evaya
AUTOMATION & CONTROL

RS485

RTS Transmitter

HOME AUTOMATION · RTS INTEGRATION

16 GROUPS · 433 MHz RTS · RS485 & DRY CONTACT

Bridges third-party home automation systems to the full Somfy RTS receiver range. Converts RS485 commands into RTS radio orders, giving centralised control of up to 16 independent groups of external venetian blind Geiger motors and receivers — with full tilt and sun-protection command support.

CONTROL INPUTS:

RS485 Dataline · 5 × Dry Contact Relays

RS485 RTS Transmitter

Wall or DIN-Rail Mount · Ref. 1810803

MOTOR & CONTROL TECHNOLOGY BY

somfy

16	433 MHz	IP20
GROUPS	RTS RADIO	PROTECTION

Somfy RS485 RTS Transmitter — Technical Specifications

KEY FEATURES

- Controls up to 16 independent RTS groups
- Bridges RS485 home automation to RTS radio
- 5 × dry contact inputs for relay-based control
- Universal AC supply: 90–255V, 50–60 Hz
- Wall and DIN-rail mounting options
- External BNC antenna for maximum radio range
- Compatible with all Somfy RTS Receivers
- CE and RoHS compliant

TECHNICAL SPECIFICATIONS

SPECIFICATION	VALUE
Supply Voltage	90–255V AC
Supply Frequency	50–60 Hz
Power Consumption (max.)	3W max. · 65mA @ 90V / 30mA @ 255V
Electrical Protection	Class II product
Radio Protocol	RTS U80
Radio Frequency	433.42 MHz
Radio Range	20m between two concrete walls
RTS Groups	Up to 16 independent groups
Dry Contact Inputs	5 × Phoenix Contact 3.5mm 3-pin connector blocks
RS485 Connection	1 × Phoenix Contact 3.5mm 4-pin connector block
Antenna Connection	1 × BNC connector (external mobile antenna)
Power Supply Connector	IEC C8 · 2m cable included
Mounting	Wall mounting or DIN rail mounting
Operating Temperature	0°C to +60°C
Storage Temperature	-30°C to +80°C
Housing Material	ABS — Black
Dimensions (W × D × H)	175 × 100 × 46 mm (253mm overall height with antenna)
Weight	430g (with antenna and power supply cable)
Degree of Protection	IP 20
Compliance	CE, RoHS compliant
Optional Accessory	COAX BNC antenna cable · Ref. 9 015 314

PRODUCT REFERENCE

1810803

RS485 RTS Transmitter

Wall or DIN-Rail Mount · Black ABS

175 × 100 × 46 mm · 430g

RS485 COMMUNICATION PROTOCOL

The RS485 RTS Transmitter uses the Somfy RS485 protocol to communicate with the host home automation or building management system. The protocol supports bi-directional, half-duplex communication. The "Host" refers to the device initiating communication — typically a computer-based control system or HAS controller.

Communication Standard

Physical Standard	EIA/TIA-485-A
Communication Mode	Half-duplex (bi-directional)
Recommended Cable	Shielded, two twisted-pair · 22–24 AWG · 120 Ω impedance
Maximum Cable Length	1000m
Inter-message Gap	100ms minimum between messages

Character Coding

Baud Rate	4800 baud (±2%)
Start Bit	Logical Level 0
Data Bits	8 bits · Least significant bit transmitted first
Parity	Odd
Stop Bit	Logical Level 1

WARNING: Data bits shall be inverted.

MOTOR COMMAND SET — EXTERNAL VENETIAN BLINDS

The following commands are available for Somfy RTS external venetian blind Geiger motors and receivers:

COMMAND	DESCRIPTION
Open	Raises the blind / tilts slats to fully open position
Close	Lowers the blind / tilts slats to fully closed position
Stop	Halts motor movement at current position
Go to Favourite	Moves to a pre-programmed intermediate tilt angle or position
Record Favourite	Saves the current position as the favourite position
Delete Favourite	Clears the stored favourite position
Sun Protection On	Activates the programmed sun protection position
Sun Protection Off	Deactivates sun protection and returns to previous position
Tilt Up	Incremental tilt adjustment — slats tilt upward
Tilt Down	Incremental tilt adjustment — slats tilt downward
Open Programming Mode	Enters motor programming mode for pairing/configuration

IMPORTANT LIMITATION
The RS485 RTS Transmitter cannot set motor end-limits. End-limits must be configured directly on each motor prior to connection to the RS485 system.

