SIRe Control system

The vast majority of our air curtains are supplied with the SIRe intelligent control system, which is built in and controls the air curtain automatically. The air curtain adapts to the existing conditions in the entrance. By sensing how often the door opens/closes, outdoor temperature, indoor temperature or even the return water temperature, the air curtain will give you the most effective protection with the highest energy efficiency.

Install and forget

With SIRe control system, the air curtain will always perform at its best. You'll never have to think about switching it on or off. It even adapts to the season outside, and with calendar function the air curtain automatically runs during the hours it is needed.

Intelligent

Automatically adapts to your entrance

The air curtain automatically adapts to your entrance conditions. Depending on how often the door is opened/closed, or if it is left open continually, the integrated SIRe controls the air curtain operation so that optimal comfort and energy efficiency is achieved.

Proactive

Anticipates for quicker reactions

By measuring the outdoor temperature, the air curtain is always a step ahead. The integrated regulation ensures that the air curtain is prepared for changes in the outdoor temperature. For example, when a warm spring day turns into a chilly evening. The air speed is adjusted depending on the outdoor temperature change and stops the chill before it penetrates the premises.

Adaptive

Expert on your entrance

SIRe has the capacity to learn precisely what happens at your entrance. The air curtain adapts so that it is always ready to operate fully as soon as the door is opened. It also considers the acoustic comfort by ensuring that the air curtain does not switch between high and low speeds too often.

BMS solutions

Endless possibilities

With our intelligent SIRe control system, the possibilities to control your air curtains via BMS are endless. You can either choose to control your air curtain by 0-10 V signals (controlling on/off, fan speed, heating and alarm) or completely control all functions and receive indications from your air curtain via gateway (two threaded) BUS communication.

Calendar function

Presets as required

SIRe has a calendar function for all the days of the week. The air curtain starts in the morning to ensure that it's always working to create a comfortable climate and save energy. Preset default setting may easily be adjusted by the user.

Simple installation

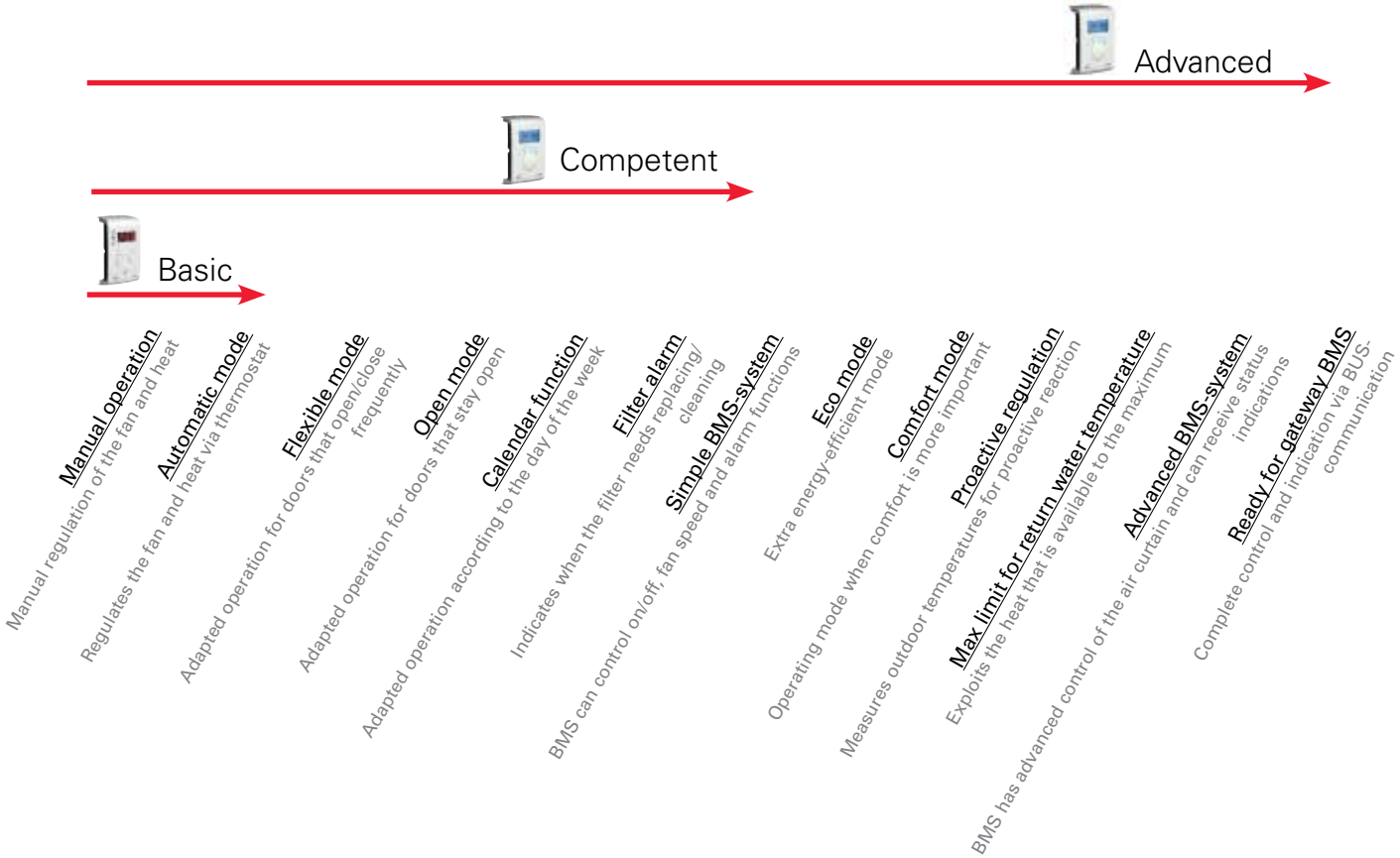
"Plug and play"

An air curtain with integrated SIRe control system is easy to install. The different components are supplied together and are easy to assemble. The system self-checks that everything is correct and that it functions. Thanks to the preset default settings it is easy to start air curtain operation as soon as the system is in place.

Eco mode

Save money and the environment at the same time

With SIRe intelligent regulation integrated in your air curtain, you get comfort in your entrance without wasting energy. If you want to increase the energy efficiency further, set SIRe in Eco mode. The air curtain then uses as little energy as possible without compromising too much on comfort. Energy savings of up to 35 percent are possible.



SIRe is an intelligent and well designed low voltage control system which can be customised for each unique application and environment. SIRe is supplied pre-programmed with quick fit plug connections and is very easy to use and install.

