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1. Introduction

Extra-Large Internal Tension System



The Perfect Shading System For Extra-Large Spaces.

Solange® 200 is an extra large internal tensioned shade that can cover up to 60 sqm with a single mechanism. The discrete guides of this versatile interior shading make it the ideal solution for large horizontal, vertical and sloping glazing in convention centers, airports and spacious buildings. These heavy-duty blinds are specially designed to be reliable and hardwearing in large-scale commercial projects which require tailor made solutions.

Solange® 200 is a robust shading system offering a twin barrel tension mechanism. Motor and fabric are formed and held into a single fabric roller (the main barrel). The system includes a powerful motor, a take-up roller incorporating the tension mechanism and a tension spring to keep the fabric under permanent tension for a smooth retraction.

The motor and a take-up roller are mounted in an H-frame with one tension cable to enable the smooth fitting of the blind. Furthermore, the system comprises a hembar which is guided along stainless steel cables that seamlessly merge with the background.

The Solange 200 blind offers curves and special shapes, while the fabric can be rectangular or trapezoidal to suit a variety of glazing. It also can be fitted up a slope or following a curve with the same tension, since it is mounted on strong brackets to ensure its configuration for any angle, any direction, anywhere.

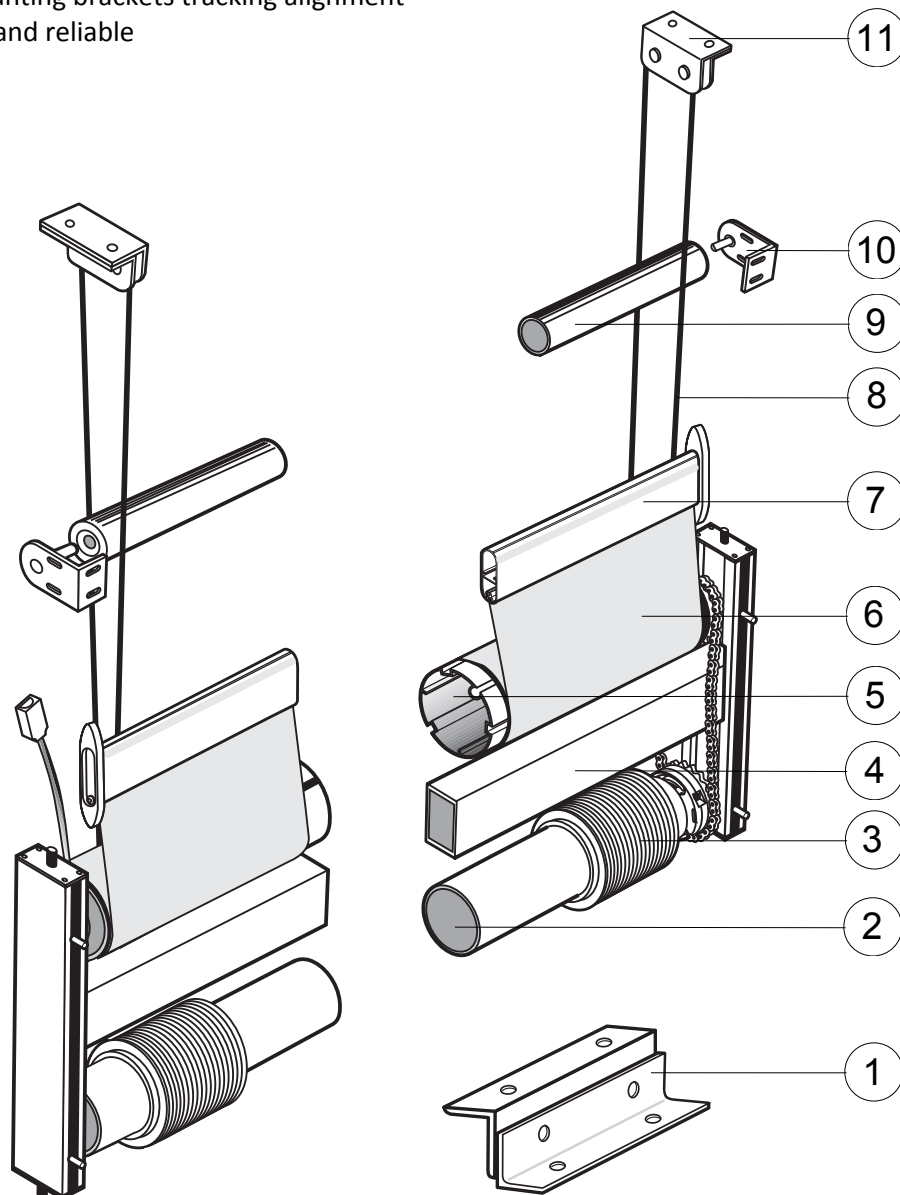
2. Technical Specifications and Drawings

