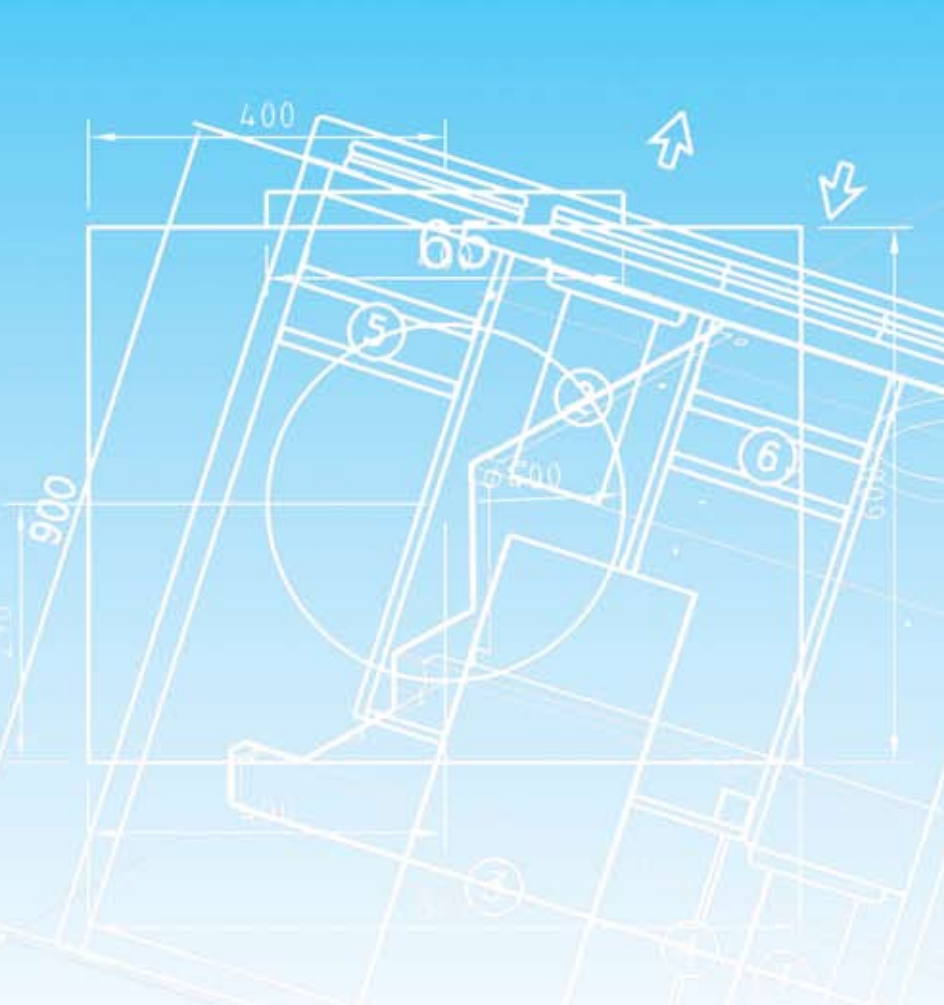


Flexit

Automatic Control, Air Handling Units

300-700 m³/h



FOR A HEALTHY INDOOR ENVIRONMENT

Contents

Automatic Control for Flexit Air Handling

Units, 300-700 m³/h

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NB! *Our products are subject to continuous development and we therefore reserve the right to make changes. There may also be differences between the product supplied and the catalogue description, depending on the choice of automatic control. We disclaim liability for any printing errors that may occur.*

Automatic Control for Flexit Air Handling Units, 300–700 m³/h

General

The units are controlled by an own-developed electronic system which provides complete automatic control with control panels. Flexit's aim with the own-developed automatic control is to produce simple electronic solutions with user-friendly, functional operation. This is to be combined with advanced automatic functions that ensure operation under all types of climatic conditions such as severe cold, humid surroundings and heat.

Functions

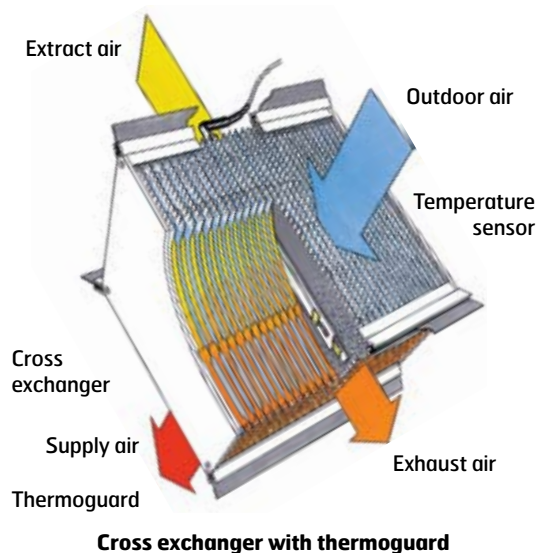
Control Functions:

- Constant supply air temperature
- Anti-icing function for plate exchanger, thermoguard – patented solution
- Frost protection function for the air or water side
- Electric heating battery or water battery
- Heat recovery with rotary wheel-type or plate exchanger
- Circulation pump maintenance operation
- Operate the controller externally, pushbutton
- Filter alarm

Automatic Functions – Thermoguard

It is an established fact that cross heat exchangers have problems with humidity and icing up at low outdoor temperatures. Flexit has solved this problem with the development of the patented thermoguard and can guarantee operation under all climatic conditions including severe cold.

