	<b>Precautions for the use of Rocker Switch</b>	Revision 1 Valid from 28.03.2016
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## Document Control

No	Page	Change Description	Issued by	Date	Revision
1	All	Create	Tiphaine Guillard	29/08/2016	0
2	2	Add 4.8mm into the terminal and termination table	Jasmin Hsu	21/07/2017	1
3	2,5,8	Page 2 : add new part number, page 5 add the IP rating table, page 8, add the ear position for Ø20.2mm Correct the sentence or part numbers to series.	Jasmin Hsu	25/01/2018	2
4	2,5,8	Page 2 : add new part numbers, Page 5 add new series into IP rating table , page 8 add the ear position for cutout 27.6x13.8mm	Jasmin Hsu	11/10/2018	3
5	2,5,9	Page 2 add new part numbers, Page 5 add new series into IP rating table, page 9 add the ear position for cutout Ø 20.2mm for series 471 017	Jasmin Hsu	09/09/2019	4
6	2,3,5	Page 2 add new part numbers, hand soldering condition, page 3 add wiring for AC power illuminated parts , page 5 storage condition table	Jasmin Hsu	11/11/2020	5
7	2, 5, 9	Add new part number and panel cutout for 30.2 x22.2 mm	Jasmin Hsu	20/07/2022	6
8	2, 6, 8, 9,10	Add new Part number 471 015. 471 023 , 471 028 into table on paragraph terminal and terminations, storage & operation condition ; add 471 023 and 471 028 into paragraph additional information	Jasmin Hsu	22/11/2022	7

## Precautions for the use of Rocker switch

### 1. General information

This guideline provides general information about the handling of our Rocker switches.


Our Rocker switches are not suitable for micro-load applications.

### 2. Terminals & Termination

WE order code	Tab thickness (mm)	According to IEC61210
471 001 264 143	0.8	0.187" (4.8mm)
471 001 264 142	0.8	0.187" (4.8mm)
471 016 264 143	0.8	0.187" (4.8mm)
471 002 268 143	0.8	0.187" (4.8mm)
471 002 268 142	0.8	0.187" (4.8mm)
471 005 264 152	0.8	0.250" (6.3mm)
471 005 264 153	0.8	0.250" (6.3mm)
471 015 264 15x	0.8	0.250" (6.3mm)
471 017 268 142	0.8	0.187" (4.8mm)
471 017 268 143	0.8	0.187" (4.8mm)
471 006 268 14x	0.8	0.187" (4.8mm)
471 NSx xxx xxx	0.8	0.187" (4.8mm)
471 018 264 15X	0.8	0.250" (6.3mm)
471 023 262 15x	0.8	0.250" (6.3mm)
471 028 268 14x	0.8	0.187" (4.8mm)

Our quick connect terminals follows IEC 61210 international standard. Check the compatibility before plugging. To ensure safety, connect wires and terminals via female receptacles.

Quick connect are not use for hand soldering. In case of hand soldering, please follow the term of 350°C with max. 5sec. The solder heat is to avoid to touches

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any plastic parts to avoid melting of plastic. And please ensure that the connection of the wire to terminal is good enough. Bad hand soldering may cause to risks of load flow and may cause to temperature overstress of the conductive parts or component

For the wire diameter, refer to AWG standard based on your needed input. Ensure that the diameter of the wire is proper choosing.

### 3. Handling of the component

#### ✓ General data



Do not wire the switch or touch any terminal of the switch while power is being supplied, or it may result in electric shock.

In original status our parts are delivered on OFF status. In case if the actuator has been operated before installation, ensure that the switch is in OFF position during the installation. In case of unsureness, please refer to our specification or consult our sales representative.

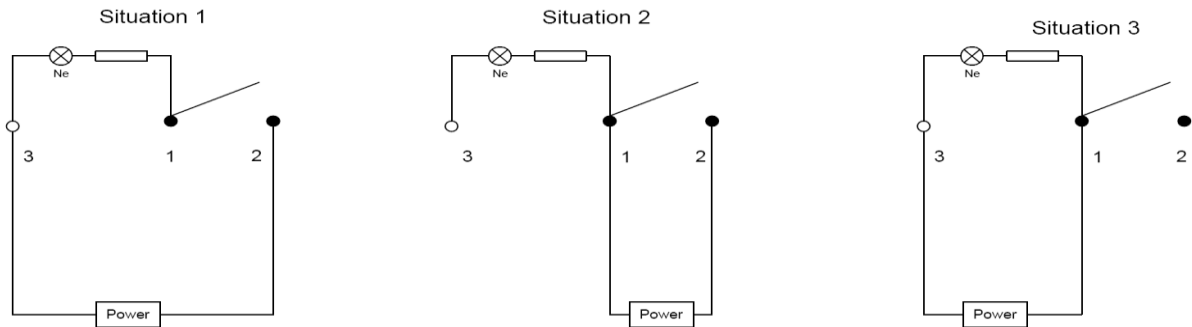
Use the switch within the rated voltage and current ranges, otherwise the switch may have long term deterioration, burn out or malfunction. This particularly applies to the instantaneous current when switching.