Solange® 200 Tensioned Blind System

Tandem Roller Tube Single Mechanism Tensioned Blind System

Key Features:

- Large window coverage in one complete system
- One single fabric coverage up to 60m²
- Horizontal and Sloping glazing applications
- Adjustable mounting brackets tracking alignment
- Strong, robust and reliable



1. Adjustable mounting brackets
2. Steel Tension Assembly Tube
3. Cable Spool Drum

4. "H" Frame Assembly
5. Aluminum Fabric Tube
6. Shade Fabric

7. Shade Hembar
8. Tension Cables
9. Relieving Roller

10. Relieving Roller Bracket
11. Return Pulley Assembly

Technical Data

System Dimensions:

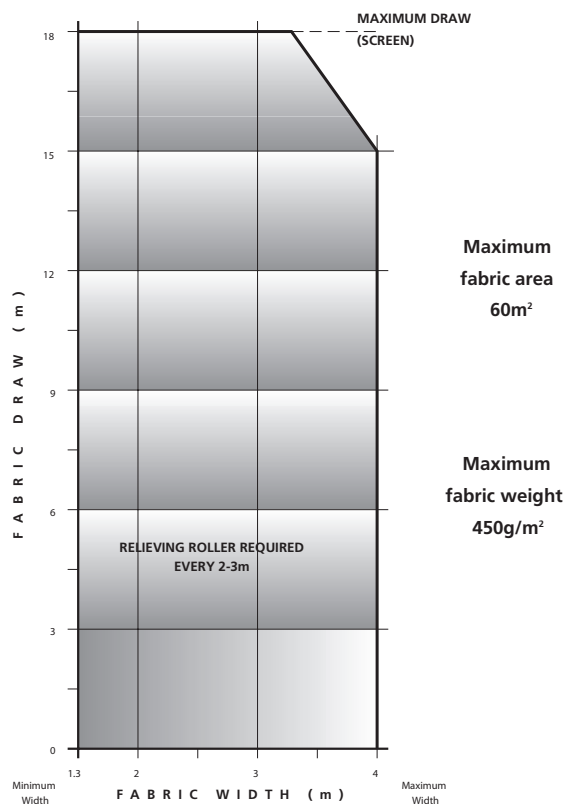
| | |
|-----------------------------------|--------------------|
| Maximum Width: | 4.0m |
| Maximum Draw: | 18.0m |
| Maximum Fabric Area: | 60.0m ² |
| Minimum Width (Standard WT motor) | 1300mm |
| Minimum Width (Radio RTS motor) | 1300mm |

System Weight:

| | |
|---------------------------------------|-------------------|
| Basic system weight + per meter width | 32 kg + 11kg/m |
| Typical Fixing Load: | 72 kg per bracket |

Motor

| | |
|-------------------------------|-------------------------------|
| Motor Type: | Wired or Radio Frequency (RF) |
| Voltage: | 230 V AC 50 Hz |
| Limit Switch Unit (standard): | Progressive |
| Motor Torque: | 35.0 Nm |
| Motor Speed: | 17 rpm |
| Temperature Range: | 0-60 C° |



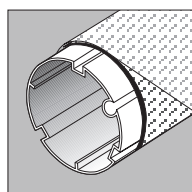
Specifications:

Components

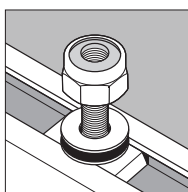
- 127Ømm extruded aluminum fabric and motor assembly tube.
- steel roller tube assembly to house-in the spring tension compensation cassette assembly to maintain constant fabric tension.
- cable drums on the steel roller assembly for the continuous-nylon coated galvanized steel tension cable.
- fabric tension adjustment between 15kg to 50kg via gear-operated mechanical tension spring cassette assembly.

Finishes:

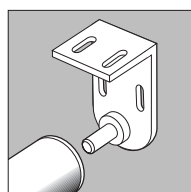
- aluminium components finished in the standard polyester powder finish, 30% gloss.
- fasteners of stainless steel and other steel parts galvanized against corrosion.



