

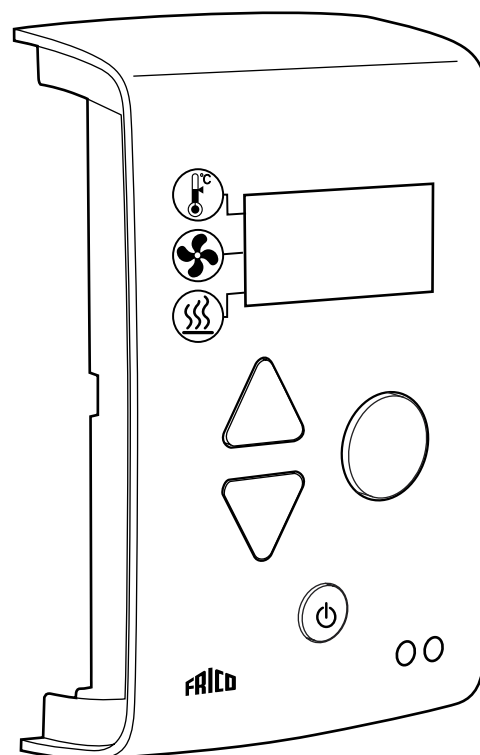
Original instructions

# **SIRe Basic Air Curtains**

## **Water**

**With quick guide**

### **SIReB**



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For wiring diagram, please see p. 44-46

For more languages, please see [www.frico.se](http://www.frico.se)

**Quick guide**

Check that all constituent parts are present (see section Constituent parts).

**Advice about location**

Control unit SIReUB1 has an integrated room temperature sensor and is installed so that it is easily accessible to the user.

RJ12 modular cables, which are available in different lengths, are used to connect the PC board and the control unit. Longer cables are available as options.

To prevent unauthorised people from accessing the Control unit it can instead be placed in another area and an external room sensor, SIReRTX (option), can be installed in the entrance to sense the correct temperature.

**Connect the system**

Control board Base SIReB1(X) in/at the unit and control unit SIReUB1 is connected with RJ12 modular cable. In SIReB1(X) the unit is also connected further with RJ12 modular cable if several units are to be connected in parallel.

If external room temperature sensor SIReRTX (option) is used it is connected using modular cable RJ11 on PC board Base SIReB1(X). The actuator SD230 is connected to the PC board SIReB1(X).

For fixed Installation requirements, remove the supplied cable and plug. Perform the installation in accordance with applicable regulations.

**Wiring diagrams**

The wiring diagram is in a separate section at the end of this manual.

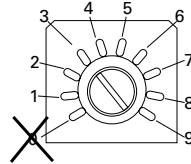
When external PC board Base SIReB1X is used, wiring between the PC board base and the air curtain unit must be done. Please see separate manual for SIReB1X.

**Enter ID**

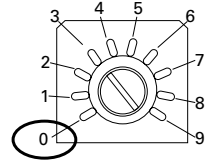
The control system can control one or more units in parallel (max 9). Each unit must get a unique ID number (1-9) which is set in the ID

selector of the PC board SIReB1(X). E.g.) Unit 1: ID=1, unit 2: ID=3

If the external control for some reason has not been installed the unit can still be run temporarily. The ID selector is then set to mode 0 in the image below. The function is half speed and heating is on. When the ID number must be changed the unit must be disconnected from power.



Each unit should have a unique ID on its SIReB1(X) card.



To run the unit temporarily without external control select mode 0.

**Start up**

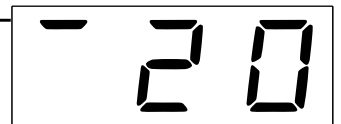
System supplied with power. Three digits 1.4.0. (software version) is quickly shown in the status window followed by three horizontal lines. After about 30 seconds the valid room temperature is then shown in the status window. After the first start up the following basic settings are made.

Use arrow up/down and set the desired room temperature, fan speed step (1-5) and heating step (1-3). To change a setting, push the round button (confirm), the setting will start to flash and can be adjusted by using the arrow up/down.

Factory settings gives manual control of fan and heating controlled by thermostat. For more setting alternatives see section Operating modes.



