Product Specification: ZL-LD-100

Description: Z-Wave Water Leak Sensor

Parameter	Symbol	Conditions	Min	Nom	Max	Unit
General						
Operating Temperature	To	Normal Operating conditions	0		122	F
Storage Temperature	Ts		-4		140	F
Electrical Ratings						
Line Power Input Voltage	Vin	DC Input via Micro USB external power supply	4.55	5	5.2	Vdc
Battery Power Input Voltage						
Battery Type	Btype	AAA x 3				
Operating current	Iop	Transmission current with fresh AAA x 3 batteries		55	70	mA
Standby current	Isb	No transmit current with fresh AAA x 3 batteries		10	20	uA
Battery Life without USB power						
Water sensor	Blife	Assume 1 detection per week				months
Low Battery Indicator	LowBatt		2.9	3.05	3	Vdc
Temperature Sensor	Temp	+/- 1.5 degree C Accuracy over range.	32.0		122	F
RF/Telemetry Ratings						
Z-Wave Chip		500 Series ZM5101				
Z-Wave Frequency for USA at 40kps		908.4 MHz	-0.025	908.4	+0.025	MHz
Wireless Range (controller & repeater)		at open air, 1 meters high, LOS		132		ft
Modulation		FSK				
Tx Power				-1		dBm
Rx Sensitivity		At 9.6kps		-102		dBm
		At 40kps		-98		dBm
Controls and Indicators						
Controls		1 button for inclusion/exclusion				
Programming		See attached				
Default conditions		See attached				
Critical Components and Mechanical			Min	Nom	Max	Unit
Z-Wave Chip		ZM5101				
Sensor Ics		TMP75C(temp)				
I/O Connectors		3.5mm jack, Micro USB for power support				
Body Dimensions		W 75 mm X L 80 mm X H 28 mm				
Primary Color		White				
Body Material						
Battery type (not included)		AAA x 3				

Command Classes

COMMAND_CLASS_ZWAVEPLUS_INFO,
COMMAND_CLASS_ASSOCIATION,
COMMAND_CLASS_ASSOCIATION_GRP_INFO,
COMMAND_CLASS_TRANSPORT_SERVICE_V2,
COMMAND_CLASS_VERSION,
COMMAND_CLASS_MANUFACTURER_SPECIFIC,
COMMAND_CLASS_DEVICE_RESET_LOCALLY,
COMMAND_CLASS_POWERLEVEL,
COMMAND_CLASS_BATTERY,
COMMAND_CLASS_SECURITY_2,
COMMAND_CLASS_NOTIFICATION_V3,
COMMAND_CLASS_WAKE_UP,
COMMAND_CLASS_CONFIGURATION,
COMMAND_CLASS_SENSOR_MULTILEVEL_V7,
COMMAND_CLASS_SUPERVISION,
COMMAND_CLASS_FIRMWARE_UPDATE_MD_V2
COMMAND_CLASS_SENSOR_BINARY
COMMAND_CLASS_BINARY_SWITCH_V1 (Only supported on micro USB power mode)

Association Groups

Group 1: Lifeline communication, you can associate up to five Z-Wave devices to Group 1, it supports:
1. BATTERY_REPORT
2. NOTIFICATION_REPORT
3. SENSOR_MULTILEVEL_REPORT
4. DEVICE_RESET_LOCALLY_NOTIFICATION

Group 2: Basic Set, you can associate up to five Z-Wave devices to Group 2. LD-100 will send a Basic Set to the associated devices, for example, turning on lights or engaging the water auto shut-off valve, when water is detected.

Notifciation Types

Description	Supported Event
Water Alarm	0x05
Water Leak Detected	0x02
No Water Detected	0x00

Parameters

Number	Values	Description	Default	Bytes		
2	0= every 10 minutes 1= every 5 min. 2= every 30 min.	Beep and notification frequency once water is detected	0	1		
3	30-255 seconds	Temperature reporting interval on USB power	60	1		
4	0= Disabled 1= Enabled	Notification buzzer	1	1		

Market Specific Requirements

Parameter	Description			
FCC and Industry Canada	FCC (U2Zxxxx) and IC(6924A-xxxx)			
UL Listed, US Canada	No UL Required			
Z-Wave Plus Certified	Certified per the Z-Wave Plus requirements			
Special Features				

Product Marking Requirements

Parameter	Description or Reference Document
Identification Marking on the Product	Rating, Model, URL, Wire Markings.. See Product Marking jpeg
Date Code Marking on the Product	

*Note: Technology to attach copies of related **marking standards,** as necessary.*

Supplied Parts

Required Fixtures	Conditions
Instruction manual	Qty=1