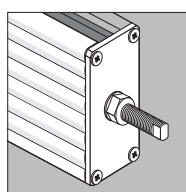
Fabric roller



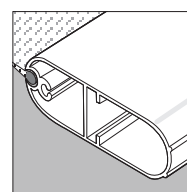
Mounting Tee bolt



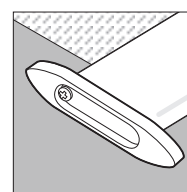
Relieving roller bracket



Tracking adjustment



Hembar



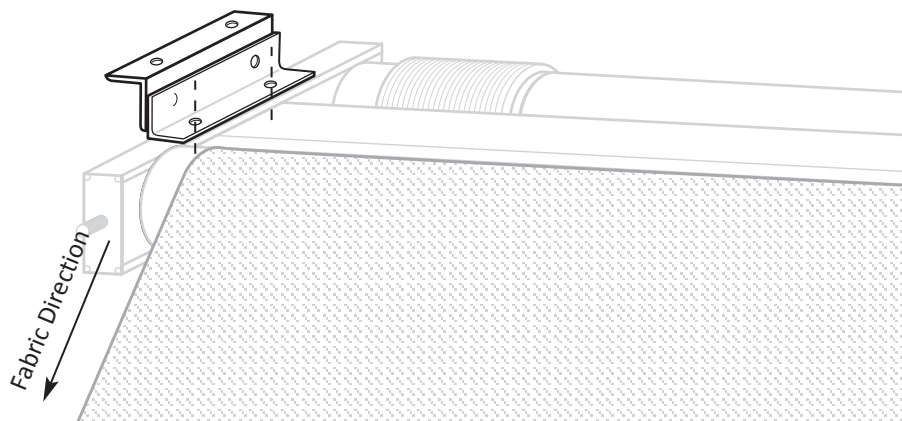
Hembar end cap

System Installation:

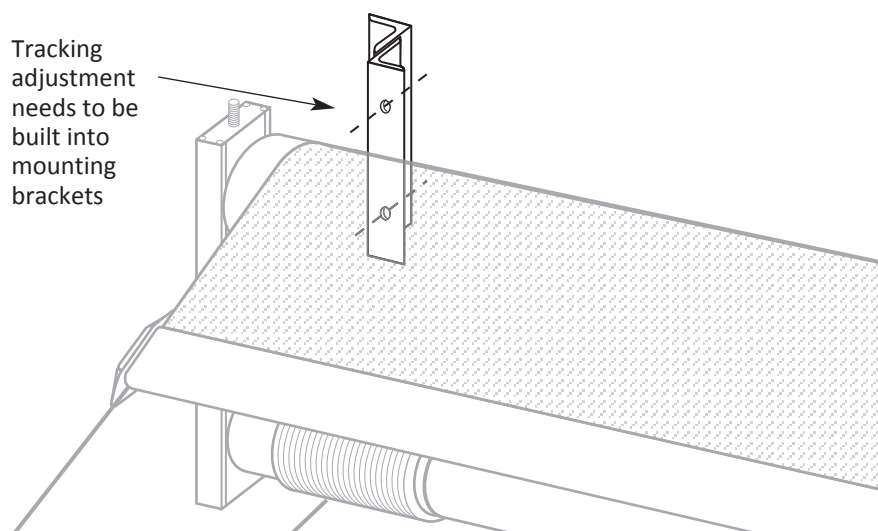
NOTE:

The mounting brackets shown are examples only and are not supplied as standard.
For alternative mounting bracket designs please contact our technical sales department.