Choose desired room temperature  
5 - +30 °C



Choose fan speed step  
1-5 (alt. 1-3)



Activate heat  
0 = No heat  
1 = Heat possible  
Heat controlled by thermostat



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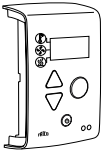
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Wiring diagrams	See front page
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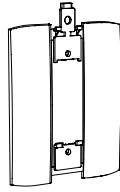
**Constituent parts**

**SIReB**

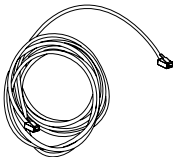
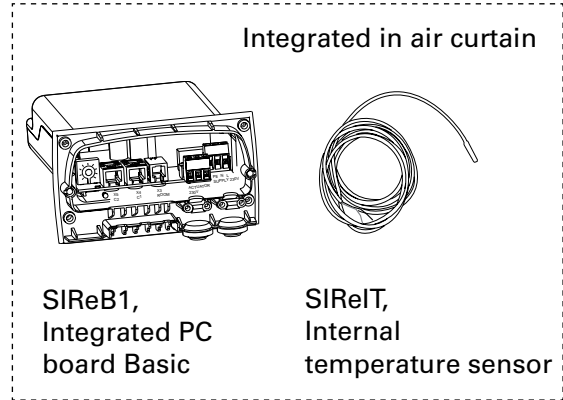
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SIReUB1,  
control unit Basic



Wall unit cover



SIReCC,  
Modular cable

**Dimensions constituent parts**

Typ	Description	HxWxD [mm]	L [m]
SIReUB1	Controll unit	120x70x35	
SIReIT	Internal temperature sensor		1
SIReCC605	Modular cable RJ12		5
SIReB1	Integrated PC board Base		

**Option**

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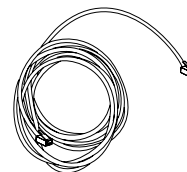
SIReRTX, external room temperature sensor



SIReCJ4, joint piece



SIReCJ6, joint piece



SIReCC, modular cables

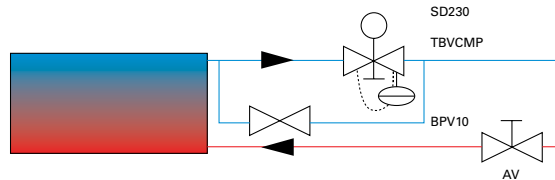
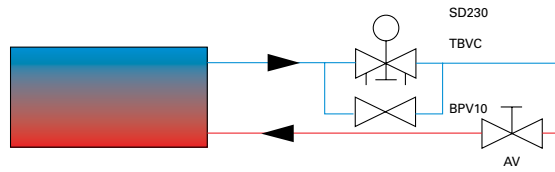
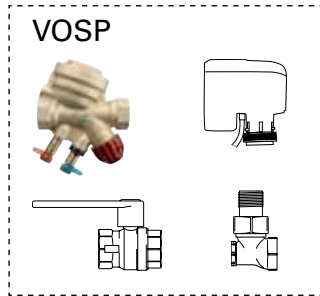
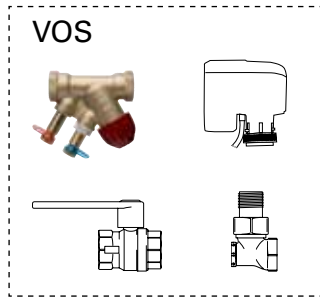
Type	Description	HxWxD	L [m]
<b>SIReRTX</b>	External room temperature sensor	70x33x23	10
<b>SIReCJ4</b>	Joint piece for two pcs. RJ11 (4/4)		
<b>SIReCJ6</b>	Joint piece for two pcs. RJ12 (6/6)		
<b>SIReCC603</b>	Modular cable RJ12		3
<b>SIReCC605</b>	Modular cable RJ12		5
<b>SIReCC610</b>	Modular cable RJ12		10
<b>SIReCC615</b>	Modular cable RJ12		15
<b>SIReCC403</b>	Modular cable RJ11		3
<b>SIReCC405</b>	Modular cable RJ11		5
<b>SIReCC410</b>	Modular cable RJ11		10
<b>SIReCC415</b>	Modular cable RJ11		15

**Max. cable lengths**

- Modular cable RJ12 between SIReUB1 and SIReB1(X): max 50 m
- Modular cable RJ12 between two SIReB1(X): max 50 m
- Modular cable RJ11 to room sensor SIReRTX: max 20 m

Total RJ12 cable length permitted in the system is a maximum of 300 m.

