ABB i-bus® KNX
Blind/Roller Shutter Actuators with travel detection and manual operation 4-fold, 24 V DC, MDRC
JRA/S 4.24.5.1, 2CDG 110 128 R0011

The 4-fold Blind/Roller Shutter Actuator is used to automatically control independent 24 V DC drives, for positioning blinds, roller shutters, awnings and other shading products via ABB i-bus® KNX. The devices are also used, for example, to control doors, windows and ventilation flaps. The travel times of the drives are automatically determined via end position detection and stored.

The devices do not require an auxiliary voltage.

The outputs can be directly controlled on the device using the manual push buttons. The LEDs on the front of the device signal the status of the outputs. Individual outputs can be copied or exchanged to reduce the programming effort.

The Blind/Roller Shutter Actuator is a modular installation device for installation in the distribution board on 35 mm mounting rails. The connection to the ABB i-bus® is implemented via bus connection terminals.

Technical data

<table>
<thead>
<tr>
<th>Supply</th>
<th>Operating voltage</th>
<th>21…30 V DC, via KNX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Current consumption KNX</td>
<td>&lt; 12 mA</td>
</tr>
<tr>
<td></td>
<td>Power consumption KNX</td>
<td>maximum 250 mW</td>
</tr>
<tr>
<td>Outputs</td>
<td>Number of outputs (UP/DOWN or +/-)</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Potential distribution with UP/DOWN telegram:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Output</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Terminal No.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Potential at DOWN telegram</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Potential at UP telegram</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Uᵣ rated voltage</td>
<td>maximum 24 V DC</td>
</tr>
<tr>
<td></td>
<td>Iᵣ rated current</td>
<td>6 A</td>
</tr>
<tr>
<td></td>
<td>Current detection for travel detection</td>
<td>&gt; 300 mA</td>
</tr>
<tr>
<td></td>
<td>Maximum switching current</td>
<td>6 A (AC1/AC3) at 230 V AC or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 A (AC1/AC3) at 400 V AC</td>
</tr>
<tr>
<td></td>
<td>Minimum switching current</td>
<td>100 mA at 5 V or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mA at 10 V or</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1 mA at 24 V</td>
</tr>
<tr>
<td></td>
<td>Leakage loss per device at max. load</td>
<td>&lt; 4 W</td>
</tr>
<tr>
<td>Connections</td>
<td>Drives (terminals output A…X)</td>
<td>2 universal head screw terminals per output (UP/DOWN)</td>
</tr>
<tr>
<td></td>
<td>Load circuit (+/-)</td>
<td>2 universal head screw terminals single-core 0.2...6 mm², stranded 0.2...4 mm²</td>
</tr>
<tr>
<td></td>
<td>Screw terminal conductor cross-section</td>
<td>Flexible with ferrules without/with plastic sleeves 0.25...4 mm²</td>
</tr>
<tr>
<td></td>
<td>Tightening torque</td>
<td>maximum 0.6 Nm</td>
</tr>
<tr>
<td></td>
<td>ABB i-bus® KNX</td>
<td>Bus connection terminal (black/red), 0.8 mm Ø, single-core</td>
</tr>
</tbody>
</table>
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Operating and display elements
- Button/LED
  - Button and LED
  - Two buttons and LEDs per output
  - Buttons and LEDs

For assignment of the physical address
For toggling between manual operation/operation via ABB i-bus® and displays
For control (move UP/DOWN, slat OPEN/CLOSE) of the output and status display

Enclosure
- IP 20
- To EN 60 529

Safety class
- II, in the installed state
- To EN 61 140

Isolation category
- Overvoltage category
- III to DIN EN 60 664-1
- Pollution degree
- 2 to DIN EN 60 664-1

KNX safety extra low voltage
- SELV 24 V DC

Temperature range
- Operation
- -20 °C...+45 °C
- Storage
- -25 °C...+55 °C
- Transport
- -25 °C...+70 °C

Ambient conditions
- Maximum air humidity
- 93 %, no condensation allowed

Design
- Modular installation device (MDRC)
- Modular installation device, Pro M
- Dimensions (H x W x D) in mm
- 90 x 72 x 64.5
- Mounting width in space units (modules at 18 mm)
- 4
- Mounting depth
- 64.5

Weight without packaging
- in kg
- 0.25

Installation
- On 35 mm mounting rail
- To EN 60 715

Mounting position
- As required

Housing/colour
- Plastic housing, grey
- Halogen free

Approvals
- KNX to EN 50 090-1, -2
- Certification

CE mark
- In accordance with the EMC guideline and low voltage guideline

<table>
<thead>
<tr>
<th>Device type</th>
<th>Application</th>
<th>Maximum number of communication objects</th>
<th>Maximum number of group addresses</th>
<th>Maximum number of associations</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRA/S 4.24.5.1</td>
<td>Blind/Roller Shutter 4f 24V Travel Detection M/…*</td>
<td>129</td>
<td>255</td>
<td>255</td>
</tr>
</tbody>
</table>

* ... = current version number of the application. Please observe the software information on our homepage for this purpose.

Note
The ETS and the current version of the device application are required for programming.
The current version of the application is available for download on the internet at www.abb.com/knx.
After import in the ETS, it is available in the ETS under ABB/Blind/Switch.
The device does not support the closing function of a KNX device in the ETS. If you inhibit access to all devices of the project with a BCU code, it has no effect on this device. Reading out data and programming is still possible.

Important
When electronic drives are used, the closed circuit current may not exceed 150 mA, as otherwise the automatic travel detection function may not function correctly. In this case, the travel times for the drives must be determined manually and entered into the ETS parameters.
Electronic drives with soft start or soft stop are not suitable for the control via JRA/S.
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Circuit diagram JRA/S 4.24.5.1

1 Label carrier
2 LED
3 Button
4 Bus connection terminal ABB i-bus® KNX
5 Button and LED
6 Button (2 per output)
7 LEDs (2 per output, yellow)
8 Screw terminals (UP/DOWN, U

Dimension drawing JRA/S 4.24.5.1
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Notes