Danger of electrocution!
- Module installation requires a great degree of skill and may be performed only by a qualified and licensed electrician.
- Even when the module is turned off, voltage may be present on its terminals. Any works on configuration changes related to connection mode or load must be always performed by disconnected power supply (disable the fuse).

Notes for the diagram:
- **N** Neutral lead
- **L** Live lead
- **Q1** Output for electrical device no. 1
- **Q2** Output for electrical device no. 2
- **I2** Input for switch to control electrical device no.2
- **I1** Input for switch to control electrical device no.1
- **TS** Terminal for digital temperature sensor (only for Flush 2 relays module compatible digital temperature sensor, which must be ordered separately).

Durability of the device depends on applied load. For resistive load (light bulbs, etc.) and 4A current consumption of each individual electrical device, the durability exceeds 70,000 switches of each individual electrical device.

Module Inclusion (Adding to Z-Wave network)
- Connect module to power supply (with temperature sensor connected - if purchased).
- Bring module within maximum 1 meter (3 feet) of the main controller.
- Enable add/remove mode on main controller.
- Press service button S for more than 6 seconds or
- Press push button I1 five times within 3s (5 times change switch state within 3s) in the first 60 seconds after the module is connected to the power supply.

By this function all parameters of the module are set to default values and own ID is deleted.
If service button S is pressed more than 2 and less than 6 seconds module is excluded, but configuration parameters are not set to default values.

Association
Association enables Flush 2 relays modules to transfer commands inside Z-Wave network directly (without main controller) to other Z-Wave modules.

Associated Groups:
- Group 1: basic on/off (triggered at change of the output Q1 state and reflecting its state) up to 16 nodes.
- Group 2: basic on/off (triggered at change of the output Q2 state and reflecting its state) up to 16 nodes.
- Group 3: default reporting group (reserved for the main controller).

Configuration parameters
Parameter no. 1 – Input 1 switch type
- Available configuration parameters (data type is 1 Byte DEC):
  - Default value 0
  - 0 – Flush 2 relays module saves its state before power failure (it returns to the last position saved before a power failure)
  - 1 – Flush 2 relays module does not save the state after a power failure, it returns to ”off” position.

Parameter no. 10 – Activate / deactivate functions ALL ON/ALL OFF
- Available configuration parameters (data type is 1 Byte DEC):
  - Default value 255
  - 255 - ALL ON active, ALL OFF active.
  - 0 - ALL ON is not active ALL OFF is not active
  - 1 - ALL ON is not active ALL OFF active
  - 2 - ALL ON active ALL OFF is not active

On/Off module responds to commands ALL ON / ALL OFF that may be sent by the main controller or by other controller belonging to the system.

Parameter no. 11 - Automatic turning Off relay Q1 after set time
- Available configuration parameters (data type is 2 Byte DEC):
  - Default value 0
  - 0 - Auto OFF disabled
  - 1- 65535 – 10 milliseconds – 655,35 seconds. Auto OFF enabled, with define time, step is 10 milliseconds.

Parameter no. 12 - Automatic turning Off relay Q2 after set time
- Available configuration parameters (data type is 2 Byte DEC):
  - Default value 0
  - 0 - Auto OFF disabled
  - 1- 65535 – 10 milliseconds – 655,35 seconds. Auto OFF enabled, with define time, step is 10 milliseconds.

Parameter no. 30 - Saving the state of the relays Q1 and Q2 after a power failure
- Available configuration parameters (data type is 1 Byte DEC):
  - Default value 0
  - 0 – Flush 2 relays module saves its state before power failure (it returns to the last position saved before a power failure)
  - 1 - Flush 2 relays module does not save the state after a power failure, it returns to ”off” position.

Parameter no. 40 – Power reporting in Watts on power change for Q1
- Set value means percentage, set value from 0 –
100 – 0% - 100%. Available configuration parameters (data type is 1 Byte DEC):
- default value 1
- 0 – Reporting Disabled
- 1 – 100 = 0% - 100%. Reporting enabled.

Power report is send (push) only when actual power in Watts in real time changes for more than set percentage comparing to previous actual power in Watts, step is 1%.

NOTE: if power changed is less than 1W, the report is not send (pushed), independent of percentage set.

Parameter no. 41 – Power reporting in Watts on power change for Q2
Set value means percentage, set value from 0 – 100 = 0% - 100%. Available configuration parameters (data type is 1 Byte DEC):
- default value 1
- 0 – Reporting Disabled
- 1 – 100 = 0% - 100%. Reporting enabled.

Power report is send (push) only when actual power in Watts in real time changes for more than set percentage comparing to previous actual power in Watts, step is 1%.

