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## Viessmann 7820148

# Viessmann 7820148 Outdoor Sensor #1 Instruction Manual

## INTRODUCTION

This manual provides essential information for the proper installation, operation, and maintenance of the Viessmann 7820148 Outdoor Sensor #1. Please read these instructions carefully before proceeding with any installation or service. This sensor is designed to provide accurate outdoor temperature readings to compatible Viessmann heating systems, optimizing their performance and efficiency.

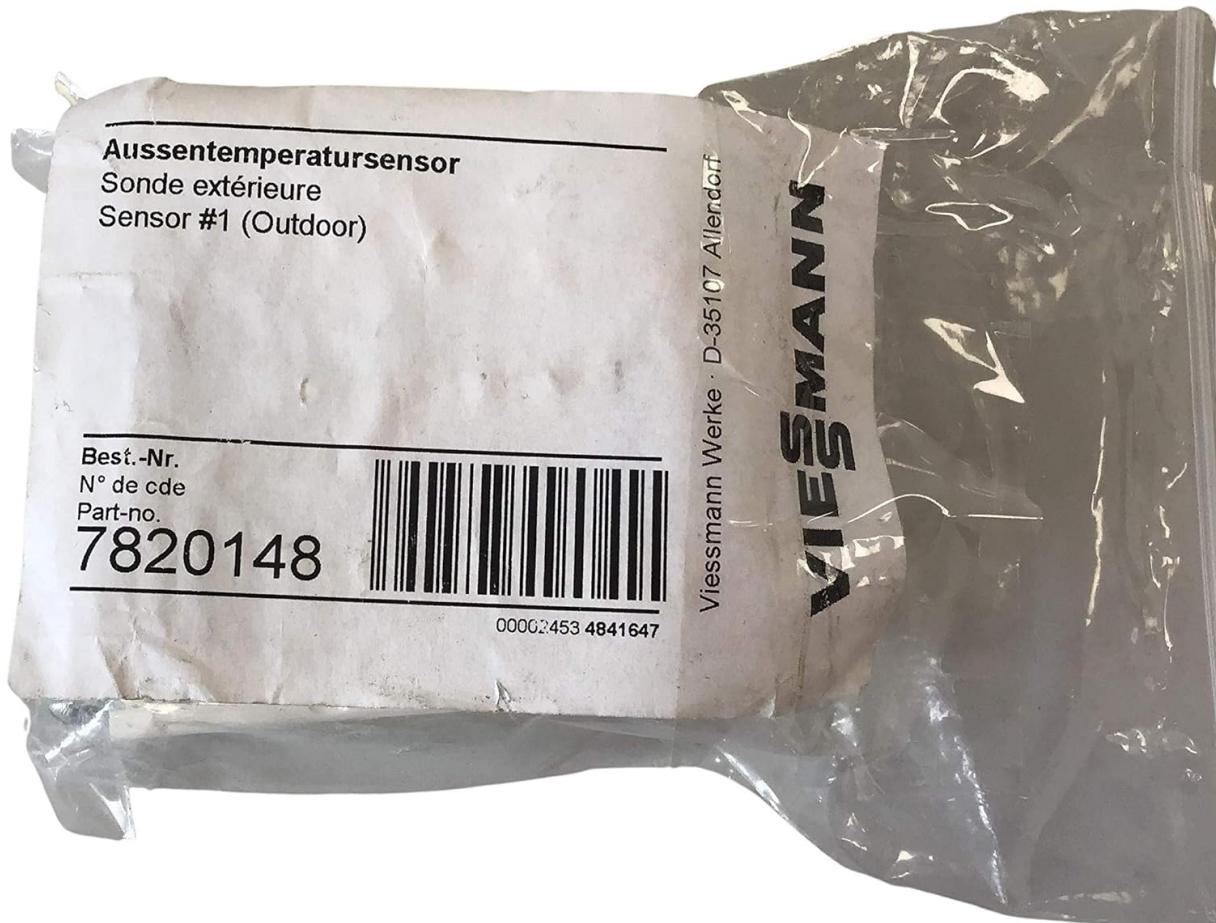


Image: Viessmann 7820148 Outdoor Sensor #1 in its original packaging, showing the part number and brand logo.

## IMPORTANT SAFETY INFORMATION

**WARNING: Installation, adjustments, service, or maintenance of this product must be performed by a licensed professional heating contractor qualified to work with hot water boilers and associated controls. Failure to follow these instructions could result in property damage, personal injury, or death.**

- Always disconnect power to the heating system before performing any work.
- Ensure all local codes and regulations are followed during installation.
- Do not modify the sensor or its components.
- Protect the sensor from physical damage and extreme weather conditions beyond its operating range.

