#### Minnston®

# MSE30Z Z-Wave Plus Multipurpose Sensor

FEDERAL COMMUNICATIONS COMMISSION(FCC) STATEMENT FCC CautionThis device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and(2) this device must accept any interference received including interference that may cause undesired operation. Any Changes or modifications not expressly approved by the party responsible for compliance could void the users authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC RulesThese limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- -Reorient or relocate the receiving antenna- Increase the separation between the equipment and receiver
- -Connect the equipment into an outlet on a circuit different from that to which the receiver is connected  $\,$
- -Consult the dealer or an experienced radio / TV technician for help.





Z-Wave Plus Multipurpose Sensor

#### WARRANTY

Minoston Products warrants this product to be free from manufacturing defects for a period of two years from the original date of consumer purchase. This warranty is limited to the repair or replacement of this product only and does not extend to consequential or incidental damage to other products that may be used with this product.

This warranty is in lieu of all other warranties, expressed or implied. Some states do not allow limitations on how long an implied warranty lasts or permit the exclusion or limitation of incidental or consequential damage, so the above limitations may not apply to you.

This warranty gives you specific rights, and you may also have other rights which vary from state to state. if the unit should prove defective within the warranty period.

### SPECIFICATIONS

Model:MSE30Z Power: CR2450 3V

Signal (Frequency): 908, 42 MHZ.

Range: Up to 100 feet line of sight between the Wireless Controller and the closest Z-Wave<sup>NM</sup> receiver module.

Operating Temperature Range: 5-104° F (-10-40° C)

Specifications subject to change without notice due to continuing product improvement

Website:www.nie-tech.com

# WARNING

RISK OF FIRE RISK OF ELECTRICAL SHOCK RISK OF BURNS

CONTROLLING APPLIANCES:

EXERCISE EXTREME CAUTION WHEN USING Z-Wave<sup>N</sup> DEVICES TO CONTROL

APPLIANCES. OPERATION OF THE Z-Wave<sup>N</sup> DEVICE MAY BE IN A DIFFERENT

ROOM THAN THE CONTROLLED APPLIANCE, ALSO ANUNINTENTIONAL ACTIVATION

MAY OCCUR IF THE WRONG BUTTON ON THE REMOTE IS PRESSED. Z-Wave<sup>N</sup> DEVICES

MAY AUTOMATICALLY BE POWERED ON DUE TO THE EVENT PROGRAMMING.

DEPENDING UPON THE APPLIANCE, THESE UNATTENDED OR UNINTENTIONAL

OPERATIONS COULD POSSIBLY RESULT IN A HAZARDOUS CONDITION. FOR THESE

REASONS, WE RECOMMEND DO NOT RETURN THIS PRODUCT TO THE STORE

THE FOLLOWING:

DO NOT USE Z-Wave<sup>M</sup> DEVICES TO CONTROL ELECTRIC HEATERS OR ANY OTHER APPLIANCES WHICH MAY PRESENT A HAZARDOUS CONDITION DUE TO UNATTENDED OR UNINTENTIONAL OR AUTOMATIC POWER ON CONTROL.

#### Introduction:

This product can be operated in any Z-Wave network with other Z-Wave Plus certified devices from other manufacturers.

This product is a Multipurpose Sensor, it have door/window sensor and Temperature Humidity sensor.

This product is a battery power , It's sleep most of the time.

MSE30Z is a security enabled Z-Wave Plus<sup>M</sup> device. A security Enabled Z-Wave Plus<sup>M</sup> Controller must be used in order to fully utilize the product. The GENERIC\_TYPE of the MSE30Z is GENERIC\_TYPE\_SENSOR\_NOTIFICATION

The SPECIFIC\_TYPE of the MSE30Z is SPECIFIC\_TYPE\_NOTIFICATION\_SENSOR

#### Key Features:

- ---Checks and sends the status of the gate
- $\operatorname{---Detects}$  and sends ambient temperature
- ---Detects and sends ambient humidity
- ---Support Association Group and Auto Report switch status
- ---Support firmware upgrades via Over-the-air (need Gateways support)

#### Product Overview:

- A. z-wave program button
- B. Magnet detection point
- C. Temperature and humidity detection point
- D. The magnet
- E. Power: CR2450 3V



#### Key function description

Function 1: quickly press 3x button: inclusion (only if sensor is not included in network) quickly press 3x button: exclusion

Function 2: quickly press 5x button :Wake-up the device

Function 3: Press click Z-Wave button 3 times quickly, and hold the third time for at least 10 seconds. to restore the device to the factory.

