

Somfy Digital Network™ (SDN)



Intelligent Shade Management



Who is SOMFY?

SOMFY® is the leading global manufacturer of strong, quiet motors with electronic and app controls for interior and exterior window coverings. Over 270 million users worldwide enjoy the more than 160 million motors produced by Somfy. During the past 40+ years, Somfy engineers have designed products for both the commercial and residential markets to motorize window coverings such as interior shades, wood blinds, draperies, awnings, rolling shutters, exterior solar screens and projection screens. Somfy motorization systems are easily integrated with security, HVAC and lighting systems providing total home or building automation.

Somfy's Commercial Building Solutions offer a wide range of intelligent motors and controls that optimize the utilization of natural light in your commercial workspace. Our systems are calibrated to maximize occupant comfort while enhancing the visual environment, minimize solar glare and heat gain, and provide UV protection. Somfy's natural light control and automation systems are scalable in design; offered in low voltage, line voltage or wireless options; and are perfect for projects of any size or budget. Somfy's Commercial Specification team hold LEED® professional credentials and will support all aspects of any project, from specification through commissioning.

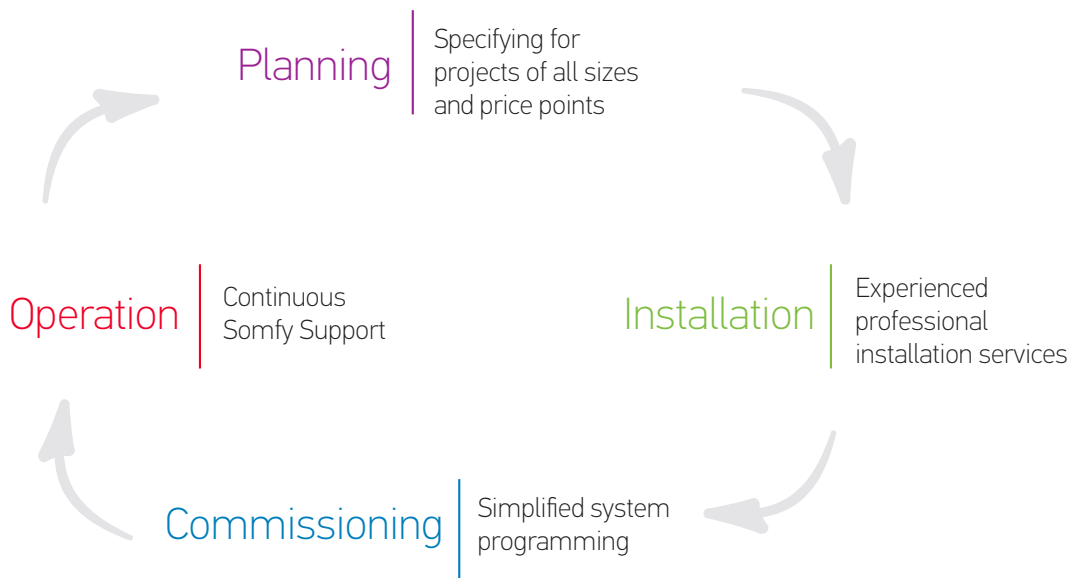


150
— MILLION —
motors

5
YEARS
WARRANTY

Working with you from specification to maintenance

Thousands of shade manufacturers around the world choose Somfy motors to bring their natural light control products to life. Somfy's nationwide Commercial Specification Team will work with you to find the right manufacturer and support your project every step of the way.



Why Somfy Digital Network?



Overview of SDN

Intro to Somfy Digital Network

The Somfy Digital Network (SDN) is the latest generation of bus-line enabled Intelligent Tubular Motors and Smart Switch Controls. The SDN components are integrated into a cost effective system designed to operate a wide range of end products such as solar screens, projection screens and Venetian blinds over a standard RS-485 network.

The SDN system is a standard half duplex, bi-directional RS-485 network. Bi-directional communications makes it possible to receive feedback from each motor on the network. This allows the system to view the position and status of any motor on the network, in real time. Since the SDN network runs over standard network architecture, it is possible to establish a remote connection to the system from anywhere internet access is available. This defines a new level of commissioning and support services that can be offered for today's energy efficient Intelligent Building.

