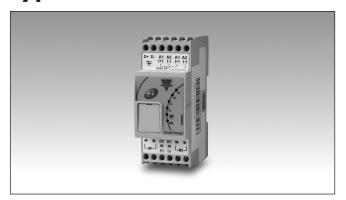
Smart Dupline® Control for DC Rollerblind Motor Type SH2RODC224





- Up/down control for two DC rollerblind motors
- DC power supply
- Relay load 5A
- 2 DIN housing

Outputs number _

Power supply

- LED indication for power supply, dupline[®] bus, motor up, motor down
- Connection to other cabinet modules via local bus

Product Description

This is a 2-DIN relay output module to independently control two DC rollerblind motors.

It has been developed to be connected to and controlled by the smart-house system controllers.

The rollerblind motor is driv-

en by two relays in series: one to switch the motor ON/ OFF and the second one to control the direction UP/ DOWN. These two relays are controlled in such a way as to respect the motor timing before any reversing of the motor direction.

SH 2 RO DC 2 24 smart-house 2-DIN housing Rollerblind function DC motor

Type Selection

Housing	Mounting	Relay load	Relay output	Supply: 15 to 30 VDC
2 DIN	DIN-rail	5A	2 SPST + 2 SPDT relay	SH2RODC224

Output Specifications

Relay output		2 SPST (R1, R2) + 2 SPDT (R3-R4) relay
Resistive load	DC 13	5 A/24 VDC
Mechanical life		≥ 10 x 10 ⁶ operations
Electrical life		≥ 1 x 10 ⁵ operations
Operating frequency		≤ 360 operations/h
Wiring		M+ (M1), M- (M1) output for motor 1, (-), (+) motor supply voltage, M+ (M2), M- (M2) output for motor 2

Input Specifications

Supply Specifications

Power supply Rated operational voltage	Overvoltage cat. II (IEC 60664-1, par. 4.3.3.2) 15 to 24 VDC ± 20%
Operational voltage range	15 to 30 VDC (ripple included)
Rated operational power	3 W
Protection for reverse polarity	Yes
Connection	2xA1 (+) and 2xA2 (-)- (2 pairs of terminals internally connected Max 3A)
Power on delay	Typ. 4 s
Power off delay	≤1 s

Dupline® Specifications

Voltage	8.2 V
Maximum Dupline® voltage	10 V
Minimum Dupline® voltage	4.5 V
Maximum Dupline® current	1.1 mA

The Dupline® bus is present on the internal bus: the modules can be connected one next to the other without the need of wiring the Dupline® bus. See "Wiring diagram".



General Specifications

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Installation category	Cat. II	Connection
Dielectric strength Power supply to Dupline®	500 V impulse (1.2/50 μs) 500 V AC for 1 min.	Terminal Cable cross-section Tightening torque
Dupline® to output, power supply to output	(IEC60664-1, TAB. F. 1) 6 KV impulse 1.2/50μμs 4 KV AC for 1 min. (IEC60664-1, TAB. A. 1)	Housing Dimensions Material Weight
Address assignment	Automatic: the controller recognises the module through the SIN (Specific Identification Number) that has to be inserted in the SH tool.	Approvals
Fail-safe mode	In case of interruption of the dupline® connection, the output channel will be switched-off	CE Marking EMC
Environment Degree of protection Front Screw terminal Pollution degree Operating temperature Storage temperature Humidity (non-condensing) LED's indication Power LED Dupline® LED Motor status	IP 50 IP 20 2 (IEC 60664-1, par. 4.6.2) -20° to +50°C (-4° to 122°F) -50° to +85°C (-58° to 185°F) 20 to 80% RH 1 green 1 yellow 4 red	Immunity - Electrostatic disch - Radiated radiofred - Burst immunity - Surge - Conducted radio f - Power frequency r fields - Voltage dips, varia interruptions Emission - Conducted and ra emissions - Conducted emissi

Connection Terminal Cable cross-section area Tightening torque	12 screw-type max. 1.5 mm ² 0.4 Nm / 0.8 Nm
Housing	
Dimensions Material	2 DIN module Noryl
Weight	150 g
Approvals	cRUus, according to UL60950 UL notes: Max room temperature: 40°C A readily accessible disconnecting device must be added in the building installation
CE Marking	Yes
EMC Immunity - Electrostatic discharge - Radiated radiofrequency - Burst immunity - Surge - Conducted radio frequency - Power frequency magnetic fields - Voltage dips, variations, interruptions Emission - Conducted and radiated	EN 61000-6-2 EN 61000-4-2 EN 61000-4-3 EN 61000-4-4 EN 61000-4-5 EN 61000-4-6 EN 61000-4-8 EN 61000-4-11 EN 61000-6-3
emissions - Conducted emissions - Radiated emissions	CISPR 22 (EN55022), cl. B CISPR 16-2-1 (EN55016-2-1) CISPR 16-2-3 (EN55016-2-3)

Mode of Operation

Push button

The push button is used for local switching ON/OFF of the output, without the need to connect the bus for test purposes.

The command from the push button will only be recognized if it is kept pressed for more than 1 second: the two outputs will be activated for the whole time the push button is being kept pressed. Once the push button is released, also the outputs are deactivated. Every time the button is pressed, the direction of the motors is

changed, always respecting the reverse delay time.

This rollerblind module is driven by the SH2WEB24 controller to move rollerblinds, sunblinds and shutters. It receives the UP and DOWN command from the SH2WEB24, and then activates the relevant output accordingly. The two outputs are driven independently and can be managed by different rollerblind functions.

The UP/DOWN output remains active for a time known as "running time"

or until another UP/DOWN command is received. Before reversing the movement, the output will remain deactivated for a time called "reverse delay". The reverse delay times are sent to the SH2RODC224 by the SH2WEB24 and can be different for each output. The running time is managed by the controller.

If the tilting function is enabled, the SH2RODC224 will be able to manage the tilting command received from the SH2WEB24. The tilting command can be of two

types: tilting UP and tilting DOWN. Once this command is received, the SH2RO-DC224 will activate the UP or DOWN output for the tilting time always respecting the reverse delay time.

Addressing

No addressing is needed since the module is provided with a specific identification number (SIN): the user has only to insert the SIN number in the configuration tool when creating the system configuration.

Number of Rollerblind functions	Emergency stop signal used (Y/N)	Input channels	Output channels
1	N	1	0
1	Y	1	1
2	N	2	0
2	Y	2	2