USE OF CONTROLLER

The manual ORP controller is intended for remote speed control of the RE fan's EC motor.

- → It is used for manual start-up and step-less fan speed settings ranging from 0%, respectively from the minimum fan speed, to 100% speed.
- → It controls the fans using a control signal of 0–10 V DC controlled by the potentiometer which is supplied from the standard +10 V DC voltage output of the RE fans.
- → It enables multiple fans (max. 10), connected in parallel to the control output of the controller, to be controlled.
- → The ORP IP 54 type enables the single pole of another circuit to be switched along with fan start-up (e.g., opening and closing of the closing damper).

FIGURE 37 – ORP (IP 40) FRONT PANEL



FIGURE 39 – ORP (IP 54) FRONT PANEL



OPERATING CONDITIONS, DESCRIPTION

- → Power supply: 10 V DC (from the fan motor)
- → ORP IP 40 degree of protection: IP 40
- → ORP IP 54 degree of protection: IP 54 for wall installation using the supplied box, IP 44 for embedded installation under plaster.
- → Environment: Normal Influence Class
- → Max. ambient temperature: 35 °C
- → Auxiliary closing contact for ORP IP 54: max. 230 V AC, 1 A, in the left end position of the potentiometer.
- → It is forbidden to install it on vibrating surfaces (directly on the fan, duct)

The potentiometer is equipped with a knob and connection points situated on the circuit board in the box; the box can be installed on the wall using screws.

FIGURE 38 – ORP (IP 40) DIMENSIONS

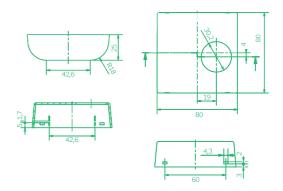
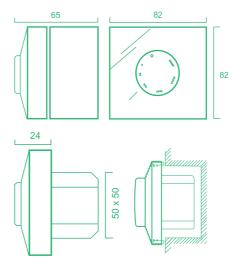


FIGURE 40 - ORP (IP 54) DIMENSIONS



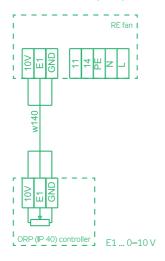
CONTROLLER CONNECTION TO THE FAN

Figures # 41 and # 42 show the wiring diagrams, respectively terminal boxes, for both ORP controller versions.

When multiple fans are controlled by (connected to) one controller, the ORP power supply (+10 V) can only be connected to one of the fans.

FIGURE 41 – ORP (IP 40) CONTROLLER CONNECTION FIGURE 42 – ORP (IP 54) CONTROLLER CONNECTION





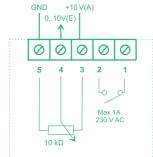
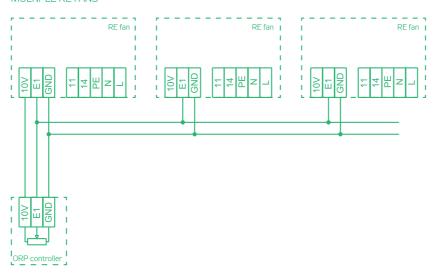


FIGURE 43 – ORP CONTROLLER CONNECTION TO MULTIPLE RE FANS



Note:

The fan's power supply is not displayed in the figure see fan documentation.

The ORP controller must only be supplied (10 V) from one fan!

Fans

Fans

ORP DISTANT CONTROLLER

EXAMPLE A

BASIC CONNECTION OF THE ORP TO THE FAN

The example shows the basic version of the ORP IP 40 controller connection to the RE fan for manual control. The power supply switch is used for fan service switching-off. It is not suitable for switching off in normal operation; this is performed using the ORP controller (see RE Fan Instructions).

EXAMPLE B

CONNECTION OF THE ORP IP 54 TO A FAN WITH LKS DAMPER CONTROL

The example shows a variant of the ORP IP 54 controller connection to the RE fan for manual control, including use of the auxiliary switch which is integrated into the ORP IP 54 for one-pole switching of the closing damper.

Fans

FIGURE 44 – CONTROLLER CONNECTION

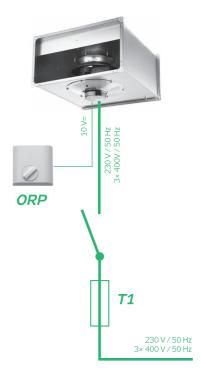


FIGURE 45 – CONTROLLER CONNECTION

