



**Parameter no. 65 – Dimming time (soft on/off)**

Set value means time of moving the Dimmer between min. and max. dimming values by short press of push button I1 or controlled through UI (BasicSet). Available configuration parameters (data type is 2 Byte DEC):

- default value 100 = 1s
- 50 - 255 = 500 mseconds - 2550 mseconds (2,55s), step is 10 mseconds

**Parameter no. 66 – Dimming time when key pressed**

Time of moving the Dimmer between min. and max dimming values by continues hold of push button I1 or associated device. Available configuration parameters (data type is 2 Byte DEC):

- default value 3 = 3s
- 1- 255 = 1 second – 255 seconds

**Parameter no. 67 – Ignore start level**

This parameter is used with association group 3.

A receiving device SHOULD respect the start level if the Ignore Start Level bit is 0. A receiving device MUST ignore the start level if the Ignore Start Level bit is 1. Available configuration parameters (data type is 1 Byte DEC):

- default value 0
- 0 - respect start level
- 1 - ignore start level

**Parameter no. 68 – Dimming duration**

This parameter is used with association group 3.

The Duration field MUST specify the time that the transition should take from the current value to the new target value. A supporting device SHOULD respect the specified Duration value. Available configuration parameters (data type is 1 Byte DEC):

- default value 0 (dimming duration according to parameter 66)
- 1 - 127 (from 1 to 127 seconds)

**Parameter no. 100 – Enable / Disable Endpoints I2 or select Notification Type and Event**

Enabling I2 means that Endpoint (I2) will be present on UI. Disabling it will result in hiding the endpoint according to the parameter set value. Additionally, a Notification Type and Event can be selected for the endpoint. Available configuration parameters (data type is 1 Byte DEC):

**Endpoint device type selection:**

**- notification sensor (1 - 6):**

GENERIC\_TYPE\_SENSOR\_NOTIFICATION,  
SPECIFIC\_TYPE\_NOTIFICATION\_SENSOR

- default value 0
- 1 - Home Security; Motion Detection, unknown loc.
- 2 - CO; Carbon Monoxide detected, unknown loc.
- 3 - CO2; Carbon Dioxide detected, unknown loc.
- 4 - Water Alarm; Water Leak detected, unknown loc.
- 5 - Heat Alarm; Overheat detected, unknown loc.
- 6 - Smoke Alarm; Smoke detected, unknown loc.
- 0 - Endpoint, I2 disabled

**- sensor binary (9):** GENERIC\_TYPE\_SENSOR\_BINARY,  
SPECIFIC\_TYPE\_NOT\_USED

- 9 - Sensor binary

NOTE1: After parameter change, first exclude module (without setting parameters to default value) then wait at least 30s and then re include the module!

NOTE 2: When the parameter is set to value 9 the notifications are send for Home Security.

**Parameter no. 101 – Enable / Disable Endpoints I3 or select Notification Type and Event**

Enabling I3 means that Endpoint (I3) will be present on UI. Disabling it will result in hiding the endpoint according to the parameter set value. Additionally, a Notification Type and Event can be selected for the endpoint. Available configuration parameters (data type is 1 Byte DEC):

**Endpoint device type selection:**

**- notification sensor (1 - 6):**

GENERIC\_TYPE\_SENSOR\_NOTIFICATION,  
SPECIFIC\_TYPE\_NOTIFICATION\_SENSOR

- default value 0
- 1 - Home Security; Motion Detection, unknown loc.
- 2 - CO; Carbon Monoxide detected, unknown loc..
- 3 - CO2; Carbon Dioxide detected, unknown loc.
- 4 - Water Alarm; Water Leak detected, unknown loc.
- 5 - Heat Alarm; Overheat detected, unknown loc.
- 6 - Smoke Alarm; Smoke detected, unknown loc.
- 0 - Endpoint, I3 disabled

**- sensor binary (9):** GENERIC\_TYPE\_SENSOR\_BINARY,  
SPECIFIC\_TYPE\_NOT\_USED

- 9 - Sensor binary

NOTE1: After parameter change, first exclude module (without setting parameters to default value) then wait at least 30s and then re include the module!

NOTE 2: When the parameter is set to value 9 the notifications are send for Home Security.

**Parameter no. 110 – Temperature sensor offset settings**

Set value is added or subtracted to actual measured value by sensor. Available configuration parameters (data type is 2 Byte DEC):

- default value 32536
- 32536 - offset is 0.0C
- From 1 to 100 - value from 0.1 °C to 10.0 °C is added to actual measured temperature.
- From 1001 to 1100 - value from -0.1 °C to -10.0 °C is subtracted to actual measured temperature.

**Parameter no. 120 –Temperature sensor reporting**

If digital temperature sensor is connected, module reports measured temperature on temperature change defined by this parameter. Available configuration parameters (data type is 1 Byte DEC):

- default value 5 = 0,5°C change
- 0 - reporting disabled
- 1 - 127 = 0,1°C - 12,7°C, step is 0,1°C

**Parameter No. 250 – Unsecure / Secure Inclusion**

Available configuration parameter (data type is 1 Byte Dec):

- default Value 0
- 0 – Unsecure Inclusion
- 1 – Secure Inclusion

A Flush dimmer supports both, the secure and unsecure inclusion. Even if the controller does not support security command classes, a dimmer could be included as unsecure and keep all the functionality.