Different ways of wiring from AC power to the switch may result different outcome:

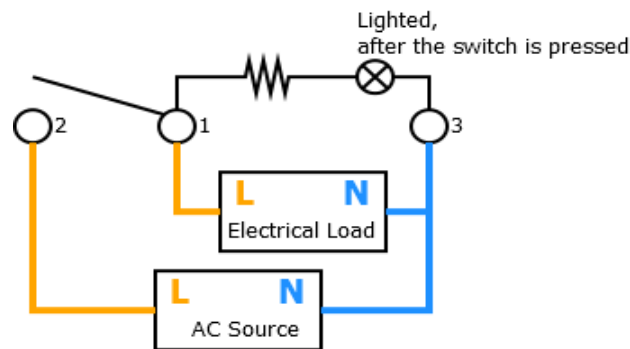
Situation 1: the lamp is lighted, after the switch is pressed.

Situation 2: the lamp cannot be lighted, no matter the switch is pressed or not

Situation 3: the lamp is always lighted, no matter the switch is pressed or not.



Example of full circuit for situation 1: the lamp is lighted, after the switch is pressed.



Note:  
L represents Line.  
N represents Neutral.

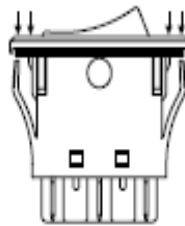
## ✓ Panel design

Our cut-out and thickness panel recommendation are tested internally with basic material of carbon steel or stainless steel.

For design recommendations, please refer to our specification in order to enhance firmness of the surface

Our Rocker switches offers snap-in design for more facility to mount on the panel. Do not detach the switch after installing to panel, the holding strength may be loose. Normally Rocker switch should sit firmly on the panel . (Please refer to figure 1).

Apply equal force on each side to mount the rocker switch on a panel



Mounted on panel

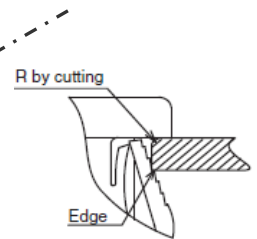
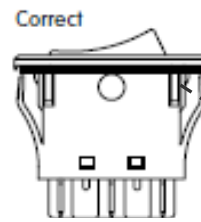
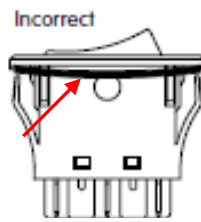


Figure 1

Do not apply a force from angle or from the side of the actuator. Apply the operating force from the top of the actuator to keep good performance of the stated ratings. Do not repeatedly operate the switch with excessive force, it could cause damage or deformation of the spring and result into malfunction. Please refer to figure 2.

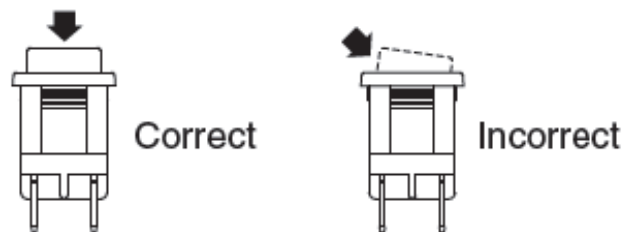



Figure 2

## 4. Storage & operation condition

All products should be kept well as specified in the datasheet. Special care should be taken to make sure not to expose switches to water, dust, chemicals, or other substances and situations that could cause damages.

