EPI-TAG - T1150

Description:

The EPI-TAG single sensor T1150 has been developed to enable the thermal monitoring of electrical equipment in distribution boxes. If the monitored electrical equipment heats up, it is detected by the single sensor T1150 and the contact in the sensor is switched at 80°C (± 5°C) to raise an alarm.

Properties:

- Designed for use in distribution boxes
- Triggers at temperatures of 80°C (± 5°C)
- Quick and easy installation
- Easy connection to existing fire or security alarm systems
- Via a suitable interface Two-meter connection cable
- Complies with RoHS Directive 2011/65 / EU
- Glow wire flammability index according to IEC 60695-2-12
- Patented, approved and extensively tested by manufacturers and institutions such as Schneider Electric and Intertek

Applications:

Interrupt the circuit via the RCD:

The EPI-TAG T1150 can be connected in such a way that it switches an RCD when the trigger temperature reaches 80°C (± 5°C) and thus disconnects the excessively heated equipment from the power supply. The EPI-TAG T1150 has to be connected to the outgoing neutral terminal of the RCD and its protective conductor. When the T1150 responds, the tripping current of the RCD flows, limited by the internal resistance of the T1150.

Connection to fault and danger alarm systems for monitoring:

The EPI-TAG T1150 can be connected in such a way that it transmits a signal to existing fire & security alarm systems.

For connection to existing alarm systems and building management systems, an additional module or a coupler from the manufacturer is usually required to recycle the resistance value.

Properties active components:

Resistance value for non-triggered T1150 0°C to (TA - 15 °C)	>10 GΩ
Resistance value with triggered T1150 0° C to (TA + 25 ° C)	<10 Ω
Trigger Activation Temperature (TA)	80°C ± 5°C
Max. Operating voltage (DC to AC max. 500Hz)	30V
Ambient temperature	0°C bis 50°C

Note: Insulation measurements can be carried out in the monitored fuse box with 500 VDC, because the resistance value of the non-triggered T1150 is >10 GΩ.

Properties Product cover:

Material	Aluminium
IP protection class	IP4X

Cable properties:

Length	2m
Nominal voltage (AC)	440V
Conductor (cores)	2
Dielectric	LSF PVC
Diameter	3.6mm ± 0.1mm

Installation instruction T1150

SAFETY INSTRUCTIONS:

The following basic safety instructions are intended to prevent personal injury and damage to property. The operator must ensure that the basic safety instructions are observed and complied with. Ensure that all persons have read and understood the operating instructions in full. If anything is unclear or you require further information, please contact mesafox.

EPI-TAG system components may only be installed by qualified personnel.

Never install or commission damaged products. Please inform of any damage immediately. Unauthorized removal of the cover, improper use, incorrect installation or operation can lead to personal injury or damage to property, for which mesafox Handelskontor GmbH accepts no liability.

Assembly of the components:

Step 1:

Prepare the EPI-TAG T1150 for installation in the distribution box. The first step is to check the continuity. After connecting the two wires the meter should indicate an open circuit (R >10 GΩ). If this is not the case, the EPI-TAG must not be installed. In this case please contact us and install a working EPI-TAG unit.

As shown in schematic diagram 1, install the EPI-TAG T1150 with the supplied cable tie to the terminal of the neutral conductor in the distribution box. For this purpose, find a place which offers a safe installation according to the schematic diagram 1. Ensure that the cable tie is correctly tightened and positioned around the EPI-TAG as shown in Figure 1. This is the only way the EPI-TAG can react without restriction in case of an exceptional heating (TA: 80°C ± 5°C) of the terminal.


Cable tie

EPI-TAG T1150
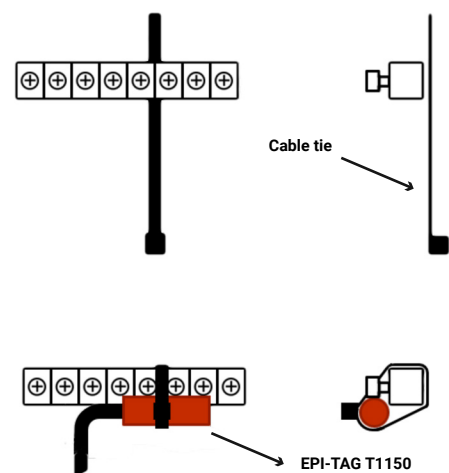
Schematic illustration 1

Step 2:

Make sure that the cable ties do not obstruct the cable entry at the terminal. You can see the difference in the schematic diagram 2. Also the screws of the connection terminal must still be easily accessible and should not be covered by the EPI-TAG or the cable tie.

