### 5. Thermostat Functions

#### NSB (Night SetBack) Function

NSB Mode depends on the NSB wired connection.

0V = NSB OFF 230V= NSB ON

The NSB signal is activated every 1 second. When the signal is received the setpoint temperature will be set at ±2°C or ±4°C.

### Heating and Cooling Selection

The Heating/Cooling function is determined by the CO terminal connection.

CO 0V= Heat mode CO 230V= Cool mode

#### Cooling Blocked function

Cooling Enabled:

Set the jumper on ON OOO . The thermostat will run in normal cooling mode. That means that it will open/close the actuators when necessary. The LED will be BLUE when the cooling function is running.

Cooling Disabled:

Set the jumper on OFF OOO . The actuator will be closed and the LED will

## 6. Protection Function

#### Heat cut off at high/low temperature:

When room temperature is over 36°C or under 4°C, all heating/cooling outputs will be turned off.

#### Short cycle protection:

When Cooling Mode is enabled the minimum interval between Relay ON/OFF is 3 minutes.

#### Valve Protection:

Set the jumper on 'ON' to disable the function or on 'OFF' to enable it. Turn on the valve for 5 minutes every week to prevent any damage to the valve.

#### Sensor Malfunction:

If the temperature sensor or temperature sensor compensation is open the LED will flash BLUE/RED alternatively.

### 7. Control Patterns

If CO terminal is connected and the Heating Mode is ON, the PWM function will be activated.

If CO terminal is disconnected and the Cooling Mode is ON the ON/OFF control output will be activated.

### 8. Technical Specification

Model:	HTR230
Voltage:	230 V AC, +-10%, 50/60 Hz
Operating Performance:	230 V: 1,8 W
Temperature setback:	2°C-4°C
Temperature range:	5°C- 30°C
Span:	+/- 0,5°C
Calibration:	Yes, with jumper
Storage temperature:	-20°C to +60°C
Ambient temperature:	0 °C up to 45 °C
Degree of protection:	IP 30
CE conformity according to:	Class II (EN60730)
Housing material:	PC,V2
Color:	RAL 9010 pure white
Connection:	Screw terminal
Weight	90g net / 135g gross
Puls-wide-modulation: (PWM)	Yes
Valve protection:	Yes
Heating and Cooling:	Yes, automatically Change Over on the CO terminal
Cooling blocked:	Yes, with jumper
Dimensions:	85mm*85mm*25mm

SALUS Controls warrants that this product (HTR230) will be free from any defect in materials or workmanship, and shall perform in accordance with its specification, for a period of five years from the date of installation. SALUS Controls sole liability for breach of this warranty will be (at its option) to repair or replace the defective product.

Customer Name:	
Customer Address:	
Pos	t Code:
Tel No: Ema	il:
Engineers Company:	
Tel No: Ema	ail:
Instalation Date:	
Engineers Name:	
Engineers Signature:	



Issue Date: Dec 2015

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SALUS Controls plc



**INSTALLER MANUAL** 

### Contents of the box

#### Icons used in this manual:



Safety



Important info



Your benefit

#### Manual Contents:

Box Contents Introduction Product Compliance and Safety Information Installation User Interface Status/LED indication Installers notes Warranty



1 x Installer Manual

#### **Product Description**

Thank you for purchasing the SALUS HTR230 Thermostat. This thermostat is a device that lets you customise the heating and cooling of your home as needed.

Fixing Screws

The HTR230 is an electronic room temperature controller which offers key advantages over conventional mechanical products.

The controller is easy to operate using the conventional backlit adjusting dial and offers you unique control convenience for heating applications of all types thanks to the high quality device electronics.

We hope you enjoy our product.

### 1. Mounting the Thermostat

Install the HTR230 dial room thermostat at roughly 1.5m above floor level. It should be mounted in a location where the thermostat is easily accessible and away from direct sunlight.





Gently remove front housing and make the wiring connections.





For wall mounting, mark the correct possition on the wall and mount the rear case to the wall.

### 3. Switching Bridges





Different features of the HTR230 can be switched On or OFF with the jumpers. In order to do this please follow the table below.

HTR 230 Switching Bridges				
Switch	Feature	ON	OFF	
VP	Valve protection feature	000	000	
PWM	Pulse-Width-Modulation	000	000	
0	NSB Function (2° or 4°)	2°C	4°C ○ ○ ○ ○	
CO	Heating/Cooling	Enable OOO	Disable O O O	

### Product Compliance & Safety Information

# Product Compliance

SALUS Controls hereby declares that the product complies with the essential requirements of the following EC Directives: 2014/30/EU, 2014/35/EU and 2011/65/EU. The full text of the EU Declaration of Conformity is available at the following internet address: www.saluslegal.com.



# Safety Information

Use in compliance with safety regulations. The unit is to be used for the control of room temperature inside the house.



#### / Installation

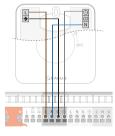
This accessory must be fitted by a competent person, and installation must comply with the guidance, standards and regulations applicable to the city, country or state where the product is installed. Failure to comply with the relevant standards could lead to prosecution.

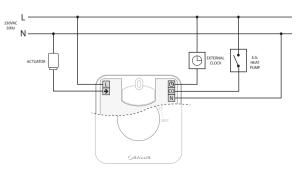
Note: All electrical installation work should be carried out by a suitable qualified electrician or other competent person.

### 2. Terminal Connection



Note: You can wire the thermostat directly to the KL08NSB Wiring Center (purchased separately).





### 4. Jumpers

The jumpers from 1 to 5 are representing the number of actuators that you can connect to the thermostat.

After the actuators are mounted please move the jumper on the correct number (the same as the number of actuators).

Depending on the amount of actuator used, please change the jumper position accordingly to compensate the power consumption.

