

Electric heater titanium

Install the electric heater as illustrated in a horizontal position, so that it is flooded at all times. The heater may be installed in a vertical position as long as there is a positive pressure of water in the tubes of at least 50 cm.

If the heater is mounted against inflammable material the installer must place a gypsam wallboard between the heater and the inflammable wall. The board must protrude a minimum of 10 cm outside the body of the heater. The heater must not be covered, enclosed in or placed near inflammable material.

The heater shall be connected over one or two contactors, depending on type of heater, see wiring diagram. The heater shall be installed in such way that it can not be activated if the filter pump is not working (sufficient flow), i.e. the power supply to the contactor must be guided over the motor protection of the pump. The electric heater must be installed on the return pipe to the pool after the filter. Do **not** install a gate valve between heater and pool. If a valve is required, install a check valve.

Dosage of chlorine, acid or similar, must be done **after** the heater.

1. When the pipe installation is made, connect the heater electrically according to wiring diagram.
2. **Important!** If the heater is equipped with a flow switch, the max. load is 80W or max. 1,25A at 230V main voltage. If the load is higher an auxiliary relay must be installed.
3. Start the pump to the pool water circulation. Check that the water circulation is normal before the heater is turned on. Test the heater by turning the thermostat knob back and forth and check that the contactor of the thermostat turns on and off. Set desired pool temperature. Check any flow switch or pressure switch by turning off the flow through the heater with a gate valve and control that the contactor is being deenergized. The heater will now heat the pool water to desired temperature. If the heater does not start:
 - a) Check the fuses.
 - b) The overheating limit control is released: Press the reset button in the connection box.
 - c) Any pressure switch is not closed: The pressure switch is pre-installed on 0,2 bar. If a correct pressure is not attainable, the return pipe to the pool shall be somewhat cut down in order to increase the back pressure in the return pipe. The heater will not work, if the back pressure in the circulation system is incorrect. The pressure switch is connected to terminal block 1 and 3.
 - d) Any flow switch is pre-set at a minimum flow of 45 l/min. Check that the direction of the arrow on the flow switch agree to the direction of the water flow. If not, turn the flow switch 180°.
 - e) Reset the thermostat to a higher temperature.

In case of climates with sub-zero temperatures the heater must be installed so that it can be emptied.

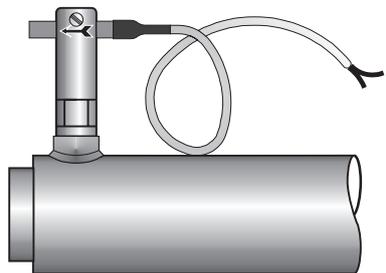
The electric installation must be done by a licenced electrician.

When back-washing and cleaning the filter, the power to the heater must be turned off.

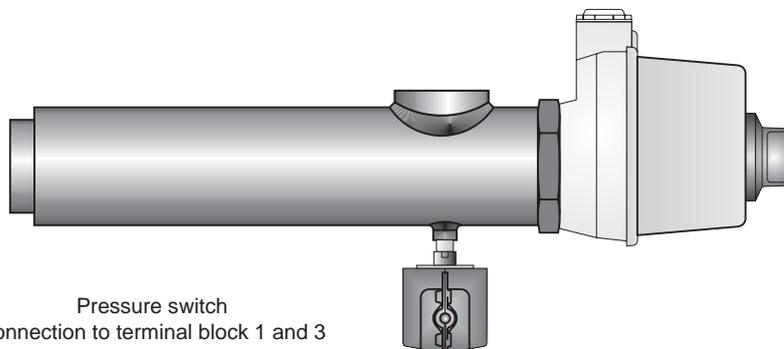
Important!

Follow the instructions stated below:

Chlorine content:	max 3 mg/l (ppm)
pH-value:	7,2 - 7,8
Alkalinity:	60-120 mg/l (ppm)
Calcium hardness:	200-1000 mg/l (ppm)
Max temperature:	110°C
Max pressure:	10 bar
Minimum flow:	20 l/min.
Max pressure on pressure switch:	2 bar



Flow switch



Pressure switch
Connection to terminal block 1 and 3