SIRe learns the requirements in the entrance it is installed in (e.g. opening frequency and outdoor temperature). It has calendar function and selectable switch off at set temperatures for up to nine units. Because the fan speed is adapted, the sound level is optimized and is never higher than is necessary for comfort. With SIRe Advanced it is possible to choose between Eco and Comfort mode dependent on whether energy savings or optimal comfort has been prioritised. The return water temperature can be limited, thus ensuring that the available heat is exploited to the maximum.

SIRe can control up to nine units. If more than one air curtain should be controlled by a single SIRe, an additional modular cable SIReCC RJ12 (6p/6c) per unit is needed. Cables between units can easily be joined together by using joint piece SIReCJ6.

There are three different levels with different functionality to choose from, Basic, Competent or Advanced.

Control system SIRe

Type	Description
SIReB	Control system SIRe Basic
SIReAC	Control system SIRe Competent
SIReAA	Control system SIRe Advanced

Functions SIReB Basic

- Manual regulation of the fan and temperature
- Automatic control of fan speed and temperature with integrated thermostat.

Functions SIReAC Competent

- All functions for Basic
- Calendar function
- Filter alarm
- Simple BMS control - on/off, fan speed and alarm functions
- Flexible mode - for doors that open and close frequently
- Open mode - for doors that stay open

Functions SIReAA Advanced

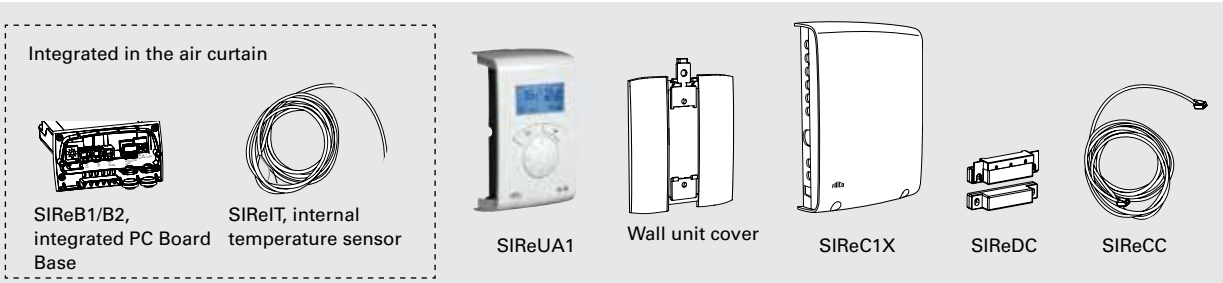
- All functions for Competent
- Eco mode - extra energy-efficient mode
- Comfort mode - when comfort is important
- Advanced BMS control
- Max limit of return water temperature.
- Proactive regulation – measures outdoor temperatures for proactive reaction.

Included in SIReAA Advanced:

- SIReUA1, control unit with built in room temperature sensor. Wall unit cover included.
- SIReA1X, PC board HUB Advanced
- SIReOTX, outdoor temperature sensor
- SIReDC, door contact
- SIReCC, modular cables, RJ12(6p/6c), 3 m resp. 5 m

Options:

- SIReRTX, external room temperature sensor, RJ11 (4p/4c), 10 m
- SIReUR, kit for recessed installation
- SIReWTA, return water sensor, RJ11 (4p/4c), 3 m
- VMO(P), (pressure independent) modulating valve kit or VMT, three way valve and modulating actuator

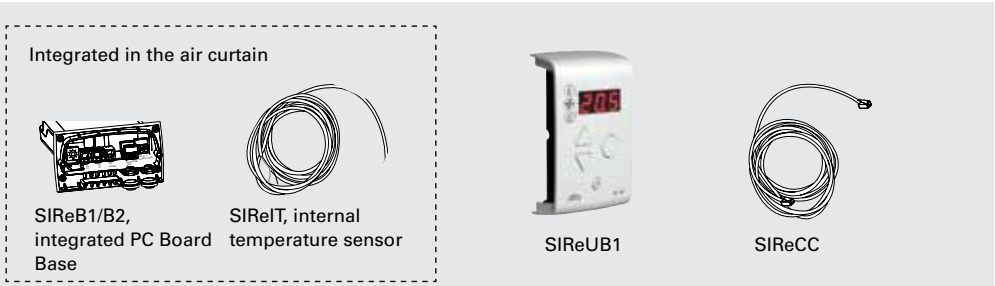


Included in SIReAC Competent:

- SIReUA1, control unit with built in room temperature sensor. Wall unit cover included.
- SIReC1X, PC board HUB Competent
- SIReDC, door contact
- SIReCC, modular cables, RJ12(6p/6c), 3 m resp. 5 m

Options:

- SIReRTX, external room temperature sensor, RJ11 (4p/4c), 10 m
- SIReUR, kit for recessed installation
- VOS(P), (pressure independent) valve kit on/off or VOT, three way valve and actuator on/off



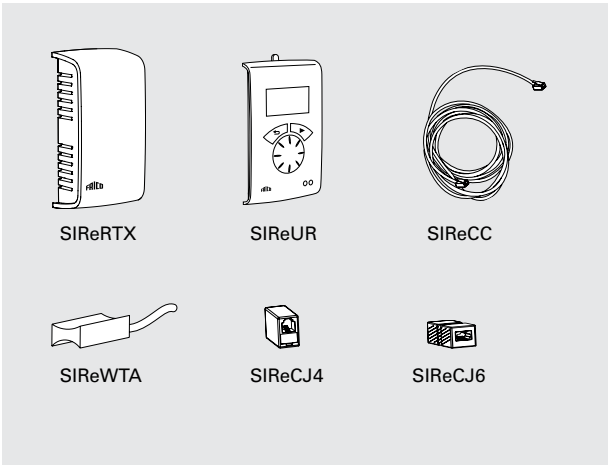
SIReUA1	IP30
SIReUB1	IP30
SIReA1X	IP10
SIReC1X	IP10
SIReOTX	IP65
SIReIT	IP65
SIReRTX	IP30
SIReUR	IP30
SIReWTA	IP65

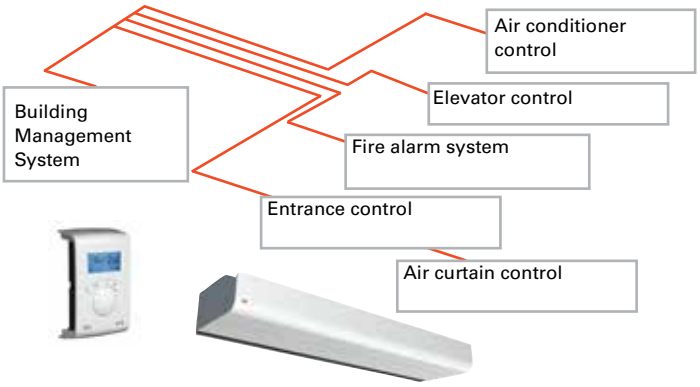
Included in SIReB Basic:

- SIReUB1, control unit with built in room temperature sensor. Wall unit cover included.
- SIReCC, modular cable, RJ12(6p/6c), 5 m

Options:

- SIReRTX, external room temperature sensor, RJ11 (4p/4c), 10 m
- VOS(P), (pressure independent) valve kit on/off or VOT, three way valve and actuator on/off





SIRe control system - options

SIReRTX, external room temperature sensor
Used to obtain a better measuring point in the premises when the control unit is located so that the internal room temperature sensor does not show a relevant value. 10 m. cable with modular connector RJ11 (4p/4c).