## COMPATIBLE SYSTEMS

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The Viessmann 7820148 Outdoor Sensor #1 is compatible with the following Viessmann heating systems and controls:

### Boiler Models:

- Vitodens 200 WB2A (6-24C/6-24/8-32)
- Vitodens 200 WB2 (6-24C/6-24/8-32/11-44/15-60)
- Vitodens 200-W WB2B (19/26/35/45/60/80/105) Series Residential Gas Condensing Boilers

### Control Models:

- Vitotronic 200 (KW2)
- Vitotronic 300 (KW3 & GW2)
- Vitotronic 300-K (MW1W, MW1S, & MW2S)
- Vitotronic 200-H HK1M
- Dekamatik-HK1
- Vitocontrol-S WB2B (MW2)

## SETUP AND INSTALLATION

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Proper placement and wiring are crucial for accurate temperature readings and optimal system performance. Consult your heating system's specific installation manual for detailed wiring diagrams and placement recommendations.

### Recommended Placement:

- Mount the sensor on an exterior wall, preferably on the north or northwest side of the building, to avoid direct sunlight.
- Ensure the sensor is not obstructed by eaves, overhangs, or other structures that could affect air circulation or expose it to radiant heat.
- Avoid mounting near windows, doors, or exhaust vents.
- Mount at a height that is representative of the general outdoor temperature, typically 6-10 feet above ground level.

### Installation Steps:

1. **Prepare Mounting Location:** Select a suitable outdoor location as described above. Ensure the surface is clean and stable.
2. **Open Sensor Housing:** Carefully open the sensor housing. The cover typically snaps open or is secured by small screws.



*Image: Viessmann 7820148 Outdoor Sensor #1 with its cover open, revealing the green circuit board and wiring terminals. Two mounting screws and anchors are visible below the open housing.*

3. **Mount the Base:** Use the provided screws and anchors (if necessary) to securely mount the back plate of the sensor housing to the chosen wall.



*Image: Back view of the Viessmann 7820148 Outdoor Sensor #1 housing, showing mounting holes and a barcode sticker with numbers 41547 and 22616.*

4. **Wire the Sensor:** Route the low-voltage wiring from the heating system control to the sensor location. Connect the wires to the terminals labeled '1' and '2' on the sensor's circuit board. Polarity is typically not critical for this type of sensor, but refer to your boiler's wiring diagram for confirmation.



*Image: Close-up view of the Viessmann 7820148 Outdoor Sensor #1's internal circuit board. The green board has 'VIESSMANN' printed on it, along with 'HND 02/14' and terminals labeled '1' and '2' for wiring connections.*

5. **Secure Wiring:** Ensure wiring is properly secured and protected from weather and physical damage.
6. **Close Housing:** Once wiring is complete and verified, carefully close the sensor cover, ensuring it snaps securely into place or is fastened with screws.



*Image: Viessmann 7820148 Outdoor Sensor #1 with its cover closed, showing the compact, white, rectangular housing.*

7. **System Configuration:** After physical installation, the heating system control may need to be configured to recognize and utilize the outdoor sensor. Refer to your boiler or control unit's instruction manual for specific programming steps.

## OPERATION

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The Viessmann 7820148 Outdoor Sensor #1 operates passively by continuously measuring the ambient outdoor temperature. It transmits this data to the connected Viessmann heating system control. The control unit then uses this information to adjust the boiler's output, optimizing heating curve settings and ensuring efficient and comfortable indoor temperatures based on outdoor conditions. No direct user interaction is required for the sensor's operation once installed and configured.

## MAINTENANCE

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The Viessmann 7820148 Outdoor Sensor #1 is designed for minimal maintenance. Periodically, it is recommended to:

- **Visual Inspection:** Check the sensor housing for any signs of physical damage, cracks, or loose connections.
- **Cleanliness:** Ensure the sensor's exterior is free from dirt, debris, spiderwebs, or insect nests that could obstruct airflow or affect temperature readings. Use a soft, damp cloth for cleaning; do not use abrasive cleaners or solvents.
- **Obstruction Check:** Verify that no new obstructions (e.g., growing vegetation, new construction) are affecting the sensor's exposure to ambient air.

Any internal inspection or repair should only be performed by a qualified service technician.

## TROUBLESHOOTING

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If your heating system is not responding correctly to outdoor temperatures or displaying an error related to the outdoor sensor, consider the following:

- **Check Wiring:** Ensure all wiring connections at both the sensor and the control unit are secure and free from corrosion. Verify continuity if possible.
- **Sensor Placement:** Re-evaluate the sensor's placement. Is it exposed to direct sunlight, heat sources, or obstructions? Relocate if necessary.
- **Physical Damage:** Inspect the sensor housing for any visible damage that might compromise its function.
- **Control Unit Error Codes:** Consult your boiler or control unit's manual for specific error codes related to the outdoor sensor and their recommended solutions.
- **Professional Assistance:** If the issue persists after basic checks, contact a licensed professional heating contractor for diagnosis and repair. They can test the sensor's resistance values and system configuration.

