Time Relays (ZMN41) User Manual



ADDRESS: Ikitelli OSB Mah. Cevre 14. Blok Sok. Telas Blok Dis Kapi No: 1 Kat: 1-2 Basaksehir/Istanbul

Phone: +90 212 438 80 24
Fax: +90 212 438 80 25

info@gruparge.com

V.25.1

CONTENTS

PROPER USE AND SAFETY REQUIREMENTS 3
1. INTRODUCTION 4
1.1. General Features 4
1.2. Technical Features 4
1.3. LED Descriptions 5
1.4. LED Warnings 5
1.5. Use of the Device 6
1.6. Function Diagram 6
1.7. Technical Drawing 6
1.8. Product Assembly and Disassembly 8
1.9. Connection Diagram 8

PROPER USE AND SAFETY REQUIREMENTS



Cut all the power when connecting and disconnecting the device to a panel.



Do not clean the device with a solvent or similar material. Only use a dry cloth.



Please do not intervene to the device when a technical problem is encountered and get in contact with a technical service within the shortest time.



If the warnings are not taken into account, our company or the authorized dealer shall not be held responsible for the negative consequences.



Do not dispose in the trash, the device must be delivered to the collection centers (electronic device recycling centers). It should be recycled or disposed of without harming human health and environment.



The installation, assembly, activation and operation of the device should be done and used by only expert professionals and in accordance with safety regulations and instructions.

1. INTRODUCTION

1.1. General Features

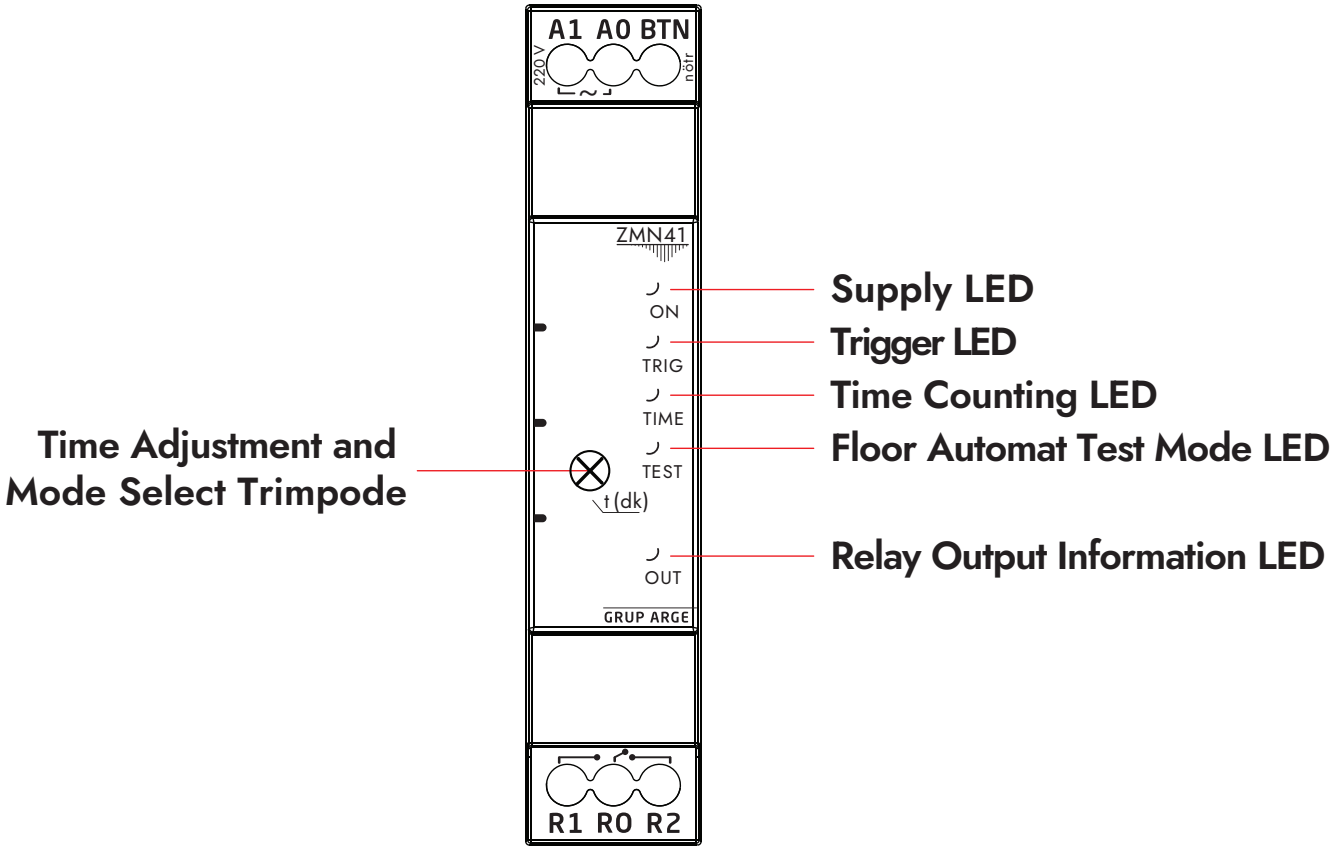
Electronic time relays are microprocessor-based control devices used in time-critical processes. These devices are specially designed to activate or deactivate a circuit or a system within the set time and function. This relay group, which is generally used in the control panels of power circuits, can basically control the system by changing the relay positions with or without delay. In terms of operating function, there are basically two types of time relays: pull delayed and release delayed. Relays with a delay in pulling are known as straight time relays, while relays with a delay in releasing are known as reverse time relays.