SIReUR, kit for recessed installation
Kit for installing SIReUA1 recessed in a wall. Only protrudes 11 mm from the wall.

SIReWTA, return water sensor
Clamp-on sensor for return water temperature control. 3 m. cable with modular connector RJ11 (4p/4c). Should be mounted on the return pipe on the heating coil.

SIReCJ4/SIReCJ6, joint piece
Used to join two RJ11 (4p/4c) respectively RJ12 (6p/6c).

SIReCC, modular cables
Modular cables RJ11 (4p/4c) respectively RJ12 (6p/6c). Available in lengths 3, 5, 10 and 15 m.

Integration of Frico air curtains in an overall control system (BMS)

BMS-control - level 1
With SIRe Competent the air curtains can be integrated in an overall control system (BMS). The air curtain can be started/stopped and the fan speed regulated via the BMS system. A 5-30V control signal is required for starting/stopping. A 0-10V control signal is required to control the fan speed. Potential free contact for buzzer.

BMS-control - level 2
With SIRe Advanced the air curtains can be integrated in an overall control system (BMS). The air curtain can be started/stopped, the fan speed and heating regulated smoothly via the BMS system. A 5-30V control signal is required for starting/stopping. A 0-10V control signal is required to control the fan speed and heating. Input for alarm and night reduction via external potential free contact. Potential free contact for buzzer and operation indication.

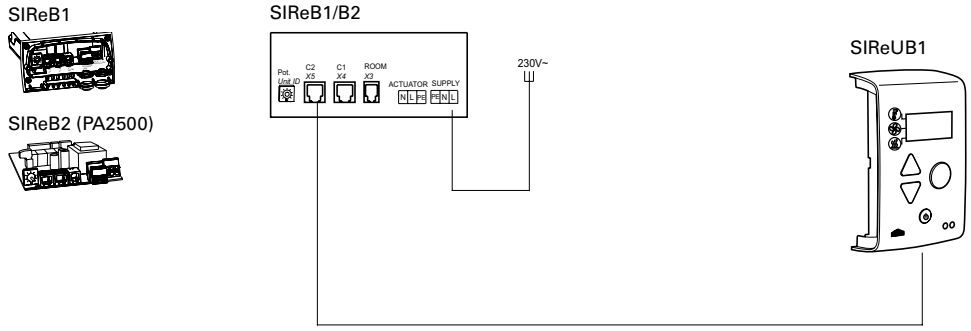
BMS-control - level 3
With SIRe Advanced it is also possible to communicate via Modbus RTU (RS485). Contact Frico for more information.

Accessories - SIRe

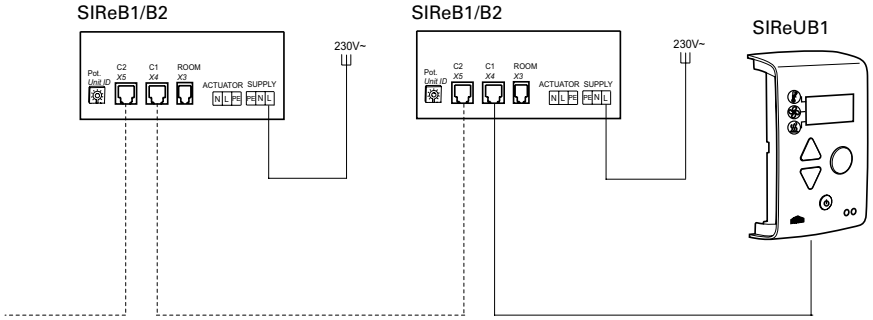
Type	Description
SIReRTX	External room temperature sensor, IP30
SIReUR	Kit for recessed installation, IP30
SIReWTA	Return water sensor, IP65
SIReCJ4	Used to join two RJ11(4/4)
SIReCJ6	Used to join two RJ12(6/6)
SIReCC603	Modular cable RJ12(6/6) 3 m
SIReCC605	Modular cable RJ12(6/6) 5 m
SIReCC610	Modular cable RJ12(6/6) 10 m
SIReCC615	Modular cable RJ12(6/6) 15 m
SIReCC403	Modular cable RJ11(4/4) 3 m
SIReCC405	Modular cable RJ11(4/4) 5 m
SIReCC410	Modular cable RJ11(4/4) 10 m
SIReCC415	Modular cable RJ11(4/4) 15 m