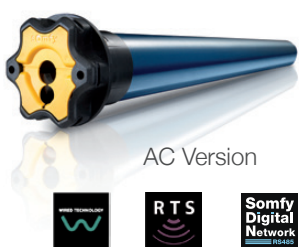
Control Versatility

The recommended digital control devices for home or building projects operate using the Somfy Digital Network. The Somfy Digital Network could be used either as a stand-alone option or including animeo IP. Stand-alone SDN systems feature different control options than animeo IP systems.

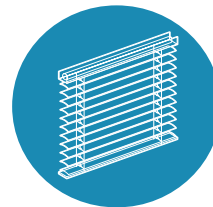


Compatibility

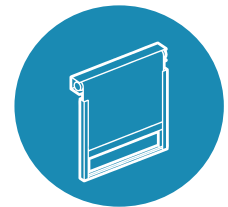
Somfy motors are offered in a wide range of sizes and window treatment types for retrofit or new construction projects. Some of the power supply options increase design flexibility when wiring hard to reach or inaccessible areas.



Ability to motorize all types of interior and exterior shading project!



Shades



Blinds



Drapes



Awnings



Shutters



Pergolas



Insect Screens



Projection Screens

Somfy's Control Solutions



Comparison with Wired Technology

- Provides control of motorized window coverings via a line voltage or low voltage wall switch wired directly to a standard motor
- Offers control using common line voltage switching
- Requires an electrician for line voltage switches
- Wall switches provide single or group motor control



Comparison with RTS

- RTS is omnidirectional and travels through walls making controlling motorized products easy. You don't necessarily have to be in the same room as your motorized product(s), or aim at them in order to operate.
- You can mix and match controls as you wish.
- Provides the ability to change user preferences anytime with simplified programming.
- Each RTS motorized application can be controlled by up to 12 RTS controls and/or accessories. You can also use the same RTS control product to control different RTS applications.



Ability to integrate:

Somfy offers a broad range of controls and interfaces that makes it easier than ever to integrate motorized shading with third-party control systems regardless of technology or brand. We have solutions to fit all project needs, regardless of shade specifications, power or technology requirements.

Technologies

Somfy products integrate with the following third-party technologies.





Powerful, yet economical building solutions



A stand-alone SDN scalable shading system, without a system-wide master controller, is comprised of intelligent motors and controls utilizing Somfy Digital Network RS485. Core characteristics of a stand alone SDN network include:

- Manage the intelligent motors and controls on a RS485 network.
- Manage unique addresses for each intelligent motor.
- Allow the operation of both AC line voltage motors and DC low voltage intelligent motors on a single common intelligent network without requiring gateway devices.
- Allow for upper and lower motor limits to be pre-set by window covering manufacturer and adjustable on site via handheld device or, without the need to access the roller assembly or external, mechanical limit wheels or buttons.
- Allow for intelligent keypads, schedules and motor grouping to be configurable and managed from any point in the system's wiring network via the Somfy software suite.
- Allow for each motor to automatically align itself to a referenced shade position upon receiving a command from the network.
- Operate without the need of a dedicated PC.

Somfy Connect™ Range:

These flexible connection and integration options provide system flexibility to control motorized solar shades in most applications. The Somfy Connect Range is a new line of products which offer many different interfacing options between other systems. This new control integration platform enables seamless communication between native Somfy motors and controls and multiple third party integration networks. Seamless communication between these systems results in straightforward design and installation processes for any industry professional.

Benefits of Somfy Digital Network



Energy Efficiency



Scalability & Flexibility



Compatibility



Comfort



Building Certification

Natural Light Management

Automatically managing motorized window coverings reduces dependency on artificial light, allowing more natural light for increased visual comfort of occupants as well as energy savings.

Extended Daylight Zone Automated Shades

A **daylight zone** is an area within a building that is expected to receive consistent daylight.



Manual shades are rarely adjusted thus reducing the daylight zone.



Automated shades increase the daylight zone, adjusting to the specific sky and weather conditions.