Horizontal mounted

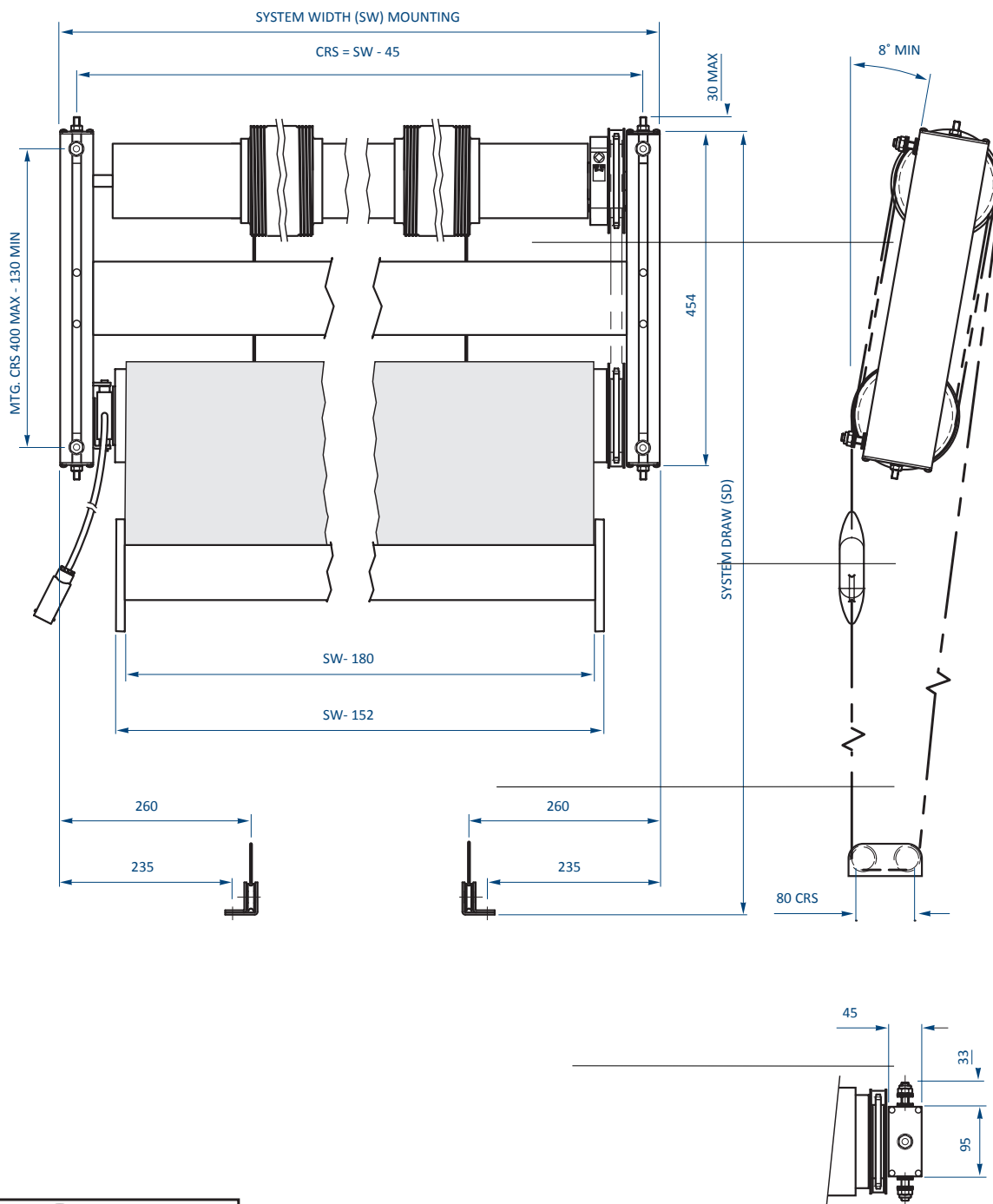


Vertical mounted



Assessed to ISO 9001: 2000
Certificate No 193

System Dimensions:



Assessed to ISO 9001: 2000
Certificate No 193

3. Operating System

Solange® systems offers a wide range of controls for its motors. Whether the motors is to be controlled individually / Group of motors/ connected to building automation, Serena® offers them all.

Control strategy for **Solange®** is designed keeping in mind the easy user interface and latest technology available in building services engineering. Serena® controls are open and can easily be integrated with all type of standard protocols in the industry.

With the combination of Serena® controls and serena sensors the roller blnds can also be operated based on various factora such as glare, heat gain, light pollution, temperature etc

A simple remote / A simple wall switch...

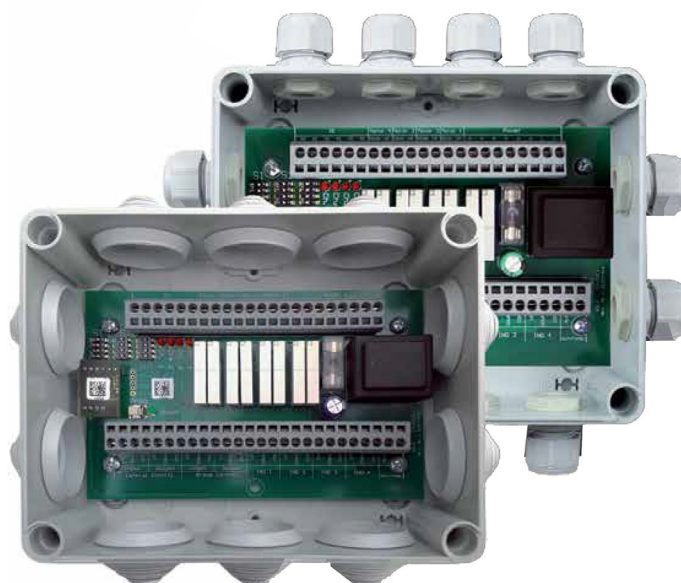
Most common operation for our roller blinds is either by a remote or by a wall switch. A wall switch is easy in operation and a remote is handy in use. **Solange®** remotes & **Solange®** Wall switches are beautifully designed and looks attractive. A wall switch can either by wired to the motor or can be a wireless. A roller blind can be operated individually or in groups with our 5 and 10 channel remotes.



