				
	Value	Function		
	0~255	Basic Set Value		

Parameter	0x15 (21)			
Name	Low Humidity Trigger BASIC Set Send			
Info	Set BASIC Set value send to Group8.			
Properties	Size	1	Min Value	0
	Format	Unsigned Integer	Max Value	255
	Read-only	False	Default Value	255
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0~255	Basic Set Value		

Parameter	0x16 (22)			
Name	Enable Binary Sensor Report			
Info	Enable Binary Sensor Report			
Properties	Size	1	Min Value	0
	Format	Enumerated	Max Value	1
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description	Backwards compatibility, Binary Sensor for alarm state			
	Value	Function		
	0	Disable		
	1	Enable		

Parameter	0x17 (23)			
Name	Low battery threshold			
Info	Low battery threshold			
Properties	Size	1	Min Value	10
	Format	Unsigned Integer	Max Value	50
	Read-only	False	Default Value	20
	Altering capabilities	False	Advanced	False
Description	Report low battery report when level goes under threshold setting			
	Value	Function		
	10-50	10-50%		

Parameter	0x18 (24)			
Name	Periodic Reports			
Info	Periodic Reports			
Properties	Size	4	Min Value	0
	Format	Unsigned Integer	Max Value	2678400

	Read-only	False	Default Value	43200
	Altering capabilities	False	Advanced	False
Description	The period of battery, temperature and humidity report, the minimum time is 30 seconds.			
	Value	Function		
	0	Disable		
	10~65535	Seconds		

Parameter	0x19 (25)			
Name	Offset value for Temperature			
Info	Calibrate temperature			
Properties	Size	1	Min Value	-200
	Format	Signed Integer	Max Value	200
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description	Scale is defined by Parameter 64.eg: Value 15 means 1.5°C or 1.5F			
	Value	Function		
	-200~200	-20.0~20.0 degrees		

Parameter	0x1A (26)			
Name	Offset value for Humidity			
Info	Calibrate humidity			
Properties	Size	2	Min Value	-200
	Format	Signed Integer	Max Value	200
	Read-only	False	Default Value	0
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	-200~200	-20.0~20.0 %		

Parameter	0x40 (64)			
Name	Temperature & Dew Point Scale			
Info	scale for auto reports and setting			
Properties	Size	1	Min Value	0
	Format	Enumerated	Max Value	1
	Read-only	False	Default Value	0(EU)/1(US)
	Altering capabilities	False	Advanced	False
Description				
	Value	Function		
	0	Celsius		
	1	Fahrenheit		