(Node:Please use this procedure only when the network primary controller is missing or otherwise inoperable.)

#### Adding Your Device To A Hub

The device support two methods of inclusion, When using a Z-Wave Plus Certified controller choose Network Wide Inclusion or SmartStart, Network Wide Inclusion To A Z-Wave Metwork

- 1, Refer to your primary controller instructions to process the inclusion / exclusion setup procedure.
- 2, When prompted by your primary controller, click the z-wave button three times in one second.

The device is compatible with SmartStart

SmartStart enabled products can be added into a Z-Wave<sup>NM</sup> network by scanning the Z-Wave QR Code found on the top of the outlet or the back of the box 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 and in the network vicinity.

#### OR CODE

the QR code are sticked to the side of the case,DSK is included in the QR code.  $\ensuremath{\mathsf{DSK}}$ 

The DSK code can be found on the DSK label which is attached on the packaging box.





#### **Command Class**

Command Clas	Version	Required Security Class		
Z-Wave Plus Info	V2	none		
Configuration	V4	highest granted		
Association	V3	highest granted		
Multi Channel Association	V4	highest granted		
Association Group Information	V3	highest granted		
Transport Service	V2	none		
Version	V3	highest granted		
Manufacturer Specific	V2	highest granted		
Device Reset Locally	V1	highest granted		
Powerlevel	V1	highest granted		
Security 2	V1	none		
Supervision	V1	none		
Fimware Updata Meta Data	V5	highest granted		
Battery	V1	highest granted		
Indicator	V3	highest granted		
Sensor Binary	V2	highest granted		
Notification	V8	highest granted		
Sensor Multilevel	V11	highest granted		
Wake Up	V2	highest granted		

 $Z\text{-Wave}^{\text{TM}} \ \ Configuration \ \ Parameters$  You may use the below configuration parameters to change settings of the corresponding functionality. The device needs to be woken up during setup

Number	Name	Informa	tion Format	/ Read Only	Altering	Advance	ed MI	N MAX	Default	Value Description	Change
1	Battery report threshold	When battery I exceed threshold the unneed to report hub.	ds 1 byte old, unsigne nit intege to	d NO	NO	NO	1	20	10	1 - 1% 2 - 2%  20 - 20%	Only can be changed by HUB
2	Low battery alarm report threshold	Setting threshold low batt alarn repor	d for 1 byte tery unsigne n intege	ed NO	NO	NO	5	20	5	5 - 5% 6 - 6%  20 - 20%	Only can be changed by HUB
3	state of the door sensor	Parame defines s of the se when t magn closes t reed	state nsor 1 byte the unsigne et intege	d NO	NO	NO	O	1	0	0 - door/window closed when magnet closes the reed 1- door/window opened when magnet closes the reed	Only can be changed by HUB
4	Door close send command time	Delay second when d close	ds 2 byte: oor unsigne	ed NO	NO	NO	0	3600	0	0 - instantly 1-1 second  3600 - 3600 seconds	Only can be changed by HUB
5	Door open send command time	Delay secon when d opens	ds 2 byte: oor unsigne	ed NO	NO	NO	0	3600	0	0 - instantly 1-1 second  3600 - 3600 seconds	Only can be changed by HUB
Temperature 6 report threshold		Minimu Tempera change repor	ture unsigne	ed NO	NO	NO	1	9	3	1 - 1°C 2 - 1.5°C 3 - 2°C 4 - 2.5°C 5 - 3°C 6 - 3.5°C 7 - 4°C 8 - 4.5°C 9 - 5°C	Only can be changed by HUB
7	Humidity report threshold	Minimu humid change repor	ity unsigne	ed NO	NO	NO	5	20	10	5 - 5% 6 - 6%  20 - 20%	Only can be changed by HUB
8	Temperature Upper	Tempera Uppe Waterm value	r unsigne	ed NO	NO	NO	0	50	0	0 - Disable 1 - °C  50 - 50°C	Only car be changed by HUB
9	Temperature Lower		ature 1 byte er unsigne aark intege	ed NO	NO	NO	0	50	0	0 - Disable 1 - 1°C 50 - 50°C	Only car be changed by HUB
10	Humidity Upper	Humid Uppe Waterm value	er unsigne	ed NO	NO	NO	0	100	0	0 - Disable 1 - 1%  100 - 100%	Only car be changed by HUB
11	Humidity Lower	Humid Lowe Waterm value	1 byte unsigne	ed NO	NO	NO	C	100	0	0 - Disable 1 - 196  100 - 100%	Only car be changed by HUB
12	Temperature unit	Switch unit o Tempera repor	of unsigne	ed NO	NO	NO	C	1	1	0 - Celsius 1 - Fahrenheit	Only car be changed by HUB
	iroup 2	Association 1 byte Group 2 unsigned NO NO NO 0 6 1 and send Basic SET 0xFF when Magnet is away and send Basic SET 0xFF when Magnet is nea 3 - Only send Basic SET 0xFF when Magnet is nea 5 - Only send Basic SET 0xFF when Magnet is nea 5 - Only send Basic SET 0xFF when Magnet i 5 - Only send Basic SET 0xFF when Magnet i 6 - Only send Basic SET 0xFF when Magnet i 6 - Only send Basic SET 0xFF when Magnet i		agnet is near. gnet is away, agnet is near. hen Magnet is away. hen Magnet is near. hen Magnet is near.	Only can be changed by HU						

