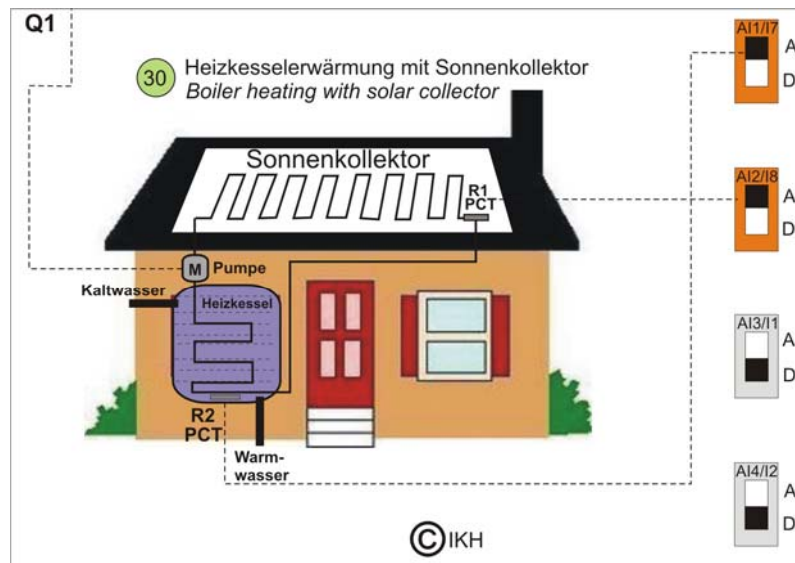


Boiler heating with solar collector with LOGO!Learn

Learning card: Boiler heating with solar collector



Operating description

The system is controlled by 2 temperature sensors (R1 and R2).

Temperature sensor R1 is located directly at the solar collector, temperature sensor R2 is mounted at the boiler. When the sun heats the solar collector, the fluid in the closed pipe system is heated and the heat is transferred in the boiler via exchange fins to the water for the radiators. If the water temperature in the solar collector is higher than the water temperature in the boiler, the circulating pump (M) has to come on. If the temperature is lower or equal, the circulating pump (M) switches off.

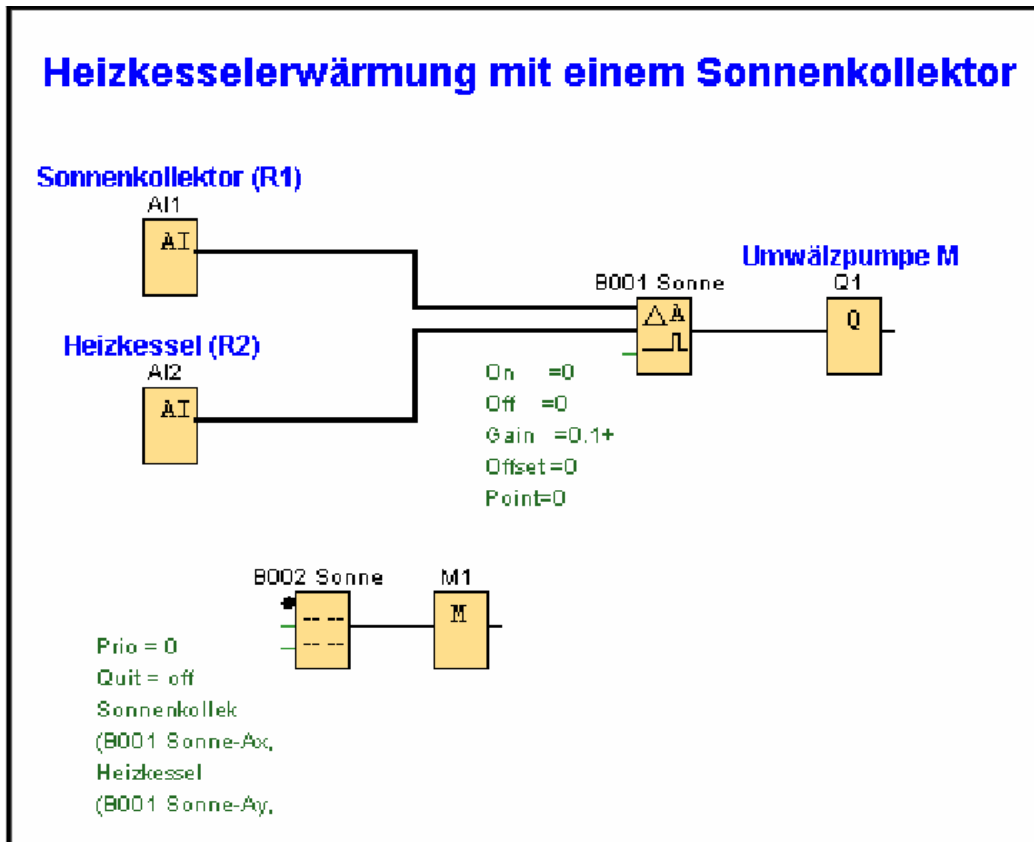
Correlation list		
Symbol	absolute	Comment
I7	R1	Temperature sensor (Solar collector)
I8	R2	Temperature sensor (boiler)
Q1	M	Circulating pump

Exercise

Solution field 1 shows a suggested solution.

- Enter program according to function block diagram (solution field 1) into the programming unit (i.e. PC or keyboard) and transfer into LOGO!
- Test program
- Transfer the solution „FBD“ as „LAD“ (ladder diagram) into solution field 2.
- Enter program according to LAD (solution field 2) into the programming unit (i.e. PC or keyboard) and transfer into LOGO!
- Test program

Solution field 1 (suggested solution)



Solution field 2 (ladder diagram)

