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## 1. Introduction

### Solange® 100 Tensioned Blind System

Wire Guided Tensioned Blind



#### Wire Guided Horizontal Or Vertical Blind

The Solange 100 is a wire-guided horizontal or vertical shading system that offers a clean-cut design to blend in with any building. This internal tensioned blind is perfect for covering large rectangular glass surfaces. Furthermore, it provides shading under both horizontal and sloped buildings which makes it suitable for spacious shops, hotels, offices and airports.

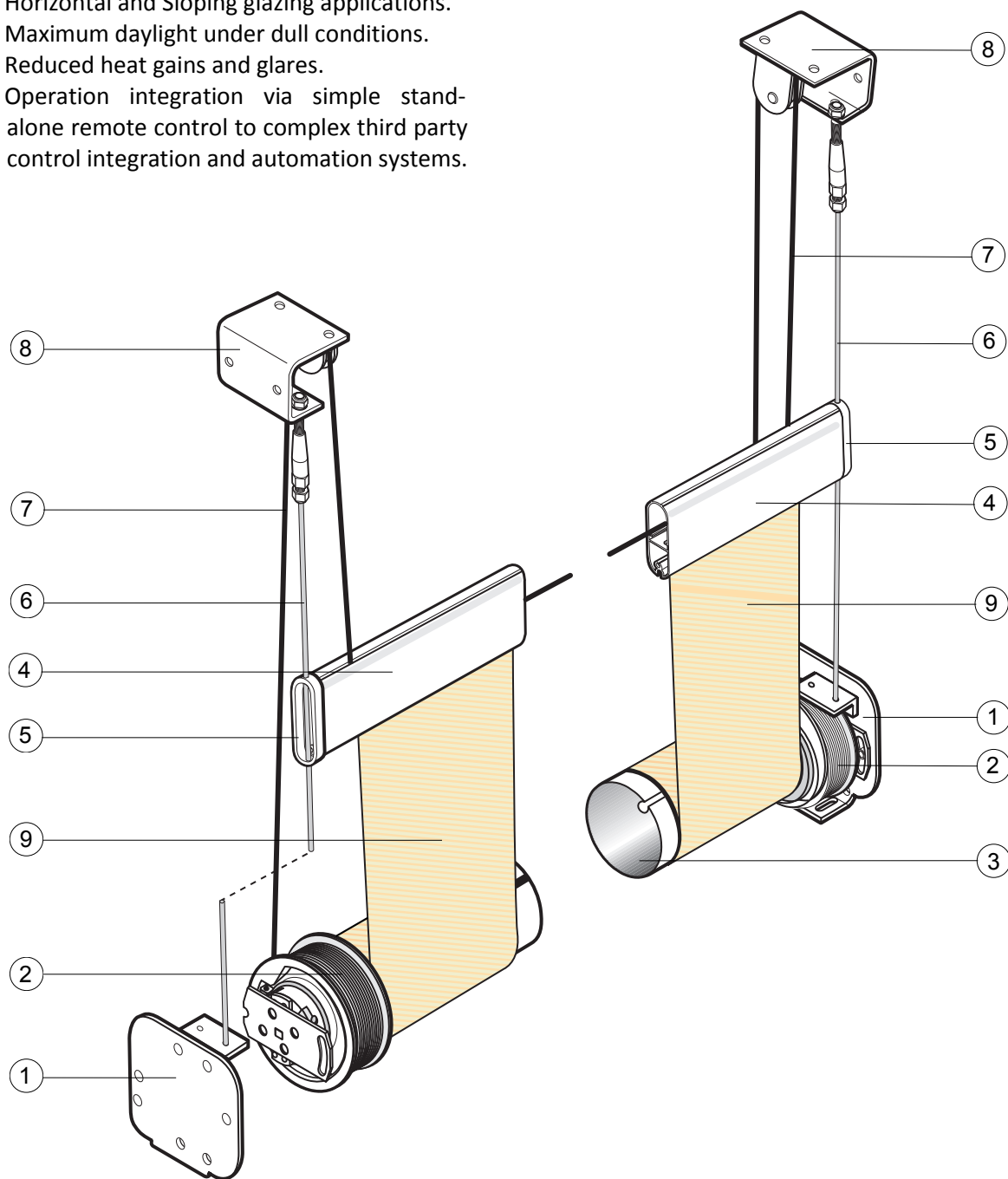
The fabric roller contains both electric motor and single barrel tension mechanism to maintain fabric under permanent tension so that it easily deploys and retracts. The system also incorporates a hembar that is guided along stainless steel cables, discreet wire guides as well as flexible brackets to accommodate a variety of glazing and enable installation for any angle and any direction.