Wiring diagrams - SIReB Basic

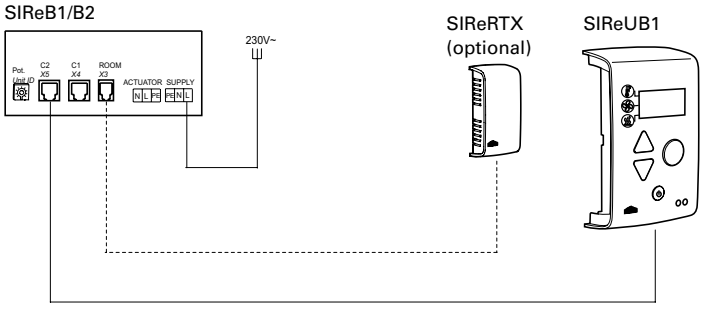
Unit without heating



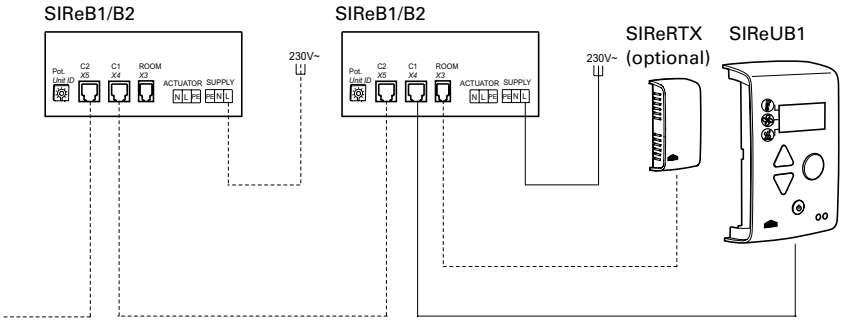
Parallel connection



Unit with electrical heating



Parallel connection

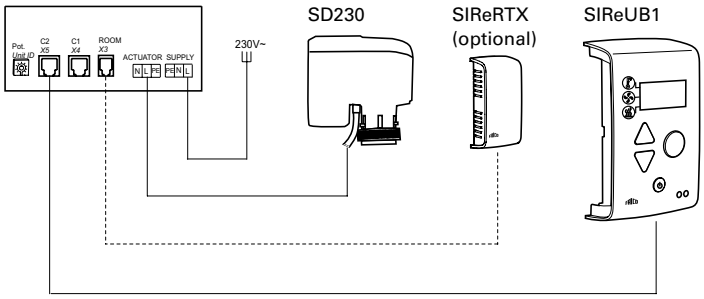


Wiring diagrams - SIReB Basic

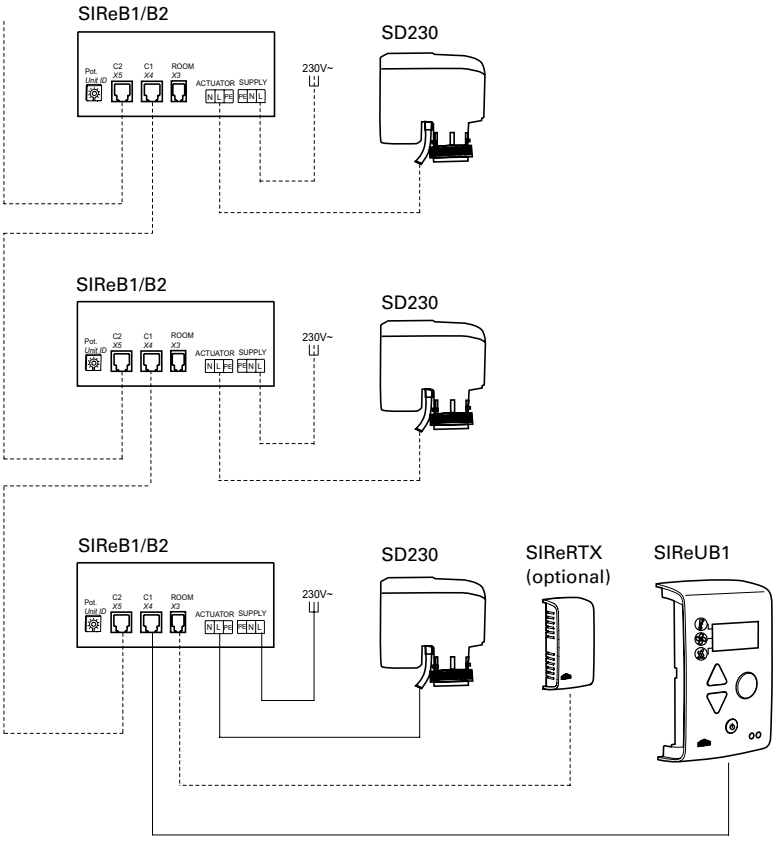
Unit with water heating

SIReB1

SIReB2 (PA2500)

