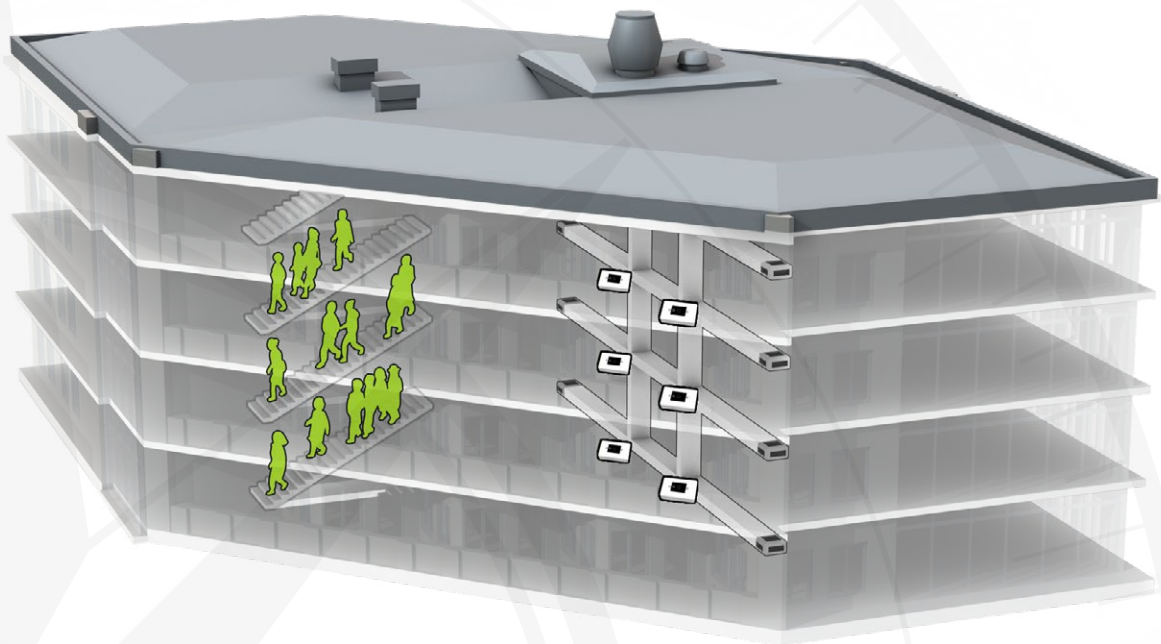


SMOKE CONTROL SYSTEM

**A FLEXIBLE SYSTEM FOR
FIRE SAFETY IN VENTILATION**

Installation guide for Smoke Control System





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1. PRODUCTS



SX:UNO / SX:DUO

Damper module for one (SX:UNO) or two (SX:DUO) smoke dampers.

Art.No. 8SC2-1:004 (SX:UNO)
8SC2:004 (SX:DUO)

INFORMATION

Occasionally there are needs that cannot be met with our standard products. Here are some examples of options for SX:UNO/DUO.

OPTION 021 Product no: 8SC2-1:021 (UNO)

Constant pressure maintenance function. With a pressure sensor connected, internal PI regulation takes place locally in the module. Controlled via Modbus or DFF form.

OPTION 022 Product no: 8SC2-1:022 (UNO)

Option with button function at terminals 6-7. The function allows a digital I/O from the module to be received via an external button.

OPTION 109 Product no: 8SC2-1:109 (UNO), 8SC2:109 (DUO)

0-10 V input at terminals 6-7. Can be used to control regulating dampers. Available for SX:UNO and for SX:DUO.



SX:ACCESS

Advanced central unit controlling and monitoring up to 200 damper modules. Suitable for small, simple systems and complex systems with multiple fire cells.

Art.No. 8EX2:002



SX:NETLINK

Simple but powerful Ethernet gateway for SIOX loops, fully controlled from your higher-level system via MODBUS TCP.

Art.No. 6ES2

2. I/O MODULES



SX:ECHO

Bus amplifier module that also isolates incoming from outgoing SIOX. More information on page 12

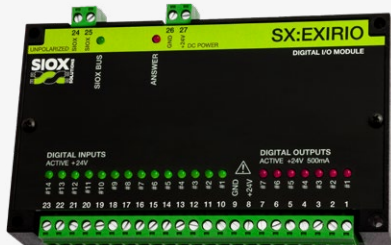
Art.No. 8R30:004



SX:IMPERIO TC

- 64 digital I/O, individually selectable
- Connection panel with terminals and LEDs
- Locally programmable (PLC)
- Supply 24VDC

Art.No. 8S27:017



SX:EXIRIO

- 14 digital inputs and 7 digital outputs
- Locally programmable (PLC)
- Supply 24VDC

Art.No. 8S45:019



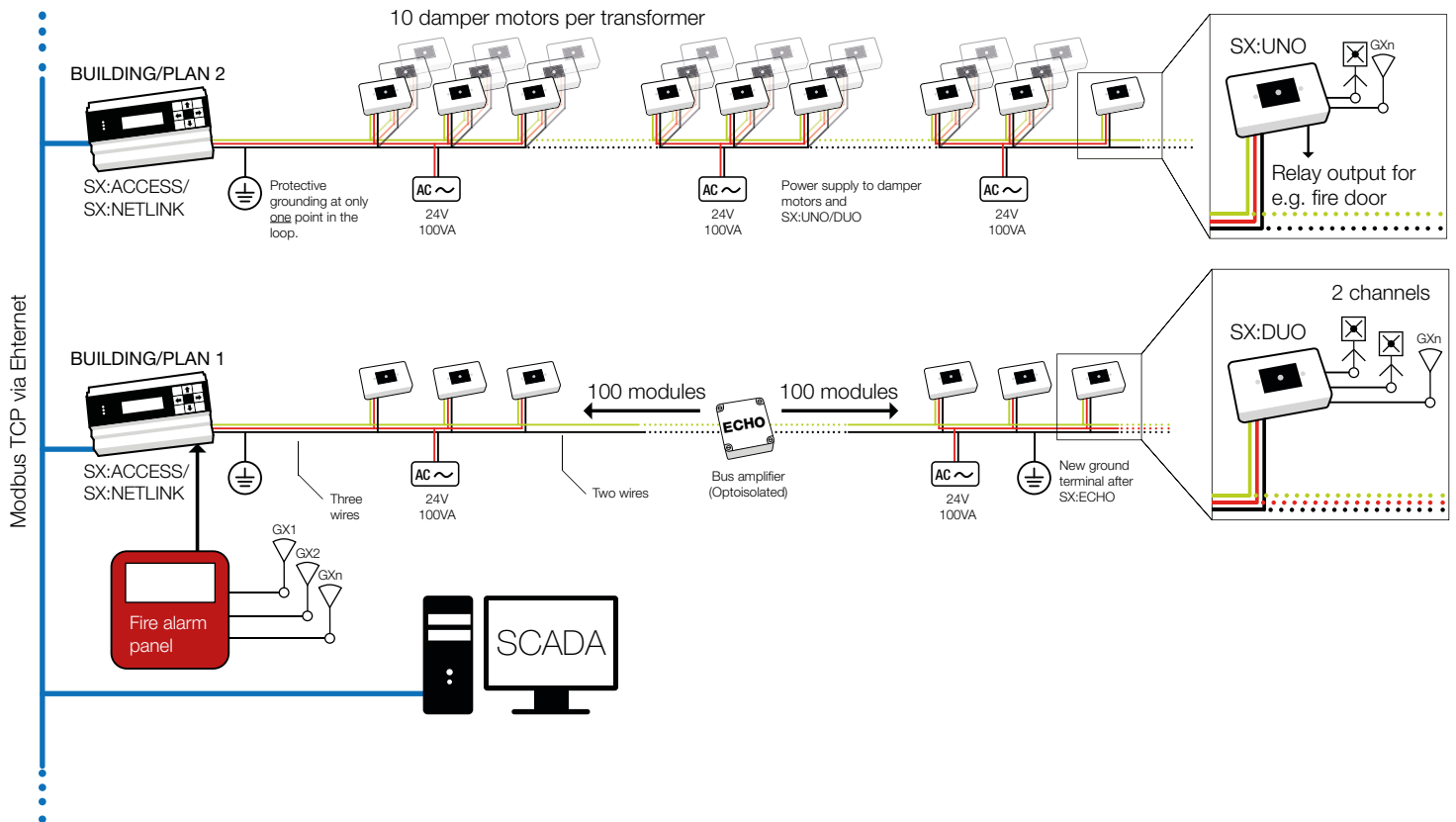
SX:EXIRA

- 4 digital I/O, individually selectable
- Locally programmable (PLC)

Art.No. 8SD1:004

Installation example:

Supervision of smoke alarms from a central fire alarm panel with individual control and supervision of up to 400 fire dampers



3. SYSTEM DESIGN

SX:UNO / SX:DUO - DAMPER MODULE

The damper module is available in two versions with one (SX:UNO) or two (SX:DUO) channels to control one or two dampers. Each module can be connected to one smoke detector and one temperature sensor. The module furthermore includes an alarm relay.

