

# Installation- and Operating Instructions



**osf** **POOL**control



## **PC-230-ES**

Art. No. 300.270.0110

Not suitable for filter pumps with speed control

### Functioning:

The osf filter control system PC-230-ES enables time-controlled connection and disconnection of a 230V A.C. filter pump. Setting of the daytime and the individual response times can be noted from the corresponding operating instructions of the automatic switch which is enclosed. By means of the selector switch in the front cover it is possible to:

- a) Switch on and off the functioning of the unit. **Attention, the control system is thus not disconnected from the mains supply at all poles!**
- b) to switch the unit to permanent operation or automatic operation (automatic switch) of the filter pump.

Also during the working time of the filter pump, the heating of the pool is regulated by the electronic temperature control. During interruptions of the filtering process, the heating is automatically switched off by the internal locking device. The requested temperature of the pool water may be chosen or the heating may be switched off by an adjuster on the front plate.

Operation of the filter pump and the heating is displayed by indicator lamps in the front cover - controlling is therefore possible at any time.

Connection terminals for an electronic level control **osf**-NR-12-TRS-2 or NR-12-TRS-3 ensure a comfortable automatic control of the water level in the pool. Additionally, the filter pump is protected against damage which may arise due to operation of the filter unit without water.

Connection terminals for an **osf**-EUROTRONIK-10 (potential-free model, Art.No. 3104800200) ensure an enlargement of the filter control to an automatic filter- and re-flushing control.

### Technical Data:

Dimensions:	220mm x 220mm x 100mm	
Operating voltage:	230V/50Hz	
Power consumption of the control system:	abt.1.5VA	
Not suitable for filter pumps with speed control		
Capacity:	Pump:	max. 1.0 kW (AC3)
	Heating:	max. 0.4 kW (AC1)
Type of protection:	IP 40	

### Electrical connection:

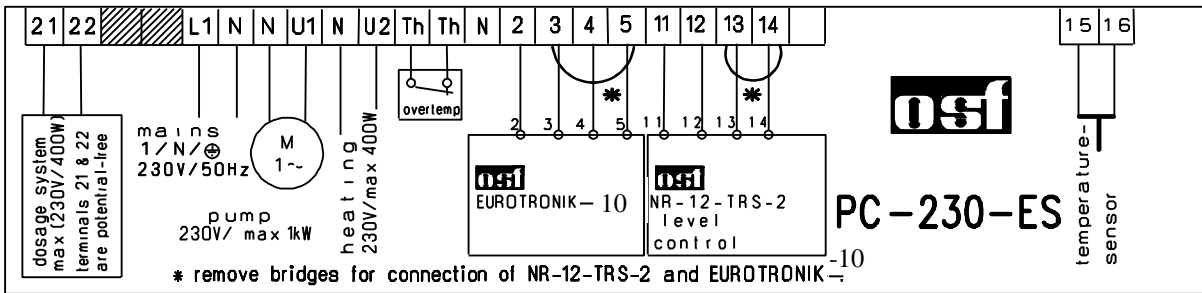
The control unit must be mounted such that it is protected from moisture in accordance with its degree of protection. The ambient temperature must lie between 0°C and + 40°C and should vary as little as possible. The relative humidity at the installation position must not exceed 95% and there must not be any condensation. Avoid exposing the unit to direct heat or sunlight.

The power supply for the unit must be provided via an all-pole disconnection switch with a minimum contact gap of 3mm and via a residual-current circuit breaker with a fault current IFN ≤ 30mA.

Always disconnect the unit from the power supply before opening the case. All electrical wiring and calibration and servicing work must be performed solely by an approved electrician. The attached wiring diagrams and all applicable safety regulations must be observed.

## Low voltage lines:

Low-voltage lines must not be laid along with three-phase or AC power cables in the same cable conduit. In general, always avoid routing low-voltage lines close to three-phase or AC power cables.



This control is not suitable for connecting a filter pump with speed control. We have other controls in our delivery program for such pumps.

The bridge which is installed by the manufacturer between the two terminals designated as *Th* has to be removed if a safety temperature limiter is connected. If the latter is not connected, the bridge has to remain in place.

