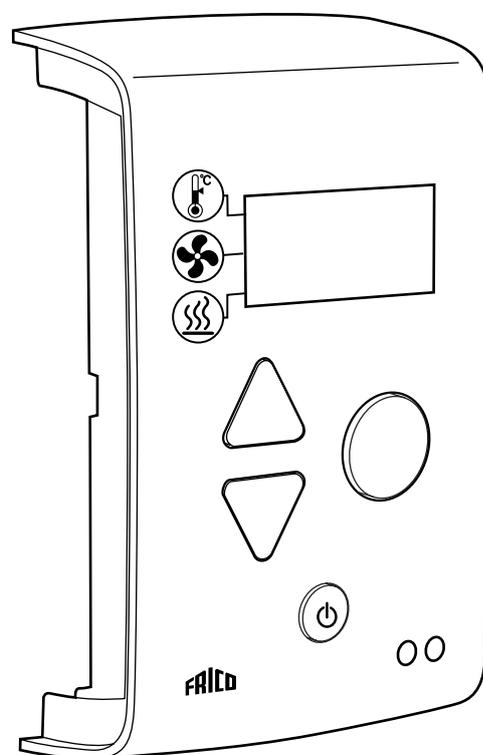Original instructions

SIRe Basic Air Curtains
Electric
With quick guide

SIReB

For wiring diagram, please see last pages

Quick guide/start up

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 (6p/6c) 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. Maximum cable lengths see section 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 premises to sense the correct temperature.

Connect the system

In PC board Base SIReB1(X) the unit is connected further with RJ12 (6p/6c) modular cable if several units are to be connected in parallel. If an external room temperature sensor SIReRTX is used it is connected using modular cable RJ11 (4p/4c) on SIReB1(X).

PC board Base SIReB1X in/at the unit and control unit SIReUB1 is connected with RJ12 (6p/6c) modular cable when the other units are powered up. For fixed installation requirements, remove the supplied cable and plug. Perform the installation in accordance with applicable regulations.

Power supply for electric heat must be connected separately (check manual for the air curtain unit).

Wiring diagrams

The wiring diagrams are 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/Operation without control unit

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. E.g. Unit 1: ID=1, unit 2: ID=3
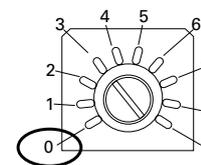
If the external control for some reason has not been installed the unit can still be run temporarily. The ID selector is then set to mode 0 see the image below.
The function is half speed and half heating output

When the ID number must be changed the unit must be disconnected from power.
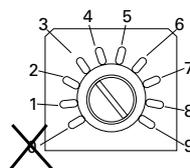
Each unit should have a unique ID on its SIReB1X card.

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 th the status window followed by three horizontal lines. After about 30 seconds the prevailing 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 and heating step. 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.

At the first start up alarm and error codes can occur, these can usually be reset without action.

Choose desired room
temperature 5 - +30 °C

Choose fan step 1-5

Activate heat
0 = No heat
1 = Heat step 1 possible
2 = Heat step 2 possible
(3 = Heat step 3 possible)
Heat steps controlled by thermostat

Contents

Constituent parts

SIReB

SIReUB1,
control unit Basic
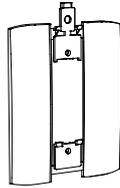
Wall unit cover

Integrated in the air curtain
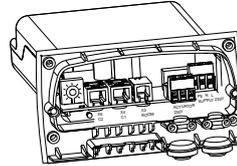
SIReB1, integrated
PC Board Base

SIReIT, internal
temperature
sensor
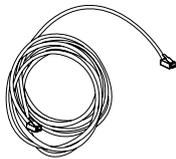
SIReCC,
modular cable

Dimensions constituent parts

Type	Description	HxWxD [mm]	L [m]
SIReUB1	Control unit	120x70x35	
SIReB1	Integrated PC board Base		
SIReIT	Internal temperature sensor		1
SIReCC605	Modular cable RJ12 (6/6)		5

