

# RELAY NODE 2G

| communication repeater for SENSIT sensors



## KEY FEATURES:

- Fast communication network
- Self-healing network
- Easy mounting onto a pole
- No wiring required

## PRELIMINARY

Relay Node 2G allows for communication increase and ensures a robust and reliable communication network. It ensures fast transmission of event messages from the vehicle detection sensors to the Data Collector.

### Wireless communication

Relay Node 2G is a fully wireless unit, ensuring easy installation onto lampposts. Once installed, no maintenance is required for years.

### Self-healing network

The SENSIT sensors follow multiple communication paths ensuring a self-healing network.

### Mounting instructions

The relay node mounting bracket fits any pole. It can also be mounted onto a wall.

### Installation

Relay Node 2G should be mounted preferable at about 3 – 6 meters [10- 20 ft] from the floor (eg. onto a lamppost) to allow for visible view of the sensors. The relay node shall visually see the sensors at an angle, see the figure 1.

### Guidelines

- On-street: 1 relay node required per 20 sensors\*
- Off-street: 1 relay node required per 40 sensors\*
- Depending on local situations

Figure 1 shows information on position of the Relay Node 2G. RN-A is the proper location for the Relay Node.

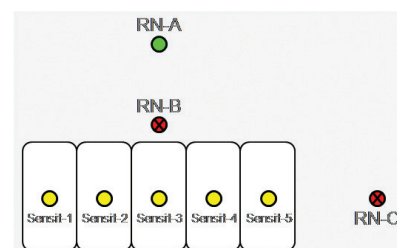


Figure 1: Relay Node position

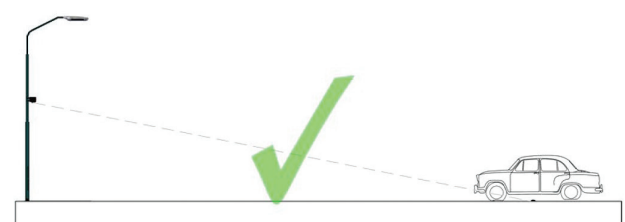


Figure 2: Relay Node A in figure 1 side view

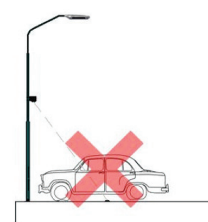


Figure 3: Relay Node B in figure 1 side view

# SPECIFICATIONS

Technical information	Relay Node 2G
Operating frequency	868 MHz (EU) 902 - 928 MHz (US) 915 - 928 MHz (AU) 920 - 925 MHz (SG)
Weight	365 gram, [12,87 oz]
Protection	IP65, completely sealed Housing ASA and Alu
Colour	Grey RAL7016 and RAL 9006 Alu
Mounting	Onto a pole or wall, metal mounting bracket included
Suggested mounting height	3 – 6 meters [10 -20 ft] from the floor onto a lamppost or pole see for more information Relay Node_InstallGuide
Pole dimensions	Min. Ø 40 mm [1.57 in] Max. Ø 150 mm [6 in]
Wall mounting	With bracket using 4 screws
Operating temperature	-40 ... +85°C [-40...+185°F]
Storage temperature	-40 ... +85°C [-40...+185°F]
Communication distances	Data Collector – Relay Node 2G max. 35m [135 ft] omnidirectional, 50 m [164 ft] directional. Data Collector IP65 GRPS - Relay Node 2G max. 10m [33ft] Relay Node 2G – Relay Node 2G max. 100m [328 ft] Relay Node 2G – SENSIT max. 35 m [135 ft] omnidirectional, 50 m [164 ft] directional*
Power supply	Replaceable lithium batteries with expected lifetime of 5-7 years #
Part nr.	9212884 SENSIT Relay Node 2G EU 9212892 SENSIT Relay Node 2G US 9212906 SENSIT Relay Node 2G AU 9219552 SENSIT Relay Node 2G SG
Document version nr.	4.2

\* Dependent on the environment

\* Under normal usage and normal circumstances