



NGR-10

Gateway

○ INTRODUCTION

The NGR-10 Gateway is a full featured embedded computer capable of communicating with large networks of wireless nodes and transferring data to SiCA Server via the internet.

It is designed to withstand harsh environmental conditions and is fully waterproof.

Internet connectivity is provided by an on-board GPRS cellular modem or Wi-Fi module.

The NGR-10 has a built in mains power supply with a wide input voltage range and can be deployed in almost any location.

○ APPLICATIONS

The NGR-10 is most suitable for large distributed wireless sensor networks such as street light monitoring systems, automatic meter reading systems and environmental monitoring applications.

Many NGR-10's can connect to a central SiCA Server to provide a robust and secure city-wide communications infrastructure capable of dealing with the most demanding of wireless sensor network scenarios.

The NGR-10 is also perfect for collecting environmental data from remote locations with unreliable internet connections.

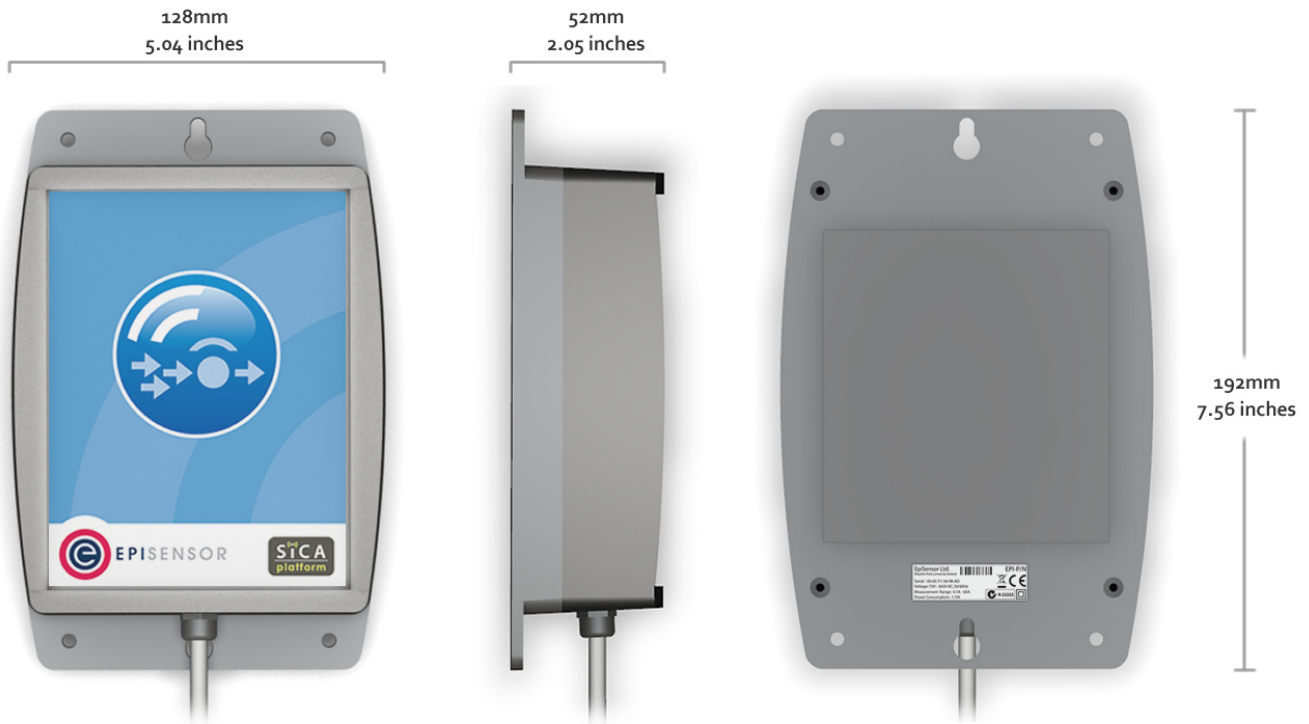
○ FEATURES

- Suitable for large scale sensor deployments
- Full featured embedded computer
- Choice of Wi-Fi or GPRS internet connectivity
- Fully waterproof (IP67)
- Integral mains power supply
- Connect many NGR-10's to SiCA Server
- Store large amounts of sensor data
- Suitable for company-wide monitoring
- Can operate independently of IT networks

○ SPECIFICATION

- Wireless: IEEE 802.15.4 (ZigBee PRO)
- Radio Frequency: 2.4 Ghz ISM Band
- Security/Encryption: 128bit AES Encryption
- Power: 75V - 265V AC, Mains
- Dimensions: 192 x 128 x 52 mm
- Enclosure: Polycarbonate, IP67
- Mounting: Wall & pole mounting flanges





○ GATEWAY

Parameter	Value
Power Supply	75V - 265V AC Mains, 50Hz
Connection Options	GPRS, Wi-Fi, LAN (via Router)
Zigbee Device Type	Zigbee Co-ordinator
Indoor / Outdoor Range	Up to 100m / 800m
Antenna Type	Planar, 70° Beam Angle
Antenna Gain	9dB Gain

○ WIRELESS

Parameter	Value
Max Tx Power	+3dBm (+5dBm in Boost Mode)
Rx Sensitivity	-98dBm @ 1% Packet Error Rate
Radio Frequency	2.4 Ghz ISM Band
Channels	16 Channels (11 - 26)
Data Rate	up to 250 kbits/sec
Encryption	128bit AES Encryption
Indoor Range	up to 100m
Outdoor Range	up to 800m (direct line of sight)

○ PHYSICAL

Parameter	Value
Dimensions	192 x 128 x 52 mm
Weight	350g
Mounting	Wall Mounting Flanges
Enclosure	Polycarbonate Plastic, IP67 rated
Operating Temperature	-40°C to +85°C
Operating Humidity	up to 80% (non-condensing)

○ APPLICATIONS

- Automatic Meter Reading
- Temperature Tracking
- Streetlight Monitoring & Control
- Data Center Monitoring
- Building Management
- Environmental Monitoring
- Industrial Energy Monitoring

○ APPLICATION AREAS

- Commercial & Industrial Buildings
- Outdoor / Harsh Environments
- Universities, Hospitals and Public Buildings
- Factories, Warehouses & Manufacturing