The thermoguard solution consists of a temperature/humidity sensor, a preheating element and the electronic automatic control. The temperature/humidity sensor is placed inside the heat exchanger at the coldest point and monitors both temperature and humidity. There is a risk of frost when these two parameters occur simultaneously or when the exhaust air temperature falls below around -3°C . The thermoguard then produces an alarm and the automatic control switches on the preheater to dry/heat the exchanger cassette. When the risk is over, the preheating is switched off. Compared with traditional frost monitoring systems, which switch off the supply air fan at $+1$ degree, regardless of whether humidity is present or not, this solution saves a lot of energy in that it measures both parameters. In a home, humidity is of course only present for short periods of time during the day when the house is inhabited and the inhabitants take showers and use water. A further advantage is that it is possible to maintain balanced ventilation in severe cold, thus avoiding cold draughts and low air pressure in the home, which can, among other things, result in draught problems in fireplaces.



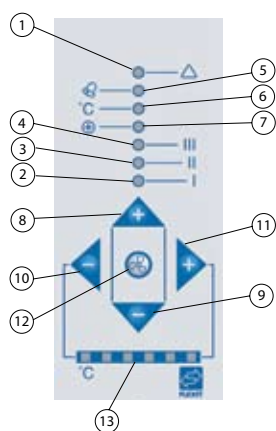
CI 50 Control Panel

Control System SC 50, consist of a control panel CI 50 and a control main card CU 50 and a 12 m low-voltage cable. The control package is supplied with the unit.

Developed for all climatic condition. Easy to use.

- * Optimal indoor environment
- * 3 step for speed of the unit
- * Forcing button
- * Heating off/on
- * Adjustment of air supply temperature
- * Indication that heating is active
- * Alarm indication, filter, overheating or fire

The switch unit is adapted to the ELKO installation system and can be both flush-mounted in a double wall box and surface-mounted using an 18 mm double surface mount box.



1. Alarm indication
2. Speed indication, stage 1
3. Speed indication, stage 2
4. Speed indication, stage 3
5. Filter change indication
6. Indication that heating is active (element is heating)
7. Indication of heating OFF/ON
8. Button for increased fan speed
9. Button for reduced fan speed
10. Button for reduced supply air temperature
11. Button for increased supply air temperature
12. Forcing button
13. Indication of temperature set

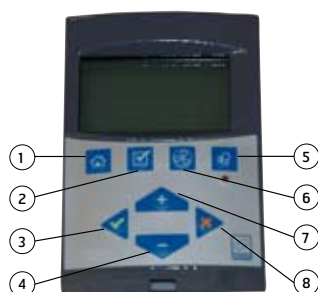
CI 500 Control Panel

Daily Timer

Four independent changeover times can be entered. the time, fan speeds and relevant setpoint value can be set.

Weekly Timer

Six independent changeover times can be entered. The time, fan speed and relevant setpoint value can be set. these times override what is entered in the daily timer.



1. Home key
2. Save key
3. ENTER key
4. Down or decrease value
5. Alarm key with integrated LED
6. Forcing/Stop
7. Up or increase value
8. Return key

Accessories

CI 500 Control Panel

Art. no. 09385

For automatic control of air flow rates and/or temperature for periods of time.



CI 50 Control Panel

Art. no. 09380



SP 450 Motion Detector

Art. no. 09390

For time-delimited speed of the fan speed.

Adjustable forcing time.



CI 50 Additional box for surface mounting

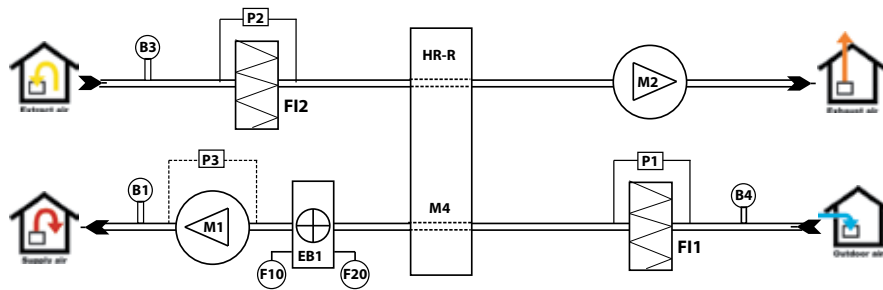
Art. no. 09381
silver



Art. no. 09382
white



Functional Description



EB1 = Heating battery, electrical
 F10 = Overheating thermostat (manual reset)
 F11 = Supply air filter F 7
 F12 = Extract air filter F 7
 F20 = Overheating thermostat (aut. reset)
 M1 = Supply air fan

M2 = Extract air fan
 M4 = Rotor motor
 HR-R = Rotor heat exchanger
 P1 = Supply air filter guard
 P2 = Extract air filter guard
 B1 = Temperature sensor, supply air