

Next Register™ (NR4)



An Intelligent Integration Solution

The Next Register is a universal and fully programmable register that can be retrofitted on most water meters in use today. Through precisely reading the magnetic signature within existing mechanical meters the Next Register converts a traditional system into a smart, plug-n-play solution without the need to remove the existing meters.

With the Next Register, utilities can now easily benefit from flexible connectivity and data communications. The interoperable encoded output, BLE powered walk-by/drive-by, and built in RF capability allow the Next Register to tie directly into an existing AMI solution or start with a basic AMR system and scale over time.

The powerful and intuitive mobile application allows you to both program as well as collect reads from the Next Register without the need of additional costly equipment. This facilitates utilities to both reduce expenses while increasing the efficiency of daily operations.

Key Benefits

- Broad compatibility with existing meters and infrastructure
- Accuracy that doesn't fade over time
- Retrofittable on existing meters

Options for Growth

- Encoded output for seamless integration with existing AMR/AMI systems
- Walk-by, drive-by, and fixed network solutions

Built to Last

- Fully electronic with no moving parts that wear out
- Field replaceable 15-year battery
- Exceeds IP68 requirements

Configure with Ease

- Direct configure using any modern iOS or Android device
- Enable backflow, leak, and freeze alerts



GENERAL SPECIFICATIONS

Approvals

Complies with part 15 of the FCC rules

Complies with National Type Evaluation Program (NTEP)

Wireless

Built-in BLE communication for configuration and walk-by reading option.

Integrated long range 902-928 MHz RF option for drive by and fixed network read collection options.

Meter Compatibility

Pairs with most modern mechanical meter body types including positive displacement (PD), multi-jet (MJ), and turbine.

Integration adapter and seal included to ordering specification. Ask your distributor for details.

Battery

Anti-obsolescence: battery replaced instead of discarding
CR18505 lithium primary battery
15-year estimated battery life

Reference Dimensions



Operating Environment

IP 68 for submersed applications

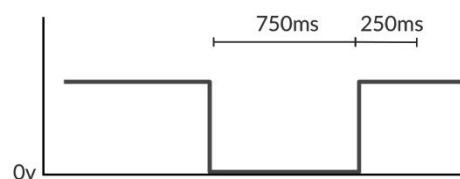
Temperature min -20°C / -4°F

Temperature max 60°C / 140°F

OUTPUTS FOR 3RD PARTY INTEGRATIONS

Pulse Output

Clean solid state driven 750ms pulse output open-drain signal. Min 3vdc /Max 15vdc.



Pulse output signal diagram

Encoded Output

Wired encoded output can be used with any 3rd party transmitters* or reading devices that support the encoded protocols listed below.

- Neptune 3-wire (8 digit extended)
- AMCO/Elster 3-wire
- Sensus 3-wire / 2-wire touchpad

**Some 3rd Party transmitters may not actively relay optional alerts. Alerts are still logged and can be retrieved with direct reading.*

NEXT REGISTER™ AMR/AMI OPTIONS

Walk-by Wireless Reading

Authorized meter readers to collect near-proximity wireless reads using the Next Meters mobile app.

Drive-by Wireless Reading

The Next Meters mobile app facilitates easy read collection when paired with the range-extending antenna in any vehicle.

Municipal Fixed Wireless

A continuous stream of usage data is made available with the fixed wireless solution. Solar powered network nodes are added to service large zones of a city or region.

Submetering Fixed Wireless

The NCSS™ fixed wireless option allows integration with the NextCentury submetering line of products for indoor monitoring of dense meter points found in apartments, high-rises, and commercial units.

CONFIGURATION

Direct Connection to Register

Using the Next Meters mobile app available for iOS or Android, a technician can directly connect to the register to configure the output type, billing digits, and unit of measure.

How To Enter Configuration Mode

Open the Next Meters mobile app on your device

Navigate to the Connect tool

Swipe a magnet past the activation zone on the register

The register will appear on the screen and can be selected

The current configuration will display with the option to customize as needed



Magnet swipe area on the face of the register

Applying Changes

After desired configuration changes, select Save

The app will prompt you to swipe the magnet again

Swiping the magnet will apply the changes and return the register to an active status ready for use

MOUNTING THE NEXT REGISTER™

Retrofit Adapter Plates

Retrofit adapter plates are available for most meter body styles. The adapter type can be specified when ordering and can be changed at any time during the Next Register's lifespan. Please contact your distributor for more information.

Attaching the Adapter Plate

To install the register, simply thread the adapter ring onto the bottom of the register. The two parts will click into place when secure.