**Water control - valve package**



**Water control - option - valve package**



VAT, adjustment tool for valve package

Type	RSK-no.	Description	Flow	Connection
<b>VOS15LF</b>	673 09 35	On/off	Low	DN15
<b>VOS15NF</b>	673 09 36	On/off	Normal	DN15
<b>VOS20</b>	673 09 37	On/off	Normal	DN20
<b>VOS25</b>	673 09 38	On/off	Normal	DN25
<b>VOSP15LF</b>	673 09 43	Pressure independent	Low	DN15
<b>VOSP15NF</b>	673 09 44	Pressure independent	Normal	DN15
<b>VOSP20</b>	673 09 45	Pressure independent	Normal	DN20
<b>VOSP25</b>	673 09 46	Pressure independent	Normal	DN25
<b>VAT</b>	482 98 30	Adjustment tool for valve package		

## Operating modes

### Operation modes

Factory settings gives manual control of fan and heating controlled by thermostat on/off.

#### Auto mode

Change parameter P04 from 0 to 1 (see list of parameters on next page) to active auto mode. Thermostat controls both fan and heating

#### Manual mode

Decrease the temperature setting below 5 °C and the following symbols are shown in the status window.



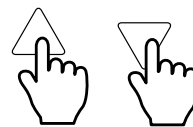
In manual mode both fan- and heating steps are controlled manually.

### Fan over run

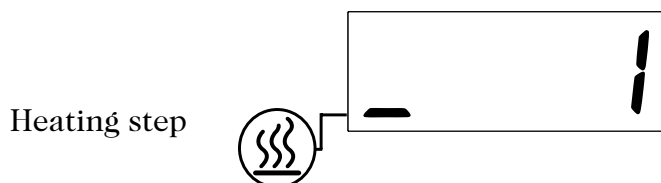
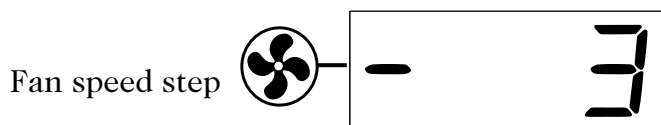
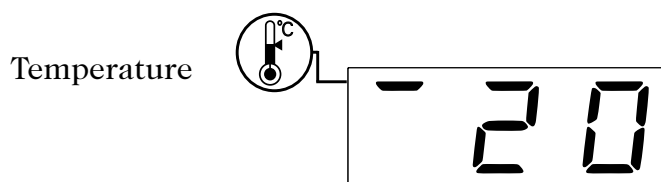
When heat has been activated the fan will continue to run to cool down the unit. The over run time is 180 seconds or shorter if the internal temperature has dropped below +30 °C.

## Set values

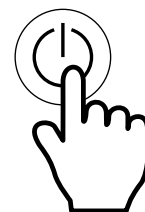
Use arrow up /down to choose desired room temperature, fan speed step and heating step.



Push the confirm button and the digit(s) starts to flash. The value can now be adjusted using the arrow up /down, and confirm.