SX:ACCESS - CENTRAL UNIT

The central unit handles up to 200 damper modules and a total of 400 smoke dampers. It handles all system functions and can be monitored by a higher-level system via Ethernet and MODBUS TCP. The module has 4 digital inputs and 4 digital outputs for handling alarms, etc. In systems with more than 200 damper modules, more central units can be added to extend the system.

SX:NETLINK - ETHERNET GATEWAY

To control the entire system from a higher-level system instead, use SX:NETLINK, which acts as an interface between SIOX, Modbus RTU and Ethernet and supports Modbus TCP. The module handles up to 200 damper modules, and more SX:NETLINKs can be added to expand the system for larger installations.

SX:ECHO - BUS AMPLIFIER

If there are more than 100 damper modules in the loop or if the cabling is very long (>500 m, 1.5 mm²), an SX:ECHO is required as a bus amplifier. This module also optoisolates the bus, incoming from outgoing SIOX.

I/O MODULES

To integrate a large number of alarm points or to control other functions, a range of different I/O modules can be added to the system.



DID YOU KNOW

Some DUC products, e.g. SAIA and Larmia, include SIOX drivers to facilitate direct communication with our products!

4. BASIC FUNCTIONS

ALARM

A fire alarm can be triggered by:

- Smoke detectors or temperature sensors directly connected to damper modules.
- Failing or disconnected smoke or temperature sensors.
- Direct input to SX:ACCESS central unit from central fire alarm.
- External alarms connected to I/O modules.
- "Watchdog" triggered by an extended communication failure.

All damper modules are programmed with a standard software for alarm detection, damper control, supervision and monitoring.

FUNCTION TESTING

Function testing can be initiated as follows:

- From the button on the damper module
- Configurable time intervals per fire cell
- Controlled from the SX:ACCESS central unit
- Controlled from the higher-level system via SX:NETLINK or SX:ACCESS

In MODBUS TCP you can select function testing for one damper, a group of dampers or all dampers in the system.



DID YOU KNOW

Our damper modules can also handle regulating dampers.

5. INSTALLATION



Install the damper module on a cable ladder or wall. The cables for motor supply and end switches from the damper are then connected to the damper module. The module is then connected to common SIOX bus.

6. CABLE SELECTION

OUR RECOMMENDATIONS

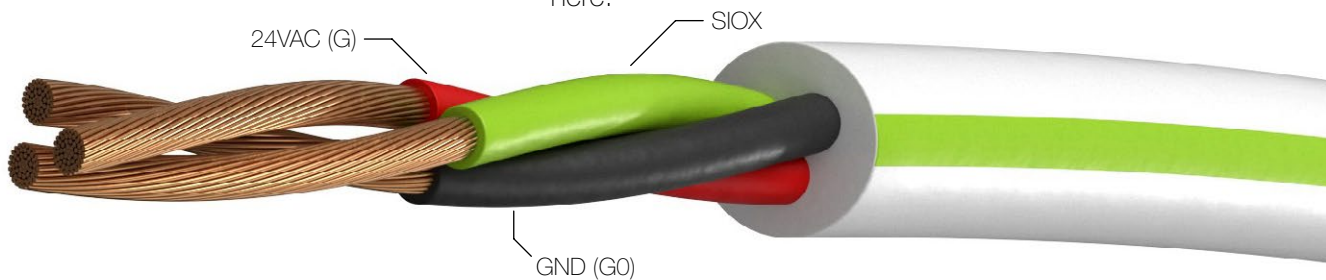
A common three-wire bus cable for supply and communication connects the controllers in the system. Our recommendation is to use 100 meters of 3 x 1.5 mm² unshielded cable for each 100VA transformer and 10 dampers. So before the limit of 100 metres or 10 damper motors is reached, the power supply should be split in order to drive a new transformer. See the example in section "8. Power supply" on page 8.

CHECK THE LENGTH

If the total length of the SIOX loop (regardless of the topology) exceeds 500 metres, an SX:ECHO amplifier module will need to be added. Read more on page 12 in the section about bus amplification.

NEW SIOX CABLE

We have created a cable jointly with RUTAB specifically designed for SIOX installations and correctly colour-coded. The cable is called "**Novoflex H SIOX**" and the E-number is **0254725**. For more information about this cable, scan or click on the QR code here.

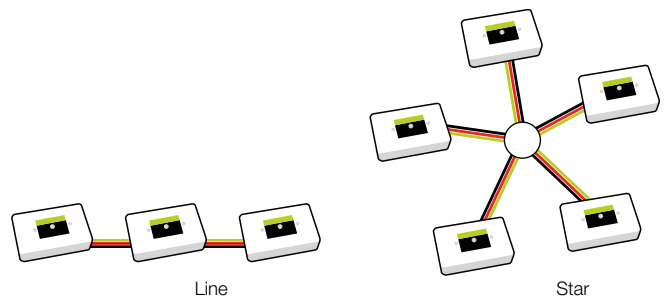


7. TOPOLOGIES

FREE CHOICE

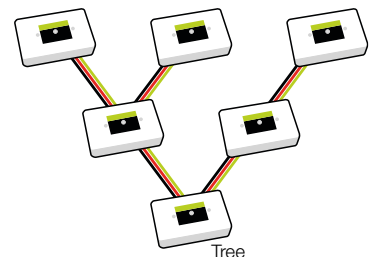
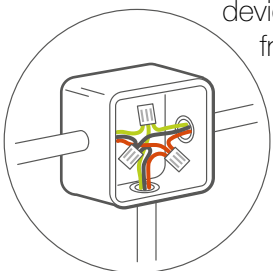
One of the main benefits of the SIOX bus is that it supports all topologies. Provided you keep track of the power supply as described above, and the overall cable length does not exceed 500 m, you can choose and combine topologies.

