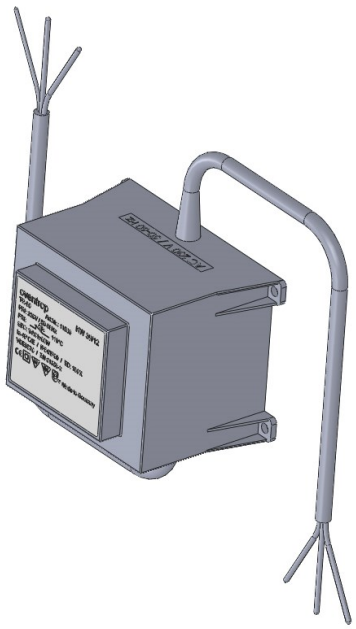
Before installing the transformers "TR-80" (item 1153053) and "TR-250" (item no. 1153055) as well as their accessory components, you must carefully read and follow through these installation instructions and the operating manual for the respective "DynaTemp" system!
Installation, commissioning, operation and maintenance must only be performed by trained and specialised staff in compliance with applicable rules and regulations!
The installation instructions, the operating manual for the respective "DynaTemp" system as well as all additionally applicable documentation must be forwarded to the system operator!

Content

1 General information 1
2 Safety instructions 2
3 Transport, storage and packaging 2
4 Technical specifications 2
5 Assembly and installation 3
6 Commissioning 3
7 Accessories 3
8 Maintenance and servicing 3
9 Declaration of conformity 3
10 Warranty 3



Transformers "TR-80" and "TR-250"

1 General information

1.1 Information about the installation and operating instructions

These installation instructions are to be used by the trained and specialised staff to properly install, commission and configure the transformers "TR-80" and "TR-250" for the first time. Following installation, additional documentation like for example the operating manual for the associated system "DynaTemp" is to be downloaded from the control and regulation unit (DDC) in the "***HELP/INFO - Documentation***" menu item with an Internet browser, e.g. "Mozilla Firefox".
Additionally applicable documentation - instructions for all system components as well as applicable technical rules - are to be complied with.

1.2 Safekeeping of documentation

These installation instructions are to be stored in a safe place by the system operator for later use.

DANGER

Danger to life due to electric shock

Unprofessional connection of the appliance may lead to extensive injuries to persons and damage to property.

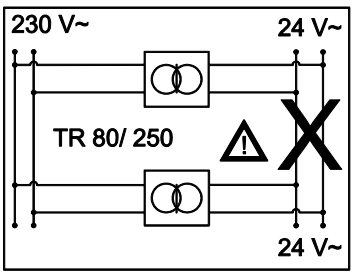
- ➔ Electrical connections must only be carried out by a qualified electrician.
- ➔ The national rules, regulations and standards must be observed during installation and maintenance.
- ➔ The following **5 safety regulations** must always be observed:
  - Disconnect
  - Protect against accidental restart
  - Check that no voltage is present
  - Earth and short-circuit
  - (If necessary) cover adjacent live parts

DANGER

Risk of an electric shock due to parallel transformer connection

Parallel connection of the 24 V outputs of two or several transformers will lead to dangerous reverse voltage (230 V).
Moreover, the transformers will be overloaded.
Overheating of the transformers can lead to fires.

- ➔ Never connect the 24 V outputs of several transformers in parallel.
- ➔ Use a more powerful transformer to increase the output power.
- ➔ Should the use of several transformers become necessary, it must be ensured that the 24 V connections are separated.



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1.3 Symbol explanation

Safety guidelines are displayed by symbols. These guidelines are to be observed to prevent accidents, damage to property and malfunctions.

⚠ DANGER DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

⚠WARNING WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

⚠CAUTION CAUTION indicates a hazardous situation which, if not avoided, may result in minor or moderate injury.

NOTICE NOTICE indicates a situation which, if not addressed, may result in property damage.

1.4 Copyright

These installation instructions are protected by copyright.

2 Safety instructions

2.1 Intended use

Operational safety can only be ensured for intended use of the "DynaTemp" control and regulation unit and its accessories.
Any additional and/or other usage of the transformers "TR-80" and "TR-250" is prohibited and is considered as contrary to intended use. Any claims against the manufacturer and/or his authorised representatives for damages as a result of non-intended use cannot be recognised. The intended use also includes proper compliance with the installation instructions.
The content of these installation instructions is solely intended for the transmission of information.

2.2 Risks posed by the place of installation and transport

The possibility of an external fire was not considered when designing the control and regulation unit and its accessories.

⚠ DANGER

Dangerous electrical voltage!
Danger to life
Installation, commissioning and maintenance must only be performed by competent personnel.
During installation, the respective VDE regulations are to be observed (VDE 0100).
Any work on the transformer must only be carried out when it is in a de-energised state

3 Transport, storage and packaging

3.1 Transport inspection

Check consignment for completeness and any transport damage immediately after receipt and before installation.
If such or other defects are found, only accept the consignment with reservation. File a complaint. Observe complaint deadlines in doing so.

