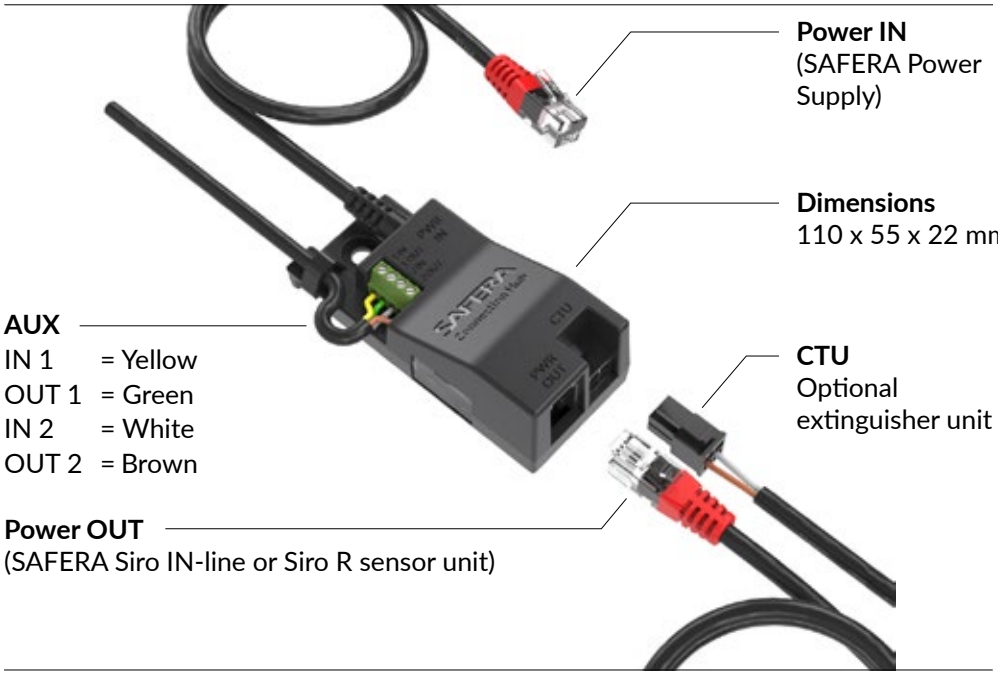
SAFERA
SAFETY WITH STYLE



USER MANUAL

SAFERA Connection Hub for SAFERA Siro IN-line and Siro R

Content

1. CONNECTION HUB SPECIFICATIONS

Safera Connection Hub enables two extra features for Safera Stove Guards:

1. **Auxiliary ON/OFF output with two signals and four states.**

   These signals are called AUX1 and AUX2. They can be used to send real-time status information to a building automation system. They operate with optoisolators and thus provide a potential-free contact which is naturally compatible with almost all automation and security systems.

2. **Container Unit (CTU) connection for the optional liquid extinguishing system.**

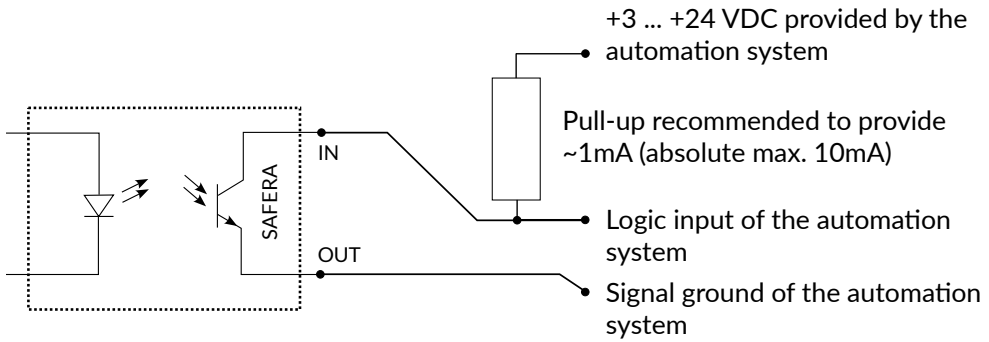
   This applies only to systems fitted with the necessary tubing and nozzles (Safera Siro IN-Line).

Electrical specifications

- AUX outputs are optoisolated, thus there is no galvanic connection between the Safera system and the automation system.
- When the AUX outputs are active (ON), the optoisolator's output transistors will be held in conducting mode, thus enabling current flow from IN to OUT. This connection can be used exactly as a relay's contact, however the direction and amount of the current flow must be controlled as specified below.
- Maximum IN-OUT voltage is 24 VDC.
- Maximum IN-OUT current is 10 mA.
- Only DC voltage between IN-OUT, no AC is permitted!