- Line
- Star
- Tree



BRANCHES

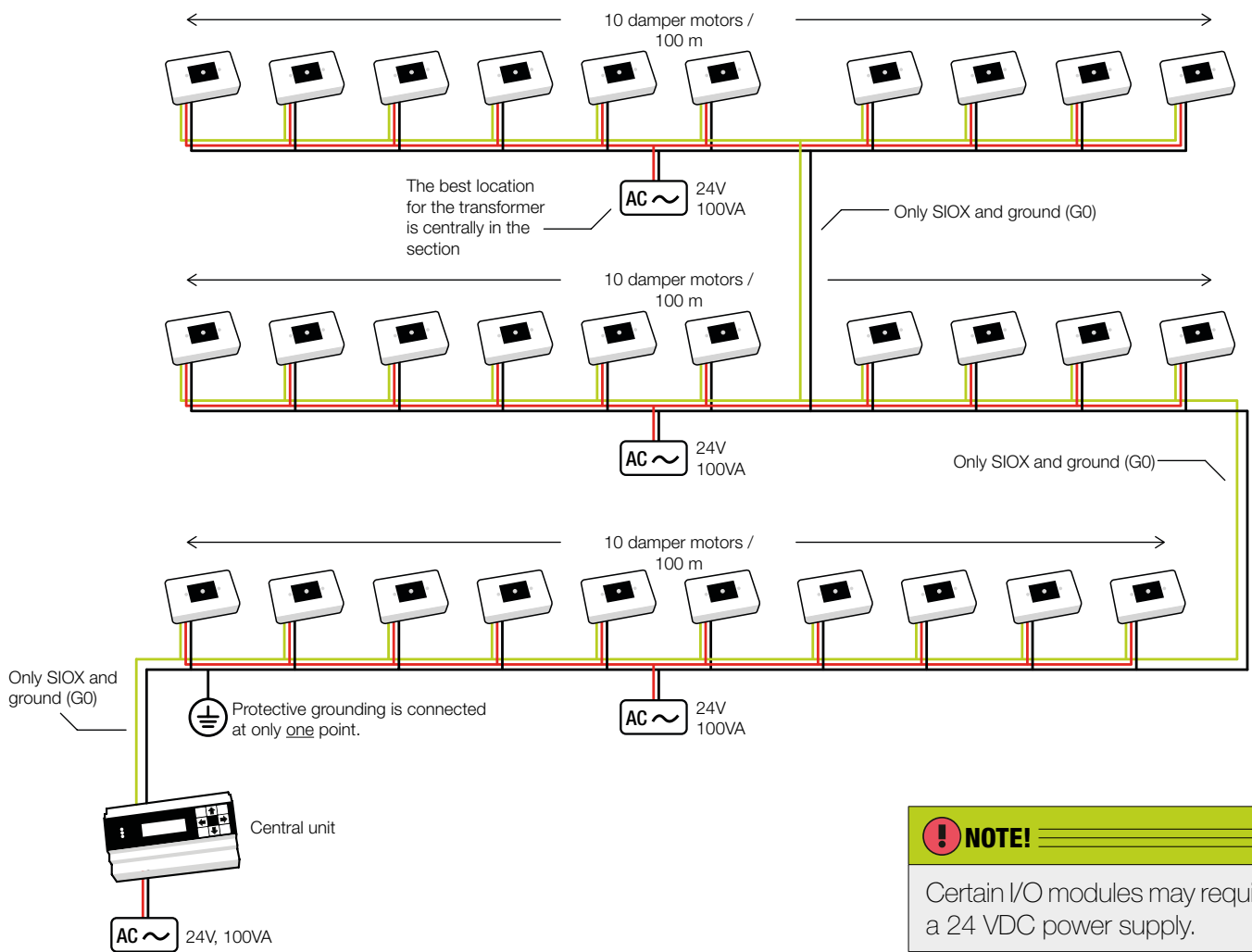
The system never requires a branching product or similar device. Branching is possible directly from a terminal or junction box.



8. POWER SUPPLY

The damper modules are designed for damper motors with a 24 VAC/DC power supply. We strongly recommend using one 100 VA transformer per 10 damper motors and 100 metres of cable.

Locate the transformer as centrally in the section as possible. Only SIOX and ground (G0) must be connected between sections with separate power supplies.

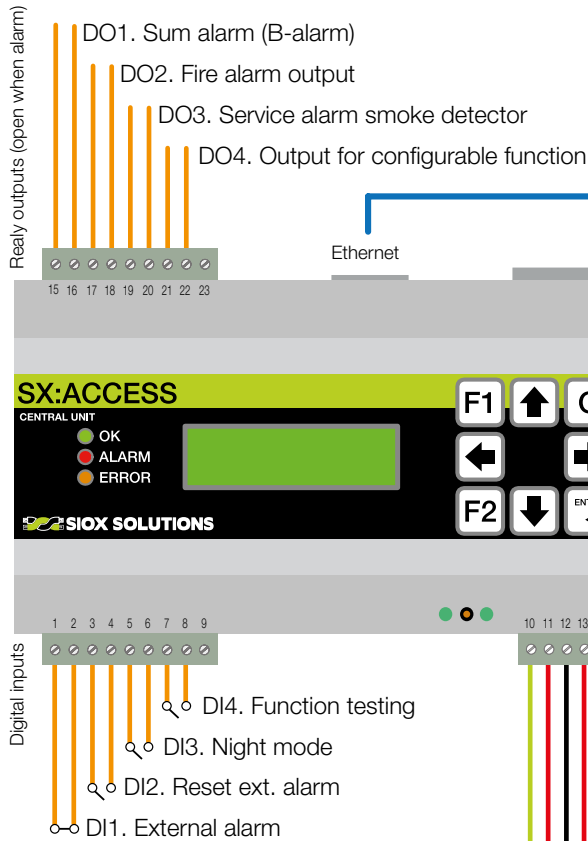


NOTE!

Certain I/O modules may require a 24 VDC power supply.



9.1 - CONNECTION - SX:ACCESS & DUO



The central unit and the damper modules are supplied by 24VAC. The connected dampers, detectors and temperature sensors are then powered by the modules itself.

SOFTWARE

- SIOX Smoke Manager
- SIOX Smoke Editor

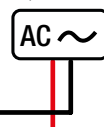


Service computer

NOTE

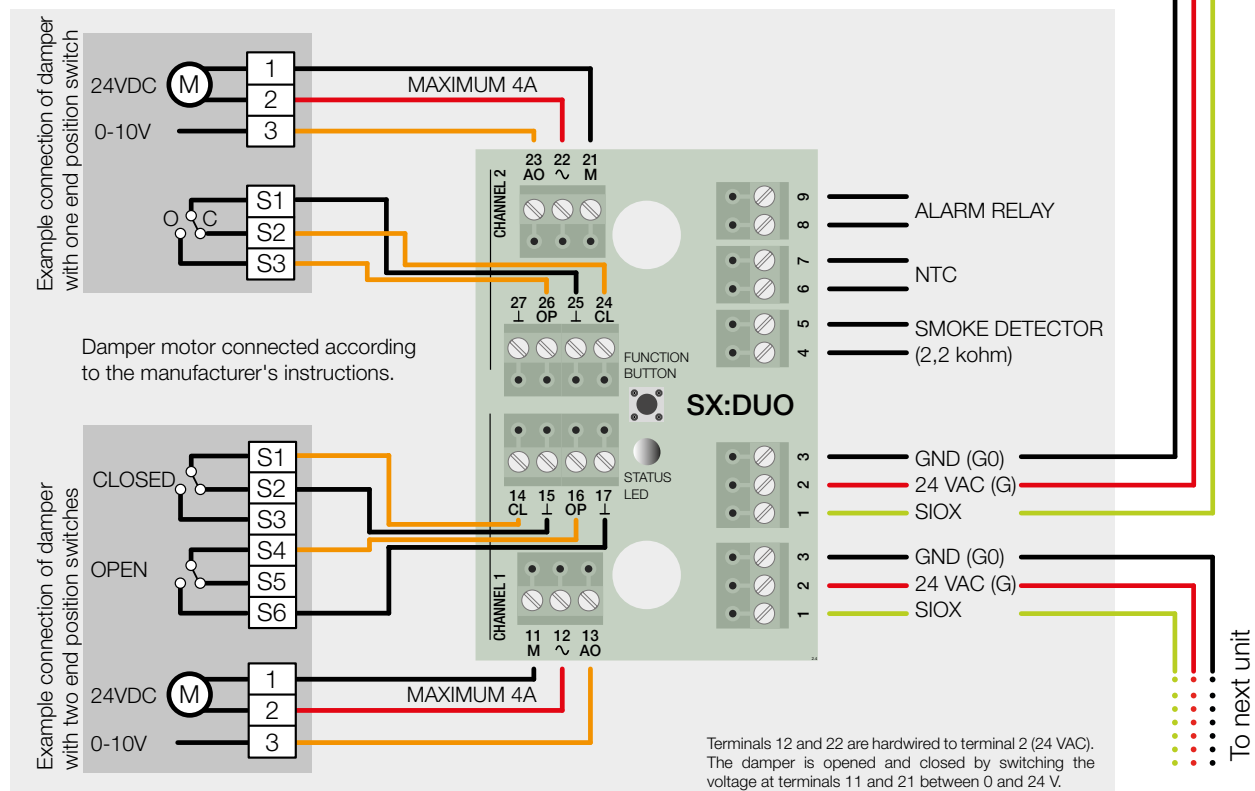
Our damper modules are designed to handle one damper per output. An actuator initially draws high current, and connecting more than one actuator can activate the short circuit protection.