WE part number	Operation temperature	Storage temperature	IP grade
471 001 xxx xxx	0 ~ 85°C	0 ~ 85°C	IP40
471 002 xxx xxx	0 ~ 85°C	0 ~ 85°C	IP40

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471 005 xxx xxx	0 ~ 85°C	0 ~ 85°C	IP40
471 017 xxx xxx	0 ~ 85°C	0 ~ 85°C	IP40
471 006 xxx xxx	0 ~ 85°C	0 ~ 85°C	IP65 (component only)
471 NSx xxx xxx	0 ~ 85°C	0 ~ 85°C	IP40
471 015 264 15x	0 ~ 85°C	0 ~ 85°C	IP65 (component only)
471 016 264 14x	0 ~ 85°C	0 ~ 85°C	IP40
471 017 268 14x	0 ~ 85°C	0 ~ 85°C	IP40
471 018 264 15x	0 ~ 85°C	0 ~ 85°C	IP 40
471 023 262 15x	0 ~ 85°C	0 ~ 85°C	IP65 (component only)
471 028 268 14x	0 ~ 85°C	0 ~ 85°C	IP65 (component only)

If the part is IP40 rated, it is not suitable for sulfide gas, corrosion, sea breeze, oil spray or extremely high humidity or dirty environment.

## 5. Packaging

Our rocker switches are generally packed in bulk packaging.

For detailed packaging information, please refer to our catalogue or specification.

## 6. Compliance

Approved standard are on UL, ENEC and CQC and approved numbers are listed in our specification, our website or printed document.

Wuerth Elektronik products are RoHS compliant. For a 3<sup>rd</sup> party RoHS report, please contact us.

For any further information, please feel free to contact our sales representatives.

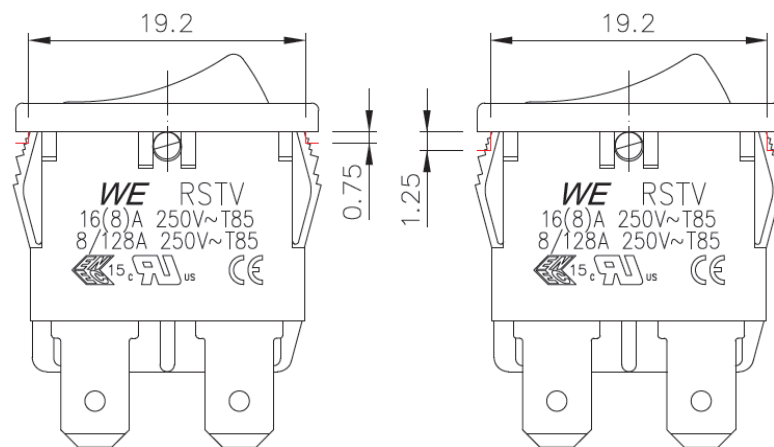
## 7. Additional information

The following drawings will help to see where on the mounting ears of the rocker switch the panel would sit according to its thickness.

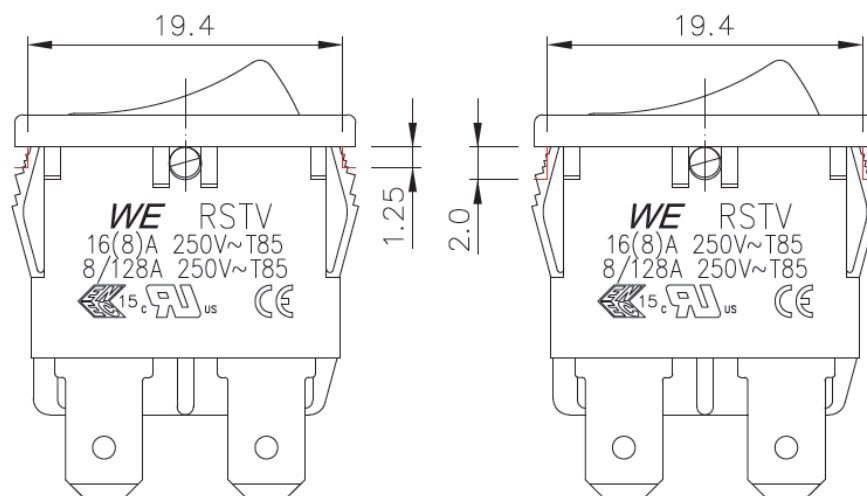
See below:

