

TERA Radon Program

TPS2 Power Relay Technical Specifications & Operation Manual



v.2 – 2016

Table of Contents

| | | |
|----|---|---|
| 1 | Introduction..... | 2 |
| 2 | Description and Utilization | 2 |
| 3 | Scope of Delivery | 3 |
| 4 | Product specification | 3 |
| 5 | Safety..... | 3 |
| 6 | Operating Instruction and Electrical Connection | 3 |
| 7 | Repairs..... | 4 |
| 8 | Warranty..... | 4 |
| 9 | EC Declaration of Conformity | 4 |
| 10 | Revision History | 4 |

Instruction also available on www.tesla.cz

COPYRIGHT NOTICE

No part of this document may be reproduced, republished, translated or digitalized in any form or by any means, without prior written permission of TESLA.

Information contained in this manual relates exclusively to the TERA system component specified on the title page. New versions and modifications may be developed without prior notice to current users. TESLA has made every attempt to provide you with complete, error-free and accurate information in this manual. TESLA is not liable for errors or omissions contained in this document, or for any damages however resulted from using or relying on any information contained herein. TESLA's liability for errors shall be strictly limited to correcting such errors and providing advisory services as described below.

Users should be familiar with operation basis of used product. If you experience any problems with your product, please contact us at:

TESLA
Rubeska 215/1
190 00 Prague 9 - Vysocany
www.tesla.cz

1 Introduction

This document describes technical specifications and user operation of TPS2 Power Relay.

The product was developed and manufactured in the Czech Republic. All rights reserved TESLA. Offer or delivery of products or services related to the product does not include transfer of ownership rights.

Before using the product, please read this manual carefully and understand all operating and safety precautions. Compliance with operational and safety precaution can prevent from damage to equipment or injuries to personnel. Operating and safety instructions in the document are marked as follows:

Attention! This formatted text indicates the operating and safety instructions.

The product may only be used in the specified manner and for its intended purpose. The product may be provided to third persons along with this documentation only.

2 Description and Utilization

Power element is basically made up of high power switching which is controlled by the Actuator output or the Central Unit output. Actuator and Central Unit are parts of TERA program made by TESLA; see <http://www.tesla.cz/> and <http://www.tesla.cz/>. This connection is by cable – contacts of actuator (central) memory relay switch voltage on power relay coil. Power relay is mostly located near an actuating unit (fan, recuperation unit, etc.). By a switch on box of power relay it is possible to choose permanent switching of relay – position 'ON' or choose switching of relay by automatic control signal – position 'AUT'.

TPS2 Power Relay can be used in this system:

TERA System for Radon Concentrations Regulating (Figure 1)

Regulating system diagram description - Radon measuring probes located in building transmit their current radon concentration values to central unit wirelessly. Central unit analyzes this information and on the basis of measured (set) concentration level value it sends wireless command to actuator which is hardwired with power relay. Power relay switches on a fan which decreases radon concentration within an area. After decreasing of radon concentration, actuator receives a command to switch off the fan. This cycle repeats depending on increasing or decreasing volume activity of radon in building.