Building Integration

Motor and control integration is a dynamic sector of the product offering by Somfy. Somfy motors offer a high torque ranges while operating with low sound levels which is a valuable combination for the shading market.

- Communicate with Building Management Systems
- Communicate to third-party automation systems through RS485, RS232 serial protocols and dry contact closure

Dynamic Insulation™

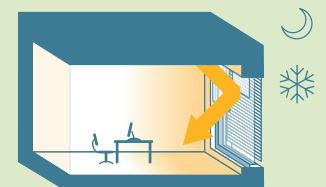
Motorized window coverings are raised and lowered according to changes in outdoor weather conditions and indoor comfort needs based on input from sensors, pre-programmed settings, or local occupant controls.

Summer strategy



Lower window coverings during the hottest part of the day to reduce heat gain.

Winter strategy



Lowered window coverings prevent heat loss through windows during nighttime hours.



Flexibility with Many Building Types

Somfy has experience designing dynamic control solutions based on the unique requirements of all building types including both new and retrofit. At Somfy, we're passionate about creating solutions that ensure the best possible working and living conditions for all types of buildings!



Education



Healthcare



Hospitality



Offices



Retail



Transportation



Leisure



Residential



Somfy Digital Network (SDN) Product Line

CONTROLLERS

Somfy Connect™ LTI



The Somfy Connect™ LTI has Lutron®'s handheld and in-wall controls from RadioRA® 2, HomeWorks® QS, Grafik Eye® QS, and Quantum® systems to operate Radio Technology Somfy® (RTS) and Somfy Digital Network™ (SDN) motorized applications.

Somfy Connect™ UAI Plus



The Somfy Connect™ Universal Automation Interface (UAI) Plus allows for commissioning and integrating Somfy Digital Network™ (SDN) over IP.

Somfy Connect™ BMS Interface



Somfy Connect BMS Interface for SDN provides communication between Building Management Systems and Somfy motorized shading systems, either Standalone SDN or SDN with animeo IP shade systems.

Data Panel



The Data Panel is a bus distribution component used to start or grow a Somfy Digital Network™ (SDN) system. This device adds 4 isolated bus segments to an SDN system.

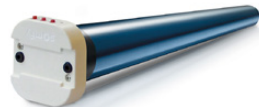
www.somfysystems.com/integration

MOTORS

Low Voltage Intelligent Motors



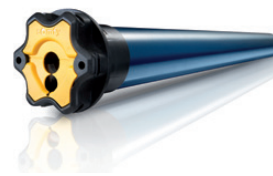
Sonesse® 30



Sonesse® ULTRA 50

Somfy's low voltage intelligent motors are available in both quiet and ultra-quiet Sonesse® versions. Both require 24V DC power. Torque ranges from 2Nm-4Nm.

Line Voltage Intelligent Motors



Sonesse® ULTRA 50 / Sonesse® 50 / LT50 RS485

Somfy's line voltage intelligent motors are available in both quiet and ultra-quiet Sonesse® versions. Both require 110V AC power. Torque ranges from 4Nm-35Nm.



RADIO TECHNOLOGY SOMFY® RTS REMOTE CONTROLS

Telis® Pure 1



The Telis RTS is a convenient hand-held remote for use with any motorized product featuring Radio Technology Somfy®. It's available in a variety of colors and channels.

Smoove® 1 RTS



The Smoove® 1 RTS surface-mounted wall switch avoids cutting into drywall. This single channel, battery-operated solution is easy to install, and doesn't require an electrician.

DecoFlex WireFree™ RTS Table Top



The DecoFlex WireFree™ RTS is table top accessory compatible with DecoFlex WireFree™ RTS wall switch and is available in a variety of colors and channels.

NOTE: The RTS Receiver for SDN is required for the use of these controls in an SDN system

www.somfysystems.com/rts

USER INTERFACES

DecoFlex Digital Keypads



DecoFlex Keypads provide an in-wall user interface for SDN. The Keypad offers users a familiar way to adjust their environment for personal comfort without affecting the overall efficiency of the building. Available in both digital and wireless, radio options.

