



SH140

Wireless Hub

The SH140 is a line-powered router that is used to extend the range, and improve latency of Wireless Sensors multi-hop mesh networks.

Deployment of can therefore be particularly useful for expedited delivery of time-critical alarm messages.

Because it is continuously powered, the SH140 can constantly listens to incoming traffic from neighboring nodes, and re-broadcast wireless traffic on the same frequency and within the same time slot.

The SH 140 automatically establishes connections to adjacent Sensors and Gateways devices and do not need to be configured by the WMS network management software. This makes them very easy to install and maintain.



Features and Benefits

- Line powered for continuous traffic monitoring
- Extend network range and improve performance
- Alarm-triggered messaging for fast alerting in case of critical threshold-values
- Self-forming, self-healing mesh network topology for maximum resilience and ease of deployment
- Up to 90% installation cost savings

Application Areas

- Facility Management
- Water and Waste Water plants
- Chemical Industry
- Oil & Gas
- Power Plant
- Asset tracking in process or manufacturing plants
- Object tracing in manufacturing process

SH140 is available with a choice of enclosure ratings, antenna types and operating temperature ranges to suit most applications. In addition to its packaged products, Wireless Sensors also offers a functionally equivalent OEM module for integration in custom designs.



Antenna type	External	-
Antenna connector	Reverse-SMA	Hirose U.FL
Enclosure rating ¹	IP54	OEM module
Dimensions ²	114 x 72 x 33 mm (4.9 x 2.8 x 1.3")	101 x 42 x 15 mm (4 x 1.7 x 0.6")
Weight	110 grams (3.5 oz)	25 grams (0.8 oz)
Operating temperature range ³	-20°C to +65°C	-40°C to +85°C
Order code	SH140-E54	SH140-O

Specifications

Wireless		General	
Radio type	IEEE 802.15.4 compliant	Power source	External 12 - 24 VDC
Frequency band	2.4 GHz	EMC noise immunity	According to DIN-EN300328, DIN-EN50371
Transmit current	55 mA	EMC compatibility	According to DIN-EN60950
Receive current	50 mA	Certifications	R/TTE, DIN-EN301489-1, DIN-EN301489-1, CE authorized for use in Europe
Node-to-node hops (max.) ⁴	In total 6	Accessories	Several accessories available on request
Line of sight range (max.) ⁵	250 m (820') node-to-node		
In-building range (typical)	70 m (230') node-to-node		
Receiver sensitivity	-92 dBm		
Output power (max.)	2 dBm		
Output power (typical)	0 dBm		

¹ IP65 enclosure available on request

² Excluding antenna

³ -40°C to +85°C available on request

⁴ 3 x Hubs + 3 x Sensors

⁵ Extendable to up to 2 km (6,500')

Specifications are subject to change without notice.



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