## Support for Notification

Туре	Events	Description	
Access Control(0x06)	0x16(Window/Door is open)	Open status.	
Access Control(0x06)  Heat Alarm(0x04)	0x17(Window/Door is closed)	Close status.	
	0x02(Overheat) 0x06(Underheat)	Air temperature is high. Air temperature is low.	
Weather Alarm(0x10)	0x02(Weather Alarm)	Air humidity is high or low.	

# **Basic Set Mapping**

• Basic CC does not map to any Command Class.

# **Indicator Command Class**

• The indicator (blue color) will flashes according the indicator set command received from HUB.

# Support for Association Groups

#### **Association Group**

ID Name		Node Count	Profile	Function		
1	Lifeline	5	General: Lifeline	Device Reset Locally Notification:  Issued when Factory Reset is performed.  Battery Report:  Issued when battery becomes low.  Sensor Binary Report:  Issued when Magnet is away or near.  Notification Report(Type=0x06;Event=0x16:  Issued when sensor state is changed to be Open Status.  Notification Report(Type=0x06;Event=0x17):  Issued when sensor state is changed to be Close Status.  Indicator Report:  Issued when included successfully.  Sensor Multilevel Report:  Issued when air temperature changed exceeds the value determined by Parameter 6;  Issued when air humidity changed exceeds the value determined by Parameter 7.		
2	Basic Set when door triggered	5	Notification: Access Control	Basic Set: Issued when Magnet is away or near.(The Basic Set Value is determined by Parameter 13)		
3	Basic Set when temperature high	5	Notification: Heat Alarm	Basic Set: Issued when the air temperature exceeds the value determined by Parameter 8.		
4	Basic Set when temperature low	5	Notification: Heat Alarm	Basic Set: Issued when the air temperature exceeds the value determined by Parameter 9.		
5	Basic Set when humidity high	5	Notification: Weather	Basic Set: Issued when the air humidity exceeds the value determined by Parameter 10.		
6	Basic Set when humidity low	5	Notification: Weather	Basic Set: Issued when the air humidity exceeds the value determined by Parameter 11.		

# Restoring Factory Defaults

MSE30Z is removed from the network and will be restored to the factory setting

All Configuration Parameters values and Association information will be restored to factory default settings and excluded from the network. Manual Reset:Press click Z-Wave button 3 times quickly, and hold the third time for at least 10 seconds. to restore the device to the factory. Remark: All the setting and data will be permanently deleted.

Please use this procedure only when the network primary controller is missing or otherwise inoperable.