This relay group, which has many different models, has varieties such as flasher model that can operate on and off, right-left relay known as inversion relay in the industry, which is used as an automatic position (direction) changer in automatic systems and repeats this process at intervals determined by the time setting on it, trigged time relay that can operate with trigger detection, star-delta time relay that controls the star-delta connection on a time basis.

1.2. Technical Features

Operating Voltage:	180 - 280 V AC
Operating Frequency:	50 / 60 Hz
Time Interval:	0.1 sec-8 min.
Relay Output:	1 x C/O, 5 A @ 250 VAC
Adjustment:	Potentiometer
Indicator:	5 LEDs
Ambient Temperature:	-5˚C to +50˚C
Protection Class:	IP20
Mounting:	DIN Rail

1.3. LED Descriptions



1.4. LED Warnings

●	**ON**	It shows that energy exists. It also flashes when the potentiometer changes.
●	**TRIG**	Lights if the selected mode is a Trig Mode and trig is detected. Off if trig is not detected.
◐	**TIME**	It blinks every second to display the set time.
◐	**TEST**	When the device enters Test Mode, it lights steadily. If the device is forgotten in Test Mode, it automatically switches to Normal Mode and lights up with the 4 Time LED as a flasher.
●	**OUT**	On when the relay is pulled, off when it is not pulled.

Table:1

* ◐ Flasher

* ● Flashing

1.5. Use of the Device

ZMN41 Time Relay;

The floor automat device can be used in fire alarm systems and floor lighting systems. Grup Arge floor automat device has an adjustable time interval between 0.1 seconds - 8 minutes. There are 5 information LEDs on the device. When the device is energized, the ON LED lights up blue. At the same time, when the trimpot value on the device is changed, the ON LED lights up as a flasher. The product has trigger detection feature. When NEUTRAL is given to the trigger input, the device detects the trigger and illuminates the TRG led on it. When the trigger is gone, this led goes out. 3 different modes can be set with the trimpot on the device. These modes are Test ON, Test OFF and normal modes. In order to switch to test modes, it is absolutely necessary to pass the trimpot over normal mode. When the device is first turned on, if the trimpot is in one of the test modes, the device does not operate in test mode for security purposes, it is set to 5 minutes and operates as normal mode. In order to switch the device to one of the test modes, it is necessary to pass the trimpot in normal mode (0.1sec-8min). If the device is set to test mode and forgotten in test mode, after 1 hour the device automatically switches itself to normal operation mode by setting the time to 5 minutes for security purposes.

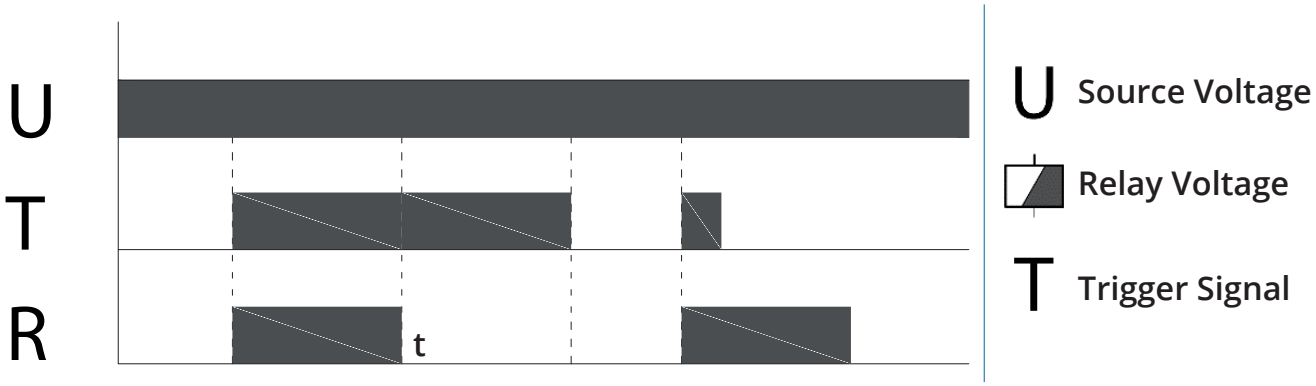
On Test Mode: The device outputs when it detects a trigger. When the trigger goes off, the output turns off. If the device is forgotten in ON Test Mode, it switches to Normal Mode after 1 hour by setting itself to 5 minutes time value for security purposes.

