

RG 10

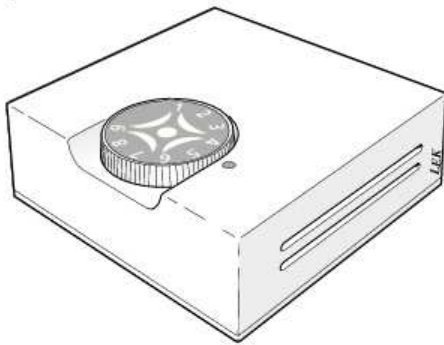
General

ROOM SENSOR RG 10 is used together with NIBE FIGHTER 310P/360P/410P, FIGHTER 1140/1150/1240/1250/1330/ACVM 270 as well as with NIBE EVC 13, EVC 240 and EVP 270. This accessory also applies to NIBE FIGHTER 1120/1240 and EVP 230.

The room sensor can correct the temperature to radiators, floor loops or fan convectors depending on the increased indoor temperature in connection with solar incident radiation, heating from another heat source or increased indoor activity.

The room sensor can also quickly correct the temperature in connection with the reconnection of disconnected power output, for example, centralised load control.

The room sensor must be positioned with care to work correctly, see the Installation section.



Mounting & Installation

It is important that the room sensor is not disturbed by any other heat source, for example, lamps, TV or other warm objects. Curtains should not block the sensor.

Install in a neutral position where the set temperature is required. A suitable place is on a free inner wall in a hall approx. 1.5 m above the floor. However, the sensor must not be prevented from measuring the correct indoor temperature, for example, by placing in a niche, between shelves, behind a curtain, above or close to a heat source or the like. Also consider any draughts from exterior doors. Neither must the unit be affected by solar incident radiation.

The conduit should be sealed next to the sensor to prevent a draught in the pipe, which could affect the sensor.

Setting

This room sensor measures the temperature in homes and regulates the heat to the heating/cooling system.

If there are thermostat valves on the radiators in the same room as the room sensor these should be fully open in order for the room sensor to work correctly.

However, radiator valves in areas such as bedrooms, where a slightly lower temperature is required, should be set to the required temperature.

The required temperature can be set using the knob on the room sensor unit. The scale is graduated 1 – 9, where 5 equals approximately 21 °C (house type relevant setting of curve slope and parallel displacement). Reading the set temperature can be done on the display screen on the apparatus. However, EVC 13 does not offer this possibility. The maximum room temperature setting is 30 °C and the lowest setting is approximately 15 °C.*

If the room temperature changes the room sensor senses this and compensates the flow temperature to the radiators to maintain the required temperature in the room. The reason for the lower temperature can be intensive airing or disconnection of the power during specific periods, i.e. centralised load control. Centralised load control is designed to save and redistribute electrical power during periods when power consumption is high and means that the immersion heaters in heating installations do not get the necessary power to maintain a specific room temperature. Under normal conditions the room temperature does not change that much.

Mechanical design

Room temperature sensor RG 10 is intended for wall mounting. Installation can either be surface mounted or using recessed connection boxes. The connection cable can be either recessed or surface mounted. It should be a screened three wire cable, where the screen is connected to the signal ground.

The enclosure is manufactured of plastic and consists of a bottom section with terminal blocks and components for setting and measuring the room temperature and a knob to set the required temperature.

The temperature sensing element is made up of an NTC-resistor.

* 10 °C for FIGHTER 1140/1150/1240/1250/1330/ACVM 270.

Connecting

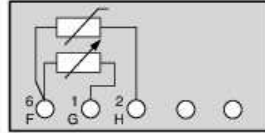
Positions on RG 10:

F : 6 Signalground

G : 1 Setting (set point value)

H : 2 Room temp (actual value)

RG 10 is connected as follows. (See corresponding Installation and Maintenance Instructions for terminal block positions.)

