

Wi-Zone L or XL

The Wi-Zone L or XL series is a Temperature and Humidity sensor with wireless mesh network communication output. This module is compatible with the Mesh Gate L or XL.



Sensor characteristic

T_{PM}	Temperature measuring range	- 14 .. 131	°F
		- 10 .. 55	°C
ϵ_T	Temperature error	max ± 3.6	°F
		max ± 2	°C
RH_{PM}	Relative humidity	0 .. 100	%
ϵ_{RH}	Humidity error	max ± 5	%
	Interval setting	5 .. 30	minutes

Power

External DC input voltage	4.5 to 30	V
Internal DC input voltage	4.5	V

Radio characteristic

RF frequency range	2405 .. 2480	MHz
Standards	IEEE 802.15.4	
◆ Programmable in 16 channels		
◆ Channel spacing 5 MHz		
◆ Unlicensed ISM band worldwide		
◆ Data rate	250	kbps
(WI-ZONE L) range to Mesh Gate or Mesh Node (indoor, line of sight)	140	m
(WI-ZONE XL) range to Mesh Gate or Mesh Node (indoor, line of sight)	260	m

General data

T_A	Ambient operating temperature (90 % rH)	- 10 .. + 55	°C
T_S	Ambient storage temperature	- 25 .. + 85	°C
m	Mass with 3 x AA batteries	170	g
	without batteries	80	g
	RF certification	CE, FCC, IC, Japan (pending)	

Features

- Wireless communication on license free 2.4 GHz-transmit RF power max EIRP: 10 dBm (10 mW) for L, 18 dBm (60 mW) for XL
- Embedded Temperature and Humidity sensor.

Advantages

- Fast & easy mounting
- Compact
- Ideal for retrofit applications
- Battery powered: 3 X AA size
- Gateway interface: RS232/485 Modbus RTU
- Internal integrated antenna
- No extra wiring for Temperature and Humidity sensor.

Applications

- Energy audit & diagnostic
- Building energy management.

Application domain

- Energy & Automation.

Note: ¹⁾Batteries are not included in the 5 year warranty.
LEM is not liable for any improper use of the batteries (i.e. leakage etc.).

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Typical battery life time

The battery life depends on Interval setting, frequency of incoming pulses and other environmental parameters.

The values below are indicative and may change according to usage conditions and battery choice.

Interval setting: 300 s (5')

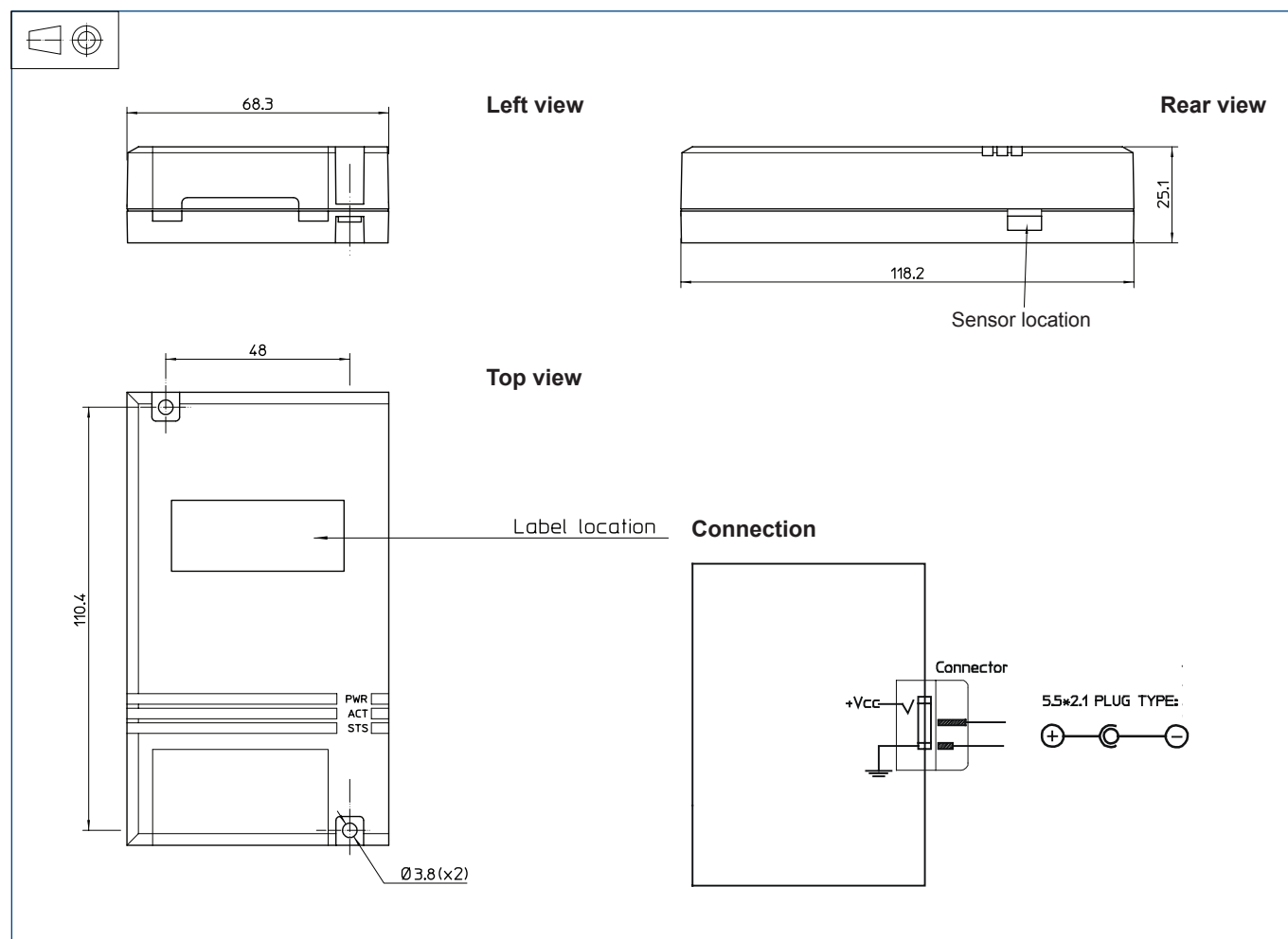
Battery capacity: 2160 mAh (AA size Alkaline, 80 % x 2700 mAh)

Battery life time (theoretical): 9 years

Important notice: alkaline batteries have typical shelf life of 7 years @ 21°C, 80 % of initial capacity.

For more long-term applications, alkaline batteries may be replaced, to advantage, by Lithium batteries (typical shelf life of 15 years @ 21°C, 90 % of initial capacity).

Dimensions Wi-Zone L or XL (in mm. 1 mm = 0.0394 inch)



Power Supply: AC Adaptor

Please order separately the AC Power Supply according to the table below.

Reference name	Description	LEM code
AC Adaptor EU	AC Power Supply for EU	90.D2.98.004.0
AC Adaptor UK	AC Power Supply for UK	90.D2.98.005.0
AC Adaptor US/JP	AC Power Supply for US & Japan	90.D2.98.003.0