RTS Receiver for SDN



The RTS Receiver for SDN connects directly to the SDN bus and is fully compatible with all RTS transmitters. Control up to 5 groups of motors on the network using an RTS transmitter. The Receiver obtains its power directly from the bus — no external power required.

www.somfysystems.com/stand-alone-user-interfaces

BUS POWER & DATA DISTRIBUTION

Bus and Sensor Station Power Supply



The Somfy Bus and Sensor Station Power Supply provides 24V DC power to the SDN bus. Each Power Supply provides power to bus line devices (excluding motors).

SDN Bus Distribution

Somfy power and data distribution devices adds device ports to an SDN Bus line improving connectivity between motors and controls in an overall shading system.



Power Panel for SDN



The Power Panel for SDN is a SDN bus distribution component used to add 10 isolated motor ports and two isolated device ports to an SDN bus segment.

www.somfysystems.com/sdn-2-0



Somfy Digital Network™ (SDN)



SDN 2.0 products are backed by a SDN 2.0 Certified Quality Promise which means these products have been designed to meet the highest standards for Somfy Digital Network system components and validated by Somfy engineers. Systems designed using SDN 2.0 certified products are easier to install, more reliable, and improve overall system performance.



Power Panel

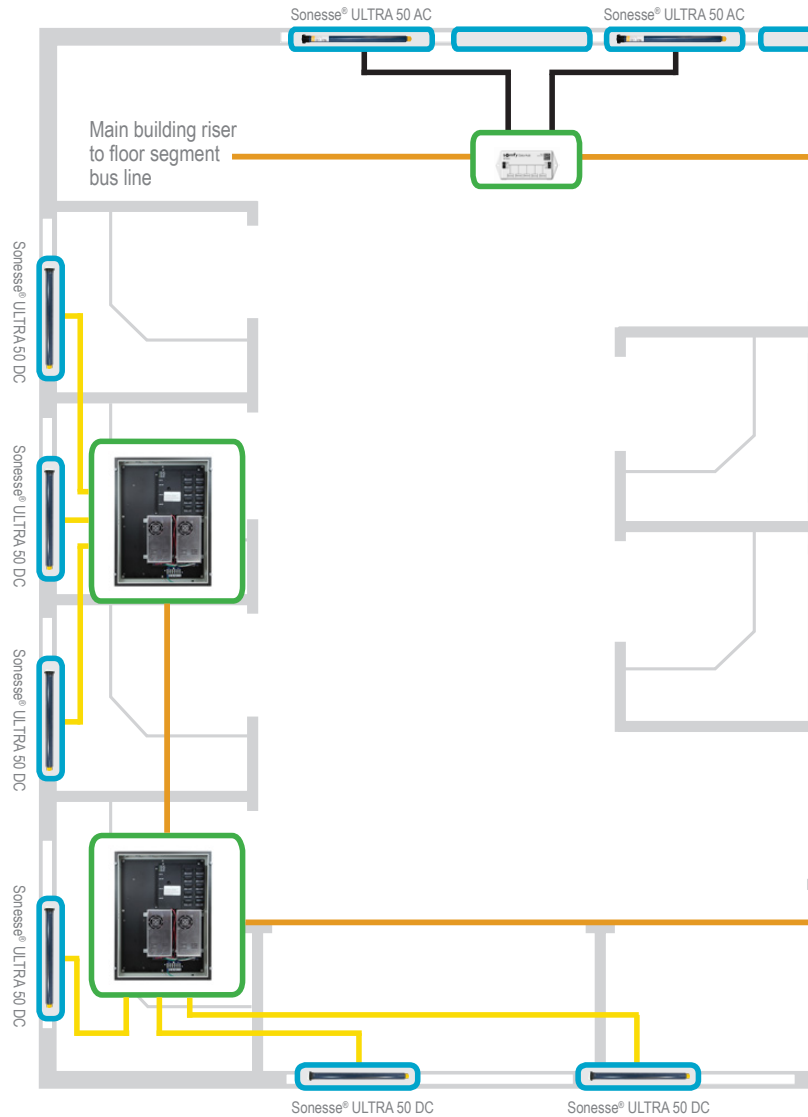
- Low voltage transformer (24V DC)
- Provides power and data over a 14 AWG power pair, 22 AWG stranded, twisted and shielded data triad with a 24 AWG drain wire
- Ability to connect user interfaces
- Provides motor power using the Somfy Low Voltage Motor Cable offered through Liberty AV. (Model 9020126 or 9020127)