We offer three types of configurations: top fix, back fix or side fix to enable a smooth fitting in any direction, any angle.

## 2. Technical Specification and Drawing

### Key Features:

- Automated, retractable sun shading system.
- Horizontal and Sloping glazing applications.
- Maximum daylight under dull conditions.
- Reduced heat gains and glares.
- Operation integration via simple stand-alone remote control to complex third party control integration and automation systems.



1. Back Fix Roller Bracket Set
2. Tension Cable Spools
3. Ø85mm Fabric Roller Tube

4. Hem bar
5. Hem bar Endcap Guide
6. Hem bar Guide Cables

7. Tension Cables
8. Return Pulley Assembly
9. Shade Fabric

## Technical Data

### System imensions:

Max. recommended width	4.0m
Maximum draw	6.5m
Maximum fabric area	18m <sup>2</sup> (based on a fabric weight of 450g/m <sup>2</sup> )

### Motor

Torque	15Nm at 18rpm
Current	0.9amps
Supply	230 v AC single phase

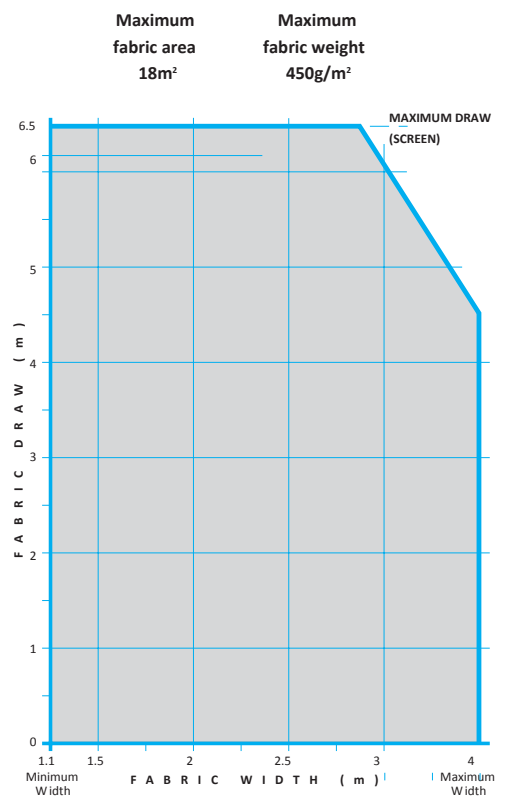
Other voltages and frequencies available on request

### System weights and structural loading

Base weight for a 1m wide system - 15Kg, additional meter width – 5Kg

Tensile load in guide wire typically - 75Kg

Load created by fabric tension - 25Kg max. (both per anchor point).



## Specifications:

### Solange® 100 Tensioned Blind System:

#### Components

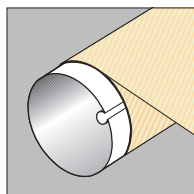
- a single 85mm galvanised steel roller incorporating both the drive motor and the spring compensation cassette with integral tension adjustment gear.
- extruded aluminium hem bar supporting the free end of the fabric carried by two 5mm dia. stainless steel cables.
- a continuous nylon coated tension cable to deploy and retract the blind by means of two 6.5m capacity cable drums, one on either end of the fabric roller

#### Finishes:

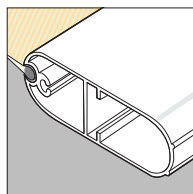
- aluminium components finished in the standard polyester powder finish, 30% gloss.
- fasteners of stainless steel and other steel parts galvanized against corrosion.

