

# Installation and operating manual

## Temperaturregler PTR-045

Item No.: 3182600003

### Specifications:

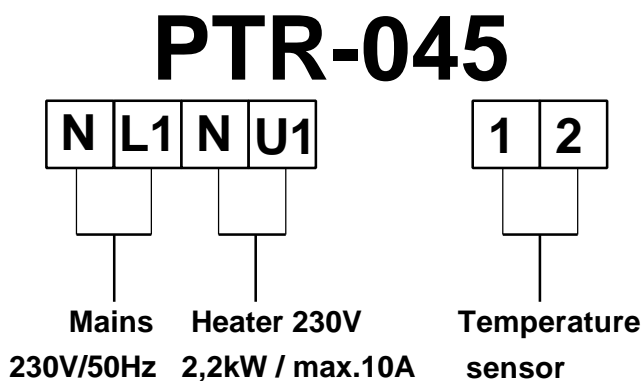
Dimensions:	140mm x 125mm x 85mm
Operational voltage:	230V/50Hz
Control system current consumption:	approx.:1.5VA
Switching capacity:	max. 2.2kW (AC1)
Protection class:	IP 40

### Installation:

The controller must be mounted protected against moisture in accordance with its protection class. **Before opening the housing, the device must be switched voltage-free using a multi-pole main switch with a contact opening distance of at least 3 mm.**

### Electrical power supply:

The electrical power supply may only be installed by an approved specialist electrician. The following wiring diagram and the relevant applicable safety regulations must be observed. The electrical equipment must include a residual current circuit breaker with  $I_{FN}=30mA$  on site.

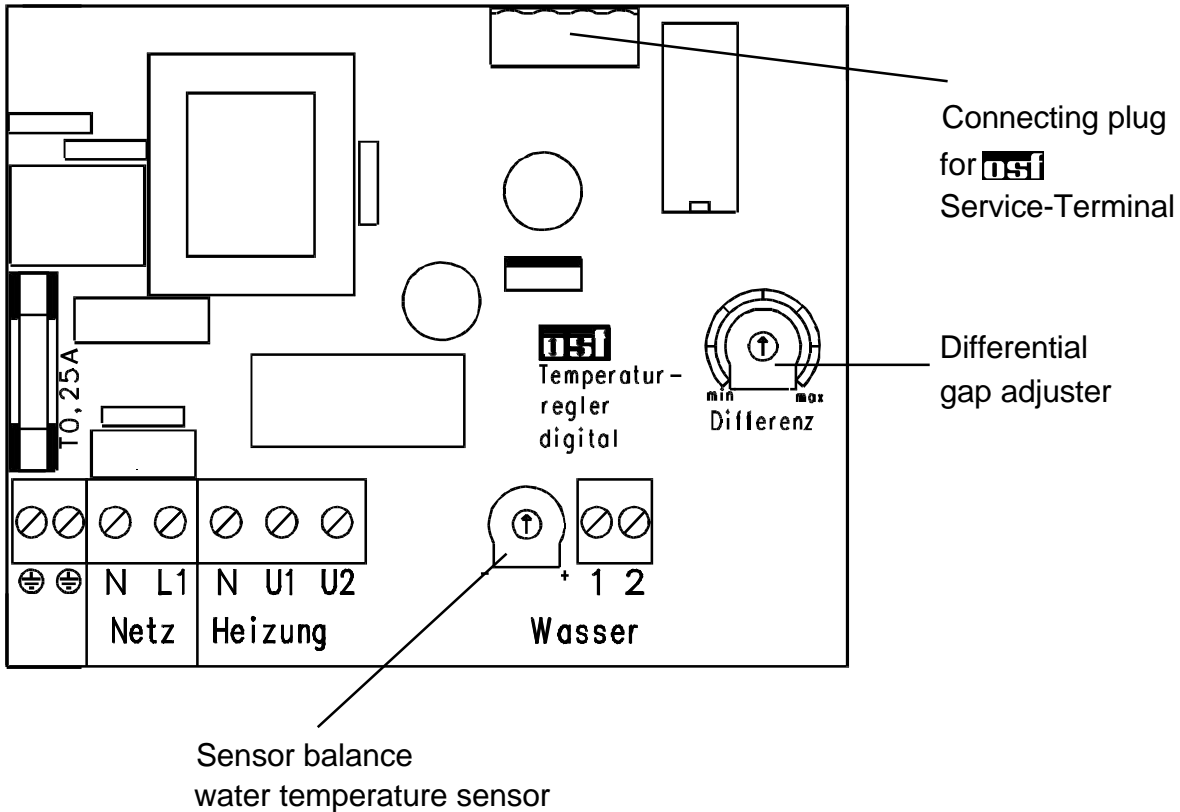


The sensor cable can be extended up to 10 m in length with a screened cable ( $2 \times 0,75mm^2$ ). The screen must be connected to terminal 1. The connection must be made watertight. The sensor cable may not be routed alongside power cables.

**Maintenance and service work may only be carried out by an authorised electrician.**

### Sensor balance

The electronic temperature regulator and the temperature sensor have been balanced in the works. If the sensor is replaced, or if a sensor cable is extended, a new balance must be carried out if necessary using the potentiometers in the controller. Turning the potentiometer clockwise increases the regulated water temperature. The potentiometer is located on a printed circuit board, to the left next to the terminals for the temperature sensor (see sketch over page).



### Differential gap

You can use the "differential gap" adjuster to adjust the differential gap (hysteresis) between the switch-on and switch-off processes. Turning this regulator clockwise increases the differential gap, turning it anticlockwise decreases the differential gap (hysteresis).

### **Service Terminal ( customer service measuring device)**



The service terminal plug may only be plugged in or pulled out when the main switch has been turned off.

The following display is visible in the service terminal:

<b>Wasser:</b>	<b>28,4°C</b>	←	Temperature at temperature sensor
<b>Sollwert:</b>	<b>34,9°C</b>	←	Set target value (required temperature)
<b>Hysterese:</b>	<b>2,0K</b>	←	Set hysteresis (differential gap)

If the displayed value from the temperature sensor does not agree with the actual temperature, you can use the "water temperature sensor balance" adjuster to carry out a balance.

The required hysteresis can be adjusted using the "differential gap" adjuster.



The "PTR 045" temperature regulator must be switched off at the mains switch before removing the service terminal plug.

***We hope you have a lot of enjoyment and relaxation in your swimming pool***