24 V, 100 VA



Connect protective grounding only at central unit!

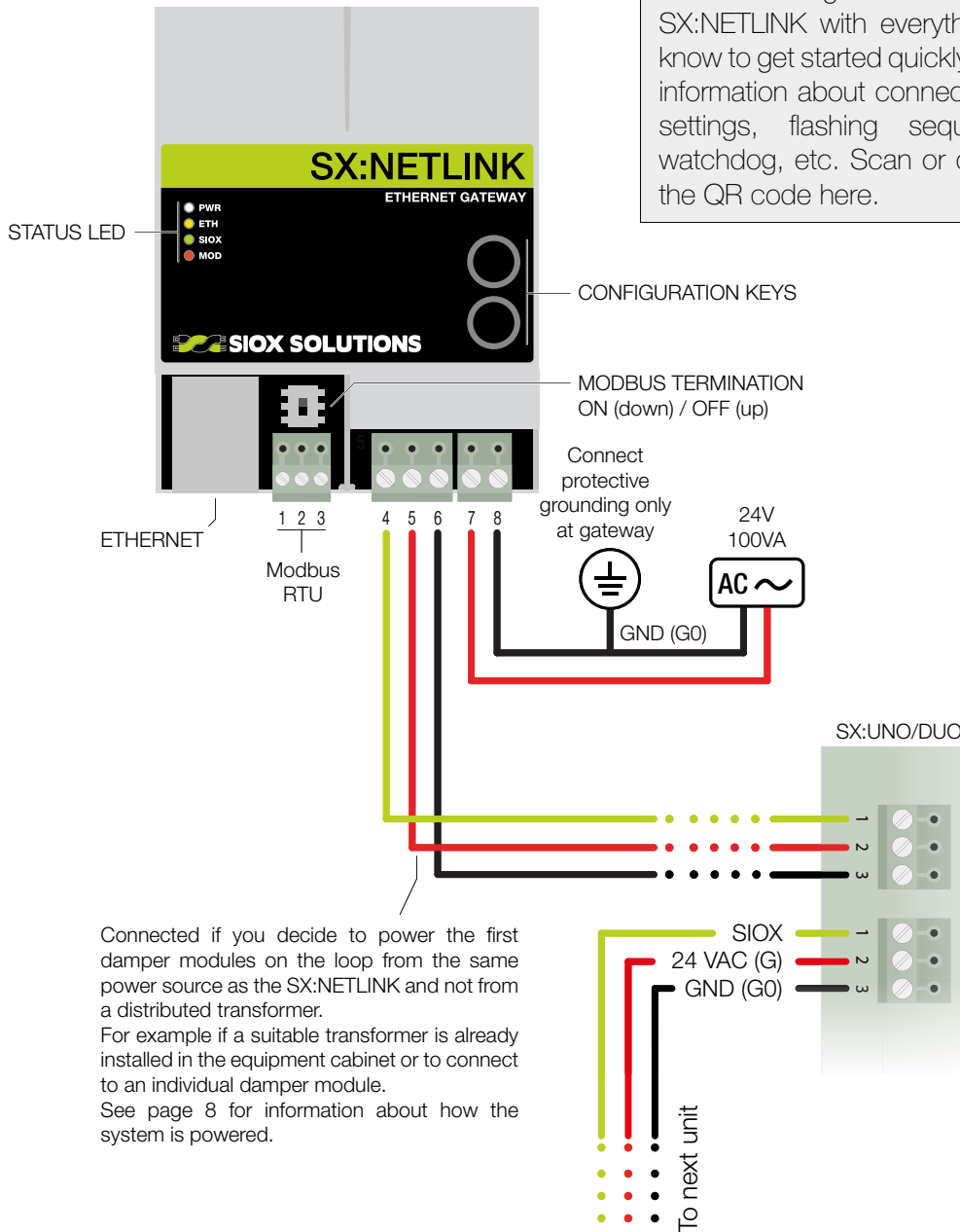
GND (G0)



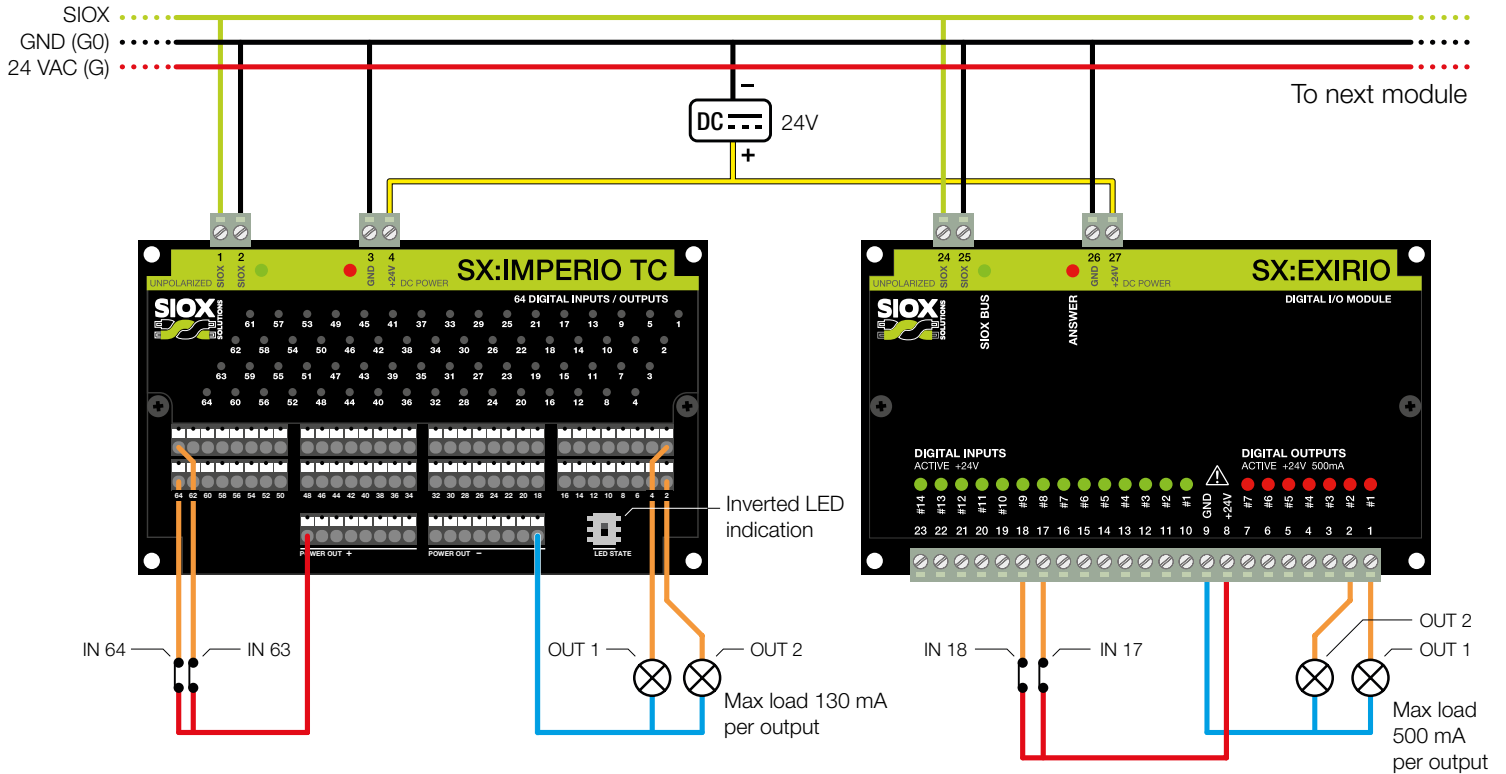
9.2 - CONNECTION - SX:NETLINK

i INFORMATION

A Quickstart guide has been created for SX:NETLINK with everything you need to know to get started quickly. It contains more information about connections, IP address settings, flashing sequences, watchdog, etc. Scan or click on the QR code here.



