



**E-Senza<sup>®</sup>**  
Technologies

*Leveraging Power of Wireless<sup>®</sup>*

# SenzaGate SG132

## Wireless I/O Gateways

The SG132 provides an instant cable replacement solution, allowing users to bridge the communication of I/O modules and several temperature/humidity sensors over wireless. Analog or digital sensor data as well as temperature/humidity measurements collected by a SenzaBlock adapter or sensor are wirelessly transmitted and re-created as output signals by the SG132lite for processing by control panels, PLCs or data loggers.



Like all E-Senza gateways, the SG132lite also assumes the role of the wireless network manager for all associated SenzaBlocks. This includes network health monitoring, battery status monitoring of SenzaBlocks, alarms, and many other advanced capabilities.

For maximum robustness and low latency, the system relies on a time synchronized IEEE 802.15.4 radio with frequency agility. In conjunction with our industrial-grade SenzaNET mesh networking protocol, the SG132lite provides reliable performance even in harsh environments to ensure delivery of critical input and output signals. Multi-hop mesh routing allows the communication range to be flexibly extended, and automatically negotiates a path around obstacles.




Product name	SG132lite
Number of channels	8
Input channels	-
Output channels	Analog and digital
Dimensions <sup>1</sup>	70 x 86 x 58 (2.8 x 3.4 x 2.3")
Weight	140 grams (4.5 oz)
Order code	SG132-L

<sup>1</sup> Excluding antenna

## Features and Benefits

- Maintenance-free, reliable wireless I/O solution for analog and digital signal extension
- Up to 90% installation and commissioning cost savings over traditional cable-based solutions
- Manageable via SenzaWGC software (included)
- Worldwide operation within the license-exempt 2.4 GHz band
- Self-forming, self-healing mesh network for maximum resilience and ease of deployment
- Embedded software provides data logging and reporting, triggers/alarms, battery monitoring and over-the-air configuration of associated SenzaBlocks, and many other advanced capabilities

## Specifications

General		Wireless	
Power source	12 - 24 VDC	Radio type	IEEE 802.15.4 compliant
LED indicators	Power, USB, Radio, Error	Frequency band	2.4 GHz
Maintenance port	USB	Node-to-node hops (max.)	3
Enclosure rating	IP40	Line of sight range (typical)	250 m (820') node-to-node
Installation	DIN rail mounting	In-building range (typical)	70 m (230') node-to-node
Operating temperature range	-20°C to +65°C	Antenna type	External dipole
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	Antenna connector	Reverse-SMA
Analog Output		Receiver sensitivity	-92 dBm
Interfaces	0-20 mA or 4-20 mA or 0-2 V or 0-10 V	Output power (max.)	2 dBm
DAC linearity	± 2%	Output power (typical)	0 dBm
DAC resolution	12 Bit	Digital Output	
Integration time	ca. 5 ms	Signal voltage (low)	<0.2 V
Settling time	<10 µs	Signal voltage (high)	>Vcc-0.2 V to 60 V
Conversion time	7.5 µs	Load	Resistive
		Switching frequency (max.)	Heartbeat
		Output current (max.)	500 mA
		Supported SenzaBlocks	
		SB110-NTC, SB110-HT, SB110-T, SB110-AI, SB110-IO	

## Complementary E-Senza Products and Accessories

The SG132lite model is compatible with SenzaBlock SB110-AI and SB110-IO (input only) adapters as well as SB110-NTC, SB110-HT and SB110-T sensors.

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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