

SG132

Wireless I/O Gateways

The SG132 family provides an instant cable replacement solution, allowing users to bridge the communication of I/O modules over wireless. Analog or digital sensor data is wirelessly transmitted and re-created as output signals by the SG132 or SG132lite for processing by control panels, PLCs or data loggers. In addition, the SG132 comes with the ability to receive analog control signals, and wirelessly relay these signals to a compatible Sensor module where they can be re-created as outputs to an actuator.

The mapping between Sensors and SG132 channels is fully configurable through the SG132 USB maintenance port, using the included Windows configuration and management tool. Like all Wireless Sensors gateways, the SG132 also assumes the role of the wireless network manager for all associated Sensors. This includes network health monitoring, battery status monitoring 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 mesh networking protocol, the SG132 family 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	SG132
Number of channels	8	24
Input channels	-	Analog and digital
Output channels	Analog and digital	Analog and digital
Dimensions ¹	70 x 86 x 58 (2.8 x 3.4 x 2.3")	157 x 86 x 59 mm (6.2 x 3.4 x 2.3")
Weight	140 grams (4.5 oz)	340 grams (10.9 oz)
Order code	SG132-L	SG132

¹ 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 WGC 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, 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 ²
Enclosure rating	IP40	Line of sight range (typical)	250 m (820') node-to-node ³
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, DIN-EN301489-1, DIN-EN301489-1, CE authorized for use in Europe	Antenna connector	Reverse-SMA
Digital Input		Receiver sensitivity	-92 dBm
Signal voltage (low)	0 - 1.2 VDC	Output power (max.)	2 dBm
Signal voltage (high)	2.4 - 60 VDC	Output power (typical)	0 dBm
Input current (max.)	50 mA	Digital Output	
Input resistance	>1 MΩ	Signal voltage (low)	<0.2 V
Analog Input		Signal voltage (high)	>Vcc-0.2 V to 60 V
Signal types	0-20 mA, 4-20 mA, 0-2 V, 0-10 V	Load	Resistive
Input resistance 0-20 mA	<100 Ω at 20 mA	Switching frequency (max.)	Heartbeat
Input resistance 0-10 V	>12.5 MΩ	Output current (max.)	500 mA
ADC linearity	± 2%		
Integration time	ca. 5 ms		
Settling time	<10 μs		
Conversion time	7.5 μs		

² Extendable to up to 5 hops

³ Extendable to up to 2 km (6,500')

Complementary Products and Accessories

The SG132 is fully compatible with SB110-AI, SB110-AO, SB110-IO adapters. The SG132lite model is compatible with SB110-AI and SB110-IO (input only) adapters.

Specifications are subject to change without notice.



**wireless
sensors**

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