NOTE: if power changed is less than 1W, the report is not send (pushed), independent of percentage set.

Parameter no. 42 – Power reporting in Watts by time interval for Q1
Set value means time interval (0 – 65535) in seconds, when power report is send. Available configuration parameters (data type is 2 Byte DEC):
- default value 300 (power report in Watts is send each 300s)
- 0 – Reporting Disabled
- 1 – 65535 = 1 second – 65535 seconds. Reporting enabled, Power report is send with time interval set by entered value.

Technical Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power supply</td>
<td>110 - 230 VAC ±10% 50/60Hz, 24-30VDC</td>
</tr>
<tr>
<td>Rated load current of AC</td>
<td>2 X 4A / 230VAC</td>
</tr>
<tr>
<td>output (resistive load)</td>
<td></td>
</tr>
<tr>
<td>Rated load current of DC</td>
<td>2 X 4A / 30VDC</td>
</tr>
<tr>
<td>output (resistive load)</td>
<td></td>
</tr>
<tr>
<td>Output circuit power of AC</td>
<td>2 X 920W (230VAC)</td>
</tr>
<tr>
<td>output (resistive load)</td>
<td></td>
</tr>
<tr>
<td>Output circuit power of DC</td>
<td>2 X 96W (24VDC)</td>
</tr>
<tr>
<td>output (resistive load)</td>
<td></td>
</tr>
<tr>
<td>Power measurement accuracy</td>
<td>P=0-200W, +/-2W P=200W, +/-3%</td>
</tr>
<tr>
<td>Digital temperature</td>
<td>-50 – +125°C</td>
</tr>
<tr>
<td>sensor range (sensor must</td>
<td>be ordered separately)</td>
</tr>
<tr>
<td>Operation temperature</td>
<td>-10 ~ +40°C</td>
</tr>
<tr>
<td>Distance</td>
<td>up to 30 m indoors (depending on building materials)</td>
</tr>
<tr>
<td>Dimensions (WxHxD)</td>
<td>41,8x36,8x16,9mm</td>
</tr>
<tr>
<td>(package)</td>
<td>(79x52x22)</td>
</tr>
<tr>
<td>Weight (Brutto with package)</td>
<td>28g (34g)</td>
</tr>
<tr>
<td>For installation in boxes</td>
<td>Ø ≥ 80mm or 2M</td>
</tr>
<tr>
<td>Switching</td>
<td>Relay (2x)</td>
</tr>
</tbody>
</table>

*In case of load other than resistive, pay attention to the value of cos φ and if necessary apply load lower than the rated load. Max current for cos φ=0.4 is 2A at 250VAC, 3A at 24VDC.

Z-Wave Device Class:
- GENERIC_TYPE_ROUTING_SLAVE
- SPECIFIC_TYPE_POWER_SWITCH_BINARY

Z-Wave Supported Command Classes:
- COMMAND_CLASS_BASIC
- COMMAND_CLASS_SWITCH_BINARY
- COMMAND_CLASS_MULTI_CHANNEL_V1
- COMMAND_CLASS_MULTI_CHANNEL_V2
- COMMAND_CLASS_SWITCH_ALL
- COMMAND_CLASS_METER_V3
- COMMAND_CLASS_SENSOR_MULTILEVEL_V3
- COMMAND_CLASS_SENSOR_MULTILEVEL_V4
- COMMAND_CLASS_POWERLEVEL
- COMMAND_CLASS_ASSOCIATION
- COMMAND_CLASS_CONFIGURATION
- COMMAND_CLASS_MANUFACTURER_SPECIFIC
- COMMAND_CLASSVERSION
- COMMAND_CLASS_MARK
- COMMAND_CLASS_BASIC

Endpoint 1 (11):
Device Class:
- GENERIC_TYPE_SWITCH_BINARY
- SPECIFIC_TYPE_POWER_SWITCH_BINARY

Command Classes:
- COMMAND_CLASS_SWITCH_BINARY
- COMMAND_CLASS_METER_V3

Endpoint 2 (12):
Device Class:
- GENERIC_TYPE_SWITCH_BINARY
- SPECIFIC_TYPE_POWER_SWITCH_BINARY

Command Classes:
- COMMAND_CLASS_SWITCH_BINARY
- COMMAND_CLASS_METER_V3

This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from any other manufacturers. All constantly powered nodes in the same network will act as repeaters regardless of the vendor in order to increase reliability of the network.

Important disclaimer
Z-Wave wireless communication is inherently not always 100% reliable, and as such, this product should not be used in situations in which life and/or valuables are solely dependent on its function.

Warning!
Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.
Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being. When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.

This user manual is subject to change and improvement without notice.