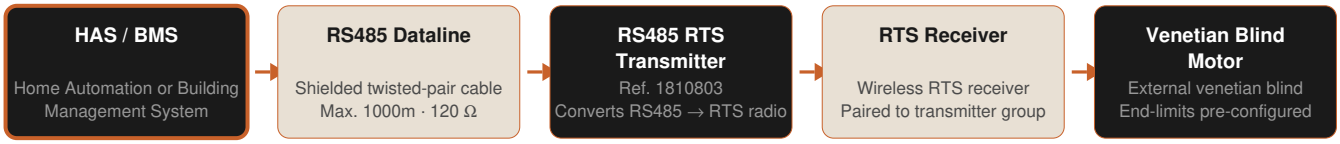
DRY CONTACT INPUT OPERATION

Each of the 5 dry contact inputs controls one independent group of RTS motors/receivers:

Up Contact	Momentary latch 0.5–1.5 seconds — sends Open command to assigned group
Down Contact	Momentary latch 0.5–1.5 seconds — sends Close command to assigned group
Stop Command	Simultaneous Up + Down contact closure (0.5–1.5 seconds)

SYSTEM ARCHITECTURE

The RS485 RTS Transmitter sits between the home automation or building management system and the Somfy RTS receiver network. The host system sends RS485 serial commands to the transmitter, which converts these into RTS radio orders transmitted wirelessly to paired RTS receivers. Each receiver drives one or more external venetian blind motors. Wind protection is handled independently by the Eolis RTS Wind Sensor, which communicates wirelessly with the receiver and overrides the HAS command when wind thresholds are exceeded.



GROUP PROGRAMMING

Up to 16 independent groups can be programmed into the RS485 RTS Transmitter:

Number of Groups	Up to 16 independent groups
Motors per Group	Multiple motors/receivers can be assigned to each group
Group Control via RS485	Each group addressed independently via RS485 network address
Group Control via Dry Contact	5 dry contact inputs — one group per input (inputs 1–5)
Group Overlap	A single motor/receiver can be a member of multiple groups
Programming Method	Via RS485 commands from host system — refer to installation guide

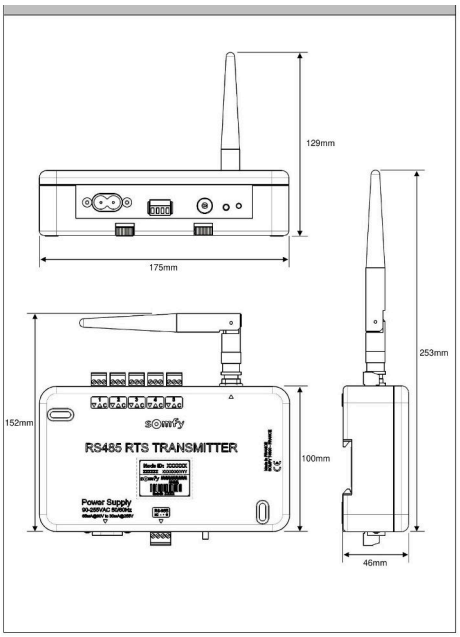
CABLE REQUIREMENTS

RS485 Dataline	Shielded twisted-pair · 22–24 AWG · 120 Ω · Max. 1000m
Motor Supply Cable	4 core / twin active · 900mm from receiver to motor
Receiver Supply Cable	4 core / twin active · 1500mm · Use Brown Active only
Mains Supply	Active, Neutral, Earth · 240V AC
Eolis Wind Sensor Supply	240V Active & Neutral required (wireless to receiver)

MOUNTING OPTIONS

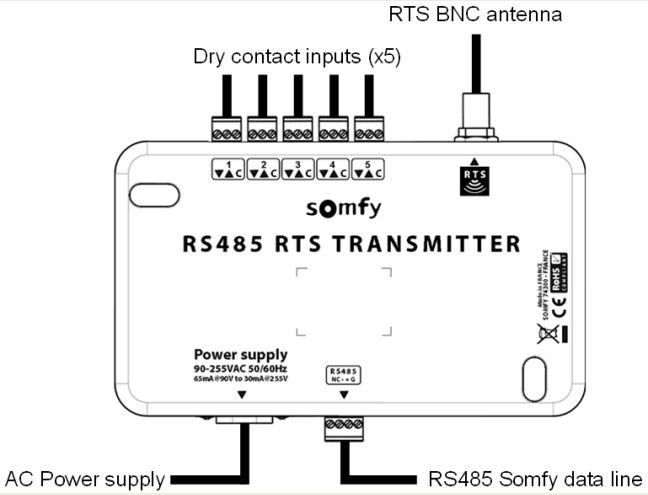
Wall Mounting	Horizontal surface · Screws through rear panel of housing
DIN Rail Mounting	Standard 35mm DIN rail · Clip-on installation

UNIT DIMENSIONS



Weight: 430g (including antenna and power supply cable)

WIRING



PRE-INSTALLATION CHECKLIST

- Configure motor end-limits on each venetian blind motor before connecting to RS485 system
- Pair each RTS receiver to the RS485 RTS Transmitter and assign to the correct group
- Verify RS485 cable impedance (120 Ω) and maximum cable run (1000m)
- Confirm host system baud rate is set to 4800 baud with Odd parity
- Test each group independently via RS485 commands before commissioning
- Confirm Eolis RTS Wind Sensor is paired to the correct receiver(s)

SOMFY TECHNICAL SUPPORT

Full technical support for the RS485 RTS Transmitter is provided by Somfy Australia.
Contact Somfy at somfy.com.au or call 1300 766 394 for product and integration support.