9.3 - CONNECTIONS - I/O MODULES

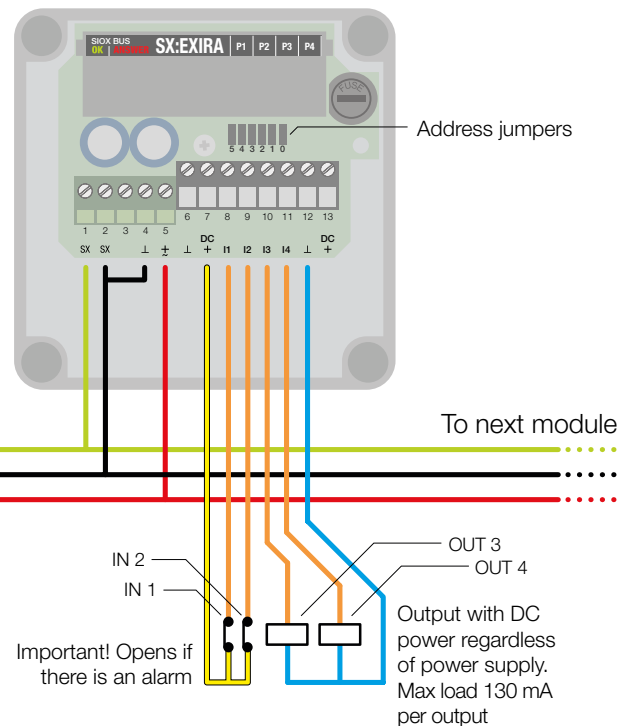


FIXED OR FREELY CONFIGURABLE I/O

These are the connection instructions for our I/O modules. SX:EXIRIO(S45) has fixed terminals for inputs and output, unlike SX:IMPERIO(S27) and SX:EXIRA(SD1) which have freely configurable I/Os. In the example for SX:EXIRA(SD1) we used I/O 1 and 2 for inputs and 3 and 4 for outputs.

SWITCH I/O

After searching in the PC program SIOX Smoke Manager, double-click on the module to start the DFF form for the module. You can now switch input to output or vice versa. To find out more about Smoke Manager go to "12. SIOX Smoke Manager" on page 17.



NOTE!

SX:IMPERIO and SX:EXIRIO (at the top of this page) require a DC power supply. SX:EXIRA works with DC and AC power supplies.

10. BUS AMPLIFICATION

SX:ECHO

If the SIOX loop is over 500 metres long or if more than 100 damper motors are connected (assuming that 1.5 mm² unshielded cable has been used), signal amplification is necessary. SX:ECHO is the name of our bus amplifier, which also provides full isolation between the buses because the primary and secondary sides are optoisolated. The unit is powered from the secondary side.

WHEN IS BUS AMPLIFICATION NEEDED?

SX:ECHO is therefore needed if a loop either has:

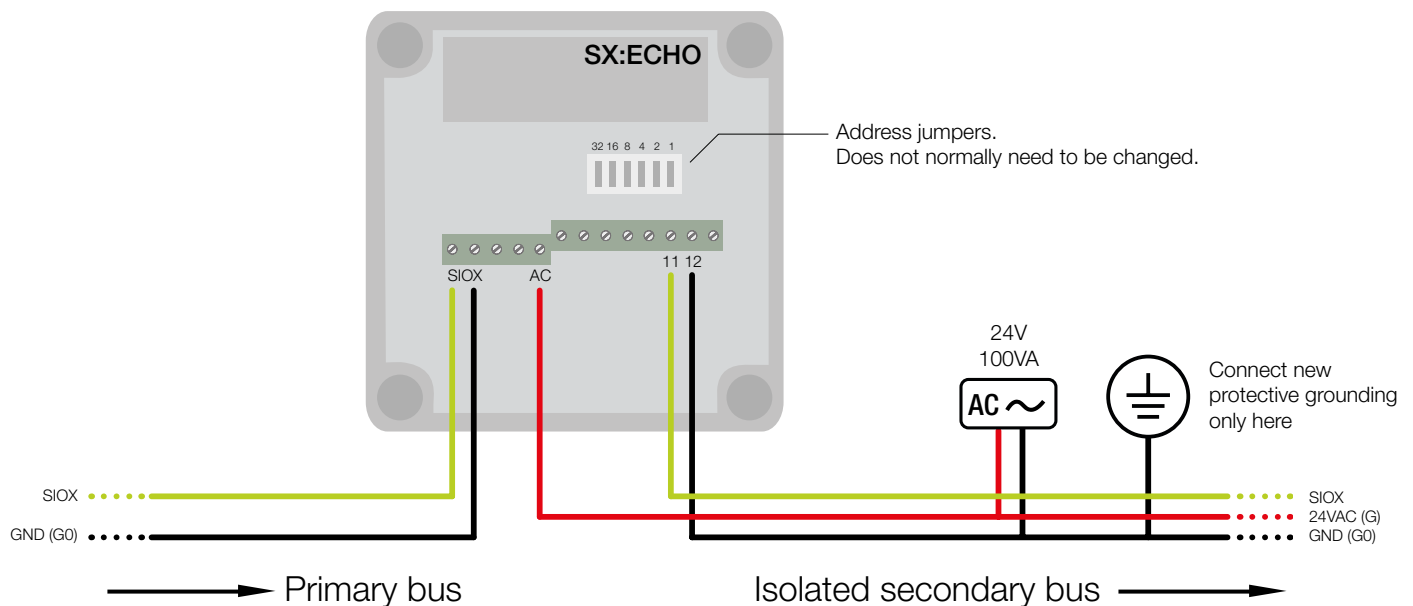
- More than 100 damper modules
- More than 500 meter cabel

NOTE!

If shielded cable has been used, SX:ECHO must be connected after just 200 metres. This is because the shielded cable produces slow edges on the SIOX bus.

TIP

For easy fault finding e.g. when the bus has become short-circuited, it may be smart to section an installation with several SX:ECHOs, typically one per floor.



11.1 - COMMISSIONING - INTRODUCTION

INTRODUCTION

Smoke Control System commissioning differs depending on how the system is structured. Here are three examples of common configurations.

- 1 System with all damper modules in one fire cell
- 2 A more advanced system with the damper modules in more than one fire cell. Alarm points, I/Os, etc.
- 3 System entirely controlled from the customer's higher-level system

The SX:ACCESS central unit is used in the first example. It works as a standalone unit and does not need to be connected to a higher-level system after commissioning.

SX:ACCESS is also used in the second example. In this case, however, a configuration needs to be created using our PC software SIOX Smoke Editor. The configuration is then downloaded to the unit.

In the third example, our SX:NETLINK Ethernet Gateway is used. The system is fully controlled from the customer's higher-level system via MODBUS TCP.

INFORMATION

We recommend always using a PC and SIOX Smoke Manager during commissioning. This makes it easier to keep track and to pinpoint possible faults.



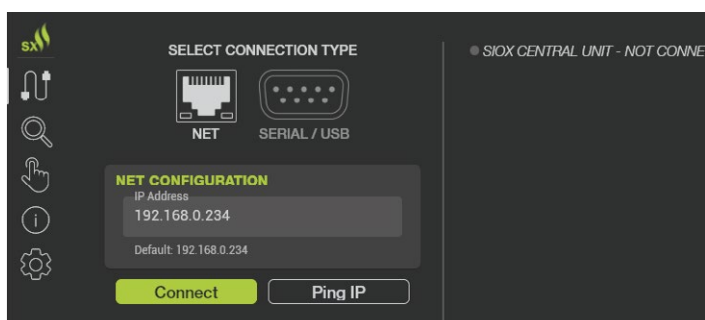
WE CAN DO IT FOR YOU

Time is precious for just about everyone. That is why we offer preconfigured systems for purchase. We carry out damper module addressing and central unit programming, using the damper names, fire cells, function testing schedule and alarm management, etc. specified by you. Contact us for more information (page 20).