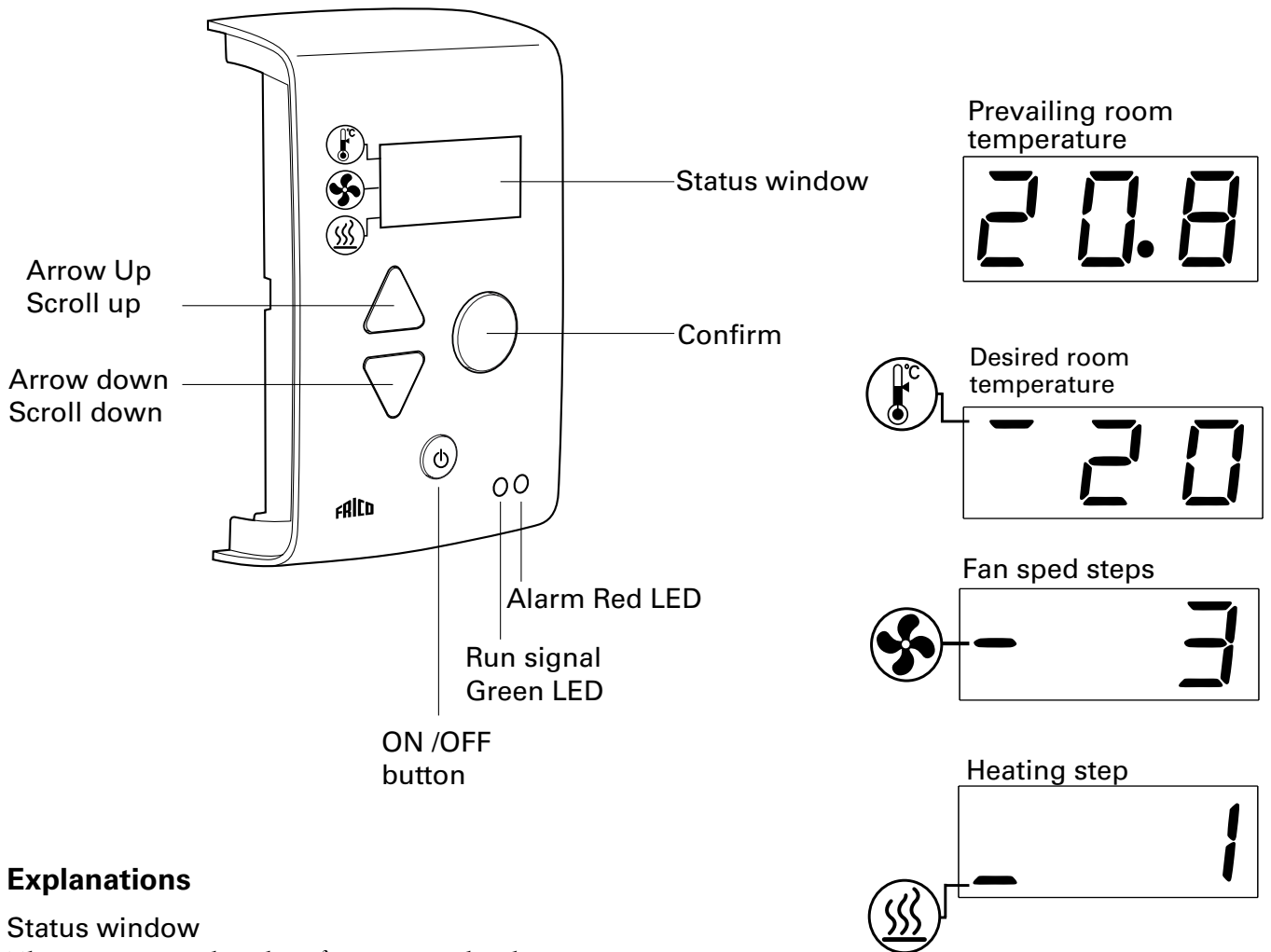
### System ON / OFF



Press the ON /OFF button for 2 seconds to switch off the system. The unit's safety functions are still active when the system is switched off, which means that the fan can continue to run for a moment after mode OFF has been selected.

**Control unit SIReUB1**

**Overview**



**Explanations**

**Status window**

The status window has four main displays: prevailing and desired room temperature, fan and heating setps. Alarm codes and parameter settings can also be shown in the status window.

**Arrow up**

Scroll up in menu / increase a setting.

**Arrow down**

Scroll down in menu / decrease a setting

**Confirm**

To have access to the Installers manu, choose parameters and cofirm an adjusted setting.

After about 20 seconds the control unit goes back to displaying the prevailing temperature.

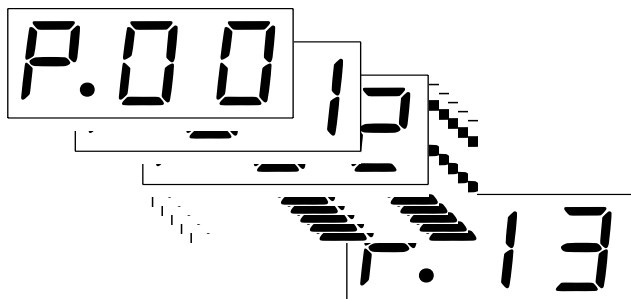


## Installers menu

### Parameter menu

Keep Confirm button pressed until P00 is shown in the status window.

Use arrow up / down to scroll between the parameters.



Press Confirm button once to change a setting in the parameter menu. Flashing values can be adjusted using the arrow up/down and then confirm.

Keep the Confirm button pressed to return to the status window. (returning automatically to the status window after about 50 seconds)

### Parametrar description

#### P00 Temperature difference heating steps

Sets the difference between the heating steps (only valid for units with electric heat)

#### P01 Overheating alarm ON/OFF

Possibility to block the alarm (only valid for units with internal temperature sensor)

#### P02 Oer run time

Time when the fan continue to run when the heat has been ativated

#### P03 Temperature limit for over run

Over run time is cancelled if the internal temperature drops below this set value.