The cable tie should be tightened so that the lock of the cable tie is close to the EPI-TAG T1150. Please do not pull the cable tie through holes in the terminal block provided for other components during installation.
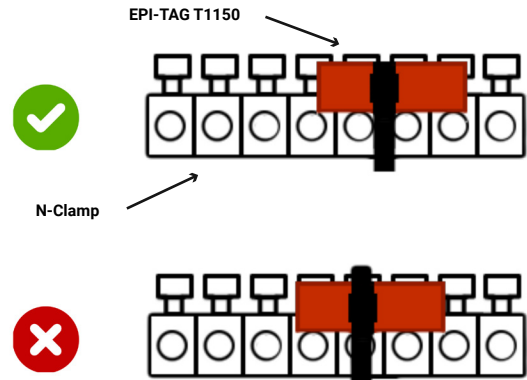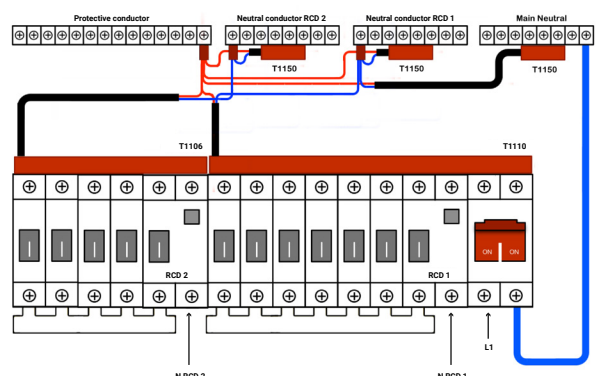

Schematic illustration 2

Connection of the components:

Option 1:   Interrupting the circuit by means of an RCD

The EPI-TAG single sensor T1150 is connected behind the RCD to interrupt the circuit between the neutral conductor and the protective earth. Please note that at least one two-pole RCD with a IΔn from ≤ 100mA must be installed.

Position one or more EPI-TAG T1150 on each neutral terminal as shown in diagram 3. Now connect the wires of the EPI-TAG T1150 to the terminal between neutral and protective earth according to diagram 3.

For the connection of the wires to the terminals, please follow the installation instructions of the manufacturer of the respective distribution box and RCD. If necessary, wire end sleeves must be provided here for connecting the wires.
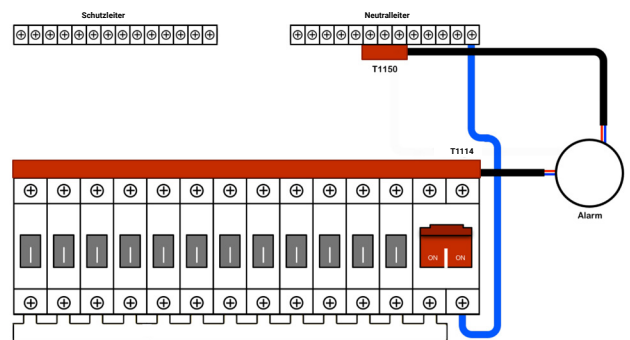

Schematic illustration 3

Option 2:   Connection to a fire or security alarm system or a building management system

The EPI-TAG single sensor T1150 is connected to a fault and hazard detection system or a building management system via a module or coupler. The maximum potential difference must not be higher than 30 VDC. Which coupler or module is required for connection to the third-party system must be clarified with the manufacturer of the fault or hazard detection system.

Position one or more EPI-TAG T1150 on each neutral terminal as shown in diagram 4. Refer to the documentation of the manufacturer used to connect and connect the wires in the module or at the coupler.

Schematic illustration 4

Triggering and testing of components:

Testing of the EPI-TAG single sensor T1150 first requires complete disconnection from the power supply in the junction box to create a safe working environment.

If several EPI-TAG components are installed in the junction box, it must first be checked which EPI-TAG T1150 has been triggered. For this purpose the continuity of the individual components must be checked. For this purpose disconnect the wires at the terminals and connect them to your measuring device. The EPI-TAG T1150, which has a lower resistance value (R <10 Ω), should then be removed and inspected to determine the reason for tripping. When the work on the cause of overheating is completed, the defective EPI-TAG unit will be replaced with a new unit to ensure protection against excessive heating of the equipment in the future.

Warranty and legal information

mesafox offers a limited warranty of 12 months on all EPI-TAG components. Demonstrably defective devices will be replaced directly by mesafox after inspection. This warranty does not cover any associated installation costs. We are not liable for faulty installations and resulting damage to components and EPI-TAG products. Please always follow our instructions and other manufacturer's information to ensure proper use of the products. Technical data and illustrations are not binding. Subject to changes in product portfolio and contents, as well as misprints and errors. © mesafox Handelskontor GmbH, Reinbek/Germany. Reprinting, even in extracts, only with the written permission of mesafox Handelskontor GmbH, Reinbek/Germany. Newer versions of our documentation replace any previous publication.