**Technical Specifications**

Power supply	110 - 230 VAC ±10% 50 or 60Hz*, (24-30VDC)
Rated load current of AC output	0,6A / 230VAC
Rated load current of DC output	0,85A / 30VDC
Output circuit power of AC output (resistive load)*	140W (230VAC)
Output circuit power of DC output (resistive load)	21W (24VDC)
Power measurement accuracy	+/-2W
Digital temperature sensor range (sensor must be ordered separately)	-50 ~ +125°C
Operation temperature	-10 ~ +40°C
Distance	up to 30 m indoors (depending on building materials)
Dimensions (WxHxD)	41,8x36,8x15,4mm

(package)	(79x52x22mm)
Weight (Brutto with package)	28g (34g)
Electricity consumption	0,7W
For installation in boxes	Ø ≥ 60mm or 2M, depth≥ 60mm
Switching	MOSFET (Trailing edge)

\*max 100W mono-phase asynchronous fan motor can be connected to Dimmer output.

\*\* depend on ordering code

Max Power Limit is automatically set by a software. If max power is exceeded for more than 5 seconds, the output is turned off up to the next power cycle of the module.When overload occurred, Event “Over-load detected” is send to the gateway.

Consumption in kWh is reported on every change for 0.1kWh.

**Description of switch function:**

Switch toggles (parameter 1 set to 1) the state of the light bulb between the last dimming value and 0. If last dimming value is 0 then the light is turned 100% when switch changes its state.

**Bulb types which support dimming function:**

- The classical incandescent bulbs.
- Halogen bulbs operated by 230 V AC (High Voltage Halogen).
- Low voltage halogen bulbs with electronic or conventional transformer.
- Dimmable compact fluorescent bulb (CFL). If the bulb at low intensities flushes, it is recommended to set parameter 60 (minimum dimming value) to 30 or more.
- Dimmable LED bulbs.

**Wave Device Class:**

ZWAVEPLUS\_INFO\_REPORT\_ROLE\_TYPE\_SLAVE\_ALWAYS\_ON

GENERIC\_TYPE\_SWITCH\_MULTILEVEL

SPECIFIC\_TYPE\_POWER\_SWITCH\_MULTILEVEL

**Z-Wave Supported Command Classes:**

COMMAND\_CLASS\_ZWAVEPLUS\_INFO\_V2,

COMMAND\_CLASS\_VERSION\_V2

COMMAND\_CLASS\_DEVICE\_RESET\_LOCALLY\_V1

COMMAND\_CLASS\_MANUFACTURER\_SPECIFIC\_V2

COMMAND\_CLASS\_POWERLEVEL\_V1

COMMAND\_CLASS\_SECURITY

**Securely Supported Command Classes:**

COMMAND\_CLASS\_BASIC\_V1

COMMAND\_CLASS\_SWITCH\_ALL\_V1

COMMAND\_CLASS\_SWITCH\_BINARY\_V1

COMMAND\_CLASS\_SENSOR\_BINARY\_V1

COMMAND\_CLASS\_SWITCH\_MULTILEVEL\_V3

COMMAND\_CLASS\_METER\_V4

COMMAND\_CLASS\_SENSOR\_MULTILEVEL\_V7

COMMAND\_CLASS\_NOTIFICATION\_V5

COMMAND\_CLASS\_MULTI\_CHANNEL\_V4

COMMAND\_CLASS\_ASSOCIATION\_2

COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION\_V3

COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO\_V2

COMMAND\_CLASS\_CONFIGURATION\_V1

COMMAND\_CLASS\_MARK

COMMAND\_CLASS\_BASIC\_V1

COMMAND\_CLASS\_SWITCH\_MULTILEVEL\_V3

COMMAND\_CLASS\_SWITCH\_MULTILEVEL\_V3

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COMMAND\_CLASS\_SWITCH\_MULTILEVEL\_V3

**Command Classes:**

COMMAND\_CLASS\_ZWAVEPLUS\_INFO\_V2

COMMAND\_CLASS\_SECURITY

COMMAND\_CLASS\_ASSOCIATION\_2

COMMAND\_CLASS\_MULTI\_CHANNEL\_ASSOCIATION\_V3

COMMAND\_CLASS\_ASSOCIATION\_GRP\_INFO\_V2

COMMAND\_CLASS\_BASIC\_V1

COMMAND\_CLASS\_SWITCH\_ALL\_V1

COMMAND\_CLASS\_SWITCH\_BINARY\_V1

COMMAND\_CLASS\_SWITCH\_MULTILEVEL\_V3

COMMAND\_CLASS\_METER\_V4

COMMAND\_CLASS\_NOTIFICATION\_V5

COMMAND\_CLASS\_MARK

COMMAND\_CLASS\_BASIC\_V1

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COMMAND\_CLASS\_NOTIFICATION\_V5 events:

- Smoke Alarm v2 – Smoke detected, unknown loc. (0x02)
- CO Alarm v2 – CO detected, unknown location (0x02)
- CO2 Alarm – CO2 detected, unknown loc (0x02)
- Heat Alarm v2 – Overheat detected, unknown location (0x02)
- Water Alarm v2 – Water Leak detected, unknown location (0x02)
- Home Security – Motion Detection, unknown location (0x08)

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from any other manufacturers. All constantly powered nodes in the same network will act as repeaters regardless of the vendor in order to increase reliability of the network.

**Important disclaimer**

Z-Wave wireless communication is inherently not always 100% reliable, and as such, this product should not be used in situations in which life and/or valuables are solely dependent on its function.

**Warning!**

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being. When replacing old appliances with new once, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

This user manual is subject to change and improvement without notice.

**NOTE:** User manual is valid for module with SW version S3 (SW version is part of P/N)! Example: P/N: ZMNHDDx HxS3Px

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