#### P04 Fan control

Choose manul (0) or auto (1) mode, read more under section Operating mode.

#### P05 Internal temperature

Prevailing internal temperature. Only the peak value is shown when several units are connected.

#### P06 - P13 Run time

Run time for fan and heating steps.

### List of parameters

Parameter-number	Description	Setting range	Factory setting
P.00	Temp. diff. between heating steps (only for electric heat)	0,5-10	1.0 °C
P.01	Overheting alarma ON/OFF ON=1; OFF=0	1/0	1
P.02	Over run time when heat has been activated	10-300	180 seconds
P.03	Temperature limit for fan over run	10-40	30 °C
P.04	Fan control: Manul rorAuto; 0=Manul, 1 = Auto	0/1	0
P.05	Display of unit internal/outlet temperature	0-100	
P.06	Run time fan step 1	0-99999	
P.07	Run time fan step 2	0-99999	
P.08	Run time fan step 3	0-99999	
P.09	Run time fan step 4	0-99999	
P.10	Run time fan step 5	0-99999	
P.11	Run time heating step 1	0-99999	
P.12	Run time heating step 2	0-99999	
P.13	Run time heating step 1+2	0-99999	

## Alarm and error codes

### Overheat protection

Only applies to units with internal sensor. The over heating protection is intended to restrict the exhaust temperature to +40 °C. At +40 °C the actuator for heat supply will close. Actuator will open again if the internal temperature drops below +35 °C. If the temperature continues to rise despite this, for example because of a faulty valve/ actuator, the fan will start to spin at +46 °C to keep the temperature down. At the same time there is an over heating alarm Aot. At internal temperatures of +50 °C the fan runs at maximum speed.

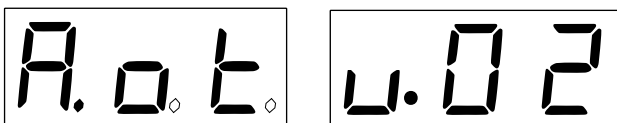
If the unit cools to below +35 °C the heat is engaged again. The alarm remains in the control unit's display. If the unit overheats twice within an hour, the alarm must be reset before the heating can be engaged again, the fan operates until the alarm is reset.

Note! In event of repeated alarms and over heating alarms, carry out a thorough check and if the fault cause cannot be found contact authorised service person or Frico.

### Displaying alarms

In event of alarm or error the alarm/error code is shown in the status window. In event of alarm/error code the unit it applies to is displayed. See Table - Alarms and Table – Error codes.

The status window alternate the display of the alarm/error code and faulty unit ID causing the problem.



### Reset alarm

**Note! Before resetting, check that the fault is rectified and there is nothing to prevent the unit from being recommissioned!**

When the fault is rectified, the alarm is reset according to description below.

If "wrong" button is pressed the alarm display disappears but returns in status window after about 20 seconds.

