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CIRCULATION CONTROLLER

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## General information

### 1. About this manual

This product is the temp. difference circulating controller based on the WILO pump. It is used in the solar water heating system, room heating system and domestic hot water circulating systems.

### 2. Safety regulations

- ◆ Installation, commissioning and maintenance of the device may only be performed by professional personal.
- ◆ All operations that require opening the device are only to be conducted cleared from the power supply. All safety regulations for working on the power supply are valid.
- ◆ The device must not be installed in rooms where easily inflammable material (e.g. gas or oil) mixtures are present or may occur.
- ◆ Without lightning rod, please don't use this device during a thunderstorm.

### 3. Liability waiver

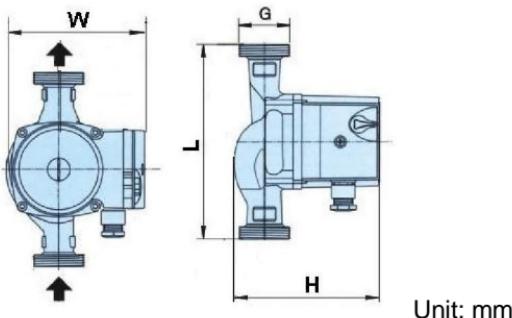
- ◆ Improper installation or operation can cause damages to material and persons. The manufacturer cannot monitor the compliance with these instructions or the circumstances and methods used for installation, operation, utilization and maintenance of this device. Damage by mishandling or improper installation on costumer site is immediately leading to warranty exclusion.
- ◆ As faults can never be excluded, we don't offer a guarantee for the completeness of the drawings and texts of this manual, they only

represent some examples. They can only be used on own risk. No liability is assumed for incorrect, incomplete or false information and the resulting damages.

- ◆ The manufacturer preserves the right to put changes to product, technical date or installation and operation instructions without prior notice.

## Product description

### 1. Installation dimension



Pump model	G	L	H	W
WILO RS15/6	1"	130	97	138
WILO RS25/6	1"1/2	130	97	138
WILO RS25/8	1"1/2	180	118	150
WILO ST20/11	1"	180	131.5	152

### 2. Main technical data

Input voltage: 220V ~ 240V AC

Power: 0.5W

Accuracy of temp. measuring: ±1

Range of temp. measuring: 0 ~ 99

Input signals:

T1 (Black color)--Silicon cable 280 ;

T2 (Gray color)--PVC cable 105

Range of environment temp.: -10 ~ 50

Water protection grade: IP40

### 3. Button operation

a. Switch on temp. difference circulation manually:

Press “SET” button for three seconds, to switch on temp. difference circulation manually. It switches off circulation automatically after three minutes.

b. Switch off temp. difference circulation manually:

During the three minutes on the case of above, press “SET” button for three seconds to switch off the circulation.

Note: This operation is invalid during the auto circulation process.

c. Temp. setting:

Press “SET” button, then press “ADJUST” button to adjust the temp. value. Press “SET” again to confirm the setting.

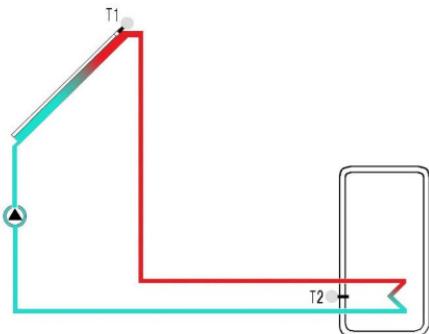
d. Check the temp.:

Press “ADJUST” button, the upper indicator light turns on to display the T1 temp.. Press “ADJUST” button again, the lower indicator light turns on to display the T2 temp..

## Application Examples

### Example 1

T circulation between solar collector and tank

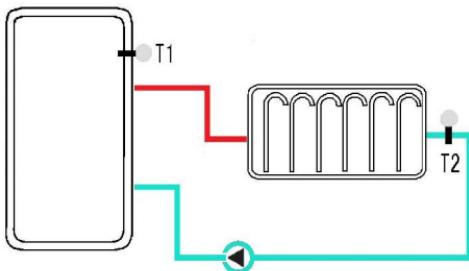


Sensor input	Note
T1	Temp. of Collector
T2	Temp. of Tank

Function	Factory setting	Description
Tank temp.	60	Setting arrange: 20-80
Switch-on temp. difference	8	The temp. difference to switch on circulation
Switch-off temp. difference	4	The temp. difference to switch off circulation

## Example 2

T circulation between tank and heater

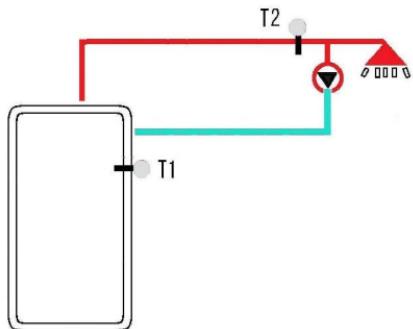


Sensor input	Note
T1	Temp. of tank
T2	Temp. of heater

Function	Factory setting	Description
Heating temp.	60	Setting arrange: 20-80
Switch-on temp. difference	8	The temp. difference to switch on circulation
Switch-off temp. difference	4	The temp. difference to switch off circulation

### Example 3

T circulation between tank and hot water



Sensor input	Note
T1	Temp. of tank
T2	Temp. of hot water

Function	Factory setting	Description
Hot water temp.	60	Setting arrange: 20-80
Switch-on temp. difference	8	The temp. difference to switch on circulation
Switch-off temp. difference	4	The temp. difference to switch off circulation

## Fault message

**Note 1:** If there is a problem with the controller or temperature sensor, the fault signals will be displayed on the screen as the following:

Error	Possible cause	Error rectification
<FF >	Sensor wiring interrupted, not connected or short circuit.	Check resistance value, replace sensor if necessary.

**Note 2:** Use Ohmmeter to check the resistance value of sensors. According to the comparative with the standard value, the fault sensor can be checked out. When check the resistance value, the sensor should be cut off from the system.

### Resistance value:

	0	10	20	30	40	50	60	70	80	90	100	110	120
	1000	1039	1077	1116	1155	1194	1232	1270	1309	1347	1385	1422	1460

## Packing list

No.	Item	Specification	Quantity
1	Controller		1 pc
2	Temp. sensor	1.5m	2 pcs
3	Manual		1 pc