11.2 - COMMISSIONING - ADDRESSING

SIOX SMOKE MANAGER

On delivery, all damper modules are set to address 62. The first step is to change the module addresses so they are unique. Addressing is done in our PC software SIOX Smoke Manager, which is included in our download package or can be directly downloaded via this link: siox.se/ssm



CONNECTION

After installation, click on **CONNECT** in the menu. On delivery, SX:NETLINK and SX:ACCESS are set to IP address 192.168.0.234. You can ping the IP address using the **PING IP** button. If you successfully connect to the central unit, it will appear on the right.

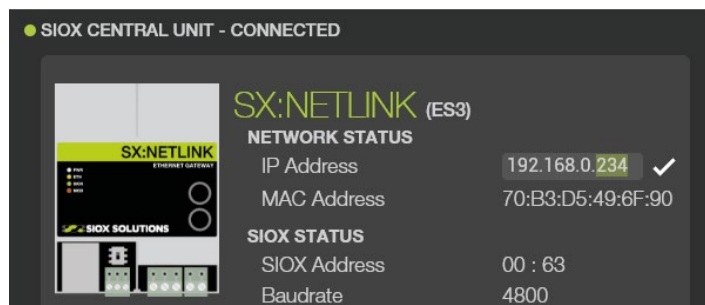
INFORMATION

No access to a PC? Addressing is possible directly in SX:ACCESS using the menu. However, we still recommend using a PC and SIOX Smoke Manager. For more information about how to use the menu for addressing, see page 6 of the SX:ACCESS manual. Scan the QR code for direct access.



CHANGE IP ADDRESS

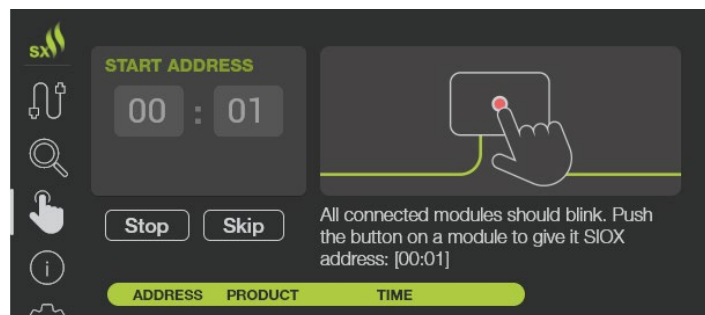
To change the central unit's IP address factory setting, go to the **CONNECT** page via the menu. Click on  and enter the address you want to use. Then click on  or press **ENTER**.



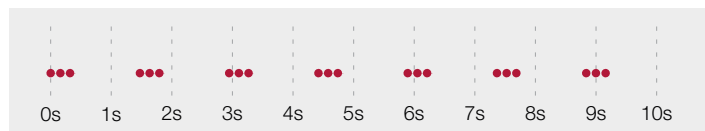
To change the gateway, the subnet mask or anything else, click on the **CONFIGURE (DFF)** button underneath.

ADDRESSING - INTRODUCTION

Addressing takes place in sequence. First you choose a starting address, and then you physically press the button on each module in the system. Start by going to the address page in SIOX Smoke Manager. **ADDRESSING** in the menu. There are clear instructions on the right of the page.

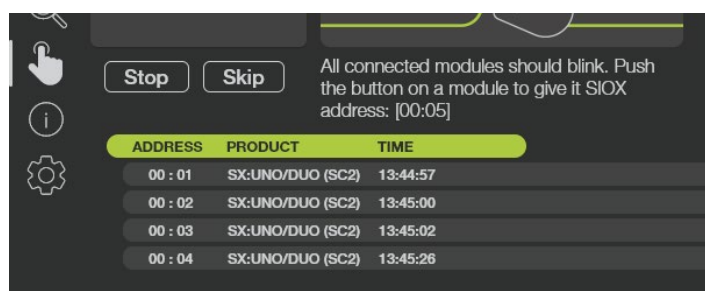


After choosing the starting address, click on **START**. All modules in the system should now be flashing as follows.



LED flashing during sequential addressing

Press the physical button on the modules to give them the next address. When you press the button, the accepted address is confirmed with red and green flashing for 5



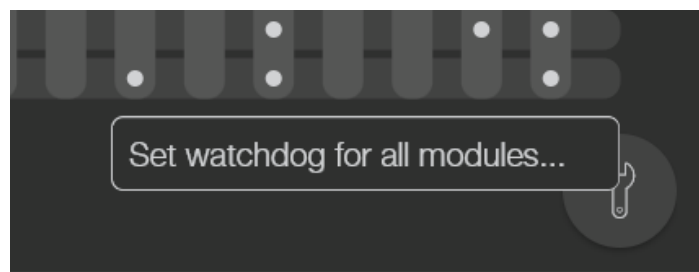
seconds. The module may also operate the dampers to confirm that it has received the address. Now keep the button pressed for 3 seconds. SIOX Smoke Manager shows which address was given to the unit and also searches the bus to check if it was a unit that was already addressed. The addresses is incremented automatically, but you can also change it by assigning a new address. Check and document the address and physical location of the modules. Continue until all modules are addressed. End the process by clicking on **STOP**.

WATCHDOG - INTRODUCTION

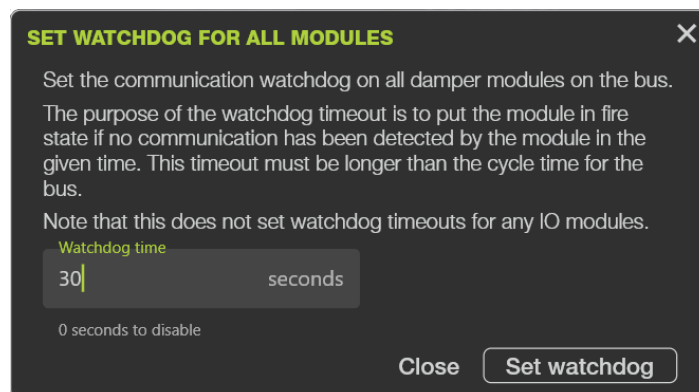
The watchdog function must be enabled in all damper modules so they automatically switch to fire mode if there is a communication failure. If SX:ACCESS is used as the central unit, skip to "11.3 - Commissioning - SX:ACCESS". But if you are using SX:NETLINK, the watchdog function is configured last. You can use Smoke Manager to do this.

WATCHDOG - CONFIGURE FOR ALL MODULES

Go to the **SEARCH & MANAGE** page and click on  in the bottom right corner. Choose **WATCHDOG FOR ALL MODULES**.



Enter the watchdog time in the **WATCHDOG TIME** field. **30** seconds for example. Then press **SET WATCHDOG**.



Smoke Manager now looks for all damper modules and sets their watchdog. When it finishes it displays the number of modules for which the watchdog was set.

11.3 - COMMISSIONING - SX:ACCESS

SIMPLE SYSTEM CONFIGURATION

After addressing, a “simple system configuration” can take place using the menu. The central unit generates a configuration by itself depending on the modules it finds in the loop. A simple system configuration is possible if all damper modules are in a single fire cell and they are addressed in sequence with 1 as the first address.

- Press F2 and ENTER to enter service mode
- Move down to **SIMPLE SYSTEM CONFIGURATION**
- Press ENTER.
- When **MODULES FOUND** appears, press ENTER
- **OK, CONFIGURATION FOR XX MODULES** appears. If the number is wrong, you can use ↑ and ↓ to scroll through the addresses to find the problem.
 - KOM** = Communication error
 - DBL** = Double addressing
 - ENTER** = Save
- Press F2 and C to close service mode.

MODULE CONFIGURATION

If you want a damper module to operate an alarm point (smoke detector connected) or if you need to specify whether one or two dampers are connected (two dampers for SX:DUO only), a module configuration is necessary.