Compatible controls from Euro Systems

MCP4

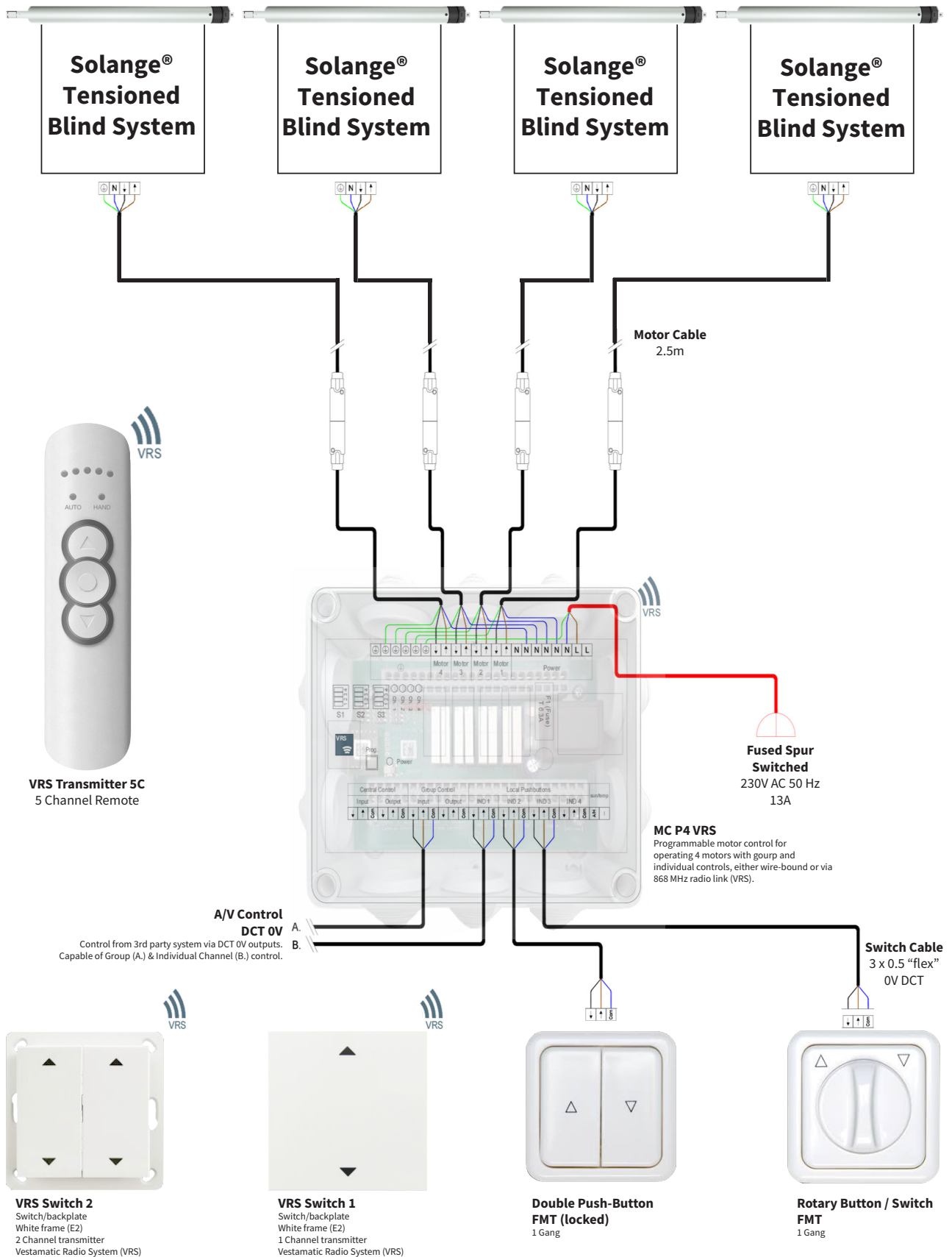
Programmable motor controls for operating 4 sunshade devices with group and individual controls, either wire-bound or via 868 MHz radio link.