Option

SIReRTX, external
room temperature
sensor

SIReCJ4, joint
piece

SIReCJ6, joint
piece

SIReCC,
modular cable

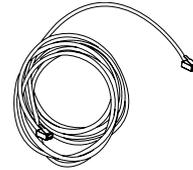| Type	RSK-no.	E-no.	Description	HxWxD	L [m]
SIReRTX	673 09 22	87 510 12	External room temperature sensor	70x33x23	
SIReCJ4			Joint piece for two pcs. RJ11 (4/4)		
SIReCJ6			Joint piece for two pcs. RJ12 (6/6)		
SIReCC603	673 09 23	87 510 13	Modular cable RJ12 (6/6)		3
SIReCC605	673 09 24	87 510 14	Modular cable RJ12 (6/6)		5
SIReCC610	673 09 25	87 510 15	Modular cable RJ12 (6/6)		10
SIReCC615	673 09 26	87 510 16	Modular cable RJ12 (6/6)		15
SIReCC403	673 09 27	87 510 17	Modular cable RJ11 (4/4)		3
SIReCC405	673 09 28	87 510 18	Modular cable RJ11 (4/4)		5
SIReCC410	673 09 29	87 510 19	Modular cable RJ11 (4/4)		10
SIReCC415	673 09 30	87 510 20	Modular cable RJ11 (4/4)		15

Max. cable lenghts

• Modular cabel RJ12 (6p/6c) between SIReUB1 and SIReB1(X):   max 50 m.

• Modular cabel RJ12 (6p/6c) between two SIReB1(X):   max 50 m.

• Modular cabel RJ11 (4p/4c) to room sensor SIReRTX: max 20 m.

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

Operating modes

Operating modes

Factory settings gives manual control of fan and heating controlled by thermostat at choosen step.

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 = manual mode.

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 (only valid for units with internal temperature sensor).

Heat regulation

When the room temperature drops below the set point temperature the first heating step is activated. If temperature continues to drop, another heating step is activated (see description below parameters P.00).

Set values

Use arrow up /down to choose desired room temperature, fan speed step and heating step.
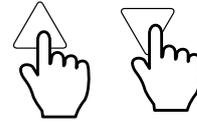
Push the confirm button and the digit(s) starts to flash. The value can now be adjusted using the arrow up /down, and confirm.
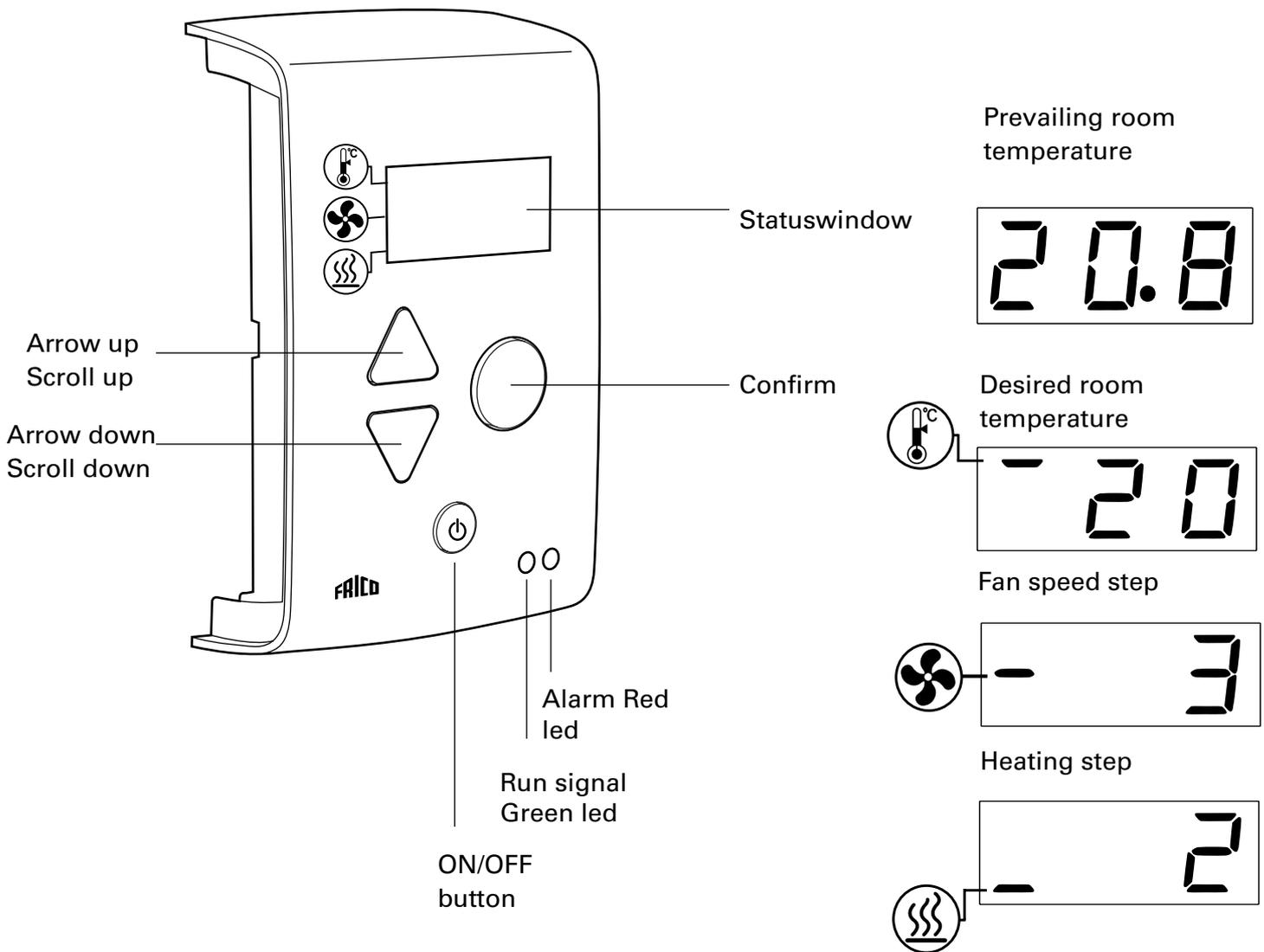
Temperature