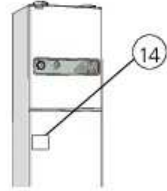


FIGHTER 310P/410P

F -> Terminal block 14, 4

G -> Terminal block 14, 5 Channel 15

H -> Terminal block 14, 6 Channel 16

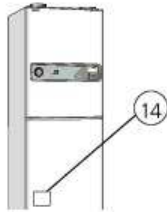


FIGHTER 360P

F -> Terminal block 14, 13

G -> Terminal block 14, 16

H -> Terminal block 14, 12

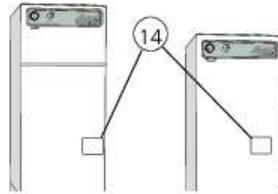


EVC 240, EVP 270

F -> Terminal block 14, -

G -> Terminal block 14, Set

H -> Terminal block 14, Actual



EVC 13

F -> Terminal block 14, 4

G -> Terminal block 14, 5

H -> Terminal block 14, 6



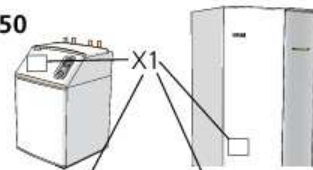
Terminal block 14 is located behind the left cover in the electrical connection area.

FIGHTER 1140/1150/1240/1250

F -> Terminal block X1, 4*

G -> Terminal block X1, 14*

H -> Terminal block X1, 3*

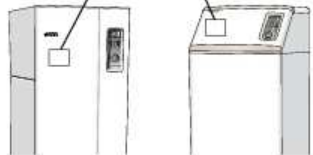


FIGHTER 1330

F -> Terminal block X1, 13*

G -> Terminal block X1, 14*

H -> Terminal block X1, 12*

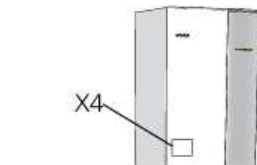


ACVM 270

F -> Terminal block X4, 2*

G -> Terminal block X4, 1*

H -> Terminal block X4, 3*



* Terminal block X1/X4 is located on the EBV-card (2/AA22) in FIGHTER 1140/1150/1240/1250/1330/ACVM 270.

** Applies only to FIGHTER 360P/1135/1150/1235/1250/1330/ACVM 270.

Adjustment during installation

The room sensor is primarily intended to correct decreases in room temperature due to causes other than changes in the outdoor temperature, for example, centralised load control.

The room sensor corrects the curve slope so that the flow temperature changes. If the room temperature changes the room sensor senses this and lets the processor change the flow temperature.

Any radiator valves ought to be fully open in areas where the room sensor is installed.

Activation**

RG10 must be activated in the menu.

FIGHTER 360P: Menu 9.1.14

FIGHTER 1135/1150/1235/1250: Menu 9.2.18

FIGHTER 1330: Menu 9.1.11

ACVM 270: Menu 9.3.6

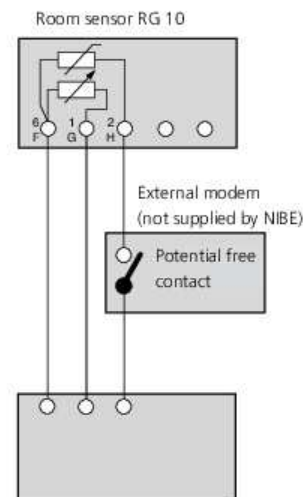
Note!

Work behind screwed covers may only be carried out under the supervision of a qualified installation engineer.

External control of the room temperature, extra option (does not apply to F360P/1140/1150/1240/ 1250)

The room temperature can be altered between two pre-set values. If the room sensor connection is supplemented with an external potential free contact function, for example telephone switch or clock, the preset values can be used. When the contact function is made the room sensor is connected and influences the flow temperature.

Example: The basic setting gives a specific flow temperature. The room sensor is set to a lower temperature. When the contact is made, the lower temperature applies until the contact will be broken again.



Connection to be done on terminal block 14/X1/X4 in all before mentioned heat pumps and electric boilers. Note that connection to ACVM 270 must be carried out according to section "Connecting external contacts" in the product's Installation and Maintenance instructions.