- Microprocessor-powered motor controller for four sunshade controls
- Standard 3-wire central input
- Direct connection available for four 230VAC motors
- Connection available for group button
- Connection available for four individual buttons
- Separate connection terminals for mains supply and central transmission
- 10 different operating modes can be set, incl. inching mode and
- Intelligent decentralised operation
- Motor run time/tilting time can be individually set
- Control via VRS radio remote control or VRS wall-mounted radio transmitter (MC P4 VRS)

| Technical Data | |
|----------------------------------|---|
| Power supply: | 230VAC, 50 Hz |
| Impulse voltage withstand level: | 2.5 kV |
| Radio frequency (MC P4 VRS): | 868 MHz |
| Rated power: | 2.6 W |
| Fuse: | T 6.3A |
| Output: | 230VAC, 50 Hz |
| Maximum load: | 250VAC, 4A, cos f > 0.8 ind. |
| Align switching time extend: | 3 – 180 s |
| Align switching time retract: | 180 s |
| Permissible motor current: | max. 6A |
| Software class: | A |
| Operating temperature: | 0 °C (32 °F) to +40 °C (104 °F) |
| IP class: | IP54 |
| Degree of contamination: | 2 |
| Dimensions (L × W × H): | 170 × 134 × 85 mm (without connections) |
| Conformity: | CE |

MCP4: Application Connection Drawing



The WISO-range – protection against wind, sun and more.

The blind controls WISO Control and WISO Quattro always move one single or a group of blinds automatically or manually. One motor can be connected directly; alternatively motor controls can be connected and allow group settings for the connected blinds (and local according to the chosen motor control solution).

All products can be combined with two lux and one wind sensor to realize the automatic drive with equivalent setting. A rain, frost or temperature sensor can only be used with WISO Quattro.



Also available:

All controls with sensors and assembly kit.



WISO Control Set Crystal (incl. WISO Crystal Station)



WISO Control Set Plastic (incl. LS 30 Pro; WS XS; WISO bracket plastic)



WISO Control Set Alu (incl. WS SX Alu; LS 30 Pro; WISO bracket Alu)

WISO Quattro can be programmed on time (i.e. automatic up/down times per day).

WISO Quattro has a back lit touch display and is available in white and nero.

All products of the WISO series in 50 x 50 dimension can be adapted to standard switch range with intermediate frames.



WISO Quattro



WISO Quattro Nero

Also available:

All controls with sensors and assembly kit.

WISO Quattro Set Crystal : (incl. WISO Crystal Station)

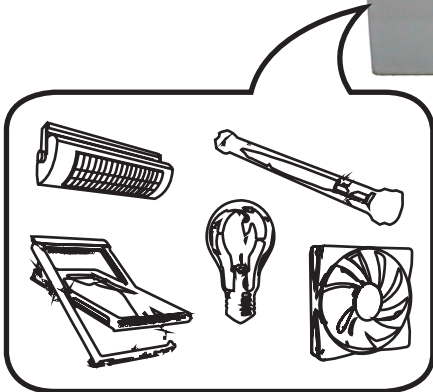
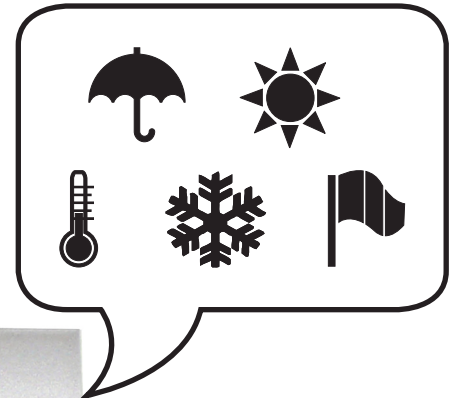
WISO Quattro Set Plastic : (incl. LS 30 Pro; WS XS; WISO bracket plastic)

WISO Quattro Set Alu : (incl. WS SX ALU; LS 30 Pro; WISO bracket Alu)

The Touch Centre

Convenient, easy, safe –
do you really need more?
From outside to inside...

... sensors capture all available information about wind, rain, sun, indoor temperature, outdoor temperature and frost. The setup assistant supports helpful tips and suggestions configuring and running the optimal sensor



... and out again.
...the control runs awnings, roller blinds as well as skylight, fans or lights. Benefit from the possibilities!

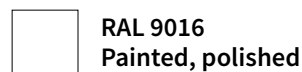
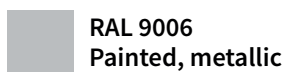
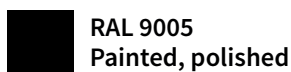
Central control with color display and timer, security, shade and energy saving program.

Central control with colored touch display for two or four potential-free groups to drive motors or motor controls (of the R-/P Series) 24 VDC/230 VAC

- Sensor connections (max.):
- 2 Wind sensors
- 4/8 lux sensors
- 1 Rain/frost sensor
- 2 Temperature sensors
- 1 DCF 77
- 1 Fire alarm
- 1 Maintenance switch



Color Information



Vestamatic Building Controller BS (VBC BS)

Vestamatic shade controls are on the market for over 30 years. They are popular for their ease of use, high product quality and long life.