Example connection of one AUX-output

In this case the home automation system's logic input is pulled to ground potential when the AUX-output signal is active. Note that the maximum current pass in the optocoupler is 10 mA!



The above diagram illustrates the connection of one AUX channel.

2. CONNECTION TO SAFERA SYSTEM

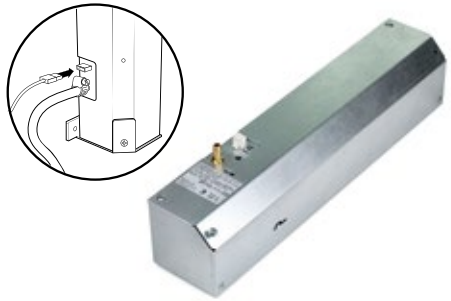
Connection Hub shall be installed between the Safera Sensor Unit and Power Supply.

PWR IN connection
to SAFERA power supply

AUX-connection
to an Automation or Security System

PWR OUT connection
to SAFERA Siro / Siro R sensor unit

CTU connection
to SAFERA CTU (optional)



3. AUX-CONNECTION TO AN AUTOMATION OR SECURITY SYSTEM

The AUX signals can be interpreted in many ways:

1. Simple ON/OFF information for any type of alarm (heat, fire or water leak). This can be read directly from AUX1 output.

2. Simple ON/OFF information for cooking activity. This can be read directly from AUX2 output.

3. Simple ON/OFF information for fire extinguishing activity. This can be read directly when both AUX1 and AUX2 are connected in series to the same line.

4. Four-state output according to the table below. This can be used by reading both AUX1 and AUX2 separately into the automation system and using internal logic to decide the state.

OUTPUT signals

AUX1 state	AUX2 state	Safera system status
OFF	OFF	Nothing to report: no active cooking or dangerous situation detected.
OFF	ON	Normal cooking detected.
ON	OFF	Alarm (dangerous situation detected: cooking hazard or water leakage).
ON	ON	Alarm (fire detected and liquid extinguish triggered).

4. INSTALLATION AND TESTING WITH SAFERA SIRO AND SIRO R

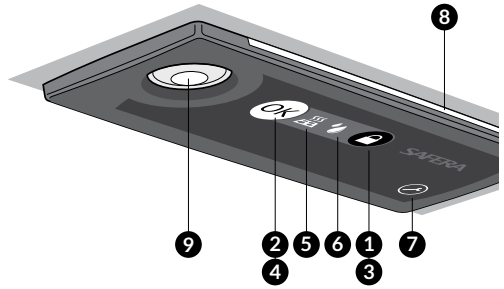
1. Connect all cables according to the pictures.

2. Power up the system by connecting the power supply (the system should start normally).

3. Press the OK-button on the Sensor Unit and check the color and amount of blinks on the light bars is correct according to these codes:

LED	Status	Remedy
One green blink	No Connection Hub detected.	Check the cables and system compatibility.
Two green blinks	Connection Hub is detected and working OK, but no CTU connection is present.	
Three green blinks	Connection Hub is detected, and also a CTU is connected. Everything is working OK. If you remove the CTU after this, an error will be raised (two red blinks).	
One violet blink	Problem with the communication between Sensor Unit and Connection Hub.	This will be raised if a Connection Hub is later removed from the system.
Two violet blinks	Connection Hub internal failure, for example component defect.	The Connection Hub is damaged and must be replaced.
Three violet blinks	Connection Hub has detected that the Power Supply of the Safera System is not working reliably or not providing enough power for a reliable extinguish launch.	The Power Supply must be replaced.
One red blink	The CTU service interval (5 to 10 years) has been reached.	The CTU must be replaced.
Two red blinks	Connection Hub has lost connection with the CTU. The CTU has been removed or the cable is damaged.	Replace the CTU and/or cable if necessary.
Three red blinks	The CTU has been emptied because of a fire alarm.	The CTU must be replaced.

4.1 Testing AUX-channles with home automation systems



1. Make a factory reset for the sensor unit: while pressing and holding the adjustment mode button ❼, press first the OK-button ❷ and then the child proof lock button ❶. After a couple of seconds, the indicator light panels ❽ should lit purple.

2. While the indicator light panels ❽ are lit purple, test the AUX-channels:

   - To activate AUX1 (alarm), press and hold the child proof lock button ❶
   - To activate AUX2 (cooking on), press and hold the OK-button ❷

3. When you have finished testing, press the adjustment mode button ❼ and pair the sensor unit again with the PCU normally according to the installation manual.

5. REMOVING THE CONNECTION HUB OR CTU FROM A SAFERA SYSTEM

Connection Hub and CTU cannot be removed by normal means. The system's operating principle is that once they are installed, their removal will always raise an error event. In a special case where removal is necessary, contact local Safera Support for instructions.