

Installation and operating instructions



POOL - Master 230

Product code 3002800110

Not suitable for filter pumps with speed control

CE

Function:

The **tsi** - POOL Master 230 filter control enables the time-dependent switching on and off of a 230V AC filter pump. The setting of the time of day and the individual switching times is carried out in accordance with the enclosed operating instructions of the time switch.

The switches on the front cover can be used to:

- (a) Switch the function of the system on or off.

CAUTION: this does not isolate all poles of the control from supply!

- (b) Switch the system to continuous operation or automatic operation (timer) of the filter pump.

In addition, the heating of the pool is controlled by the electronic temperature control during the operating time of the filter pump. The heating is switched off automatically by the internal interlocking outside the filtering periods. An adjustment control on the front cover can be used to select the desired temperature of the swimming pool water or turn off the heating.

Control lamps in the front cover indicate whether the filter pump and the heating are operating, enabling verification to be made at any time.

Technical data:

Dimensions:	220mm x 219mm x 100mm		
Operating voltage:	230V/50Hz		
Power input of control system:	ca.1,5VA		
Not suitable for filter pumps with speed control			
Switching capacity:	Pump:	max. 1.0 kW (AC3)	
	Heating:	max. 0.4 kW (AC1)	
Protection class:		IP 40	

Installation:

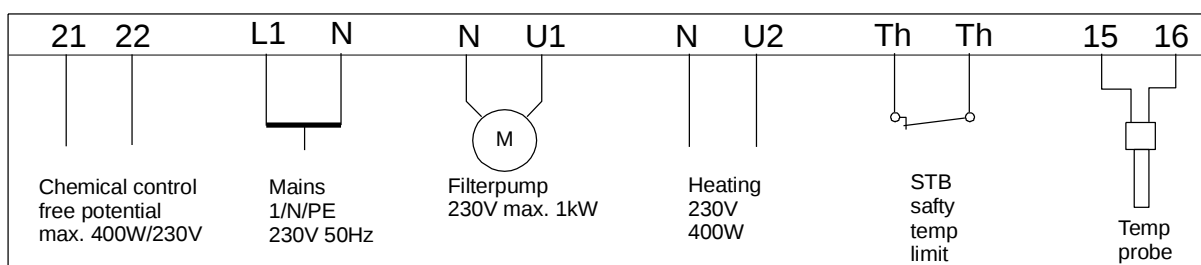
The control unit must be installed protected from moisture in accordance with its protection class. The ambient temperature during operation may be between 0°C and 40°C and should be as constant as possible. The rel. Humidity at the installation location must not exceed 95%. Condensation must not occur. Direct heat or solar radiation to the device should be avoided. The power supply of the unit must be connected via an all-pole main switch with a contact gap of at least 3 mm and an earth leakage protection switch with $I_{FN} \leq 30\text{mA}$.

The unit must be isolated from supply before opening the case.

Electrical connection:

The electrical connection, and adjustment work and service may only be carried out by an approved electrician! The following terminal diagram and the currently applicable safety regulations must be observed.

Connecting diagram:  - Master 230



This control is not suitable for the connection of a filter pump with speed control. For such pumps we have other controls in our product range.

An  additional switchbox for heating can be connected to the terminals U2 and N instead of a circulation pump. With the aid of this additional switchbox it is then possible to switch an electric heater directly. The following additional switchboxes are suitable: 10.5 kW (product code 3002000100), 18 kW (product code 3002400100), 30 kW (product code 3002100100).

The bridge between the terminals marked *Th* inserted at the factory must be removed when a safety thermal relay is connected. If no connection is made, it must remain in place.

A **floating contact** for connecting to the feeder is provided at terminals 21 and 22. This contact is always closed when the filter pump is in operation.

The total current input of filter pump and heating must not exceed 10A. A 10A fine-wire fuse protects the electronic control and the connected pump and heating. There is no separate protection for filter pump and heating. **The short-circuit protection is to be provided by suitable fuses on site.**

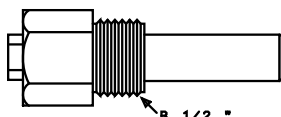
Temperature control:

The electronic temperature control and the temperature detector (NTC) have been aligned. If the detector or the control unit need to be replaced separately, a new alignment of the detector must be made with a potentiometer on the motherboard (top right). If the water temperature does not match the desired temperature due to an unsuitable installation position of the temperature detector, it can be adjusted using the same potentiometer. In addition, the temperature switching frequency can also be adjusted. The relevant potentiometers are marked on the board. If the red LED "Detector Break" is lit, the temperature detector is either not connected or the detector line between control unit and detector itself is interrupted. The green LED "Heating" is always on when the temperature control controls the heating.

Value of resistance from the temperature sensor:

temperature	Resistor
20°C	5800 Ohm
25°C	4600 Ohm
30°C	3700 Ohm

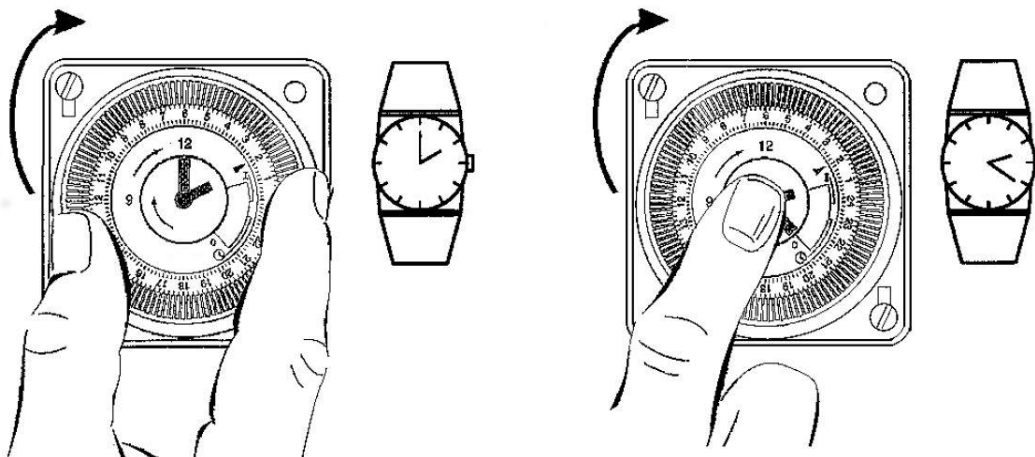
The temperature detector is supplied with a 1.5m cable as standard. If required, this may be extended up to 20m using a shielded cable with a cross section of at least 0.34 mm². The shielding must be connected to terminal 16. **Avoid installing the detector cable in the vicinity of supply cables rule out interference.**



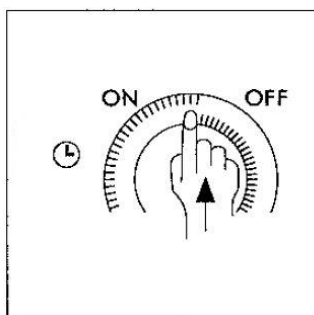
Since an exact temperature control is only performed with good heat transfer between temperature detector and swimming pool water, an **ISI** immersion sleeve R 1/2" (product code 3200200001) must be installed in the pipe system.

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/documents.php?device=PM-230&subdir=none>



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

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