#### Installation:

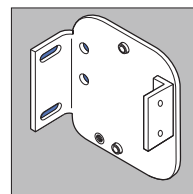
Available with either top-fix or face fix roller brackets and with a return pulley bracket for side/face fixing or top fix.



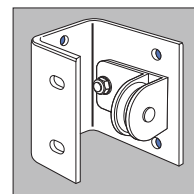
Fabric roller



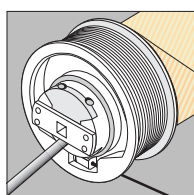
Hembar



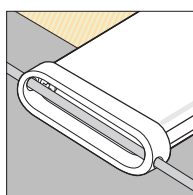
Back-Fix Bracket



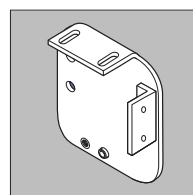
Back-Fix Return Pulley



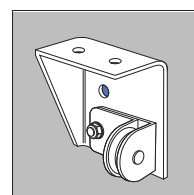
Cable Spool



Hembar Endcap



Top-Fix Bracket

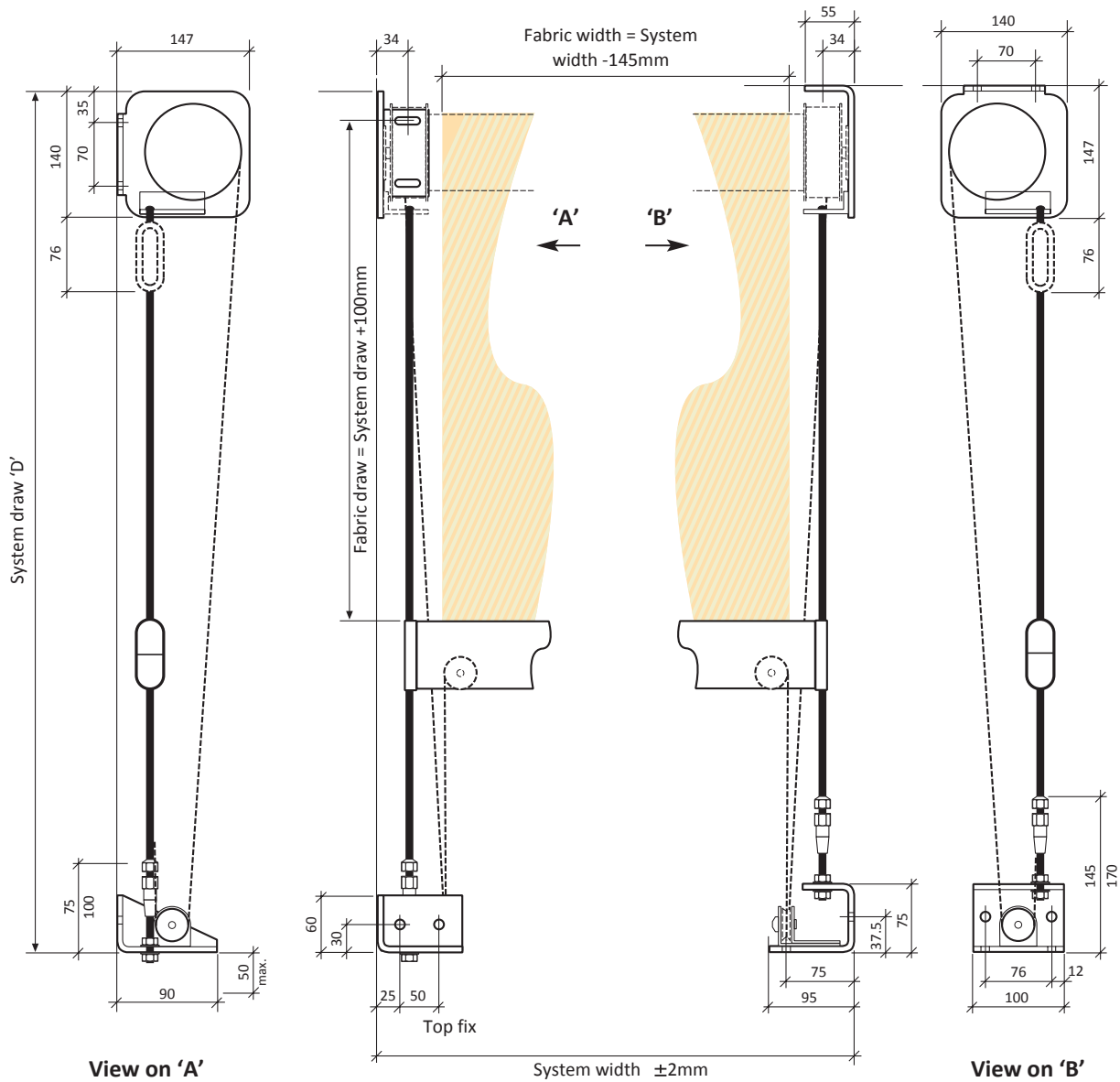


Top-Fix Return Pulley