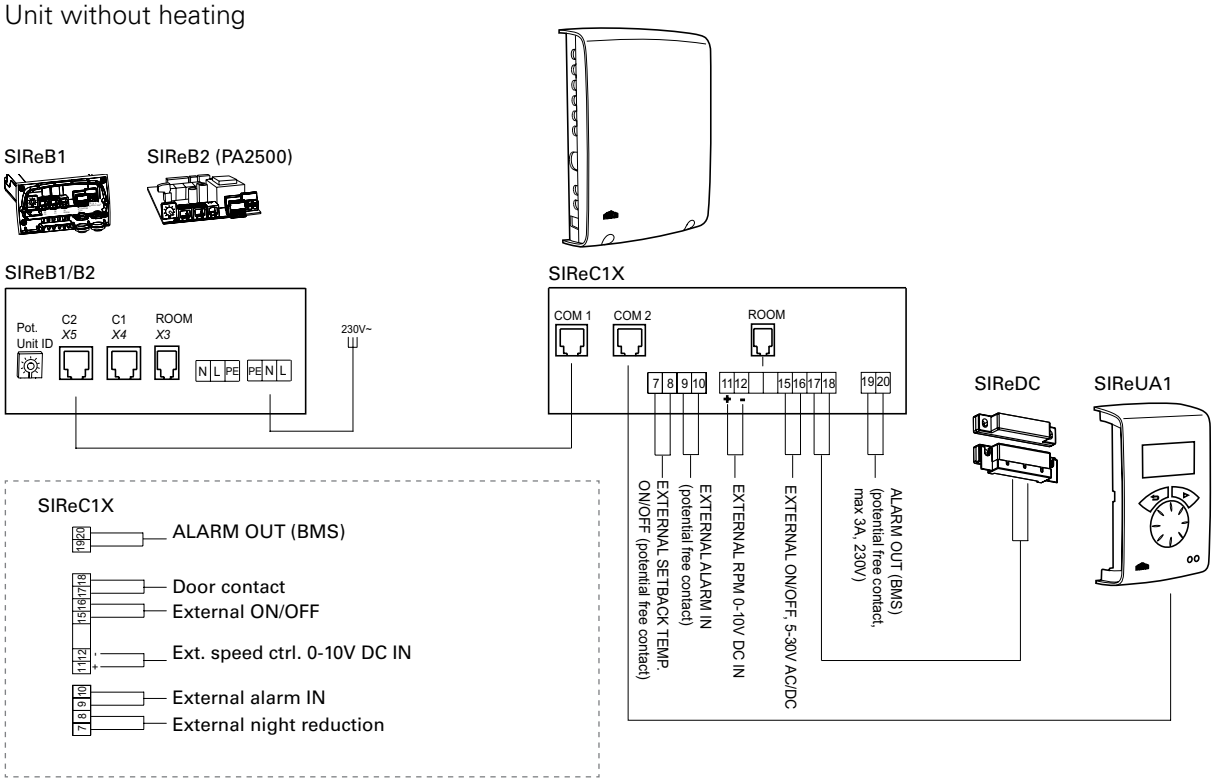


Parallel connection

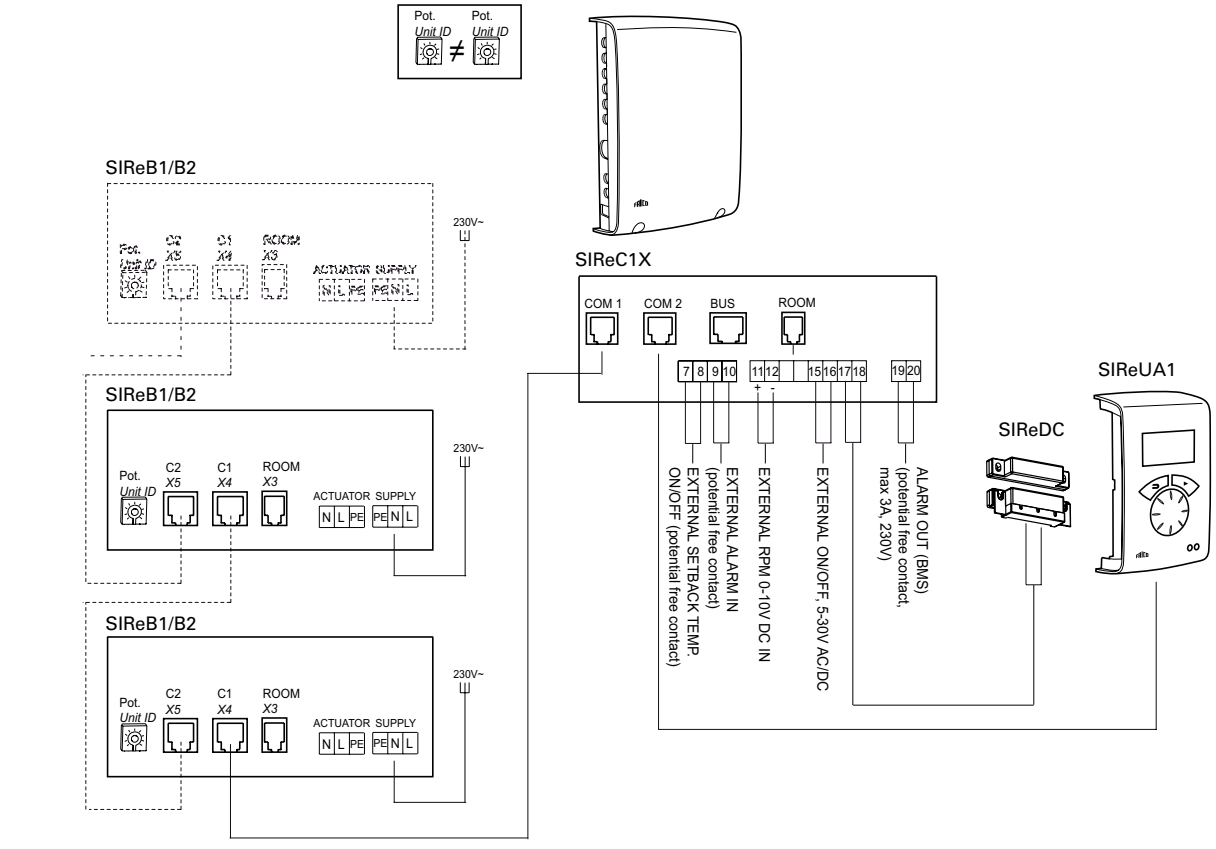


Wiring diagrams - SIReAC Competent

Unit without heating

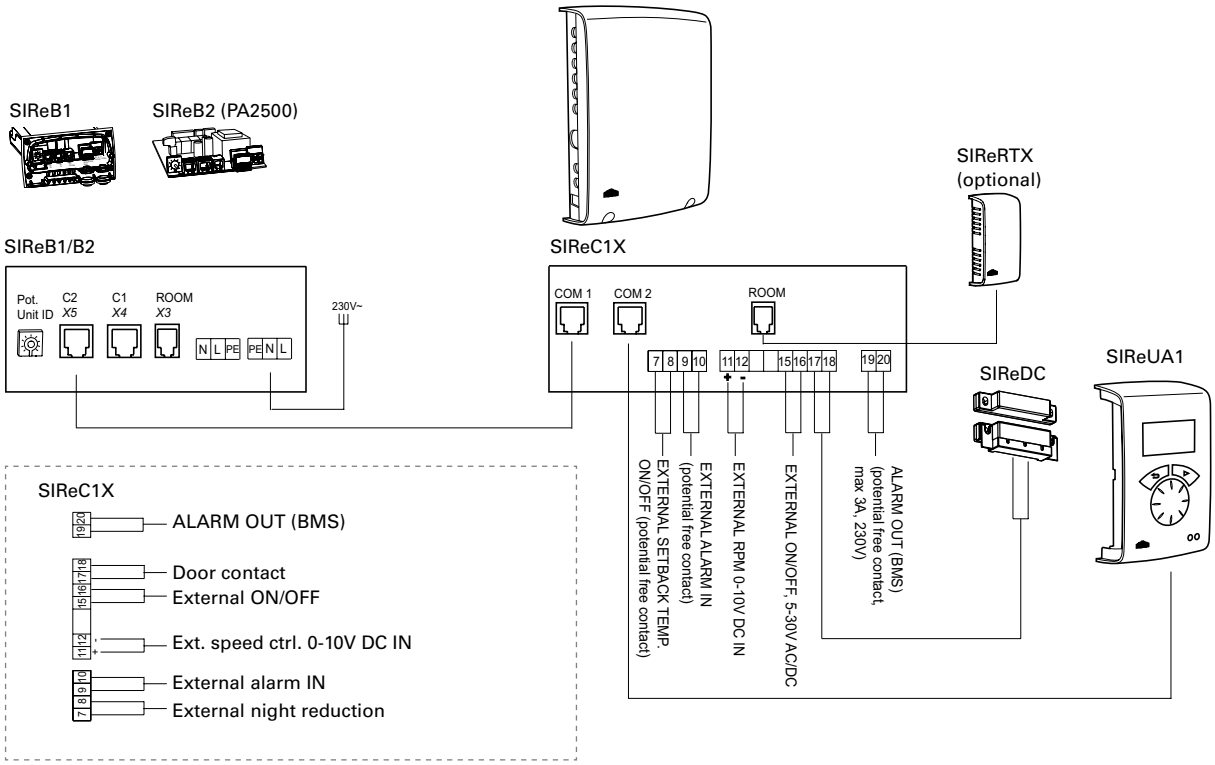