Powered by standard outlet or junction box



Line and Low Voltage

Line voltage SDN RS485 motors (Optional coupled/banding application)



Low voltage SDN RS485 motors

RTS Receiver for SDN

RTS Transmitter

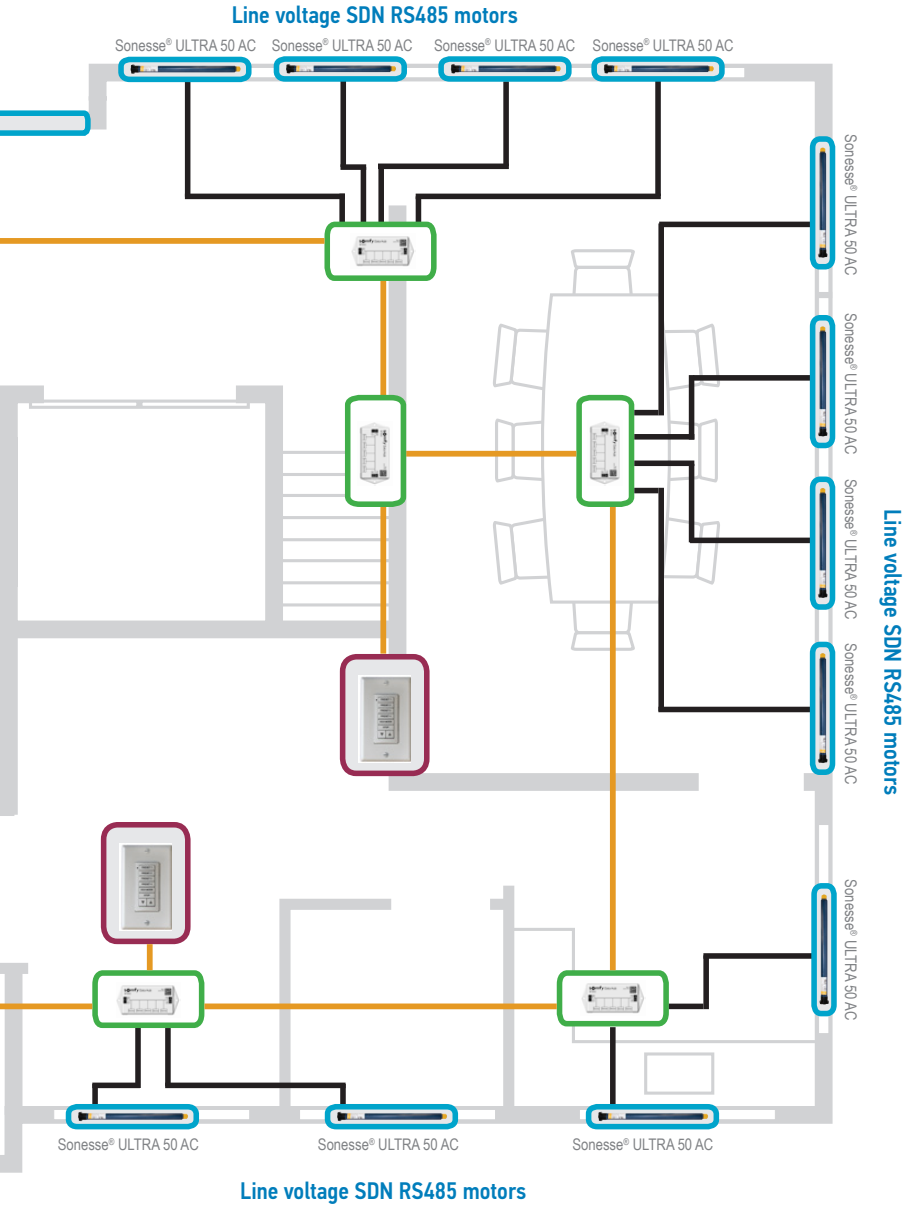
Digital Keypad



- Fully programmable
- Individual motor and group motor functionality
- Up to 5 preset positions and full Up, Stop, Down functionality