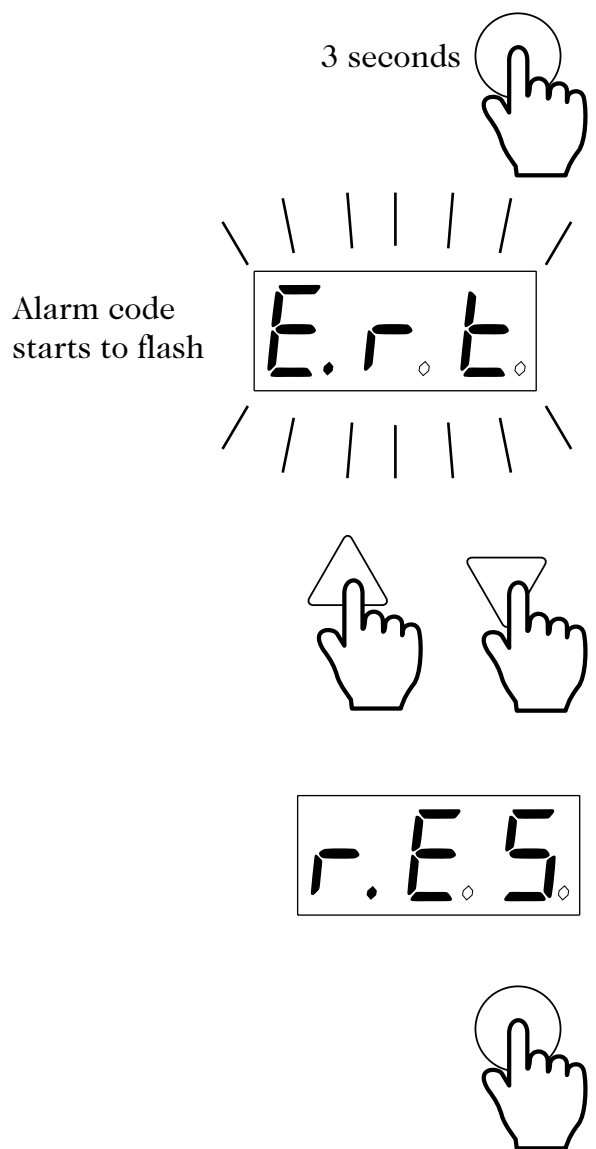


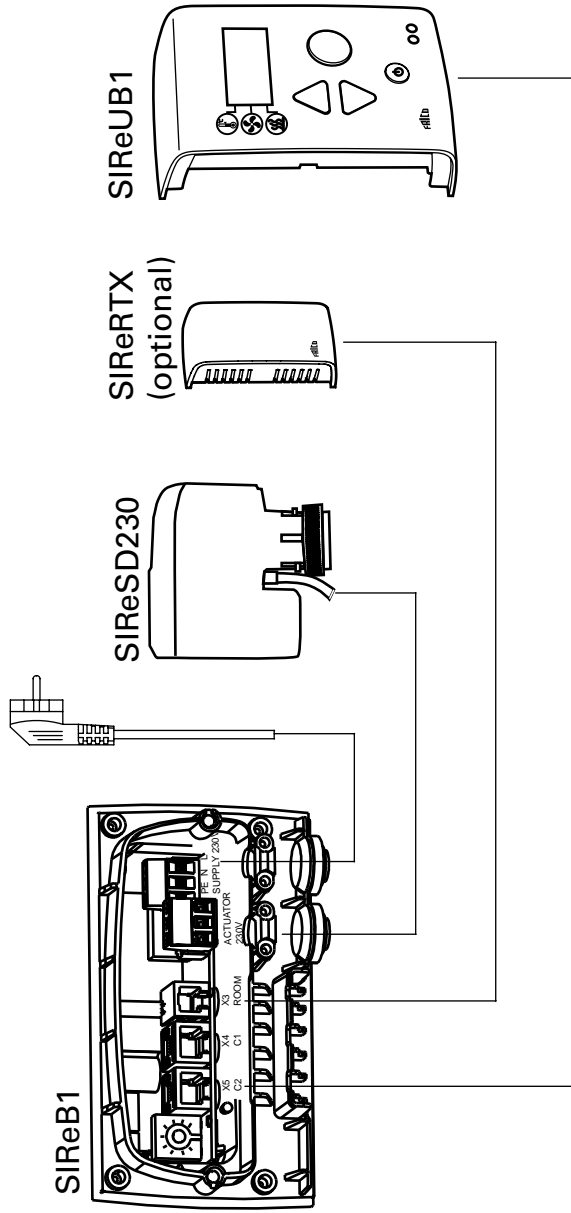
Table - Alarm

Alarm	Cause	Action
A.FA Motor alarm	Thermal switch has deployed. One or several motors have overheated. (Only units with withdrawn thermal switches.)	Check that nothing is obstructing the unit's air intake and exhaust. When the overheated motor has cooled the thermal switch shuts again and the alarm can be reset. At repeated alarms, check the motors, replace damaged motors.
A.ot Over heating alarm	The temperature in the unit has exceeded the alarm limit for overheating. (Only applies to units with internal unit temperature.)	Check that nothing is obstructing the unit's air intake and exhaust, the function of the actuator/valve, return water and internal temperature sensors in the unit