The bridge which is installed by the manufacturer between the terminals 13 and 14 has to be removed if a level control unit **osf** NR-12-TRS-2 is connected. If a level control unit is not connected, the bridge has to remain bolted between these terminals. In this case, the terminals 11 and 12 shall not be used.

The bridge which is installed by the manufacturer between the terminals 5 and 3 has to be removed, if an **osf** EUROTRONIK-10 is connected. If an EUROTRONIK-10 is not connected, the bridge between these terminals has to remain in place. In this case, the terminals 2 and 4 shall not be used.

A **potential-free contact** is available at the terminals 21 and 22 for connection to the dosage system. This contact is closed as long as the filter pump is in operation.

**Overall current consumption of the filter pump and the heating shall not exceed 10A.** The electronic control system and the connected pump and heating are jointly protected by a 10A fine-wire fuse. The filter pump and the heating are not separately protected by fuse. Short circuit protection is to be ensured by suitable fuses in place.

## Temperature Control:

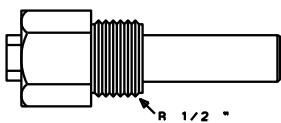
The electronic temperature control and the temperature sensor are matched. If the sensor or the control device are individually replaced, a new alignment has to be made by a potentiometer on the base printed circuit board (top, right-hand side). If, due to an unfavourable location of the temperature sensor, the water temperature does not correspond to the requested temperature, it can be re-aligned by the same potentiometer.

The following table can be used for the check the temperature sensor

Resistance values of the temperature sensor:

Temperature	Resistance
20°C	5800 Ohm
25°C	4600 Ohm
30°C	3700 Ohm

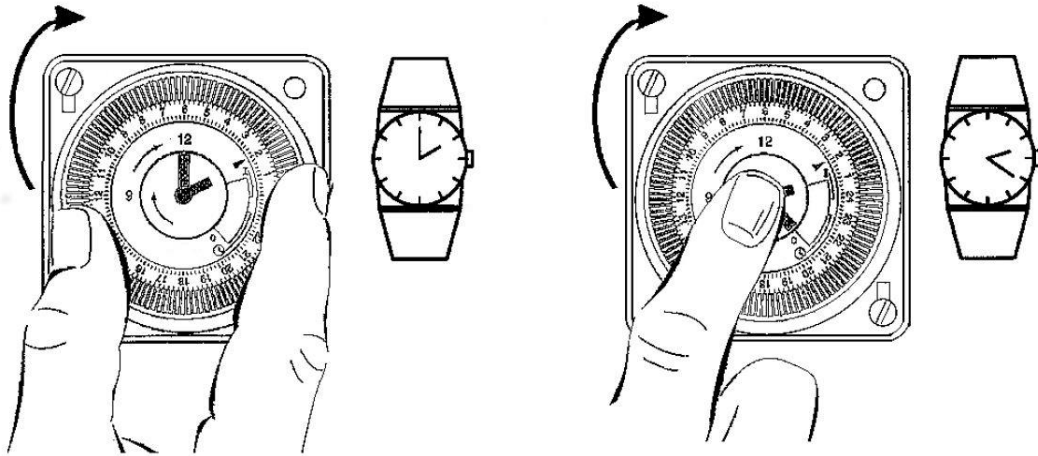
In the standard version, the temperature sensor is available with a line length of 1m. If required, it can be prolonged up to a maximum of 20m with a shielded line (cross section min. 0.34mm<sup>2</sup>). The shielding has to be connected to the terminal 16. Installation of the sensor line near supply mains has to be avoided to rule out possible disturbing influences.



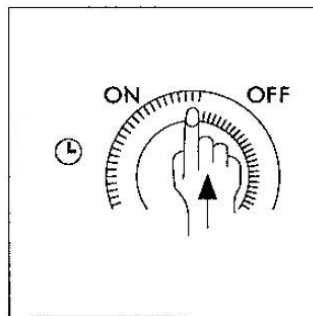
Since an exact temperature control can only be ensured through smooth heat transmission between the temperature sensor and the pool water, an osf immersion shell R 1/2 " (Art.No.320.020.0001) has to be installed in the piping system.

## Operation of the timer

### Set the timer



### Set switching time



Further information can be found on the Internet at the following address:

<https://osf.de/download/documents/doclist.php?device=PC-230-ES&subdir=English%20Documents#English%20Documents>



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