3.2 Storage

Only store the transformers "TR-80" and "TR-250" under the following conditions:

- Store indoors in dry and dust-free conditions.
- Do not expose to aggressive media or heat sources.
- Protect from solar radiation and excessive mechanical vibrations.
- Storage temperature: -20°C …+60°C
- Relative humidity (**r.h.**): 10 ...95%, non-condensing

3.3 Packaging

All packaging material is to be disposed of in an environmentally sound manner. Please do not let your children play with any packaging materials – they could be a danger to them.

4 Technical specifications

Electrical connection:

Primary:	230V / 50-60Hz	
Secondary:	TR-80 (item: 115 30 53):	24V/1x80W
	TR-250 (item: 115 30 55):	24V/1x250W

Operating conditions:
Temperature: 0 ...+40°C
Humidity: 10 ...95% r.h., non-condensing
Switch-on time: 100%
Internal thermal protection: 110°C

Storage conditions:
Temperature: -20 ...+60°C
Humidity: 10 ...95% r.h., non-condensing

Housing:
Dimensions (**item 115 30 53**) without attachment/cabling:
85 × 70 × 70 (L x W x H in mm)
Dimensions (**item 115 30 55**) without attachment/cabling:
100 × 85 × 105 (L x W x H in mm)
Type of installation: Assembly
Material / colour: Durethan, black
Protection class: II, double insulated
Protection type: IP54 / IP00 (cabling)

Labels and safety instructions:

Replacement fuse in compliance with DIN 41662 / IEC 60127-2/3

5 Assembly and installation

⚠ DANGER

Installation, commissioning and maintenance must only be performed by competent personnel. During installation, the respective VDE regulations are to be observed. (VDE 0100) All work on the transformer must only be performed in a **de-energised state**.

In order to prevent heating up of the transformer above 85°C, the transformer is to be installed in such a way its ambient temperature does not exceed 40°C. It is not suited to operation in or under water and in rooms with ambient temperatures above 40°C or in rooms with permanent humidity. It must be ensured that installed protective and safety elements are accessible at all times. In order to ensure sufficient air circulation, apart from the mounting surface a distance to adjacent surfaces of at least 10cm should be adhered to.
Mounting must only occur as stationary transformer with fixed wiring. The transformer must be firmly attached immediately in its place of operation. The transformers are to be charged in accordance with their rated output if possible.

The overall performance of the connected consumers must never exceed the rated output of the transformer. In case of branching as well as reduction of the cable cross section, the line and short-circuit protection according to VDE100 part 559 is to be ensured during installation. In general, the following applies: The primary as well as secondary lines are to be protected against overload and short circuit.

NOTICE

Important information about installation:
The parallel circuit of the secondary side of several transformers is principally prohibited, as reverse voltages form on the 230V side.
For an increase of the output power use a correspondingly more powerful transformer or additional separate transformers.
When using several transformers, the 24-volt-circuits are to be separated from each other!

The transformers must only be operated with laid out cables which are not bundled or rolled up.

A connecting cable firmly attached to the transformer by the manufacturer cannot be replaced in case of damage. The transformer can then no longer be operated and must be replaced.

The transformers are to be charged in accordance with their rated output if possible. The power rating refers to the performance on secondary side during permanent operation, the rated input voltage, rated frequency 50/60 Hz, cos.φ 1 and an ambient temperature of 40°C with an installation altitude of max. 1000m above sea level. It is calculated from secondary rated voltage in volt and secondary rated current in ampere to VA or kVA respectively.

⚠ DANGER

Never connect the secondary side of several transformers in parallel, as reverse voltages form on the 230V side.

6 Commissioning

All transformers are produced in accordance with the applicable VDE regulations and undergo 100% electrical routine tests during production. The transformers are built and designed as safety transformers according to EN6155a-2-6 and are suited to operating systems with extra-low voltage. The low voltage transformers are equipped with a temperature switch which cannot be reset independently. Transformers with a capacity of 250VA are protected from short-circuits and overloads with an additional safety fuse. If the temperature switch is actuated due to an overload of the transformer, proceed as follows:

- Disconnect the transformer from the electrical network
- Eliminate the cause of the error
- Let the transformer cool down
- Transformer is ready again

If a device fuse fails, it is to be replaced with the same rated value with the same trip characteristic according to DIN 41662, IEC 127-2/111. Only fuses from the following table may be used as replacement fuse.

Transformer capacity	**Fine-wire fuse slow**
250VA	T 2.00A / 250V

⚠ DANGER

Before inserting a fuse the transformer is to be disconnected from the electrical network and the system is to be checked for any damage.

7 Accessories

See operating manual.

8 Maintenance and servicing

The product is maintenance-free. A repair must only be performed by a qualified electrician. Clean the product with a soft, clean, dry and lint-free cloth. Do not use any cleaning agents containing solvents or abrasive substances. The plastic housing and the labelling could be damaged by it.

9 Declaration of conformity

Oventrop GmbH & Co. KG hereby declares that the appliance complies with the following directive.

- Low-voltage directive (LVD) 2014/35/EU

The complete text of the EU declaration of conformity is available on the Oventrop Internet page.

10 Warranty

Oventrops general conditions of sales and delivery valid at the time of supply are applicable.