

Equipment Enclosures

NextCentury Equipment Enclosures



1|Overview

NextCentury's Data Gathering Solution (TR-201 Transceiver, RE-201 Repeater, and GW-301 Gateway) have been designed for indoor, controlled environment installations.

If equipment is to be installed in a location that is not indoors, or does not meet equipment specifications, then equipment should be placed in a properly sized NEMA rated enclosure. Environments that require an additional enclosure are:

- Outdoor locations
- Environments of extreme temperatures
- Locations that receive precipitation
- Environments with high levels of contaminants in the air

NextCentury's Data Gathering Equipment Ratings are as follows:

1.1 – Transceiver (TR-201) Operation Environment

- -28C to 60C
- -20F to 140F
- Up to 90% relative humidity (non-condensing)

1.2 – Repeater (RE-201) Operation Environment

- -28C to 60C
- -20F to 140F
- Up to 90% relative humidity (non-condensing)

1.3 – Gateway (GW-301) Operation Environment

- -28C to 60C
- -20F to 140F
- Up to 90% relative humidity (non-condensing)

2|NEMA Enclosures

The *National Electrical Manufacturers Association* (NEMA) defines standards for various grades of electrical enclosures typically used in industrial applications. Each is rated to protect against personal access to hazardous parts, and additional type-dependent designated environmental conditions. A typical NEMA enclosure might be rated to provide protection against environmental hazards such as water, dust, coolant, or atmospheres

containing corrosive agents such as acetylene or gasoline. More information on NEMA enclosures are available at https://en.wikipedia.org/wiki/NEMA_enclosure_types.

3|Next Century NEMA Requirements

3.1 – Enclosure

NextCentury Equipment installed in a non-indoor environment should always be installed in a NEMA Type 3 or greater enclosure. This will help protect the equipment against rain, sleet, snow, and other contaminants.

3.2 – Temperature

Even when equipment is installed in a properly rated NEMA enclosure, the equipment can still be exposed to temperatures outside of the operating environment temperatures. Even when equipment still falls within the operating environment temperatures, it is always a good idea to keep operating temperatures as close to those in an indoor environment as possible. In some cases, it may be necessary to install heater/cooler units with the NEMA enclosure. When a heater/cooler unit is used, please be sure to follow manufacturer guidelines on proper installation and usage.

3.3 – Materials

NextCentury equipment uses wireless radio-frequency (RF) signals to communicate. To reduce the risk of negatively affecting RF signals, NEMA enclosures should be made of a plastic (non-metallic) material that meets Type 3 ratings or higher.

3.4 – Size

NEMA enclosures should allow for at least two (2) inches of space between the edge of the equipment and the inside walls of the enclosure.

4|Disclaimer

Failure to use a properly rated enclosure when equipment is installed in a non-indoor environment, or in an environment that does not fall within ratings can result in damaged equipment. Enclosure should be installed according to manufacturer instructions. Damage caused to equipment because of failure to follow these guidelines will result in a voided warranty.

5|NextCentury Submetering System Contact Information

If there are any questions or concerns related to these guidelines, please contact NextCentury Submetering Systems Product Support:

- Phone: (844) 538.8203 opt. 2
- Email: support@nextcenturymeters.com

6 | Recommend NEMA Enclosures

6.1 Recommend Gateway NEMA Enclosure
AA Communications – Waterproof WiFi Indoor Outdoor Weatherproof Enclosure Cabinet Box is available at

GW-201 inside NEMA Enclosure



GW-301 inside NEMA Enclosure



6.2 – Recommend Repeater NEMA Enclosure
WLANParts ENCTEL Enclosure 9x6x3 Inch Outdoor 1-Port

RE-201 inside NEMA Enclosure



6.3 – Links to Recommend NEMA Enclosure

- Gateway Enclosure
<http://a.co/cNLGDt9>
- Repeater Enclosure
<http://a.co/iSGar5F>