Parallel connection

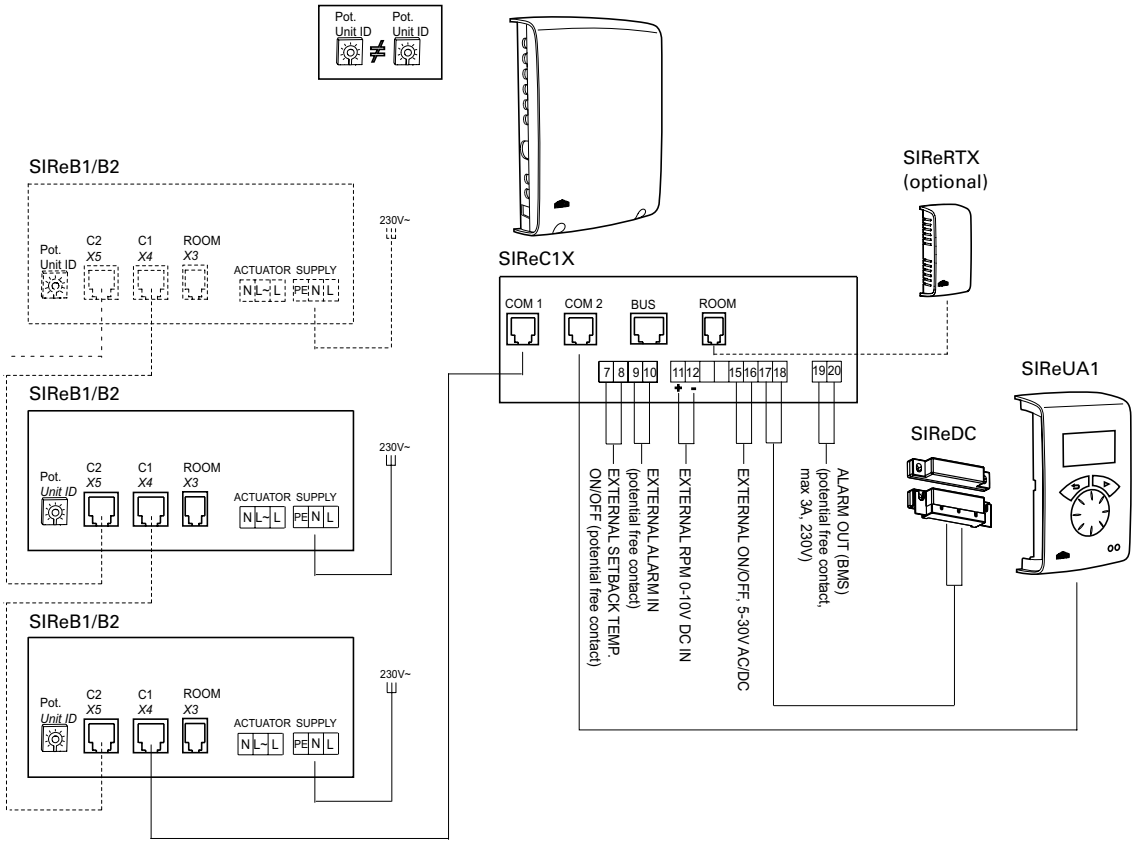


Wiring diagrams - SIReAC Competent

Unit with electrical heating

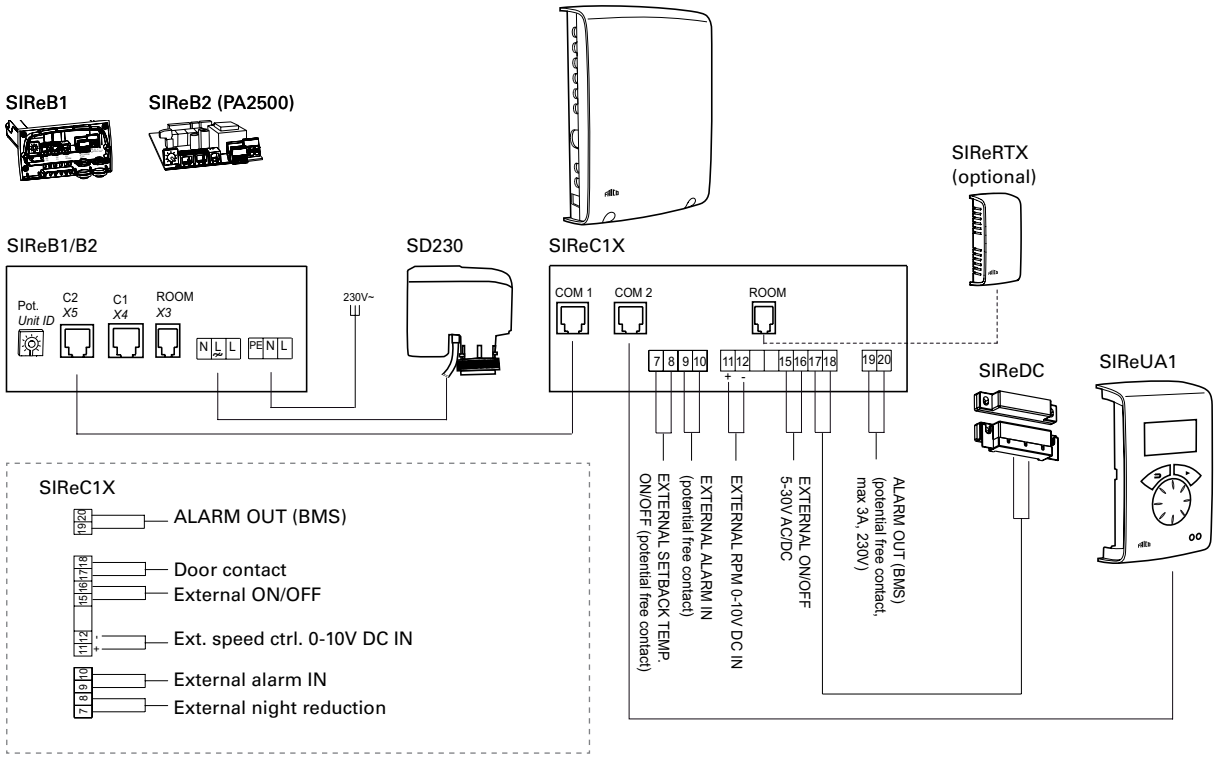


Parallel connection