Somfy's line and low voltage solutions featuring the intelligent Sonesse® 50 and Sonesse® 30 motor lines offer ultra-quiet operation along with greater strength and quality than other motor options offered by industry competitors. Somfy's line and low voltage motors and controls are a stand alone solution, or can communicate as an automated building network using animeo® IP, providing the most flexible complete network solution available.



Sonesse® ULTRA 50 DC RS485 Low voltage motor (24V DC)



- Ultra quiet operation
- Ultra powerful operation
- Wide range of control options
- Fully programmable
- Power and data connection from the bus line

Powered by the Power Panel for SDN or a standard outlet using a plug in power supply

Sonesse® ULTRA 50 AC RS485 Line voltage motor (120V AC)



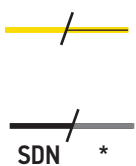
- Ultra quiet operation
- Ultra powerful operation
- Wide range of control options
- Fully programmable

Powered by standard outlet or junction box

Motor Cables for Power/Data:

Use the Somfy Low-voltage Motor Cable offered through Liberty AV for all low-voltage SDN motor installations

4 conductor 26AWG modular cable with RJ9 and an RJ45 connector for Sonesse® 50 motor wiring



**Note: Different options are available for SDN RS485 or Radio network integration including RTS, ZigBee and Z-wave.*

SDN Bus Distribution



- Allows digital communication from the bus line to controls and line voltage (AC) motors.
- Increase motor connections along the bus line.

Power Panel Data Panel



Product Type Legend:

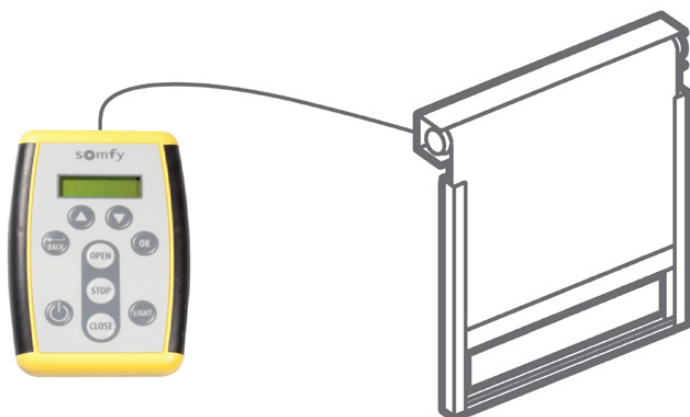




Tools and Software

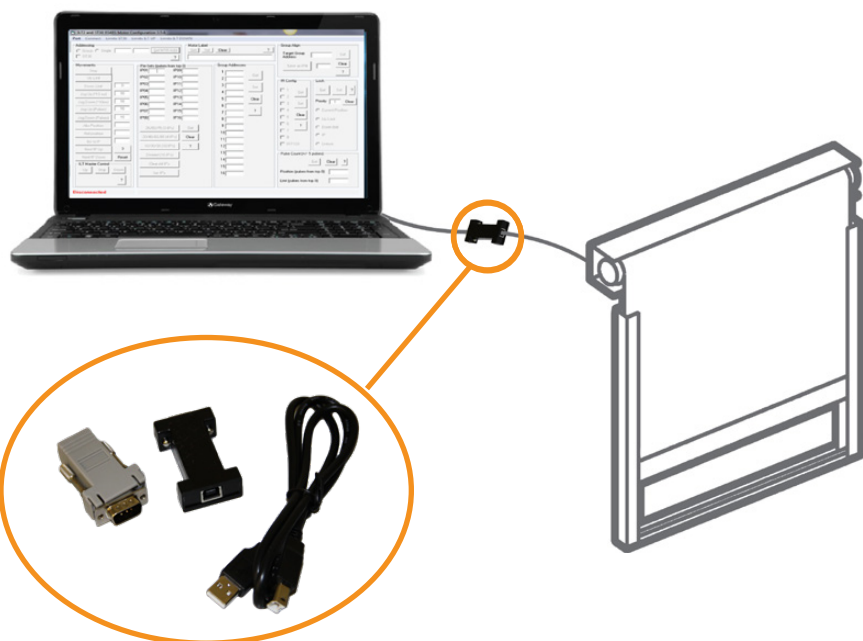
RS485 Limit Setting Tool

Part Number: 9017142



RS485 setting tool functions:

- Discover motors
- Motor limit setting
- Advance motor settings:
 - Application protection (obstacle):
Set the level and read value
 - Rotation direction
 - Intermediate positions
 - Reset limits and rotation direction (factory mode)



USB to RS485 Converter

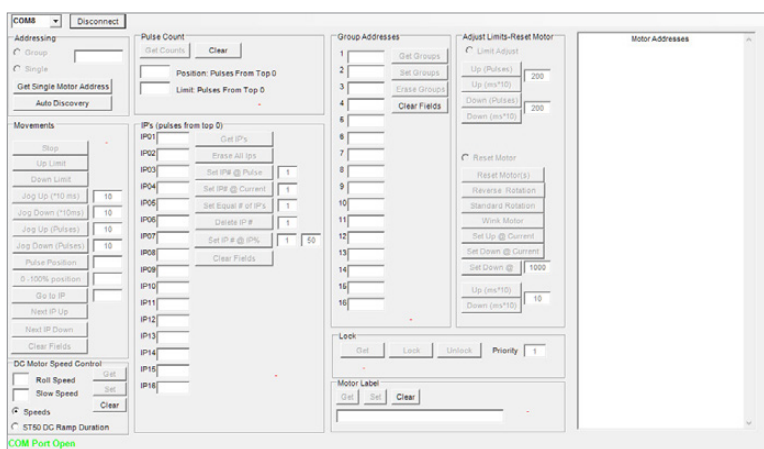
Part Number: 9015260

USB to RS485 functions:

- Connect Somfy devices to USB ports
- Could be used with laptops or computers
- Used to program digital motors, keypads and other control products
- Advance features:
 - Find motor or keypad info
 - Program button presses on keypads
 - Set Intermediate positions

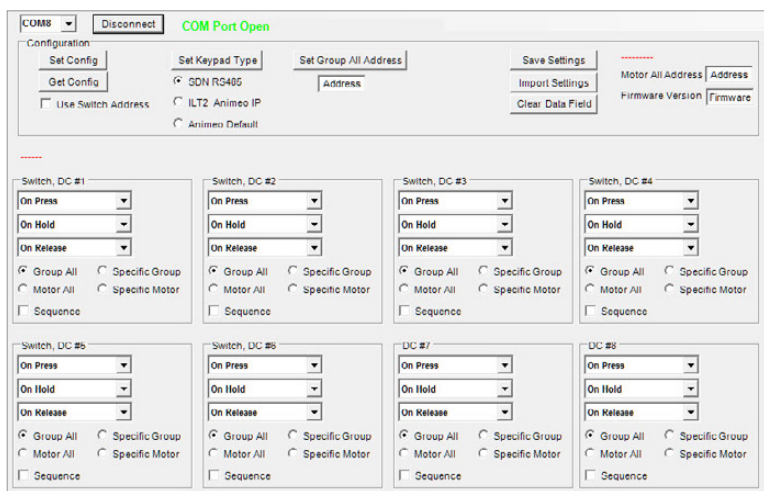


What's Behind the Scenes?



Somfy Digital Network™ (SDN) Motor Configuration Software:

This tool should be used to discover and configure all current versions of SDN motors using the latest motor communication protocol. This software will only be used for Somfy Digital Network Stand-alone systems.



Somfy Digital Network™ (SDN) Keypad Configuration Software:

This tool should be used to configure all current versions of SDN DecoFlex™ Digital Keypads using the latest motor and keypad communication protocol. This software will only be used for Somfy Digital Network Stand-alone systems.

