



E-Senza[®]
Technologies

Leveraging Power of Wireless[®]

SenzaHub SH140

Wireless Hub

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

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

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

SenzaHubs automatically establish connections to adjacent SenzaBlock and SenzaGate devices and do not need to be configured by the SenzaWMS 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



Antenna type	External
Antenna connector	Reverse-SMA
Enclosure rating	IP65
Dimensions ¹	126 x 64 x 38 mm (5 x 2.5 x 1.5")
Weight	180 grams (6.4 oz)
Operating temperature range ²	-40 °C to +85 °C
Order code	SH140-E65

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-EN61000
Transmit current	55 mA	EMC compatibility	According to EN55011, Class A
Receive current	50 mA	Certifications	 R&TTE 1995/5/EC, EN300 440-2 V1.1.2, ETSI EN301 489-03 V1.4.1, EN60950-1:2001 + A11:2006, EN50371:2002, CE, FCC Title 47 Part 15 authorized for use in Europe & USA
Node-to-node hops (max.) ³	In total 6		
Line of sight range (max.)	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 Excluding antenna

² -40 °C to +85 °C available on request

³ 3 x SenzaHubs + 3 x SenzaBlocks

Complementary E-Senza Products and Accessories

A SenzaGate device is required to establish and manage the wireless mesh network and to provide connectivity to backend systems.

Accessory	Order Code	Accessory	Order Code
Antenna extension cable, 1 m (3')	ACC-RC-S-100	External power adapter	ACC-PS-SG
Antenna extension cable, 3 m (10')	ACC-RC-S-300		
2 dB dipole antenna, IP54	ACC-AT-S-54		
2 dB dipole antenna, IP65	ACC-AT-S-65		
5 dBi dipole antenna, IP54	ACC-AT-H-54		
9 dBi dipole antenna, IP54	ACC-AT-H9-54		
2-way Antenna Splitter	ACC-AT-SP		

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