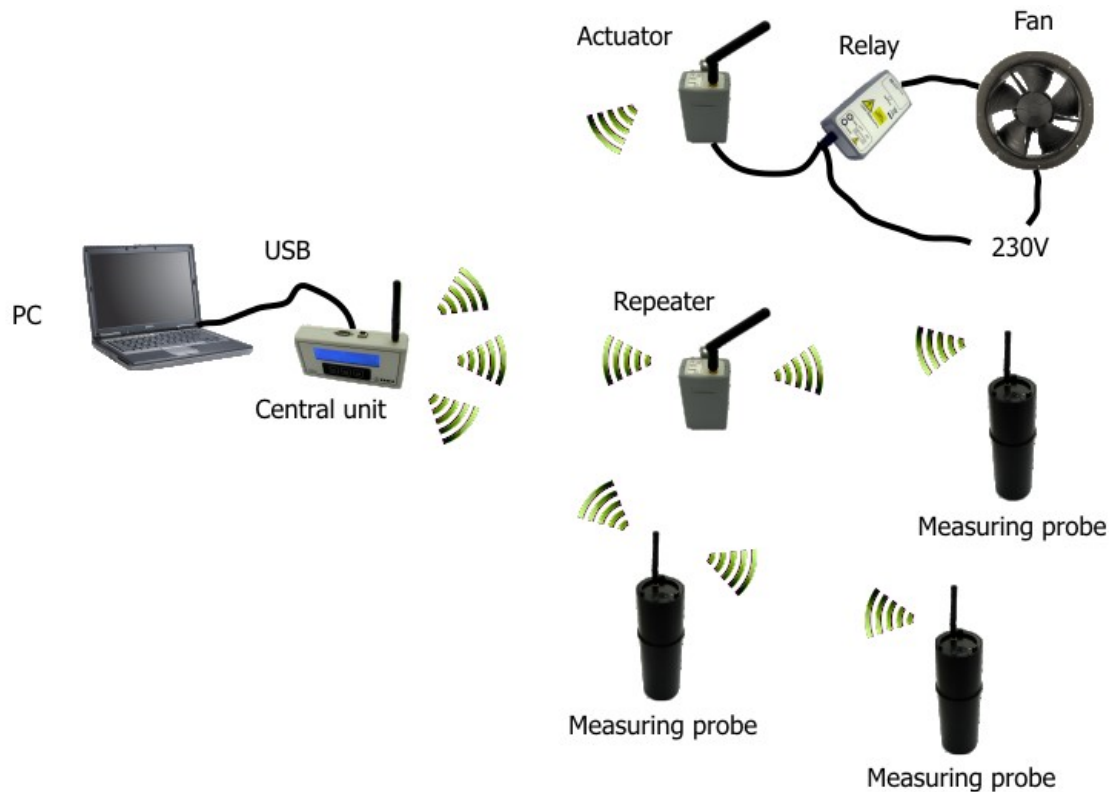


Figure 1 - TPS2 Power Relay in TERA System for Regulating Radon Concentrations

3 Scope of Delivery

- TPS2 Power Relay including 3x 1m cables
- Operation Manual

4 Product specification

| | |
|--------------------------------|---|
| Product | TPS2 Power Relay |
| Type symbol | 042 127 171 000 |
| Vsupply power supply | 230V/50Hz 0,5VA |
| Automatic control | The actuator TAR2, Central Unit or external switch (12V/20mA) |
| Vsw maximum switching capacity | 1500 VA AC (250V/6A) |

5 Safety

Installation and connection of the device may only be carried out by a specialist with relevant qualification who is perfectly familiarized with this manual and device function. Always make sure that there is no power in a connected device before proceeding with the installation.

6 Operating Instruction and Electrical Connection

Electrical connection of TPS2 power relay into system is in figure 2. Power relay can switch power load on cable 'Vsw' up to 1500VA (6A/250V). The TPS2 power relay is powered via cable 'Vsupply' from 230V/50Hz. Automatic remote control of power relay is ensured by cable 'Automatic Control'. This cable can connect Actuator or Central Unit which are parts of TERA program made by TESLA; see <http://www.tesla.cz/> and <http://www.tesla.cz/> or other external switch (12V/20mA) to TPS2. By a switch on box of power relay it is possible to choose permanent switching of relay – position 'ON' or choose switching of relay by automatic control signal – position 'AUT'.

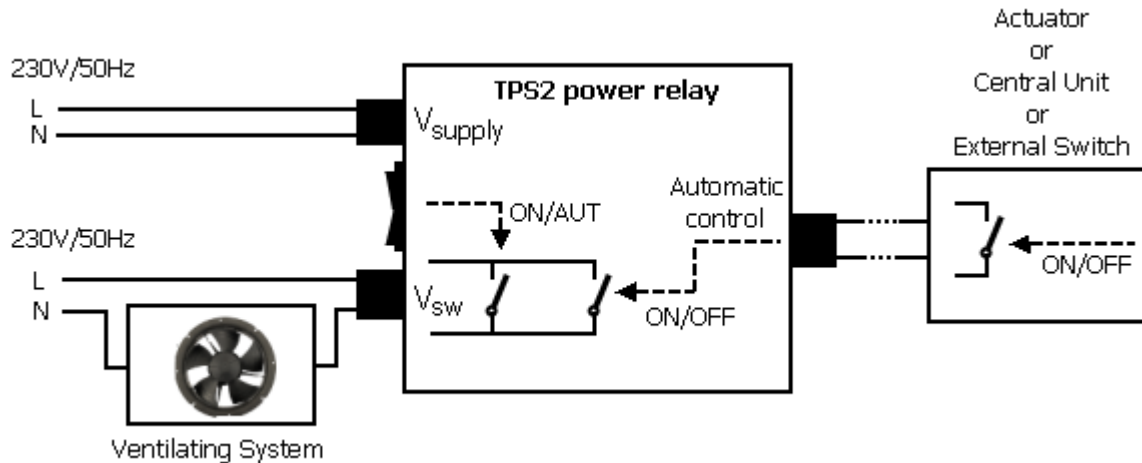


Figure 2 – Electrical connection of TPS2 Power Relay

7 Repairs

Any repairs and non basic maintenance must be performed exclusively by TESLA manufacturer.

TESLA
Rubeska 215/1
190 00 Prague 9 - Vysocany
www.tesla.cz

8 Warranty

This product is covered by warranty of 24 months from purchase date.

In case of warranty claim, please contact our Service Department.

Warranty covers any defects in materials or workmanship and excludes any damage resulting from or caused by transport or handling or by any misuse.

Warranty ceases if product has been used improperly or its seal is broken.

In case of warranty claim, warranty period is prolonged by number of days the product was undergoing warranty repairs.

After the end of its life, product must be handled as e-waste.

9 EC Declaration of Conformity

EC Declaration of Conformity will be delivered by TESLA producer on request. If interested, please use contacts on the web www.tesla.cz.

10 Revision History

| Revision | Date | Comments |
|----------|-------------|------------------|
| Rev.1: | 22. 7. 2015 | Initial release |
| Rev.2: | 30. 4. 2016 | Extended release |