## System Installation:

### Top fix

### Back (face) fix



Note: top fix return pulley requires 50mm back clearance.

Refer to despatch note for system width and draw.  
Fix the return pulleys and roller mounting brackets as shown.



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...**

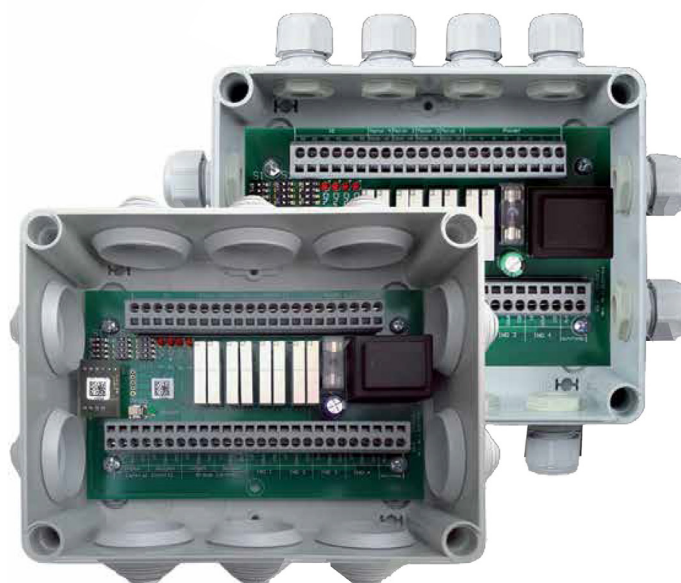
Most common operation for our roller blinds is either by a remote or by a wall switch. A wall switch is easy in operation and a remote is handy in use. **Solange®** remotes & **Solange®** Wall switches are beautifully designed and looks attractive. A wall switch can either by wired to the motor or can 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