### 471 001 / 471 016 19.2x12.9 mm cutout

✓ 0,75 ~ 1,25mm

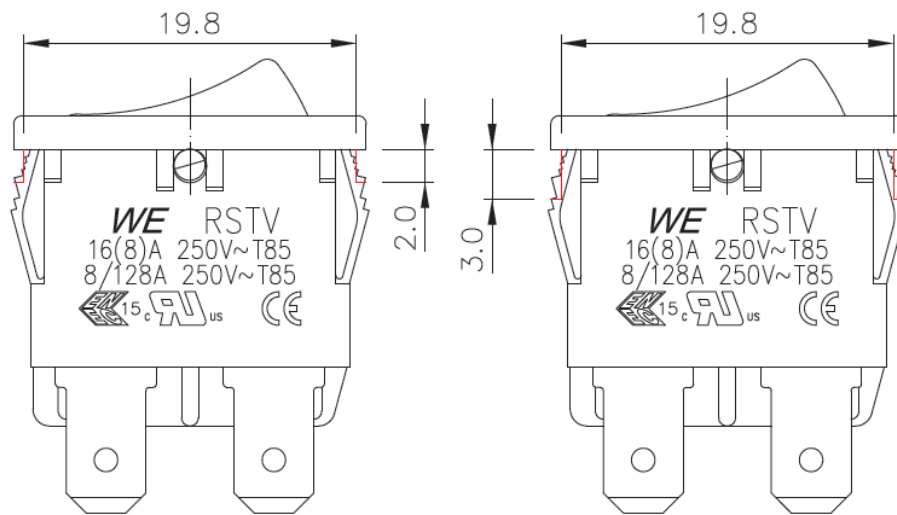


✓ 1,25 ~ 2,00mm



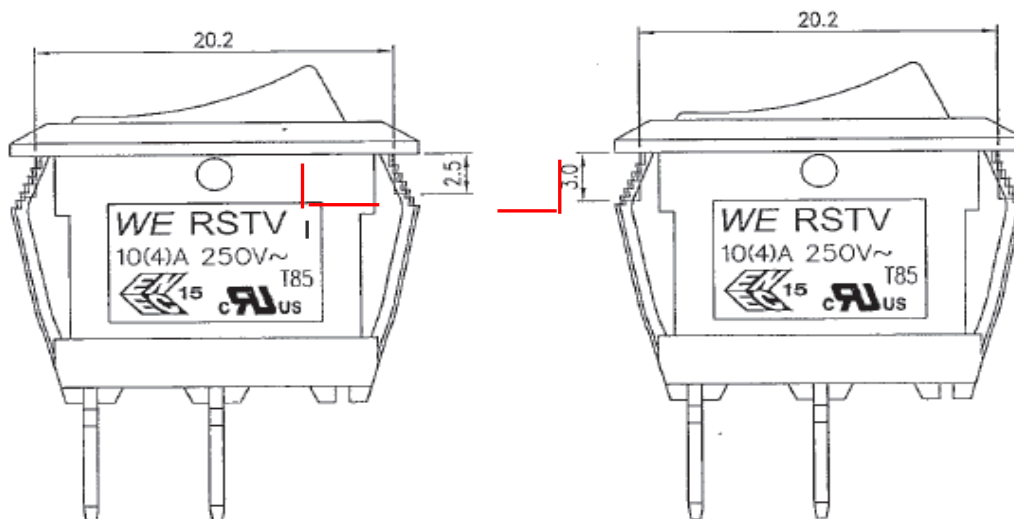
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✓ 2,00 ~ 3,00mm