Fan speed step

Heating step

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

Statuswindow

Arrow up
Scroll up

Arrow down
Scroll down

Confirm

Alarm Red
led

Run signal
Green led

ON/OFF
button

Prevailing room
temperature

Desired room
temperature

Fan speed step

Heating step

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 / deacrease a setting.

Confirm

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

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

Installer 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).
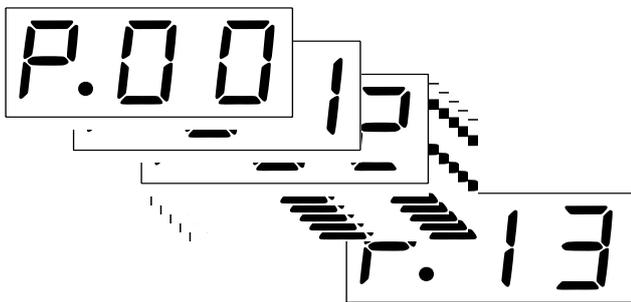
Parameter description

P.00 Temperature difference heating steps

Sets the difference between the heating steps. Factory setting of 1,0 and a desired room temperature of 20 °C gives the following operation:Low heating step is connected at +19,5 °C (disconnected at +20,0 °C). If temperature continue to drop below +18,5 °C another heating step is connected (disconnected at +19,0 °C), etc.

P.01 Overheating alarm ON/OFF

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

P.02 Over run time

Time when the fan continue to run when the heat has been activated (only valid for units with internal temperature sensor).

P.03 Temperature limit for over run

Over run time is cancelled if the internal temperature drops below this set value (only valid for units with internal temperature sensor).

P.04 Fan control

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

P.05 Internal temperature

Prevailing internal temperature. Only the peak value is shown when several units are connected (only valid for units with internal temperature sensor).

P.06 - P.13 Run time

Run time for fan and heating steps.

List of parameters

Parameter-number	Description	Setting range	Factory setting
P.00	Temperature difference between heating steps	0,5-10	1.0 °C
P.01	Overheting alarm 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: Menul rorAuto; 0=Menul, 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 37 °C one output step is tripped off. If the temperature continues to rise all output is interrupted at 40 °C. If the temperature continues to rise despite this, for example because of a faulty contactor, the fan will start to spin at 50 °C to keep the temperature down. At the same time there is an over heating alarm (Table - Alarm). At internal temperatures of +54 °C the fan runs at maximum speed.

If the unit cools the output 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 personnel or Frico.