- Established and trustworthy sun shade central control for the project business
- Easy to read and illuminated display
- Long life
- Large connection space
- Multilingual
- Output for error message
- wide range of uses
- Free sensor assignment / programming for each channel

| Technical Data | |
|------------------------------|-----------------------------|
| Power supply: | 230VAC |
| Frequency in Hz: | 50 |
| rated Power in W: | 30 |
| Switching power output in A: | 12 |
| Protection degree / IP: | 54 |
| Dimension in cm: | 32,3×32,6×8,5 |
| Colour: | grey RAL 7035 |
| Surface: | polished |
| Installation: | SMT |
| Channel: | 8 bis 64 |
| Central input: | Yes |
| Control: | Display |
| Motor running time: | Yes |
| Tilting time: | Yes |
| Compatible with: | VL-MM, VL-ME, VL-SMI, LL-ME |

Solange® Building Controllers

| Serena® Building Controllers Overview | | Zones | Bus | Sun | Wind Speed | Rain | Frost | Temperature | Wind Direction | RS485 Control | PC InterFace (Option) |
|---|---|---------|-----------------|-----|------------|------|-------|-------------|----------------|---------------|-----------------------|
| Quattro WISO |  | 1 | DCT | • | • | • | • | | | | |
| Touch Centre 2C |  | 2 | DCT | • | • | • | • | • | | | |
| Touch Centre 4C |  | 4 | DCT | • | • | • | • | • | | | |
| Building Controller (VBC) |  | 8 to 24 | DCT | • | • | • | • | • | • | • | • |
| Building Controller BS (VBC BS) |  | 8 to 24 | Bus System (BS) | • | • | • | • | • | • | • | • |

Serena®

Building Controllers
Overview

WE PREFER OPEN STANDARDS

- Seamless trouble free system integration
- Point to point communication
- Speed of commissioning
- Reduced components (cost / points of failure)
- Future proof
- Supply chain risk management

 | <https://>

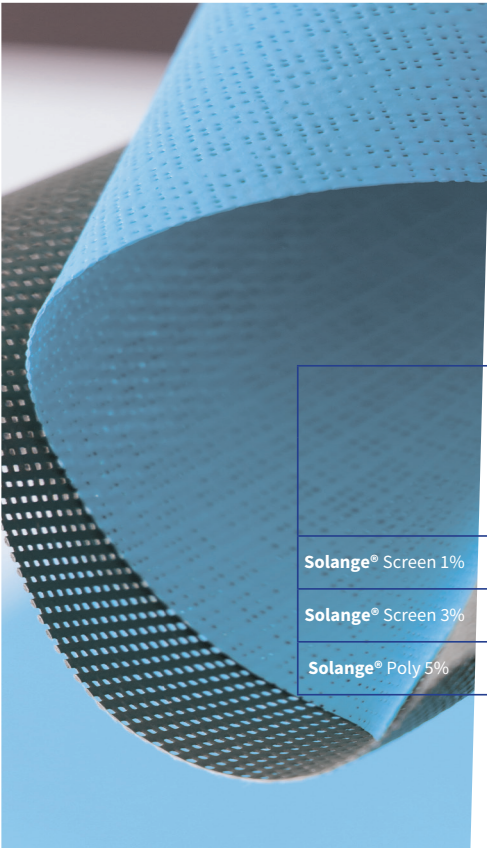


SYSTEMS INTEGRATION



- BMS
- Fire Alarm
- Audio Visual
- Occupancy
- Lighting
- IT Infrastructure

4. Fabric Specification



STANDARD SCREEN FABRICS

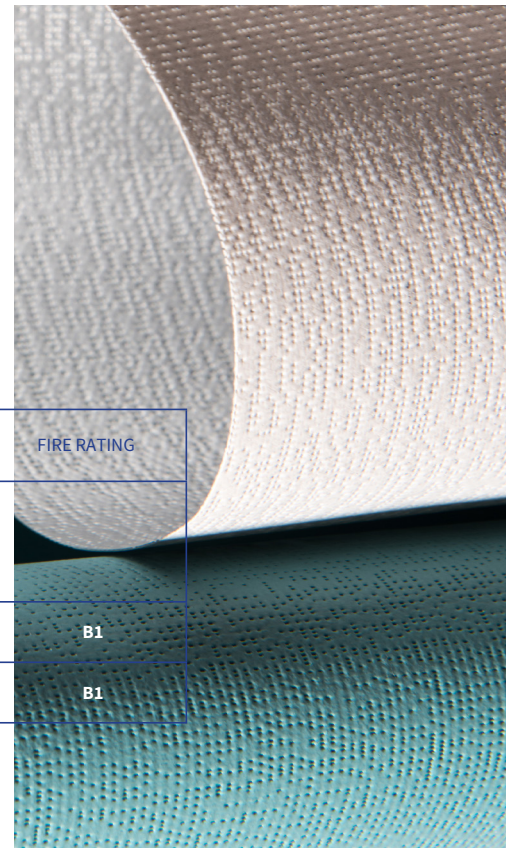
High performance polymer fabrics, woven or set and heat treated for strength and stability under tension. Composite construction offers minimal stretch characteristics at high tensile loads giving extended life and service intervals.