Off Test Mode: When the device detects a trigger, it turns off the output. If the device is forgotten in OFF Test Mode, it switches to Normal Mode after 1 hour by setting itself to 5 minutes time value for security purposes.

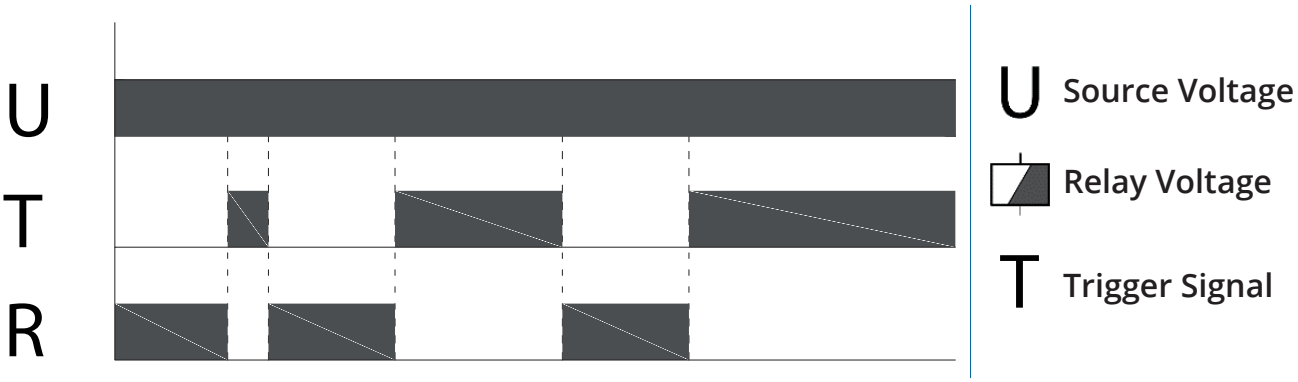
Normal Mode: Normal operation mode works when the trimpot is set between 0.1 s - 8 minutes. In this mode, when the trigger is detected, the relay outputs without waiting and starts counting the set time. At the end of the time, the relay output is turned off.

1.6. Function Diagram

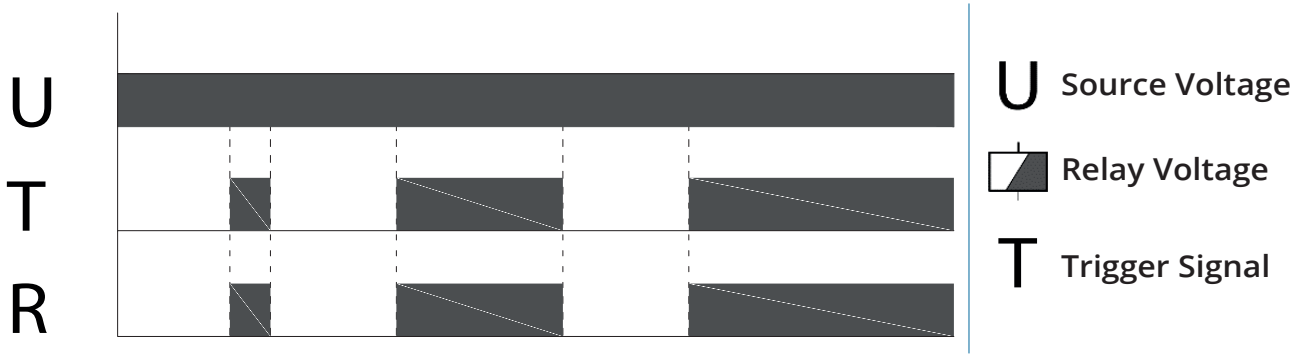
Normal Mode:



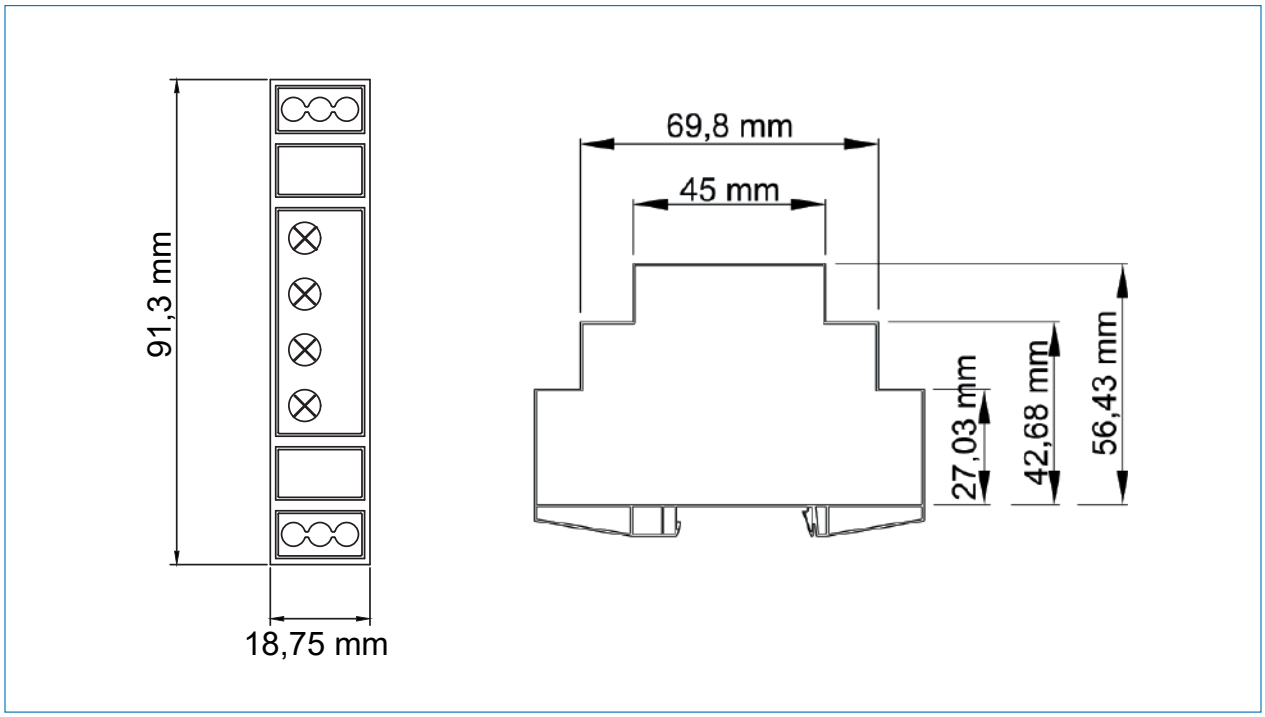
Off Test Mode:



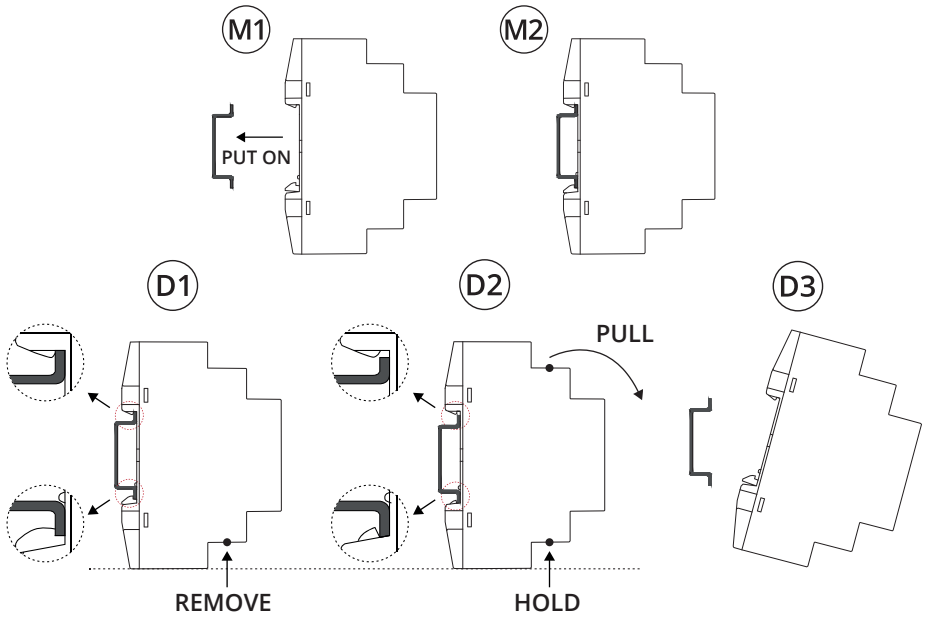
On Test Mode:



1.7. Technical Drawing



1.8. Product Assembly and Disassembly



1.9. Connection Diagram