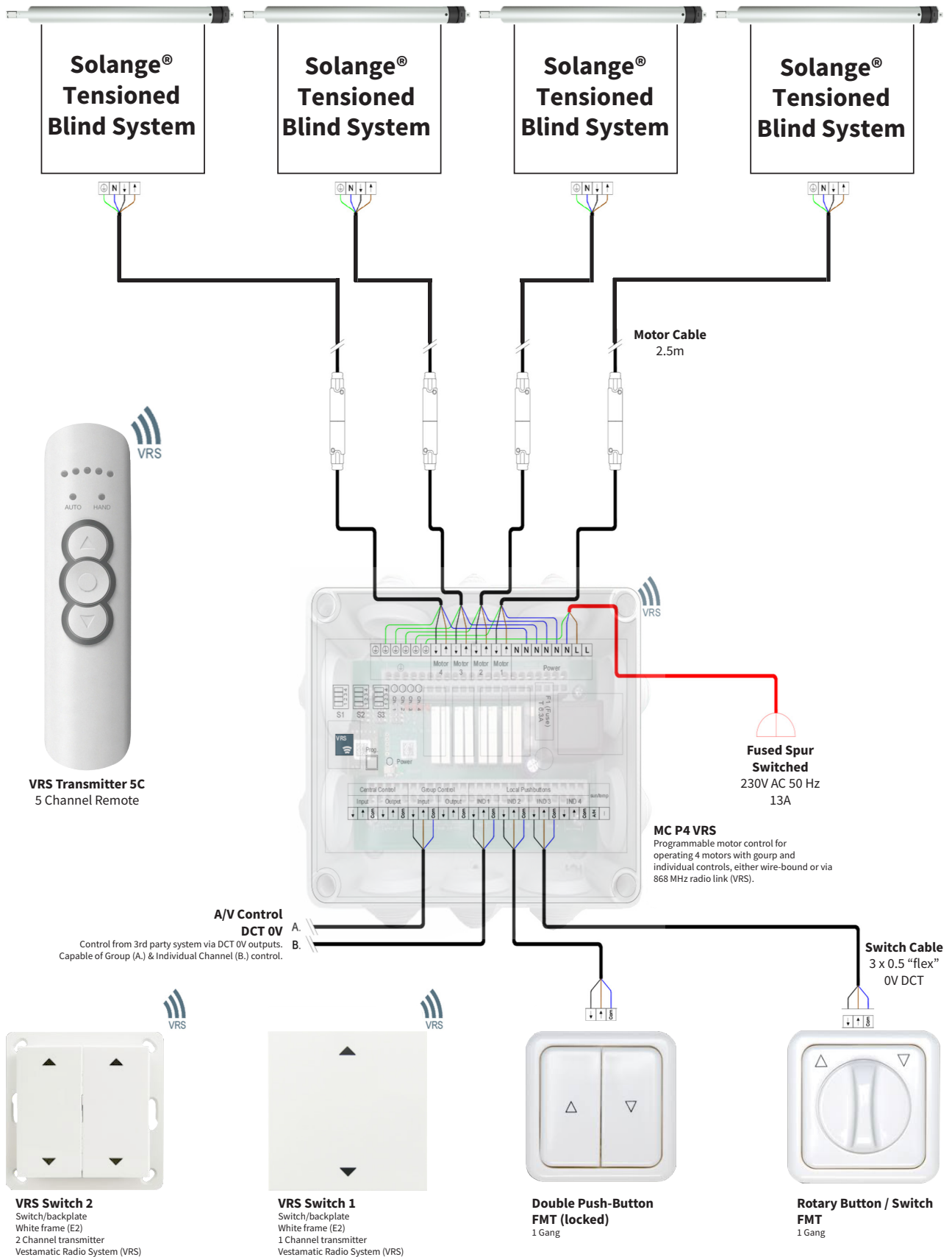
Programmable motor controls for operating 4 sunshade devices with group and individual controls, either wire-bound or via 868 MHz radio link.



- 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)

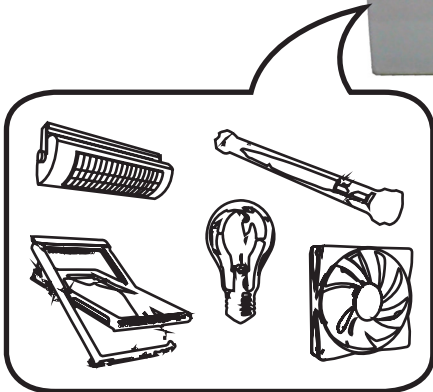
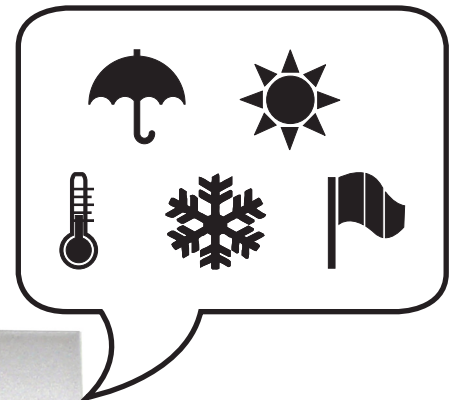
WISO Quattro Set Plastic : (incl. LS 30 Pro; WS XS; WISO bracket plastic)