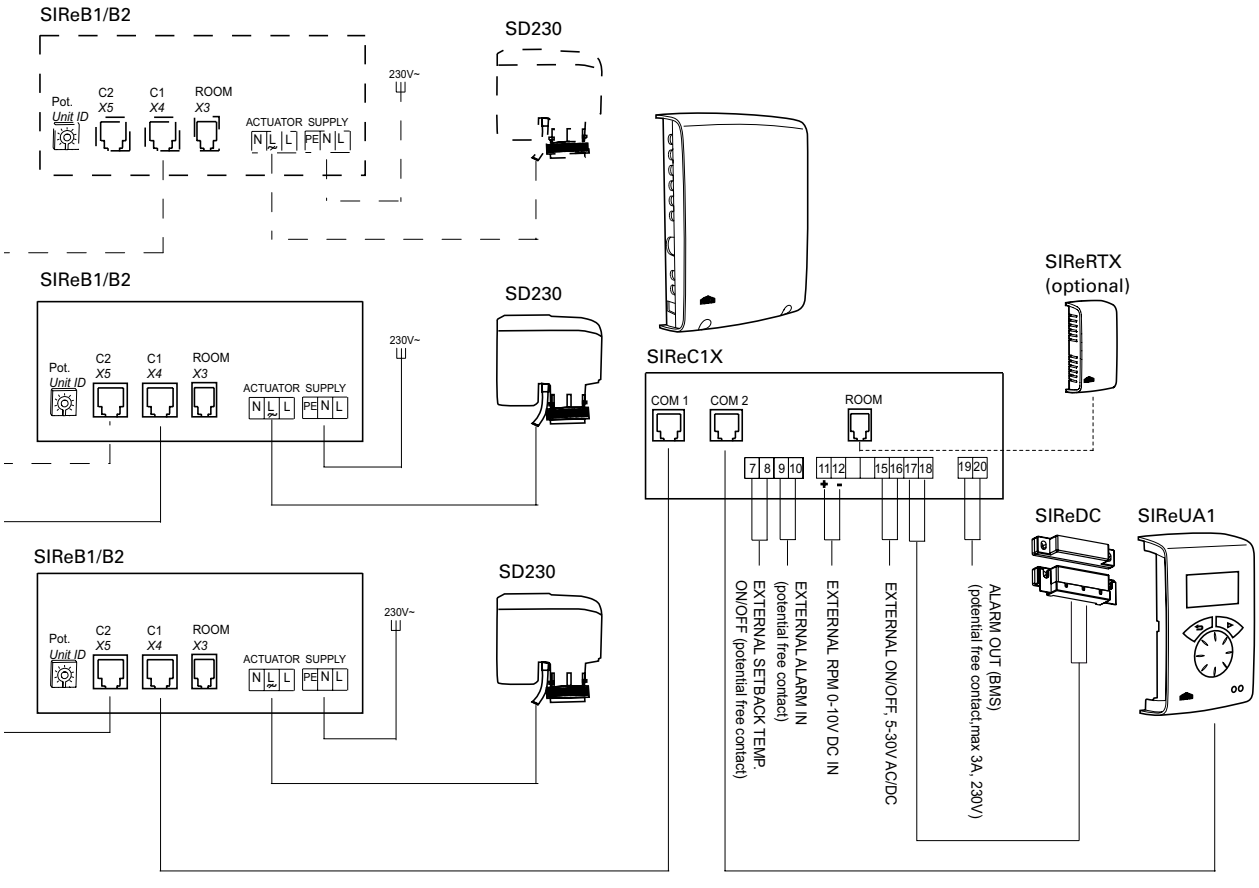


Wiring diagrams - SIReAC Competent

Unit with water heating

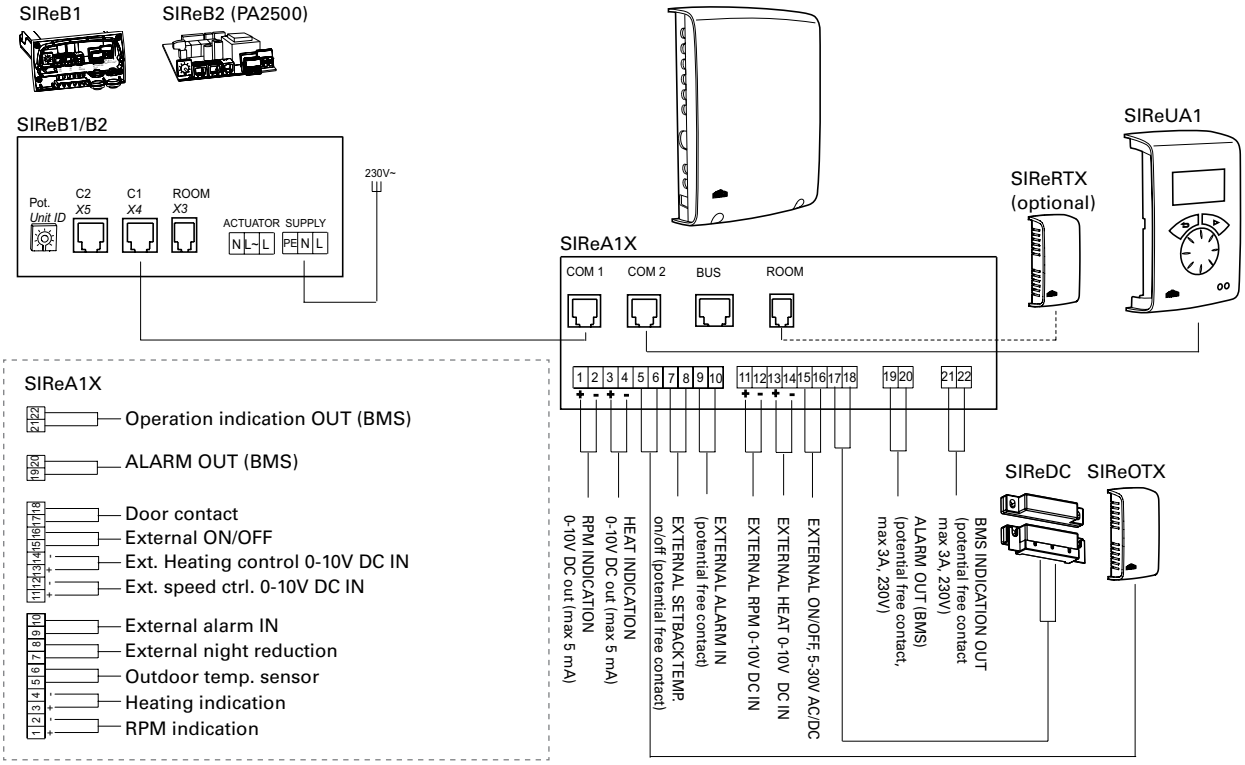


Parallel connection

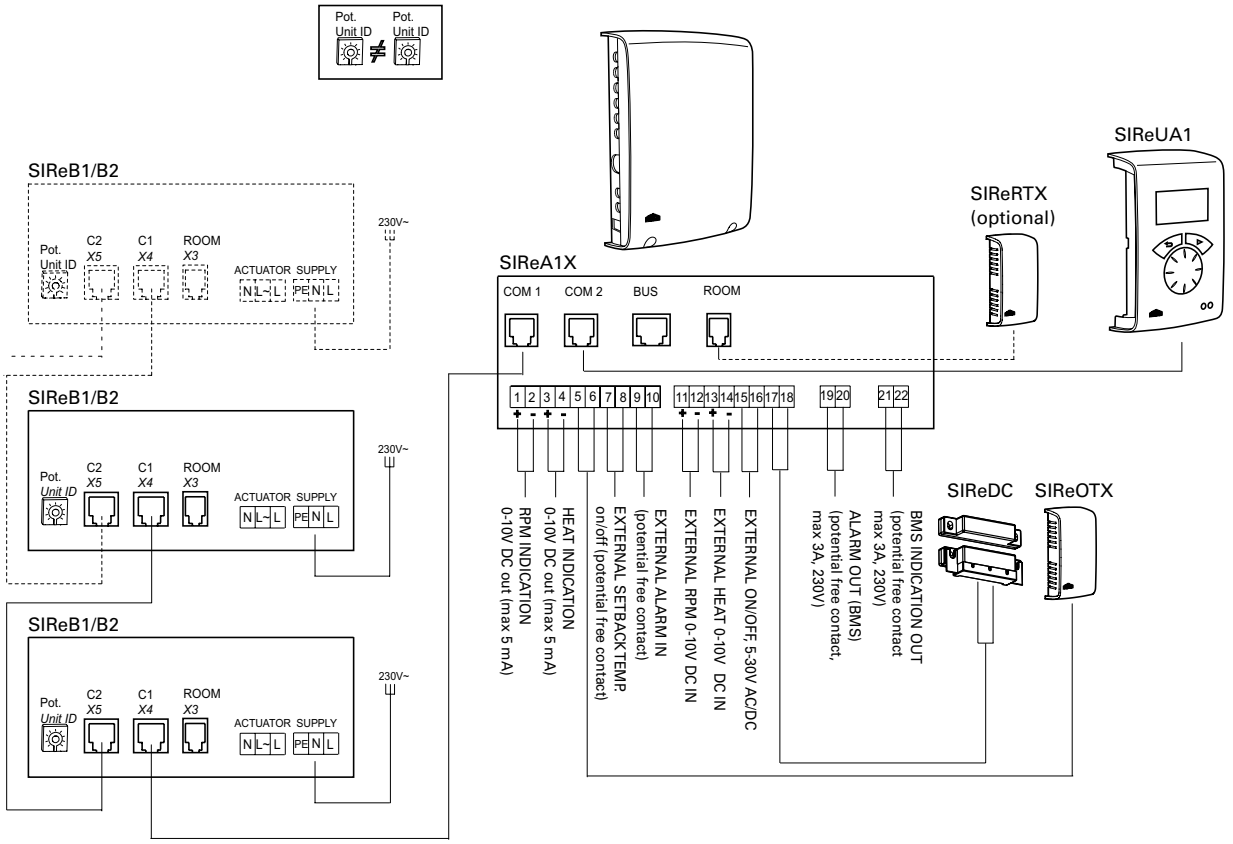


