

Wire-Free Sensor

(Temperature & Humidity)

MPL has introduced a **Wire-Free range** of products to meet a constant challenge in managing the Data Centre environment. With a demand to increase CRAC set points globally and the rise in power and cooling requirements, MPL has recognised the need to have a flexible solution to manage both legacy and new Data Centre Infrastructure.



WireFree Sensor

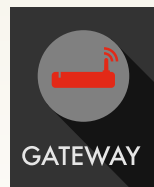
Features

Monitor all your critical areas; racks, cold aisles, hot aisles, CRAC supply and CRAC returns. Mount and position to any rack in minutes and management with intuitive easy to use **NGEN** software.

Each sensor forms part of a flexible Wire-Free mesh network reporting data in real-time.



Allowing monitoring, alerting and granular reports both for individual and group of sensors utilising the **NGEN** Software Framework.



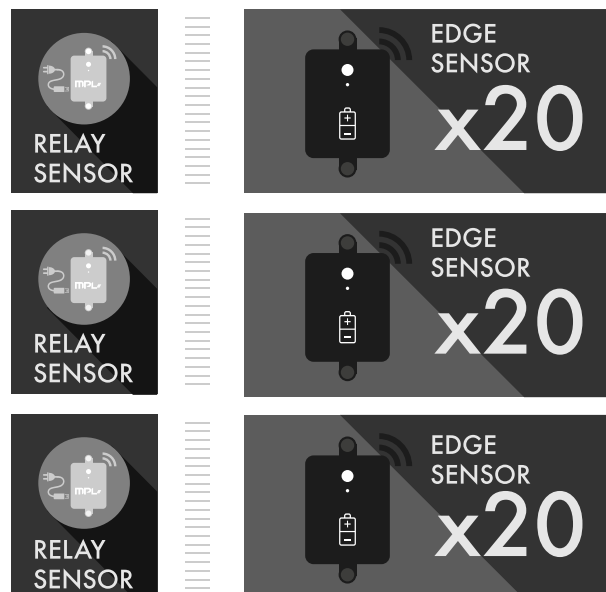
Topology

The **Gateway** facilitates a resilient auto-organising mesh network that can connect up to x3 Relay Sensors and up to x60 Edge Sensors, meaning x63 T&H sensors can be connected to x1 Gateway.

The **Relay Sensor** is a highly accurate mobile Temperature & Humidity sensor which also routes data from connected sensors to the Gateway.

The **Relay Sensor** also allows to amplify and extended the range of the of the network, which means that more sensors and farther sensor can be connected to the same Gateway.

The Edge Sensor is a highly accurate mobile Temperature & Humidity sensor, which sends data to the Gateway through a Relay Sensor.



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Technical Specification

	GATEWAY	EDGE SENSOR	RELAY SENSOR
Description	Transmits data into an auto-organising mesh network.	Highly Accurate Mobile Temperature & Humidity Sensor.	Highly Accurate Mobile Temperature & Humidity Sensor.Routes data from connected Edge Sensors to the Gateway.Expands the transmission range by 50 meters.
Battery	5Volts @ 500mA via USB micro Connector Chargingx1 220mAh CR 2032 3V Lithium	Primary Lithium/thionyl chloride (Li-SOCl ₂) ER14505M	5Volts @ 500mA via USB micro Connector Charging
Transmission range	100 meters line of sight		Expands the range by 50 meters line of sight
Battery Lifespan		~3 years lifespan	
Other Connectors	Ethernet: RJ45 10/100Mbps;1 NIC; Receiver Sensitivity; -100dBm		
Wireless Protocol	IEEE 802.15.4 ZigBee		
Operating Frequency	2.4GHz ISM Band		
Channels	11 - 26		
Network Topology	Star / Tree / Mesh 1 Gateway = x3 Relay Sensors + x60 Edge Sensors		
Transmitting Protocol	UART: Modbus RTU/ZigbeeL HA profile		
Sensing Type		Temperature & Humidity	
Accuracy		Humidity (± 2 %) Temperature ± 0.3 °C	
Transmitting Interval		5 seconds – 30 minutes	
Addressing		DIP Switch	
Dimensions	86mm (W) x 90mm (L) x 28mm (H)	100mm (W) x 54.6mm (L) x 21.8mm (H)	
Weight	250 grams	60 grams	
Operating Environment	-20 ~ +85°C/ -4 ~ +185°F, 0~95% RH		
Certifications	CE, FCC, ICASA, IC, ANATEL, C-TICK, TELEC		

