permundo.

The smart control company

DOCUMENT VERSION 1.07
RELEASE CANDIDATE

Flush-Mount Relay Switch PSC 132ZW

- Maximum Load 3680W/16A
- Measures Power and Energy
- Input for Mechanical
- Certified after IEC 60884-1/-2/-5, EN 60730-1, UDE 0631:2012-10

Description

The wireless flush-mount relay switch PSC132ZW allows you to remotely control electrical appliances. It features a metering function to measure the power consumption and the accumulated energy usage of connected equipment. The built-in metering unit is of high quality: it calculates the true-power and also works for small loads from 1W upwards. This feature is important to have a correct measurement value also for electronic loads like led lamps. The PSC132ZW has a built-in safety features that will switch-off the output in case of too high temperature or overload.
Additionally the PSC132 has a feature to switch the load on at zero voltage and switch the load off at zero current. This leads to a very high number of possible switching cycles also for difficult loads like led-lamps or motors, e.g. pumps.

Z-Wave Support

0x20 COMMAND_CLASS_BASIC	V1
0x25 COMMAND_CLASS_SWITCH_BINARY	V1
0x32 COMMAND_CLASS_METER	V2
0x70 COMMAND_CLASS_CONFIGURATION	V2
0x72 COMMAND_CLASS_MANUFACTURER_SPEC	V2
0x73 COMMAND_CLASS_POWERLEVEL	V1
0x7A COMMAND_CLASS_FIRMWARE_UPDATE_MD	V2
0x85 COMMAND_CLASS_ASSOCIATION	V2
0x86 COMMAND_CLASS_VERSION	V2
0x5E COMMAND_CLASS_ZWAVEPLUS_INFO	V2
0x59 COMMAND_CLASS_ASSOCIATION_GRP_INFO	V1

Technical Data

Operating Temperature

Temperature: -10 bis +25°C
higher temperatures up to 60°C require derating of 2.6A per 10°C

Operating Humidity

0-85% r.F. (non kondensing)

AC Supply Voltage

AC 207-253 Volt
Frequenz: 43-67Hz

Maximum Load

Switching Load: 3680 W, max 16A, cos Ø 1
Inrush Current: 80A, TV-5
Overvoltage: 2,5kV SURGE

Standby Consumption: <0,5 W
Lebensdauer Schaltrelais: > 50x 10^3 Zyklen

Normen

Entspricht IEC 60884-1/2-5, EN 60730-1

Enclosure

Color: White, RAL 9003
Measures: 37 x 27 x 17,5 mm
Weight: Ca. 26g

Metrology

Power: Real Power [W]
Energy: Accumulated Energy (stored at power-fail)
Accuracy: <5%, >1W

RF

Protokoll: Z-Wave Plus
Range: 10-30m, depending on environment

Safety

Overload: Load is switched off
Overtemperature: Load is switched off
Kindersicherung

Z-Wave Interface	**SDK**	6.51.06 / Series 500
	Basic Device	Enhanced 232 Slave with routing capabilities
	Generic Device	GENERIC_TYPE_BINARY_SWITCH
	Specific Device	SPECIFIC_TYPE_BINARY_POWER_SWITCH
	OTA Firmware Update	YES
	Firmware Version	1.39
	DeviceID	Manufacturer: permundo (0x0245) Product Type: 0x0003 Product: 0x0002
	Inklusion **Exklusion**	When a PS132ZW that is not associated to a Z-Wave network is inserted into the mains outlet, it will flash once red followed by 2 green flashes followed by steady red flashing. The PSC132ZW can now be added to (=inclusion) or removed from (=exclusion) a Z-Wave network: 1) start inclusion/exclusion on the primary controller 2) hold the touch button until the led shows green light 3) release the touch button The PSC132ZW will confirm successful addition to the network by 5 green flashes. The PSC132ZW will confirm successful removal/exclusion by steady red flashing. At the time of exclusion the device is factory reset.
	Factory default state	Please use this procedure only if the primary controller is missing or inoperable: The device can be put into factory default state manually by the following procedure: 1) hold the touch-button until the led shows red light 2) release the touch-button and hold the touch-button again until the led starts to flash green The PSC132ZW confirms the successful completion of the factory reset procedure by steady red flashing.
	Association	**GROUP 1 (lifeline): 5** Events/Notifications: (1) Sends COMMAND_CLASS_BASIC, BASIC_REPORT after every change of the output state (on/off). (2) Sends COMMAND_CLASS_METER_V2, METER_REPORT_V2 after every change of the measured energy or power value or after a timeout if the values stay unchanged. during If the energy or power value didn‘t change for a certain time.

Min. time between 2 reports if the energy or power value changes: 1s
Timeout for sending a report if the value stays unchanged: 15min.
Min. change in value to trigger a report:
4% power (mind. 2W) oder 1Wh energy

Gruppe 2: 5
Events/Notifications:
Sends COMMAND_CLASS_BASIC, BASIC_REPORT every time the mechanical switch at the input S1 is operated.

Parameter:

31d Size:1 Default:00d
Bit 0: 1=LocalControlOff 0=LocalControlOn
Bit 1-7: 0

LocalControlOff:
If „LocalControlOn“ is set (factory default state) the PSC132ZWs output can be switched manually by a mechanical rocker-switch or a pushbutton that is connected to the S1 input of the device. If „LocalControlOff“ is set, the PSC132ZWs output can only be switched through Z-Wave telegrams. In both modes the operational state of the mechanical switch is reported to association group 2. LocalControlOff is ment for using the switch-input functionality and the relay functionality separately.

Remarks:

- The device activates the relay only if a load is connected to the load output.
- The device will always report the physical state of the output. If the output stays off after the device received a BASIC_SET=0xFF because of an error, the status report will also report a switched-off output.
- The device incorporates a safety mechanism that avoids very short off-periods of the output. After switching the output off this state will be locked for 1.5s. If during these 1.5s the device receives an on command, switch-on will be delayed.
- This product can be included and operated in any Z-Wave network with other Z-Wave certified devices from other manufacturers and/or other applications. All non-battery operated nodes within the network will act as repeaters regardless of vendor to increase reliability of the network.