

Grothe 1512019

Grothe 14101 Doorbell Transformer User Manual

Model: **1512019** | Brand: **Grothe**

1. INTRODUCTION

The Grothe 14101 Doorbell Transformer (Model 1512019) is a safety transformer designed to provide a stable and safe 12 V/AC, 1.5 A power supply for doorbell systems and other low-voltage applications. This manual provides essential information for the correct installation, safe operation, and proper maintenance of your transformer. Please read this manual thoroughly before installation and keep it for future reference.

2. SAFETY INSTRUCTIONS

- **Qualified Personnel Only:** Installation and maintenance of this device should only be performed by a qualified electrician in accordance with local and national electrical codes.
- **Disconnect Power:** Always disconnect the main power supply before attempting any installation, wiring, or maintenance work on the transformer.
- **Voltage Compatibility:** Ensure that the input voltage (230V, 50Hz) matches your electrical supply.
- **Overload Protection:** Do not exceed the maximum secondary current of 1.5 A or maximum power of 18 VA to prevent overheating and damage.
- **Environmental Conditions:** Install the transformer in a dry, well-ventilated area, protected from direct sunlight, moisture, and extreme temperatures. The device has an IP20 rating, meaning it is protected against solid objects larger than 12.5mm but has no protection against water.
- **Compliance:** This product complies with VDE and EN61558 standards, ensuring safety and performance.

3. PRODUCT OVERVIEW

The Grothe 14101 is a compact doorbell transformer designed for rail mounting. It features clearly labeled terminals for primary (input) and secondary (output) connections, along with a built-in PTC (Positive Temperature Coefficient) thermistor for overload protection.



Figure 3.1: Front view of the Grothe 14101 Doorbell Transformer, showing the model number (GT 1975), electrical specifications (230V primary, 12V/1.5A secondary, 18VA max), safety certifications (CE, VDE, EN61558, IP20), and a detailed wiring diagram with terminal numbers.



Figure 3.2: Angled view of the Grothe 14101 Doorbell Transformer, highlighting its compact design and rail mounting compatibility. The top and bottom terminals are visible, along with the product labeling.

4. SETUP AND INSTALLATION

The Grothe 14101 transformer is designed for rail mounting (DIN rail). Follow these steps for safe and correct installation:

1. **Power Disconnection:** Ensure the main power supply to the installation area is completely disconnected at the circuit breaker.

2. **Mounting:** Securely mount the transformer onto a standard DIN rail within an appropriate electrical enclosure.

3. **Primary Wiring (Input):**

- Connect the 230V AC (Live) wire to terminal**5**.
- Connect the 230V AC (Neutral) wire to terminal**8**.
- Refer to the wiring diagram on the transformer label (Figure 3.1) for visual guidance.

4. **Secondary Wiring (Output):**

- Connect one wire of your 12V AC doorbell system or load to terminal**1**.
- Connect the other wire of your 12V AC doorbell system or load to terminal**3**.
- Ensure the total current draw of the connected devices does not exceed 1.5 A.

5. **Verify Connections:** Double-check all wiring connections for tightness and correctness to prevent short circuits or loose contacts.

6. **Restore Power:** Once all connections are verified and the enclosure is closed, restore power to the circuit.

Note: The transformer includes a PTC thermistor for protection against short circuits and overloads on the secondary side. In case of an overload, the PTC will limit the current, and the output voltage may drop. It will automatically reset once the overload condition is removed and the device cools down.

5. OPERATING INSTRUCTIONS

The Grothe 14101 Doorbell Transformer operates automatically once correctly installed and powered. It continuously converts the 230V AC input to a stable 12V AC output for your connected low-voltage devices.

- **Continuous Operation:** The transformer is designed for continuous operation, providing power to your doorbell or other 12V AC devices.
- **No User Interaction:** There are no user-adjustable settings or controls on the transformer itself. Its function is purely to supply power.
- **Monitoring:** Periodically check the connected devices for proper function. If a device fails to operate, refer to the troubleshooting section.

6. MAINTENANCE

The Grothe 14101 Doorbell Transformer requires minimal maintenance. However, periodic checks can help ensure its longevity and reliable operation.

- **Power Disconnection:** Always disconnect power before performing any maintenance.
- **Visual Inspection:** Annually inspect the transformer and its connections for any signs of damage, discoloration, loose wires, or excessive dust accumulation.
- **Cleaning:** If necessary, gently clean the exterior of the transformer with a dry, soft cloth. Do not use liquid cleaners or solvents.
- **Ventilation:** Ensure that the area around the transformer remains clear to allow for adequate air circulation and prevent overheating.
- **No User-Serviceable Parts:** The transformer contains no user-serviceable parts. Do not attempt to open or repair the unit.