## 471 002 / 471 006 Ø 20.2mm cutout

✓ 2,50 ~ 3,00mm

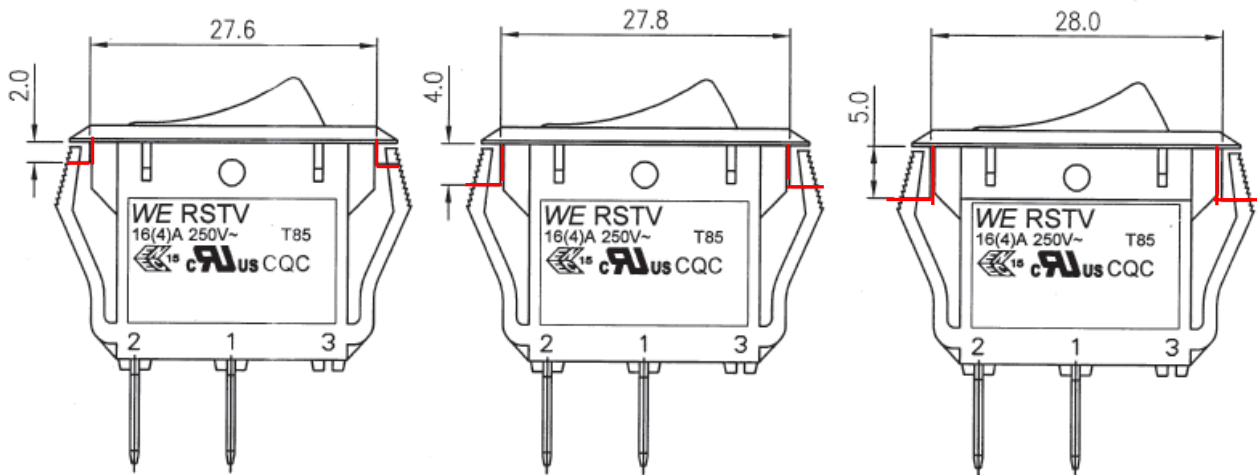




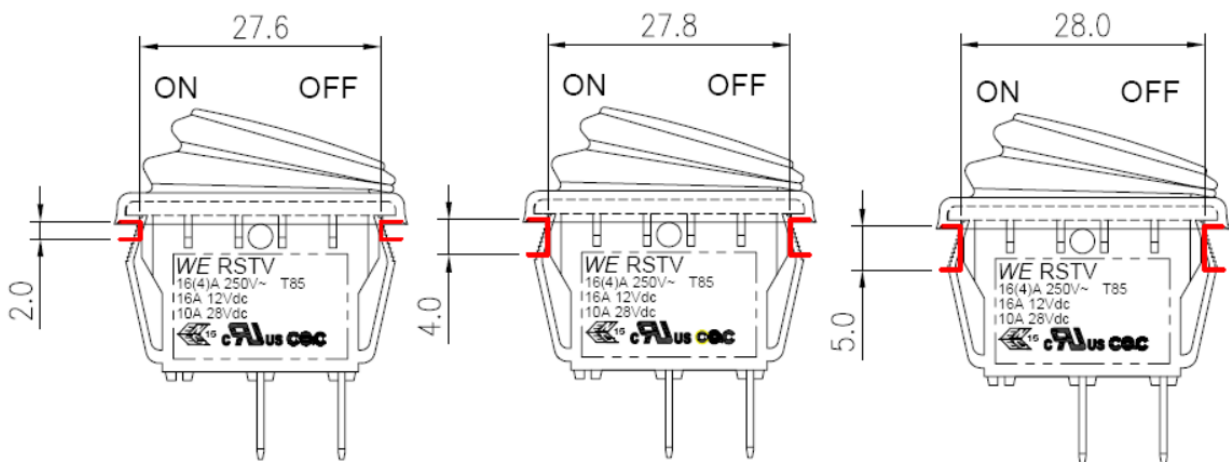
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## 471 005 27.6x13.8 mm cutout

✓ 2,00 ~ 5,00mm

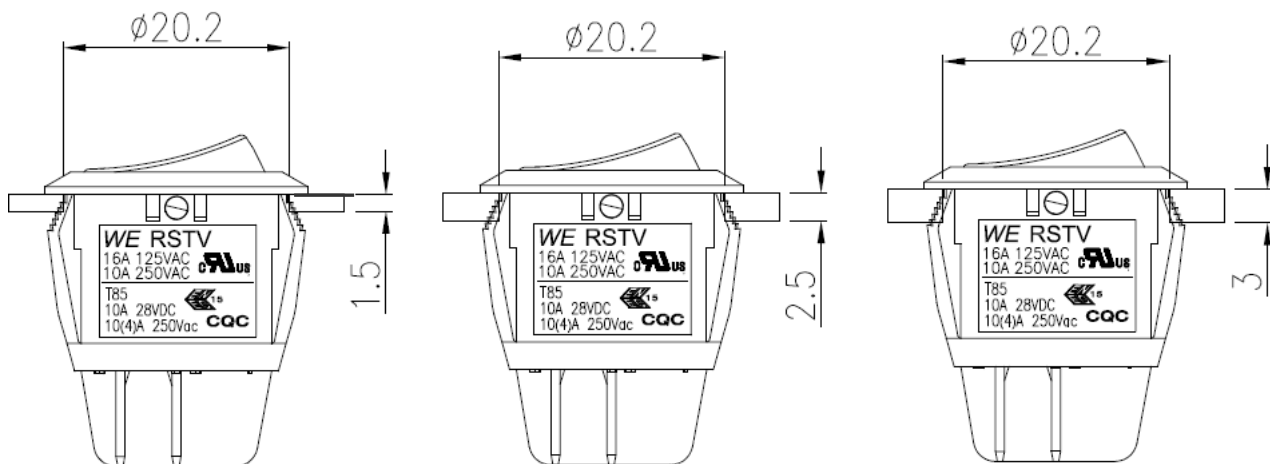


## 471 015 27.6x13.8 mm cutout



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## 471 017 Ø 20.2mm cutout



## 471 028 30.2 x22.2 mm cutout

- ✓ 0,75 ~ 1,25 mm
- ✓ 1,50 ~ 2,00 mm
- ✓ 3,00 ~ 4,00 mm