| | HEAT PROTECTION | | GLARE PROTECTION | COMPOSITION | FIRE RATING |
|--------------------|----------------------|----------------------|------------------|--------------------------|-------------|
| | LOWEST INTERNAL gtot | LOWEST EXTERNAL gtot | LOWEST Tv | | |
| Solange® Screen 1% | 0.42 | 0.08 | 1.1 | Fibre-reinforced Polymer | B1 |
| Solange® Screen 3% | 0.35 | 0.09 | 4.4 | Fibre-reinforced Polymer | B1 |
| Solange® Poly 5% | 0.34 | 0.05 | 3.0 | Polymer | B1 |

BLACKOUT FABRICS

High performance blackout fabrics, with precise multi-layered construction offering strength and flexibility under tension, and total light blocking performance.

| | HEAT PROTECTION | | GLARE PROTECTION | COMPOSITION | FIRE RATING |
|----------------------|----------------------|----------------------|------------------|-------------------------------------|-------------|
| | LOWEST INTERNAL gtot | LOWEST EXTERNAL gtot | LOWEST Tv | | |
| Solange® ScreenBlock | 0.24 | 0.03 | 0 | Fibre-reinforced & Polymer Laminate | B1 |
| Solange® PolyBlock | 0.34 | 0.03 | 0 | Polymer | B1 |



5. Warranty



Introducing the 5 Year Warranty for ES Solange® Tensioned System

As we trust the quality of our components and craftsmanship for our roller shading systems (Interior-Exterior use), therefore we give them a 5 year warranty. Euro Systems warrants the original purchasers that the hardware is of dependable service and is free of manufacturing defects in materials and workmanship for a period of 5 years.

The warranty period is defined to be the period of the project for which the product was originally purchased, from the date of shipping. This warranty does not depreciate in value. For full warranty details, please read the terms and conditions of our warranty.

Warranty Terms and Conditions

Warranty Terms and Conditions of Euro Systems. (Interior - Exterior large shadings) Euro Systems (ES) warrants to original purchasers that its products are free of manufacturing defects within factory products or workmanship for the following specified warranty periods:

Hardware

- 5 years of the interior project for which it was originally purchased, from the date of shipment for the Solange® motorized roller system

Motor (Interior use):

- 5 years from date of shipment for Solange® System products

Controls, Electrical, Electronic accessories:

- 2 years from date of shipment for Solange® System products

Fabrics :

- 5 years from date of shipment for Solange® System products

If any part of an ES product (except for images or artworks on fabrics) is found in the reasonable judgment of ES to be defective from factory materials or workmanship during the before prescribed warranty periods, ES will repair or replace the defective part at its own discretion. Repair or replacement under this warranty does not include labour or costs for installation, re-installation or removal of Euro Systems products, parts or components. The warranty valid to the original purchaser for all ES installed products.

The warranty does not apply if any of the following exclusions exist:

- The product has been subject to misuse, abuse, neglect, negligence, accident, or has been operated in any way contrary to the ES operating instructions or specifications.
- Damages or conditions that have resulted from improper cleaning, maintenance, care or repair of product.
- The product has not been installed by ES representatives.
- The product has been used to perform functions or operated in a manner contrary to its design or otherwise is used in a manner contrary to or in excess of ES's specifications, drawings or instructions.
- The product is used with electrical accessories or parts, including switches, relays or other accessory components that have not been previously approved in writing by the ES Engineering Department.
- If any electrical accessories and other components have been used in disregard to the basic wiring diagram for which they were designed.
- Failure to comply with ES's written instructions and specifications.
- Repairs made necessary from normal wear and tear of the product or by use of parts or accessories which are either incompatible with the product or otherwise adversely affects its operation, performance or durability.
- Product used for non-interior applications or otherwise exposed to out-door environmental conditions.

If and when a claim has been accepted, at the discretion of Euro Systems the defective material/parts/products will either be repaired/replaced or refunded at the price of the defective material/part/product.

ES reserves the right to change or improve the design of any Euro Systems products without assuming any obligations to modify or retrofit any product previously manufactured or supplied.

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