7. TROUBLESHOOTING

If you experience issues with your Grothe 14101 Doorbell Transformer, consider the following troubleshooting steps:

Problem	Possible Cause	Solution
No output voltage / Connected device not working	<ul style="list-style-type: none">No input power (230V AC)Loose or incorrect wiring connectionsOverload on secondary circuit (PTC activated)Faulty transformer	<ul style="list-style-type: none">Check the main circuit breaker and ensure power is supplied to the primary terminals.Disconnect power and re-check all primary and secondary wiring connections for tightness and correctness.Disconnect the load from the secondary side. If the output returns, the load is too high or there is a short circuit in the connected device. Reduce the load or repair the device. Allow the transformer to cool down.If all other steps fail, the transformer may be faulty. Contact a qualified electrician for replacement.
Transformer feels hot to the touch	<ul style="list-style-type: none">Excessive load on secondary circuitPoor ventilationHigh ambient temperature	<ul style="list-style-type: none">Ensure the total load does not exceed 1.5 A / 18 VA.Verify that the installation area allows for adequate airflow around the transformer.Ensure the ambient temperature is within the transformer's operating limits.

If you are unable to resolve the issue after following these steps, please consult a qualified electrician. Do not attempt to repair the transformer yourself.

8. TECHNICAL SPECIFICATIONS

Model Number	1512019
Brand	Grothe
Input Voltage (Primary)	230 V AC, 50 Hz
Output Voltage (Secondary)	12 V AC
Output Current (Max)	1.5 A


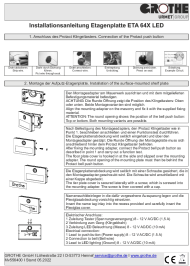
Max Power (Secondary)	18 VA
Dimensions (L x W x H)	9.4 x 7.2 x 4 cm
Weight	430.91 grams
Mounting Type	Rail mounting (DIN rail)
Protection Class	IP20
Compliance	VDE, EN61558, CE
ASIN	B000UXFCKK

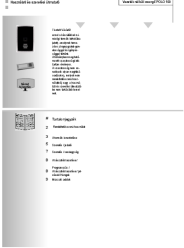
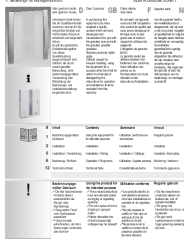
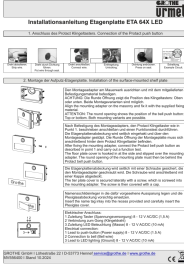
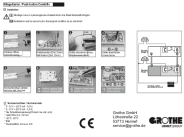
9. WARRANTY AND SUPPORT

Grothe products are manufactured to high-quality standards. This product comes with a spare parts availability period of 1 year in the EU, as per manufacturer's policy.

For technical support, warranty claims, or further assistance, please contact your retailer or visit the official Grothe website. Please have your model number (1512019) and ASIN (B000UXFCKK) ready when contacting support.

Related Documents - 1512019

	<p>GROTHE LTW 168 Waterproof Industrial Chime - Installation and Operating Instructions</p> <p>Comprehensive installation, operating, and warranty information for the GROTHE LTW 168 waterproof industrial chime. Features include IP66 rating, heavy-duty design, and technical specifications for AC and DC power.</p>
	<p>Grothe ETA 64X LED Surface-Mounted Doorbell Plate Installation Guide</p> <p>This guide provides detailed instructions for installing the Grothe ETA 64X LED surface-mounted doorbell plate. It covers connecting the Protact push button, mounting the plate, securing the cover, and electrical connections for power and LED lighting.</p>

	<p>POLO 100 Wireless Doorbell User Manual and Installation Guide</p> <p>Comprehensive guide for the POLO 100 wireless doorbell, covering installation, operation, programming, and technical specifications. Learn how to set up and use your new doorbell.</p>
	<p>Grothe Croma 100A Electronic Chime: Installation and Operation Manual</p> <p>Comprehensive guide for installing, wiring, operating, and maintaining the Grothe Croma 100A electronic chime, featuring 17 melodies, dual-channel discrimination, and alarm functions. Includes safety instructions and technical specifications.</p>
	<p>GROTHE ETA 64X LED Surface-Mounted Shelf Plate Installation Guide</p> <p>Detailed installation instructions for the GROTHE ETA 64X LED surface-mounted shelf plate, covering push-button connection, mounting, and electrical wiring.</p>
	<p>Grothe Combifix Push Button Installation Guide</p> <p>Comprehensive installation guide and technical specifications for the Grothe Combifix push button, detailing wiring, safety, and operational data.</p>