- Press F2 and ENTER to enter service mode
- Move down to **MODULE CONFIGURATION**
- Press ENTER.
- You can now choose from the following options

S1 One damper	(default setting)
LP S1	Alarm point + One damper
S1 S2	Two dampers
LP S1 S2	Alarm point + Two dampers
LP	Alarm point only
- Use the following controls

➡	Scroll between options
⬆ ⬇	Move between the addresses
F1	Activate all damper modules and alarm points
F2	Deactivate all alarm points
- End with ENTER
- Press F2 and C to close service mode.



FUNCTION TEST SETTINGS

The damper modules automatically perform function testing on the dampers every 48 hours after they are switched on. If you want this to happen on a certain day or time, or if you only want the function test to be started from MODBUS communication or the digital input to SX:ACCESS, change the settings as follows.

- Press F2 and ENTER to enter service mode
- Move down to **FUNCTION TEST SETTINGS**
- Press ENTER.
- Use the ← → buttons to move between the days. Press ↓ to select a day.
- Set the time on the right
- To start the function test only from the digital input or MODBUS communication, choose “1”.
- Confirm with ENTER or cancel with C
- Press F2 and C to close service mode.

i INFORMATION

If a damper module is configured as an alarm point, all modules in the same fire cell will be activated if the smoke detector is triggered. A triggered smoke detector will always switch the module to local fire mode.

DATE AND TIME SETTINGS

If the date and time settings are incorrect, the function test settings might not work properly.

- Press F2 and ENTER to enter service mode
- Move down to **SET DATE/TIME**
- Press ENTER.
- Press the ◀ ▶ buttons to move the marker. Flashing values can be changed with ↓ ↑.
- Confirm with ENTER or cancel with C
- Press F2 and C to exit service mode

SERVICE MODE TIMEOUT

If the central unit is left in service mode, functions such as alarm, function test and fire will not work. A timeout can be set to automatically return to normal mode.

- Press F2 and ENTER to enter service mode
- Move down to **SET SERVICE MODE TIMEOUT**
- Press ENTER.
- Press ↑ to select a number of hours. Press ↓ to deactivate the function.
- Confirm with ENTER or cancel with C
- Press F2 and C to exit service mode

SETTING WATCHDOG

As described above, the watchdog function must be enabled in all damper modules so they automatically switch to fire mode if there is a communication failure.

- Press F2 and ENTER to enter service mode
- Move down to **SET WATCHDOG**
- **Tc = X s** is the measured cycle time for communication to all modules in the loop.
- Use ↑ ↓ to set the time between 30 and 90 seconds. The time you set must be longer than one measured cycle time.
- Confirm with ENTER or cancel with C
- Press F2 and C to close service mode.

! NOTE!

Don't forget to close service mode! F2 + C. Outgoing fire alarms are blocked in service mode and all dampers are open. The green "OK" LED means normal mode and indicates that service mode is inactive.

i INFORMATION

For more detailed information, see the SX:ACCESS manual. It is available on our web site or directly via the QR code.



12. SIOX SMOKE MANAGER

INTRODUCTION

SIOX Smoke Manager is our latest PC software specifically designed to handle Smoke Control System products. We have gathered together all the software tools needed for quick and easy system commissioning and troubleshooting.



INSTALLATION

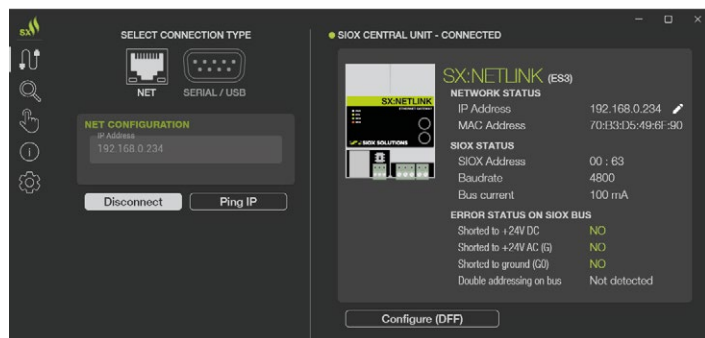
The installation package for Smoke Manager is included in our download package but can also be downloaded via this link: siox.se/ssm

DID YOU KNOW

If an update is available, it is installed automatically when the program starts.

CONNECT TO YOUR SYSTEM

Start by connecting to your central unit. Click on **CONNECT** in the menu to access the following page.



CHOOSE THE CONNECTION TYPE

NET is the default connection type for central units via the Ethernet port. For example SX:NETLINK or SX:ACCESS. If a central unit via a USB or COM port is used instead, for example K32 or SX:U-LINK, choose **SERIAL/USB**.

CENTRAL UNIT - OVERVIEW

When it is successfully connected, the central unit appears on the right with information about it. For Ethernet units, the IP address is easy to change with the pen icon. Other important status information also appears such as the MAC address and the bus status. If you need a different configuration, click on **CONFIGURE (DFF)** to go directly to the DFF form for the unit.

INFORMATION

To find out about module addressing in SIOX Smoke Manager, go back to page 14.

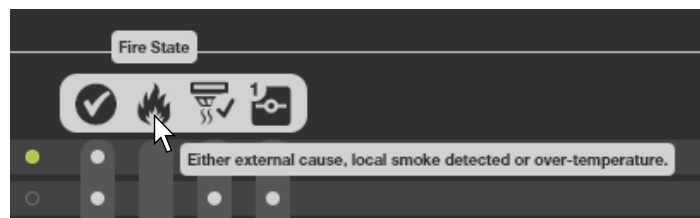
SEARCH AND MANAGE

From the menu, click on **SEARCH AND MANAGE**. On this page you can search the SIOX bus for modules. You can then view status information and change configurations. Begin by starting a search. It is possible to filter and limit the search to a particular area under **SEARCH OPTIONS** but this is not normally necessary. Click on **SEARCH**. A search starts and the modules that are connected to the central unit are added to the list. Wait for the search to finish or click on **STOP**. The list of units is now scanned continuously to give you an overview of the changing status register of the modules. The green dot indicates which module is being scanned now.

ADDRESS	PRODUCT	WATCHDOG	PROGRAM (PLC)	FIRMWARE	
00 : 01	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	●
00 : 02	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.85	○
00 : 03	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 05	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 06	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 07	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 08	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 09	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○
00 : 10	SX-UNO/DUO (SC2)	None	SC2-1_004_VER1.5	3.99	○

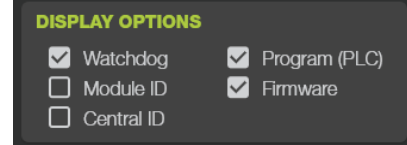
TOOL TIP

Hold the mouse pointer over the different icons and fields you want to find out more about. A descriptive text will appear. See the example below.



DISPLAY OPTIONS

Under DISPLAY OPTIONS you can display more information about the modules. For example the watchdog timeout, firmware, etc. This information will appear in new columns in the list of module. Module ID and Central ID are free text fields that are saved locally in the module. You can change the fields in the module's DFF in the setup tab.



DFF FORM

There is a DFF form for all our modules providing easy access to status information and settings for the product. To access the DFF form, double-click on the line containing the module a search in Smoke Manager. The DFF below is for SX:UNO/DUO. The first tab shows status information for virtually everything in the module. This is ideal during troubleshooting, for example. You can also send commands directly such as forced opening, closing or function test of dampers. The second tab contains many settings that you can change.