Attaching adapter plate to the register

Mounting to Meter Body

Orient the register to the desired viewing angle

Set the register into the meter body mounting bracket

Rotate clockwise approximately 1/8th turn

Verify the LCD is facing the desired direction

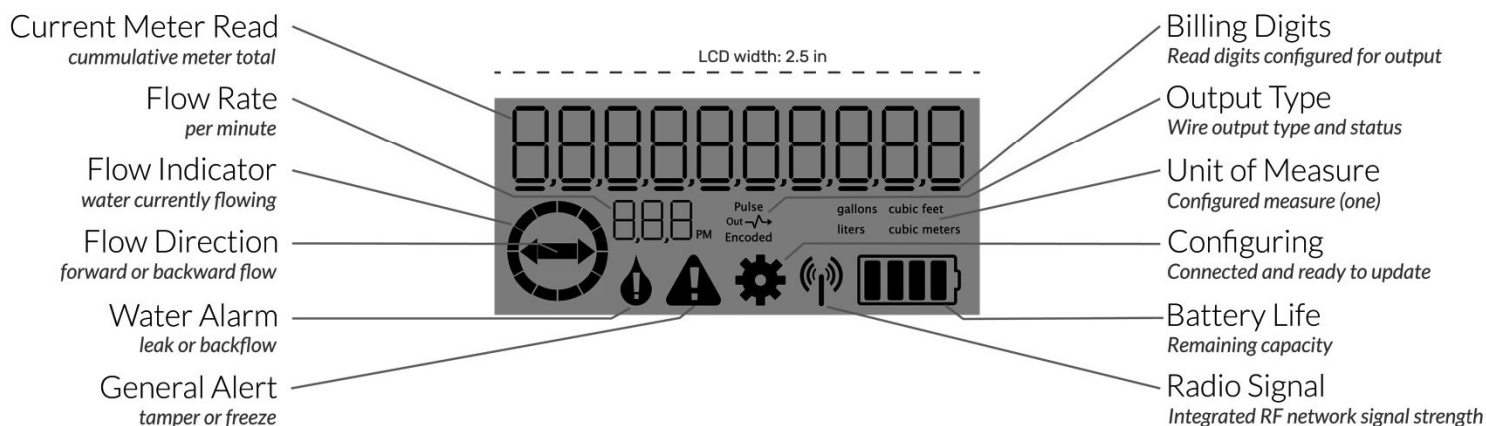
Insert the security pin into the adapter plate

Press in until flush and secure



Attaching register to the meter with 1/8 turn

LCD DISPLAY



BATTERY REPLACEMENT

- Battery cap can be removed with a large screwdriver
- Rotate counterclockwise to remove the battery cap
- Pull the battery from the compartment
- Disconnect the battery connector
- Connect new battery
- Place battery back into compartment
- Replace the battery cap, and rotate clockwise until alignment arrows meet



WARRANTY

Next Meters provides a limited warranty for performance, materials, and workmanship. See our warranty guide for details

FCC

Television and Radio Interference

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Company Name may void the user's authority to operate the equipment.

Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

As per 47 CFR §15.19

(All other devices shall bear the following statement in a conspicuous location on the device:

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions: (1)

This device may not cause harmful interference, and (2)

this device must accept any interference received, including interference that may cause undesired operation.

As per 47 CFR §15.21

The user's manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. In cases where the manual is provided only in a form other than paper, such as on a computer disk or over the Internet, the information required by this section may be included in the manual in that alternative form, provided the user can reasonably be expected to have the capability to access information in that form.

ISED Statement

This radio transmitter (identify the device by certification number) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types approved for use with the transmitter, indicating the maximum permissible antenna gain (in dBi).

8.4 User Manual Notice for License-Exempt Radio

Apparatus

User manuals for license-exempt radio apparatus shall contain the following text, or an equivalent notice that shall be displayed in a conspicuous location, either in the user manual or on the device, or both:

This device complies with Innovation, Science and Economic Development Canada's license-exempt RSSs. Operation is subject to the following two conditions:

(1) This device may not cause interference; and

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

Cet appareil est conforme aux flux RSS exemptés de licence d'Innovation, Science et Développement économique Canada. L'opération est soumise aux deux conditions suivantes:

(1) Cet appareil ne doit pas provoquer d'interférence; et

(2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

ISED Radiation Exposure Statement

[English] Radiation Exposure Statement: This equipment complies with the IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

[French] Énoncé d'exposition aux rayonnements: Cet équipement est conforme aux limites d'exposition aux rayonnements ioniques RSS-102 Pour un environnement incontrôlé. Cet équipement doit être installé et utilisé avec un Distance minimale de 20 cm entre le radiateur et votre corps.

CONTACT INFORMATION

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