

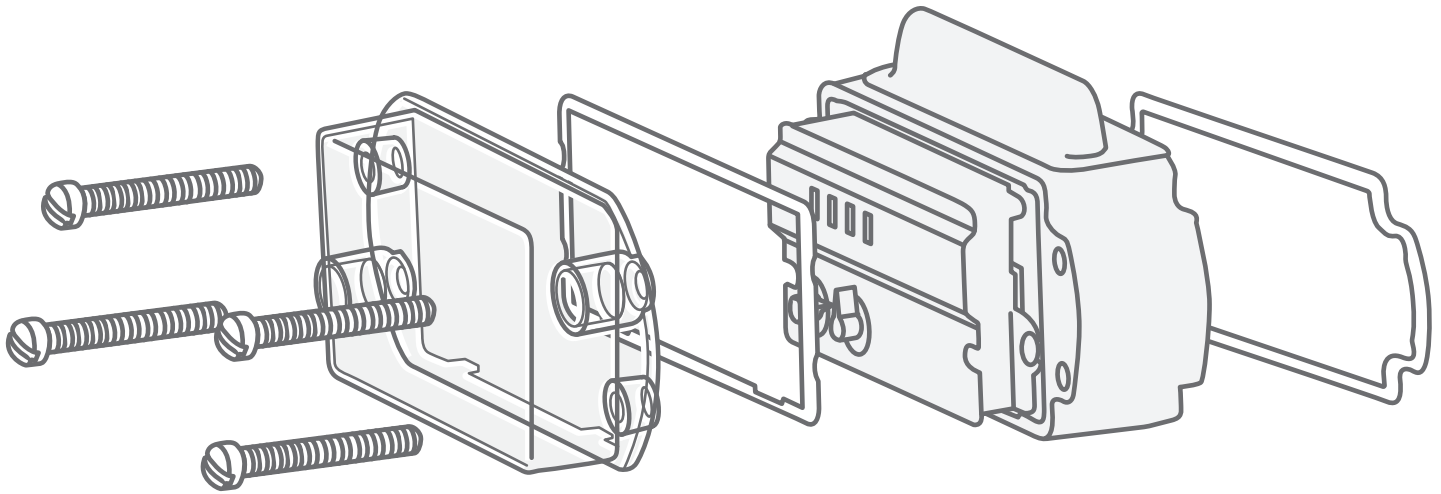
Safety Requirements and Specifications

Volumetric Meter

Smart Volumetric Adapter for Diaphragm Gas Meter

Models: VM3010, VM3020

Manufacturer: Otodata Wireless Network Inc.



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Safety requirements

Prior to installation and use, it is essential to read and understand this instruction manual; paying particular attention to the Ex marking,¹ special conditions of use, and technical parameters.

1. **NEVER** carry out any service manipulations in the presence of an explosive atmosphere.
2. The Volumetric Meter (VM3010 or VM3020) is delivered with connected batteries.
3. Start-up of the device requires only proper use of user interface.
4. Activities related to starting up of the device do not have influence on Ex safety.
5. This device was not designed to be maintained or repaired. This device was not design to be adjusted.
6. During installation or deinstallation, it is imperative to protect the device from building an electrostatic charge on its surface.
7. The device is designed for fixed mounting.

WARNING

In order to guarantee a safe, explosion-proof environment and ensure conformity to the Certifications (page 1), the below requirements must be fulfilled without fail:



1. Ambient temperature range is $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$.
2. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge (under certain extreme circumstances, the plastic enclosure may store an ignition-capable level of electrostatic charge).
3. **DO NOT RUB.** The equipment shall only be cleaned with a damp cloth.
4. Do not damage the exposed casting compound surface. Ensure the compound is fully covered and not exposed after equipment installation.

¹ Explosive Atmosphere rating

INSTALLATION

Always follow your local regulations and standards. If locally required, consult a certified expert to ensure your installation is compliant. Install per the CEC for installation in Canada and per the NEC for installations in US.

Special conditions of use

In order to guarantee explosion proof safety and conformity with legal acts listed in Clause 0, listed below requirements shall be absolutely fulfilled:

1. Ambient temperature range is $-40^{\circ}\text{C} \leq T_{\text{amb}} \leq +60^{\circ}\text{C}$,
2. Under certain extreme circumstance, the plastic enclosure may store an ignition-capable level of electrostatic charge. The device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge. Do not rub. The equipment shall only be cleaned with a damp cloth.
3. **DO NOT RUB.** The equipment shall only be cleaned with a damp cloth.
4. **DO NOT** puncture exposed compound surface, place caution not to damage the exposed compound surface prior to installation.
5. **INSTALLATION** Always follow your local regulations and standards. If locally required, consult a certified expert to ensure your installation is compliant.

Specifications

Input

Hall effect detection of turns on gas meter’s axle

Reporting & Outputs

Reporting Gas consumption in cubic feet
Low battery
Temperature

Data Interface API
Email (to supplier and/or consumer)
Raw data
Online dashboard
Client mobile app

Automated Testing Network status
Battery status

Radio Specifications

Technologies VM3010: Bluetooth BLE
VM3020: Bluetooth BLE, LTE-M, NB-IoT

Environmental Specifications

Operating and storage temperature range -40 °C to 60 °C -40 °F to 140 °F

Relative humidity range 0% to 100%

Enclosure rating IP68

Warranty 5 years

Features

Ready to install, long lasting battery, hardware installation included.

Certifications

Hazardous Location Classification

Otodata’s volumetric gas meters are certified by QPS Evaluation Services Inc. for use in North America.

United States

Class I, Div 1, Groups CD, T3. Class I, Zone 0, AEx ia IIB T3 Ga. Standards applied: UL 60079-0:2019; Ed., UL 60079-11:2013; UL/CSA 61010-1-12.



Canada

Class I, Div 1, Groups CD, Ex ia IIB T3 Ga. Standards applied: CSA C22.2 NO. 60079-0:19, CSA-C22.2 NO. 60079-11:14, UL/CSA 61010-1-12.

Volumetric gas meters are certified by Ośrodek Badań Atestacji i Certyfikacji OBAC for use in the European Union and internationally.

IECEx

Classification: Ex ia IIB T3 Ga, Certificate: IECEx OBAC 23.0007X, Standards applied: IEC 60079-0:2017 – IEC 60079-11:2011

ATEX

Classification: II 1G Ex ia IIB T3 Ga, Certificate: OBAC ATEX 0311X, Standards applied: EN 60079-0:2017 – EN 60079-11:2011

Radio Certifications

FCC ID: 2ADQFVM30X0, IC ID: 12649A-VM30X0

Adapter Dimensions

Height: 13.9 cm (5.5 in), Width: 8.4 cm (3.3 in), Depth: 3.6 cm (1.4 in)

Ordering Options

VM3020-VSXX-CBLK¹
Smart Volumetric Adapter for gas meter with Bluetooth interface and cellular network modem.

VM3010-V0XX-CBLK¹
Smart Volumetric Adapter for gas meter with Bluetooth interface.

¹ Replace "XX" with the appropriate regional code. If available, replace "CBLK" with client branding code.

This device complies with part 15 of the FCC Rules. Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment. 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. **This device is compliant with Industry Canada’s RSS standards for license-exempt radio apparatuses.** Authorized use depends on the following two conditions: (1) the device must not create radio interference, and (2) the device user must accept all radio interference, even if this interference could potentially impair its functioning. **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. **To comply with FCC/ISED RF exposure compliance recommendations, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.**