## SPECIFICATIONS

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Feature	Detail
Model Number	7820148
Brand	Viessmann
Material	Copper
Measurement Accuracy	±1.5°C
Measuring Range	6 - 24 °C
Mounting Type	Flange Mount
Output Type	Digital
Item Weight	3.13 ounces

Feature	Detail
Package Dimensions	5.55 x 4.72 x 1.89 inches
UPC	653958692898
Manufacturer Part Number	7820148
Internal Barcode Reference	4154722616 (from product label)

Note: Specifications are subject to change without notice. Always refer to the product packaging or manufacturer's official documentation for the most current information.

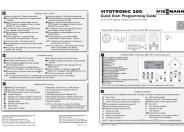
## WARRANTY AND TECHNICAL SUPPORT

For specific warranty information regarding the Viessmann 7820148 Outdoor Sensor #1, please refer to the documentation included with your original heating system or contact Viessmann directly. Warranty terms typically vary based on the region and purchase date.

For technical support, replacement parts, or service inquiries, it is recommended to contact a licensed Viessmann heating contractor or Viessmann customer service. When contacting, please provide the 16-digit boiler serial number or the 12-digit ASME/NB serial number of your heating system to ensure accurate assistance and proper part identification.

You can find more information on the official Viessmann website: [www.viessmann.com](http://www.viessmann.com)

## Related Documents - 7820148

	<p><a href="#">Viessmann Vitodens Gas Boiler Guide: Efficient Heating Solutions</a></p> <p>Explore the Viessmann Vitodens range of high-efficiency gas condensing boilers, including models 050-W, 100-W, 111-W, 200-W, 222-F, and 242-F. Learn about their features, benefits, technical specifications, installation accessories, and control systems for optimal home comfort and energy savings.</p>
	<p><a href="#">Viessmann Vitotronic 200 Quick Start Programming Guide for Vitodens 200 Heating Systems</a></p> <p>A concise guide to programming the Viessmann Vitotronic 200 control unit for Vitodens 200 boilers. Covers basic and advanced settings, troubleshooting, language changes, and diagnostic functions.</p>
	<p><a href="#">Viessmann Cascade Communication Module KMK Bus Installation Guide</a></p> <p>Installation instructions for the Viessmann Cascade Communication Module (KMK Bus), Part No. 7441 586, for Vitodens 200-W WB2B/B2HA/B2HB series boilers. Includes safety, application, and connection details.</p>

 <p>Domestic Gas Boiler Guide</p>	<p><a href="#">Viessmann Domestic Gas Boiler Guide: Vitodens Series Overview</a></p> <p>Explore the Viessmann Vitodens range of domestic gas condensing boilers, including models 050-W, 100-W, 111-W, 200-W, and 222-F. Learn about features, specifications, installation, and digital services.</p>
 <p>Datasheet Vitodens 300</p>	<p><a href="#">Viessmann Vitodens 300 Gas Fired Condensing Boiler Datasheet and Technical Information</a></p> <p>Comprehensive datasheet and technical information for the Viessmann Vitodens 300 gas fired condensing boiler, covering specifications, installation, accessories, and performance. Includes detailed diagrams and technical data.</p>
 <p>Datasheet Vitodens 300</p>	<p><a href="#">Viessmann Vitodens 300 Gas Fired Condensing Boiler Datasheet and Installation Guide</a></p> <p>Comprehensive datasheet and installation information for the Viessmann Vitodens 300 series gas-fired condensing boilers, covering specifications, benefits, installation procedures, and accessories.</p>

Documents - Viessmann – 7820148

Wollersheim Kompetenz in Heizung seit 1945

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Adresse Viessmann Webshop <a href="http://www.heiztechnikshop.com/2013/Viessmann">http://www.heiztechnikshop.com/2013/Viessmann</a>	Email <a href="mailto:info@wollersheim.de">info@wollersheim.de</a>	

**VIESSMANN**

Viessmann Ersatzteil-Preisliste 2013

Viessmann Ersatzteile  
Viessmann Einzelteile

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Umfassende Preisliste und Katalog für Viessmann Ersatzteile und Einzelteile für Heizsysteme, gültig ab April 2013. Finden Sie die benötigten Ersatzteile für Ihre Viessmann Heizung.

lang:de score:9 filesize: 8.2 M page\_count: 415 document date: 2013-10-29