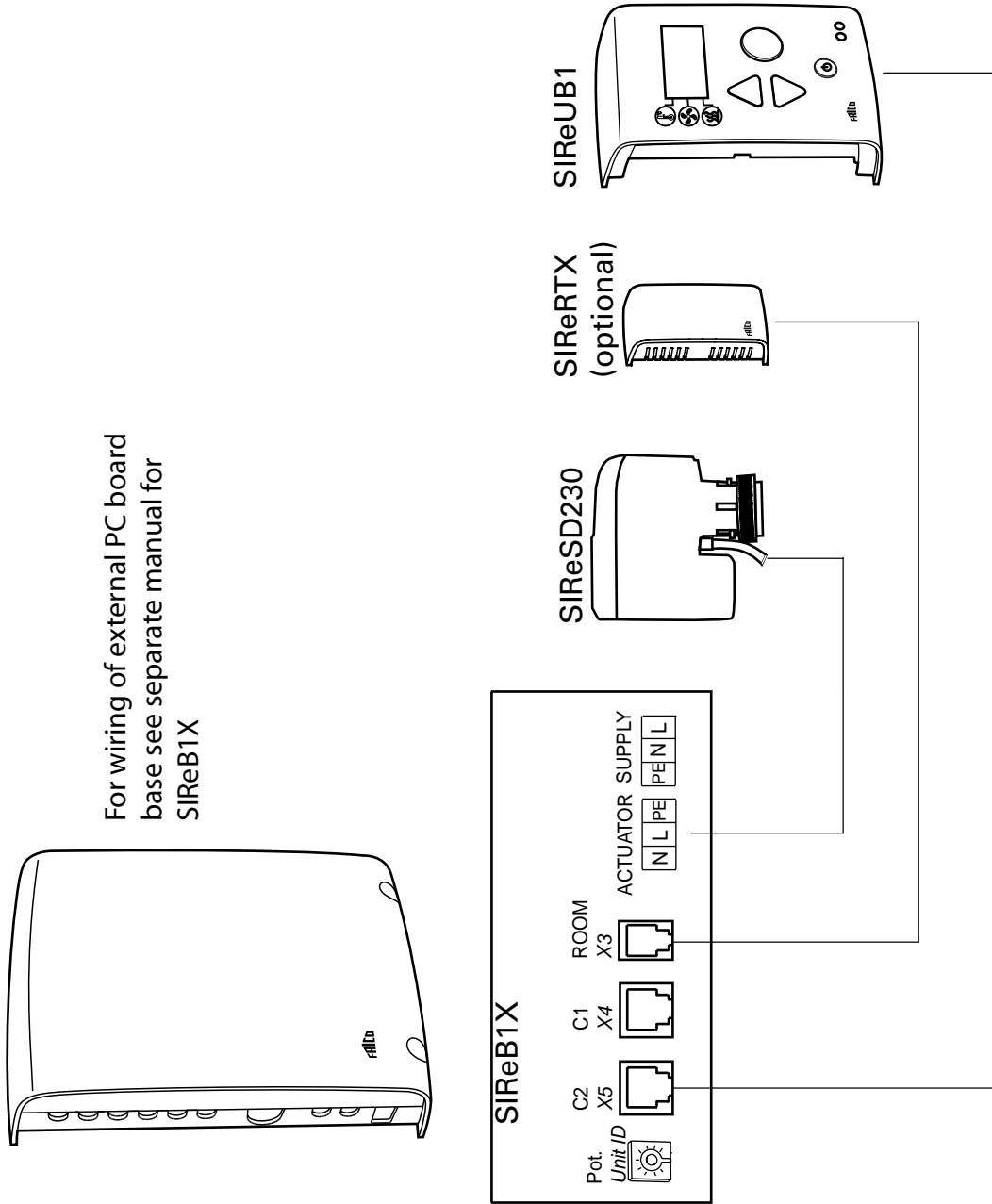
Table - Error code

Alarm	Cause	Action
E.co Communication	SIReB1(X) has no contact with SIReUB1.	Check connection between the SIReB1 and SIReUB1. Replace any modular cables.
	PC board SIReB1(X) has no ID = 0	Interrupt the power supply and select different ID numbers for all SIReB1(X) in the system.
	Two or more SIReB1(X) have the same ID-number.	Interrupt the power supply and select different ID numbers for all SIReB1(X) in the system.
	One or more SIReB1(X) do not have programs.	Contact Frico for support.
E.cF ID-error	Two or more SIReB1(X) in the system have different programs.	Contact Frico for support.
E.rt Room sensor error	Error in or missing external room sensor SIReRTX connected to SIReB1(X).	Always disconnect the power supply when connecting or disconnecting sensors. Check connection of the sensor.
E.lt Internal sensor error	Fault on or missing internal sensor in the unit (applies to units with internal sensor).	Check connection of the sensor. If there is no sensor, contact Frico for support.
E.ru Room sensor error	Fault on internal room sensor in the control unit SIReUB1.	Check connections between SIReUB1 and SIReB1(X). Replace any modular cables. Check if an external sensor SIReRTX is working. If the error is not rectified the SIReUB1 must be replaced.