SC2 Ver 3.99:800 SIOX ADDRESS ? 0 : 1 **REBOOT** **BLINK** ? **DFF**

RUN SETUP ANALOG IN/OUT

OPERATION STATE

- ☒ Stand by
- ☐ Fire alarm
- ☐ Function test
- ☐ Damper error (Ch 1)
- ☐ Damper error (Ch 2)
- ☐ Over-temperature
- ☒ Alarm relay - Closed

TEST COMMANDS

- ☐ External fire alarm
- ☐ Function test
- ☐ Reset smoke detector
- ☐ Close dampers
- ☐ Force opening

SMOKE DETECTORS - Operation state

- ☒ Normal run
- ☐ Smoke alarm
- ☐ Service warning
- ☐ Loop error
- ☐ Previous error

DAMPER OPERATION

Channel 1

- ☐ Damper closed
- ☒ DAMPER OPEN
- ☐ Damper is closing
- ☐ Damper is opening

Channel 2

- ☐ Damper closed
- ☒ DAMPER OPEN
- ☐ Damper is closing
- ☐ Damper is opening

NTC TEMPERATURE

-40,0 °C

Program (PLC)

Double click to retrieve info

Module ID

Double click to retrieve info

Central ID

Double click to retrieve info

REGULATABLE DAMPER POSITIONS

Channel 1 100 % **Channel 2** 100 %

SHORT CIRCUIT PROTECTION - STATUS

- ☐ Motor 1 - OK
- ☐ Motor 2 - OK

SIOX SOLUTIONS

For example you can adjust the watchdog, the function test times, and the smoke detector limit values.

MODULE ID AND CENTRAL ID

At the bottom of the page under **IDENTITY**, you can create or change the Module ID and Central ID. You are free to use these text fields, which are saved locally in the module. Max 31 characters for each field. You can view them in separate columns in Smoke Manager and they are also searchable via the filtering option in **SEARCH OPTIONS**.

SC2 Ver 3.99:800 SIOX ADDRESS ? 0 : 1 **REBOOT** **BLINK** ? **DFF**

RUN SETUP ANALOG IN/OUT

CHANNELS WITHOUT FIRE DAMPER CONTROL

- ☐ Turn off channel 1
- ☒ Channel 2 turned off

SHORT CIRCUIT PROTECTION

- ☐ Turn protection off

DAMPER OPENING

- ☐ Always full opening

ALARM RELAY

- ☐ Alternative function

AFTER RESET

- ☒ Function Test
- ☒ Fire State

FUNCTION TEST SETTINGS

- Maximum allowed time for closing (s) 40
- Maximum allowed time for opening (s) 180
- Function test interval (h) (0=off) 48
- Remaining time to function test (h) 26

IDENTITY

Module ID

Central ID

SMOKE DETECTORS - Smoke loop setup

- Loop error < 4 mA
- Service > 16 mA
- Fire > 30 mA
- Current value 8 mA

NTC ALARM LEVEL

- Alarm level 0,0 °C
- Current value -40,0 °C

WATCHDOG

- Time in seconds 0

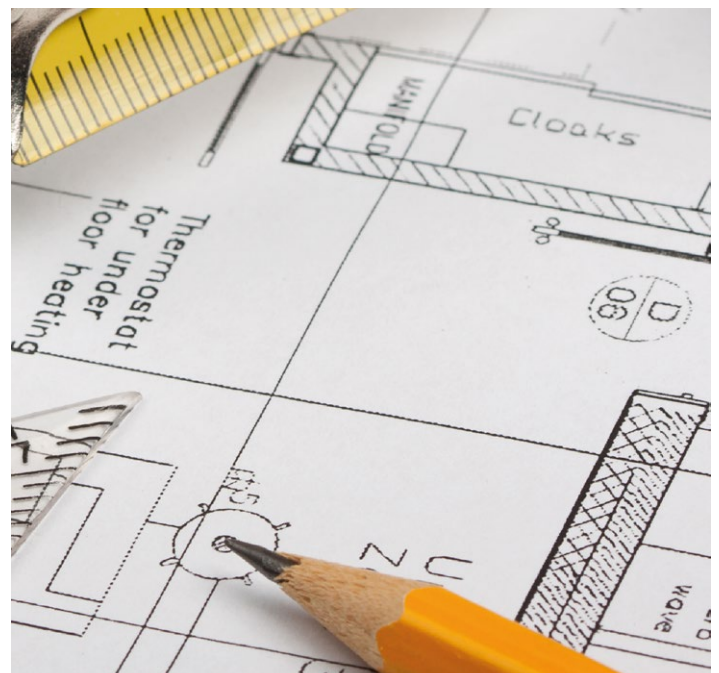
SIOX SOLUTIONS

13. DIMENSIONS

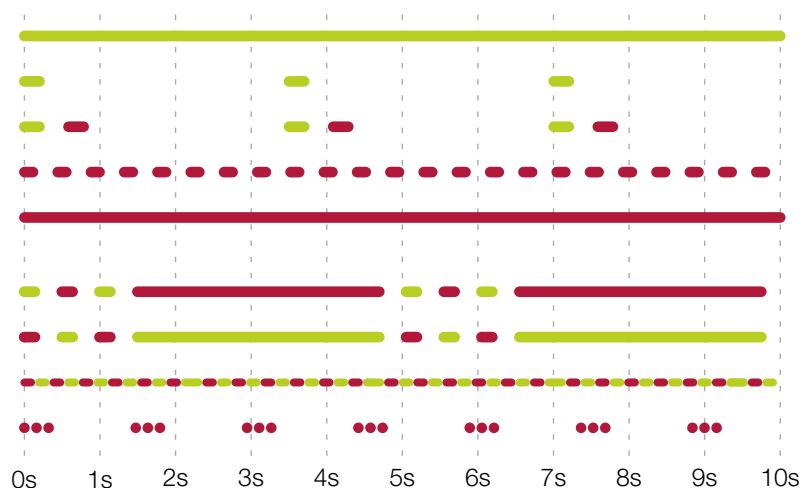
INFORMATION

For easier installation, the dimensions of our products in the system are presented below.

PRODUCT	DIMENSIONS
SX:ACCESS	160 X 105 X 58 mm
SX:NETLINK	72 X 91 X 62 mm
SX:UNO/DUO	122 X 80 X 40 mm
SX:ECHO	94 X 94 X 57 mm
SX:IMPERIO	140 X 81 X 25 mm
SX:EXIRIO	140 X 81 X 25 mm
SX:EXIRA	94 X 94 X 57 mm



14. SX:UNO/DUO - LED INDICATORS



- Standby
- Standby with communication
- Standby with communication, watchdog not set
- Fire
- Damper fault / Motor short circuit / Service alarm in smoke detector / Button pressed
- Function test - Damper opening
- Function test - Damper closing
- Flashing for identification / Address accepted
- Sequential addressing taking place

The flashing sequences of the damper modules are shown above with their meaning.

15. TROUBLE SHOOTING

SYMPTOM	POSSIBLE CAUSES	ACTION
Damper modules or SX:ACCESS are completely dark	No power supply	Measure the voltage between the damper module ground and 24 VAC
Green SX LED off on SX:ACCESS or SX:NETLINK	SIOX bus short circuit	Remove the SX wire on SX:ACCESS and check that the LED goes on. Troubleshoot the SIOX wire. The voltage must be between 20 and 30 VAC.
Constant green light on some damper modules.	No communication with the damper module but the damper is working OK	Check that the SIOX wire is connected to all modules.
	The damper module is not included in the communication list of the central unit.	Start "Sequential Addressing" (without changing any addresses) and all damper modules should be called and start flashing red
	Cables too long	With very long cables (over 500 metres of 1.5 mm ² cable), it may be necessary to add an SX:ECHO (bus amplifier). The voltage on the SIOX bus must be between 20 and 30 VAC (measured between GND and SIOX). Check that each bus section is connected to protective grounding at one point only, preferably at the central unit.
Constant red light on some damper modules	Damper fault / Motor short circuit / Service alarm in smoke detector / Button pressed	Check damper motor or whether damper is stuck. Press the button for the function test. Is the button stuck? If communication is working, run the DFF form to view the end position sensor statuses, the short circuit protection status and the smoke detector service alarm.
Red flashing on one or more damper modules.	Fire alarm	Check the smoke detector and temperature sensor connections. If communication is working, run the DFF form to view the sensor statuses and if necessary reset unused functions.

16. CONTACT

HERE TO HELP

At SIOX Solutions we think it is very important that you, the customer, get the help you need. If there is anything you want to ask or are unsure about, or if you have any ideas, please do not hesitate to get in touch! You can call any time during office hours between 08:00 and 17:00 and you can also contact us by email.

CONTACT

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