



E-Senza[®]
Technologies

Leveraging Power of Wireless[®]

SenzaGate SG130/ SG131

Wireless Communication Gateways

The SenzaGate families provide protocol translation and connectivity between the SenzaNET network and backend systems. The SG131 is a compact gateway with interfaces for the most widely used serial and industrial fieldbuses built in. The SenzaGate SG130 provides simple, inexpensive serial connectivity to a host.

SenzaGate devices provide time synchronization, routing and scheduling services to each associated SenzaBlock node. All data and commands are buffered locally. For configuration and management, the SG130 and SG131 provide dedicated (out-of-band) maintenance ports, allowing users to restrict fieldbus communications to the exchange of actual data.



Product Family Gateways	SG130	SG130
Interface ¹	USB 2.0	RS232
Enclosure rating	IP40	IP40
Dimensions ²	72 x 114 x 33 mm (2.8 x 4.5 x 1.3")	155 x 105 x 40 mm (6.1 x 4.1 x 1.6")
Weight	140 grams (4.5 oz)	140 grams (4.5 oz)
Buffer Capacity	16 kByte	16 kByte
Order code	SG130-D-32-E40	SG130-S-32-E40



Product Family Gateways	SG131	SG131	SG131
Interface ¹	Ethernet	Ethernet	Ethernet
Enclosure rating	IP40	IP40 (Alu)	IP65 (Alu), rugged, for outdoor use
Dimensions ²	155 x 105 x 40 mm (6.1 x 4.1 x 1.6")	175 x 111 x 55 mm (6.9 x 4.4 x 2.2")	199 x 138 x 92 mm (7.9 x 5.5 x 3.7")
Weight	340 grams (10.9 oz)	700 grams (24.7 oz)	2200 grams (70.7 oz)
Buffer Capacity	512 kByte	512 kByte	512 kByte
Order code	SG131-D-W-32	SG131-D-P-32	SG131-D-R-32

¹ Other interfaces on request (RS232, RS485, CAN 2.0)

² Excluding antenna



Product Family Gateways	SG131	SG131	SG131
Interface ¹	Profibus	Profibus	Profibus
Enclosure rating	IP40	IP40 (Alu)	IP65 (Alu) , rugged, for outdoor use
Dimensions ²	155 x 105 x 40 mm (6.1 x 4.1 x 1.6")	175 x 111 x 55 mm (6.9 x 4.4 x 2.2")	199 x 138 x 92 mm (7.9 x 5.5 x 3.7")
Weight	340 grams (10.9 oz)	700 grams (24.7 oz)	2200 grams (70.7 oz)
Buffer Capacity	512 kByte	512 kByte	512 kByte
Order code	SG131-PB-W-32	SG131-PB-P-32	SG131-PB-R-32



Product Family Gateways	SG131	SG131	SG131
Interface ¹	Modbus/TCP	Modbus/TCP	Modbus/TCP
Enclosure rating	IP40	IP40 (Alu)	IP65 (Alu) , rugged, for outdoor use
Dimensions ²	72 x 114 x 33 mm (2.8 x 4.5 x 1.3")	175 x 111 x 55 mm (6.9 x 4.4 x 2.2")	199 x 138 x 92 mm (7.9 x 5.5 x 3.7")
Weight	140 grams (4.5 oz)	700 grams (24.7 oz)	2200 grams (70.7 oz)
Buffer Capacity	512 kByte	512 kByte	512 kByte
Order code	SG131-MT-W-32	SG131-MT-P-32	SG131-MT-R-32



Product Family Gateways	SG131	SG131	SG131
Interface ¹	GPRS	GPRS	GPRS
Enclosure rating	IP40	IP40 (Alu)	IP65 (Alu) , rugged, for outdoor use
Dimensions ²	155 x 105 x 40 mm (6.1 x 4.1 x 1.6")	175 x 111x 55 mm (6.9 x 4.4 x 2.2")	199 x 138 x 92 mm (7.9 x 5.5 x 3.7")
Weight	340 grams (10.9 oz)	700 grams (24.7 oz)	2200 grams (70.7 oz)
Buffer Capacity	512 kByte	512 kByte	512 kByte
Order code	SG131-G-W-32	SG131-G-P-32	SG131-G-R-32


¹ Other interfaces on request (RS232, RS485, CAN 2.0)

² Excluding antenna

Features and Benefits

- Wide choice of connectivity with Profibus, Modbus, CAN, Ethernet and serial ports; cellular option for deployment in locations where no wired backhaul is available
- Manageable via SenzaWMS software or AT commands
- True mesh networking support for up to 64 (extendible up to 255) SenzaBlock nodes per SenzaGate

Specifications

General		Wireless	
Power source	7 - 30 VDC	Radio type	IEEE 802.15.4 compliant
Current draw	120 mA	Frequency band	2.4 GHz
Network size	Up to 64	Node-to-node hops (max.)	3
Operating temperature range	-20°C to +65°C	Line of sight range (typical)	250 m (820') node-to-node
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	In-building range (typical)	70 m (230') node-to-node
Ethernet		Antenna type ³	External dipole
Connector	RJ-45	Antenna connector ³	Reverse-SMA
Physical medium	UTP	Receiver sensitivity	-92 dBm
Data rate	10/100 Mbps	Output power (max.)	2 dBm
Protocol	TCP/IP	Output power (typical)	0 dBm
USB		Serial	
Connector	USB-B female	Connector	DB9 female
Physical medium	4-wire	Physical medium	RS232, RS485
Data rate	Up to 480 Mbps	Data rate	Up to 115,200 bps (RS232), up to 1 Mbps (RS485)
Protocol	USB 2.0 Slave	Modbus	
Profibus		Connector	RJ-45
Connector	DB9 female	Physical medium	Ethernet
Physical medium	RS485	Data rate	10 / 100 Mbps
Data rate	Up to 12 Mbps	Protocol	Modbus-TCP Slave
Protocol	Profibus-DPV1 Slave		
GPRS			
Physical medium	850/900/1800/1900 MHz		
Data rate	Up to 114 kbps		
Protocol	TCP/IP		

³ Using IP40 & IP65 (Alu) enclosure, antenna is not exchangeable

Complementary E-Senza Products and Accessories

SG130 & SG131 are fully compatible with all SenzaBlock adapters and 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		
2dB dipole antenna, IP65, rugged version	ACC-AT-R-65		
2-way Antenna Splitter	ACC-AT-SP		

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