Displaying alarm and error codes

In event of alarm or error the alarm/error code and the unit it applies to is shown in the status window. Alarm error codes see Table - next page. 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 rectifed, the alarm is reset according to description below.
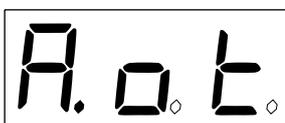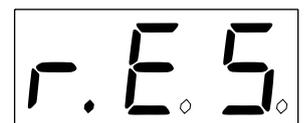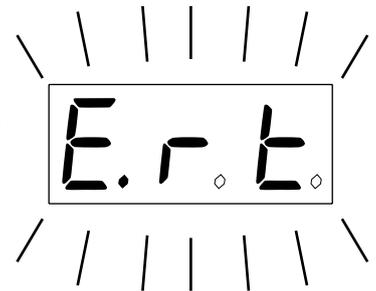
If "wrong" button is pressed the alarm display disappears but returns in status window after about 20 seconds.

At the first start up alarm and error codes can occur, these can usually be reset without action.

3 seconds

Alarm code starts to flash

$E.r.t.$

$r.E.S.$

$A.o.t.$ $u.02$

19

Table - Alarm

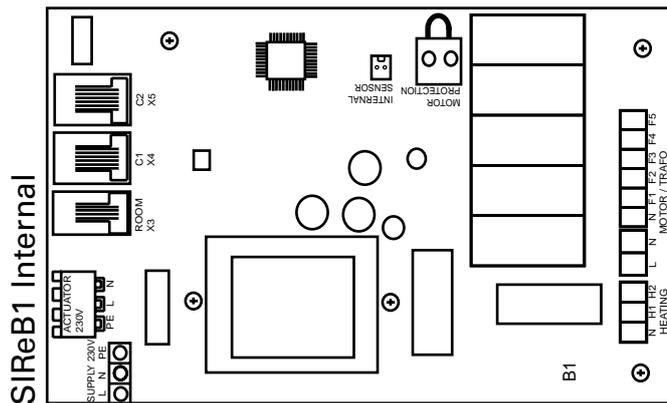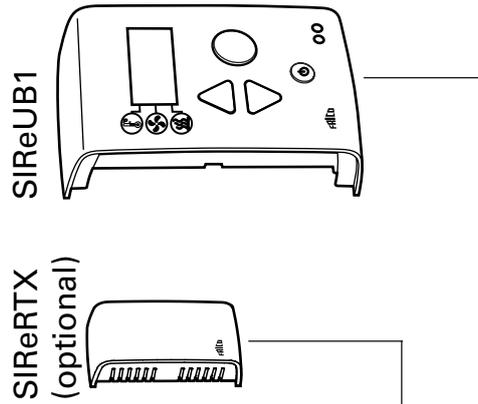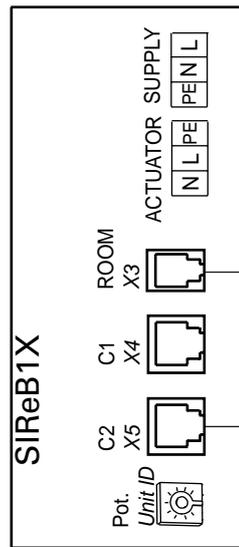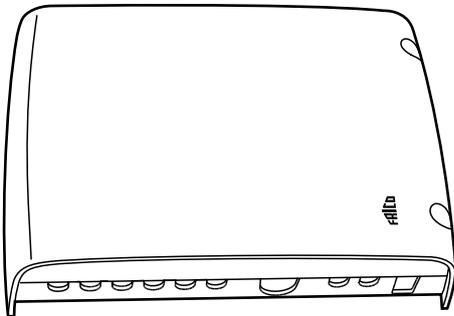| Alarm		Cause	Action
A.FA	Motor alarm	Thermal switch has deployed. One or several motors have overheated. (Only units with withdrawn thermal switches.)	Check that nothing is obstructing the unit's air intake and exhaust. When the overheated motor has cooled the thermal switch shuts again and the alarm 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 internal temperature sensor.

Table - Error codes

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 (option) 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 (option) is working. If the error is not rectified the SIReUB1 must be replaced.