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**

 RAL 9005  
Painted, polished

 RAL 9006  
Painted, metallic

 RAL 9016  
Painted, polished

**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

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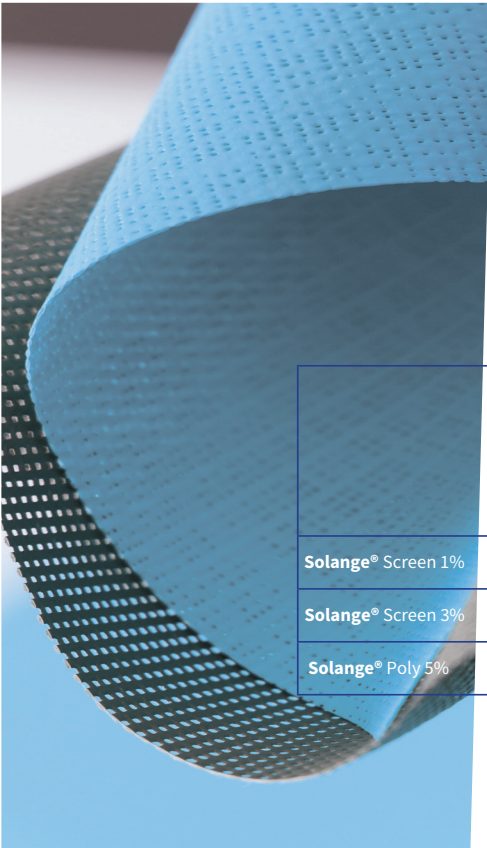


# SYSTEMS INTEGRATION



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

## 4. Fabric Specification



### STANDARD SCREEN FABRICS

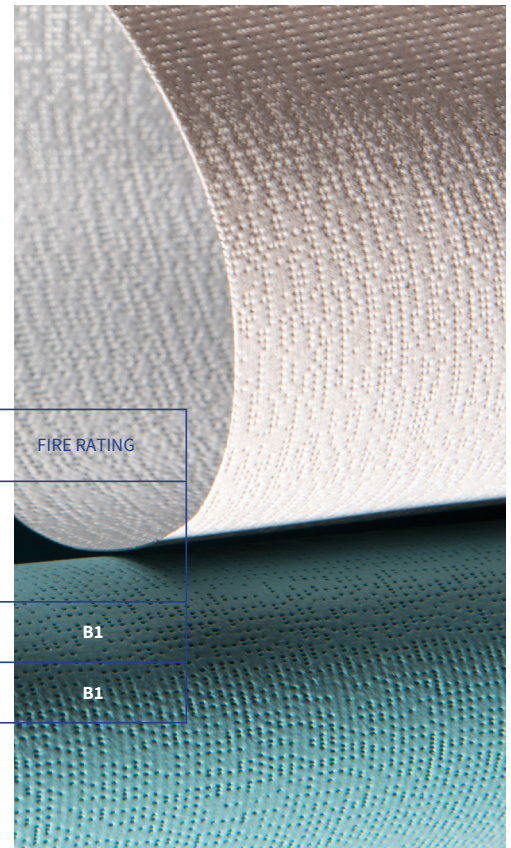
High performance polymer fabrics, woven or set and heat treated for strength and stability under tension. Composite construction offers minimal stretch characteristics at high tensile loads giving extended life and service intervals.

	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**

- five 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 the 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 outdoor 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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