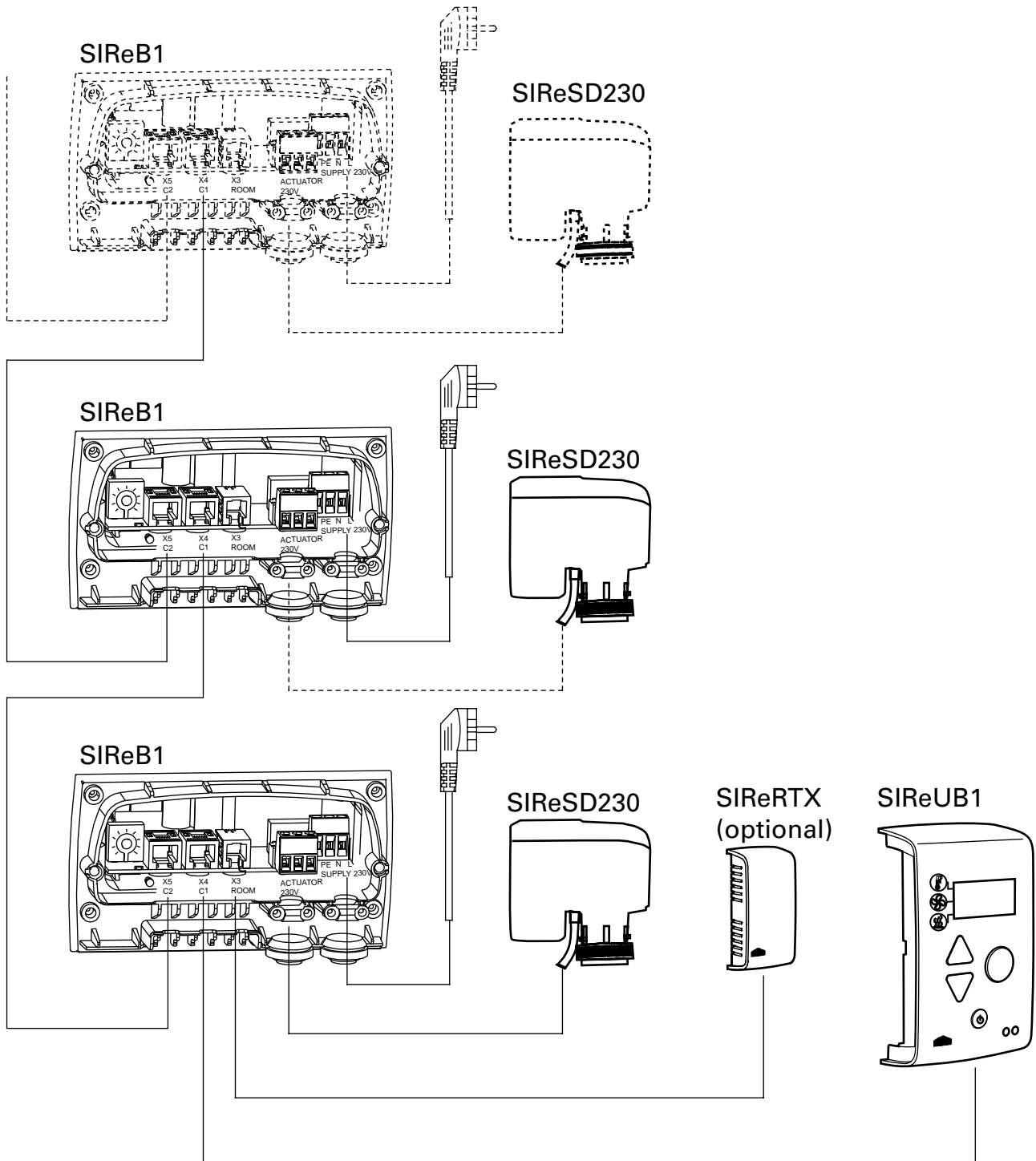
**Wiring diagram - Basic**  
Internal PC Board Base



**Wiring diagram - Basic  
External PC Board Base**



Wiring diagram - Basic





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