Wiring diagram - Basic
Internal PC Board Base

SIReUB1

SIReRTX (optional)

SIReB1

230V~

PE N L
SUPPLY 230

ACTUATOR 230V

X3 ROOM

X4 C1

X5 C2
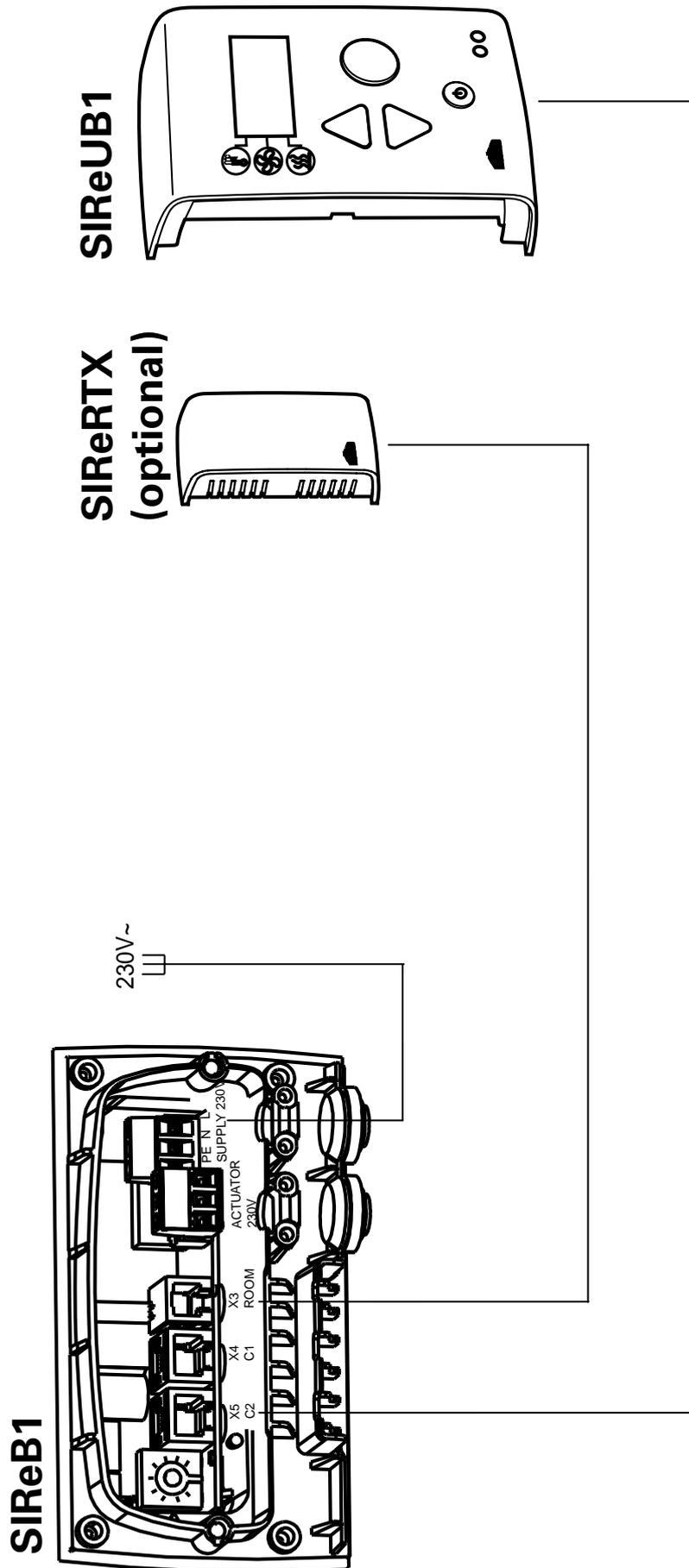
Wiring diagram - Basic
External PC Board Base

SIReUB1

SIReRTX
(optional)

For wiring of external PC board
base see separate manual for
SIReB1X

SIReB1X

Pot.
Unit ID

C2
X5

C1
X4

ROOM
X3

ACTUATOR   SUPPLY

N L PE   PE N L

SIReB1 Internal

SUPPLY 230V
L N PE

ACTUATOR
230V
PE N L

C2
X5

C1
X4

ROOM
X3

INTERNAL
SENSOR

MOTOR
PROTECTION

N H1 H2
HEATING

N L   N F1 F2 F3 F4 F5
MOTOR / TRAFO

B1

Wiring diagram - Basic - parallell conection