Wiring diagrams - SIReAA Advanced

Unit with electrical heating

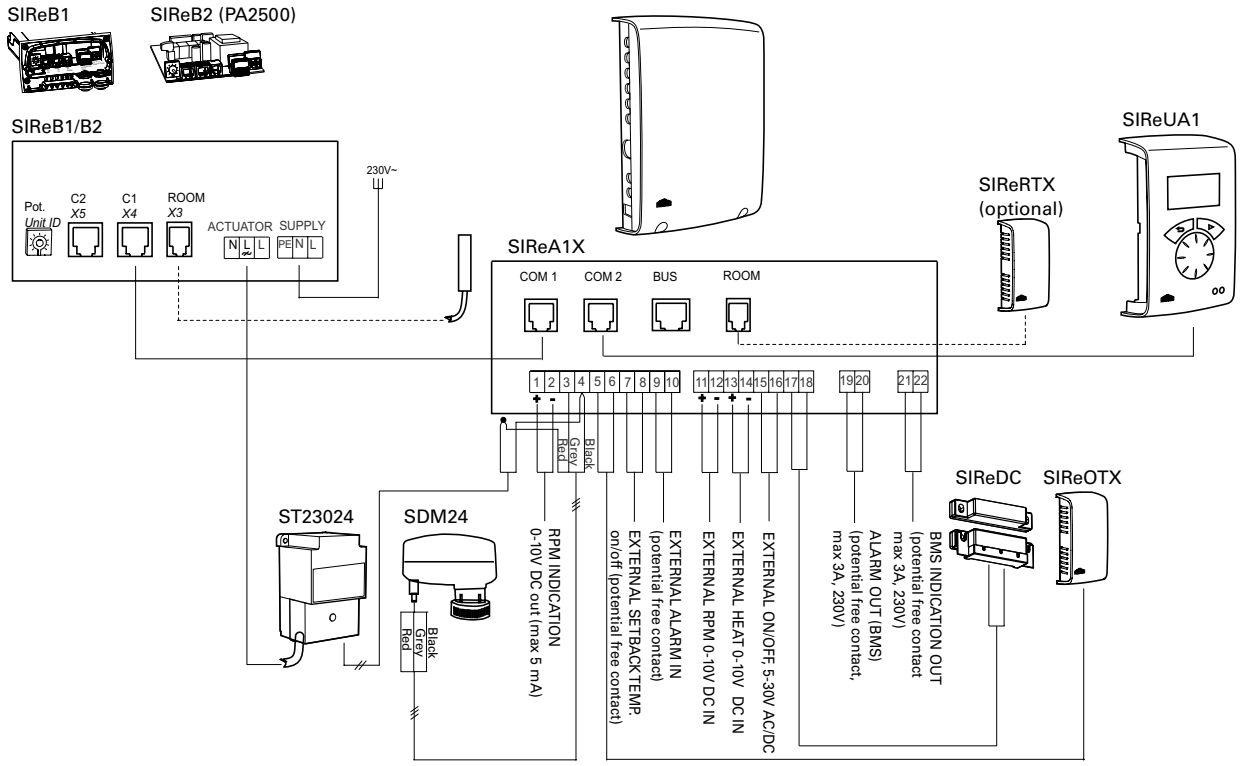


Parallel connection



Wiring diagrams - SIReAA Advanced

Unit with water heating



Parallel connection