

- ( F )
- ( D )
- ( GB )
- ( NL )

## Switch output

- 4 voltage contacts 230 V AC for shutters TS 223
- 4 voltage contacts 230 V AC for blinds TS 224

## TS 223 / TS 224

### User instruction

( GB )

#### Function

##### TS 223: output for 4 shutters

- (UP/DOWN) Close and open by briefly pressing the push-button
- Stop in intermediate position by briefly pressing the push-button.

##### TS 224: output for 4 blinds

- (UP/DOWN) Close and open by pressing the push-button long (400 ms)
- Stop in intermediate position by briefly pressing the push-button.
- inclination of the blades by briefly pressing the push-button

The orders for direction come directly from the TEBIS TS input devices when in "Auto" mode.

In the mode for the manual operation "Manu"  $\updownarrow$ , these orders can also be given with the push-buttons in the device (override).

#### Blinds and shutters positioning.

Blinds and shutters may be stopped in an intermediate position.

#### To use this function, you must first load, the up-down delay.

The required position is obtained by using the "delayed down control" (see TS 100 Operating instructions).

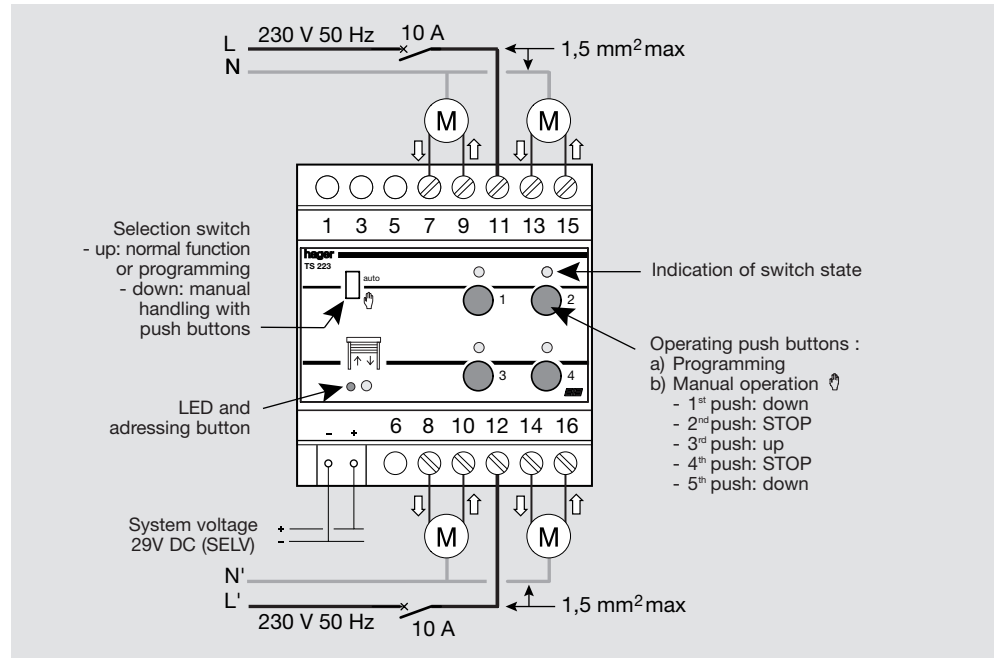
- Press for greater than 6 seconds the push button of the required output :  
 ⇒ the shutter goes up.  
 ⇒ the Led showing switch state indication is flashing slowly.
- Press on the operating push button of the output :  
 ⇒ the timing begins.
- Press on the same operating push button, immediately when the shutters is in down position :  
 ⇒ the timing stops.
- Press on the same operating push button for as long as the LED of switch state indication is flashing quickly :  
 ⇒ the timing is now loaded.

This loaded time now corresponds to a specific shutter position.

Ex : the loaded time is 30 seconds.

| Positioning | 1/4 | 1/3  | 1/2  | 2/3  | 3/4  |
|-------------|-----|------|------|------|------|
| Timing      | 7 s | 10 s | 15 s | 20 s | 22 s |

#### Electrical connection



#### Safety Recommendations:

- Installation should only be carried out by a suitably qualified electrician.
- The function of this device is only possible within the Tebis TS system.
- Strictly observe SELV installation procedures.
- This module can drive 4 blinds / shutters max., only one drive per output. If you wish to connect more than 4 motors, you must use more TS 223 and TS 224, respectively.
- **Never use a device from another installation without proper deprogramming (See TS 100 Technical Guide).**

#### Installation instructions

1. Observe operation temperature. Mount device in lower part of the enclosure.
2. Connect a system voltage 29 V.
3. Connect outputs. Only one drive per output.
4. Verify the outputs' function:
  - put selection switch into position  $\updownarrow$
  - switch loads by pushing the push-buttons
  - verify direction -> when pushing the first time, after positioning the selection switch into position  $\updownarrow$ , the shades must go down.
  - If this isn't the case, exchange the connection of the outputs  $\blacktriangle$  and  $\blacktriangledown$  respectively.
5. Observe carefully the rules of the **Tebis TS Operating Instructions** when connecting the input devices.

#### Technical Specifications

##### Electrical data

- Supply voltage: 230 V ~ 50 Hz + system voltage 29 V
- Max. power dissipation: 2 W

##### Operation data

- Contact's loading capacity Indicator:
  - AC1: 6 A 250 V
- Electrical endurance:
  - 50 000 operations at 6 A AC1
- Delay time at two opposite directions = 600 ms

##### Environment

- Operation: 0 °C to +45 °C
- Storage: -20 °C to +70 °C

##### Connection

- Cage clamps: flexible: 1 mm<sup>2</sup> to 6 mm<sup>2</sup>  
 rigid: 1,5 mm<sup>2</sup> to 10 mm<sup>2</sup>

##### Dimensions

- Size: 4 modules

#### Warranty

( GB )

A warranty period of 24 months is offered on hager products, from date of manufacture, relating to any material of manufacturing defect. If any product is found to be defective it must be returned via the installer and supplier (wholesaler). The warranty is withdrawn if :  
 - after inspection by hager quality control dept the device is found to have been installed in a manner which is contrary to IEE wiring regulations and accepted practice within the industry at the time of installation.  
 - the procedure for the return of goods has not been followed.  
 Explanation of defect must be included when returning goods.