SOMFY is committed to Service & Support

Getting Started

Ensuring a positive experience with Somfy-powered solutions is our goal. To help you succeed, we will partner you with a fabricator from our nationwide network to provide a finished motorized window covering ready to install. Our Project Services team can also provide support from the initial design phase to project completion.

When it comes to dynamic solar shading solutions, we take pride in being able to deliver and professionally support you during every stage of the project. For a solution to be truly successful and cost-efficient, it is crucial that the system is correctly specified, properly installed and commissioned, and well maintained. Our service offering covers every phase of the solution's life cycle. From early planning, to maintenance and modernization – securing the systems lifetime and optional performance – and our local support teams will play different roles in different stages.

Standard Technical Documentation | Nationwide Training | Project Design & Commissioning Services
Job Site Support | Internal & External Design Tools



Consulting
Drawings and schematics
Support at building meetings



Installation
System integration
Commissioning



Maintenance agreements
Troubleshooting
System optimization

Somfy Digital Network (SDN) Standard Commissioning Services include:

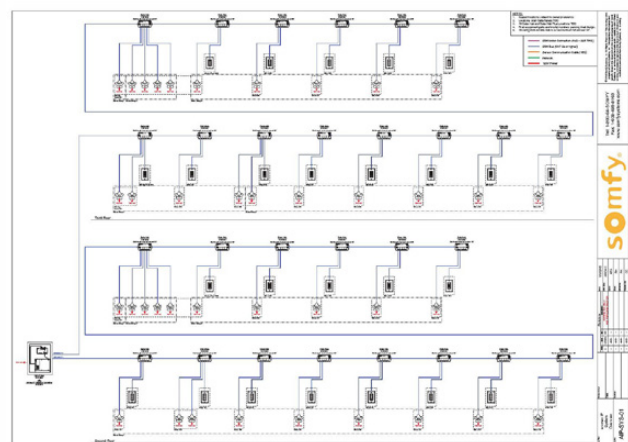
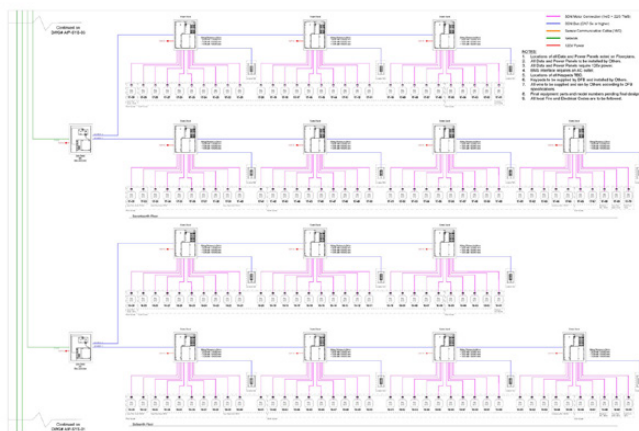
Floor/Façade organization of system	Setting SDN groups	Setting SDN pre-set positions and scheduled events	Programming SDN Keypads
Setting SDN sensor triggered events	Calibrating SDN sensors and integrating sensors with system	Setting SDN priority levels of system commands	Programming of SDN Interfaces
Identify damaged motors and blinds/shades	Identify power or data network issues affecting operation of the system	Overall system optimization	Train facility personnel on system operation



Somfy simplifies project drawings and submittals

Overview:

The Somfy Design Suite enables users to create professional project drawing submittals for both residential or commercial projects. This tool is an AutoCAD® plug-in package of Somfy Digital Network™ (SDN) and animeo® IP product blocks that could be easily placed into project drawings.



Benefits:

- Create detailed job specific line diagrams
- Click and drag drawing creation in AutoCAD®
- Limited AutoCAD knowledge required
- Uses affordable AutoCAD LT® (~\$360 per year)
- Includes all components and part numbers listed
- Include job title and company names on the drawings
- Stay current with product updates from Somfy

Contact us to learn more or purchase.

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www.somfysystems.com/somfydesignsuite

info: us_designsuitsesupport@somfy.com

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Somfy Regional Sales Manager
or Specification Manager

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