

# S series

Washable rocker and paddle switches



## DISTINCTIVE FEATURES

Process sealed  
Front and rear sealing  
Process compatible  
Wave solderable  
Washable



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)
- Storage temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Moisture : The insulating materials employed and the complete seal permit the switches to withstand a 56 days moisture test (IEC 68-2-3).
- Solderability : The switches are tested at 235 °C (455 °F) according to IEC 68-2-20 after accelerated aging.



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (A) : 4 A 30 VDC
  - brass, gold plated contacts (CD) : 0.4 VA 20 VAC or DC
  - silver, gold plated contacts (AD) : 4 A 30 VDC (300 mA 30 VDC for gold plating)
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min.
- Dielectric strength : 1,000 Vrms 50 Hz min.
- Electrical life with nominal load :

| Contacts | Number of cycles |             |
|----------|------------------|-------------|
|          | 2 positions      | 3 positions |
| A        | 40,000           | 40,000      |
| CD       | 100,000          | 50,000      |
| AD       | 40,000           | 40,000      |

The company reserves the right to change specifications without notice.



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Washable rocker and paddle switches



## GENERAL SPECIFICATIONS

- Mechanical strength : Terminals are strengthened by a bracket or a ground plate ensuring the rigidity of the switch on the board. Actuator strength 10 N max.
- Soldering - thermal shock : The switches are especially designed for flow soldering at 260 °C (500 °F) during 5 seconds owing to high temperature polymer parts.



## MATERIALS

- Case and cover : UL94-V0, polyamide, glass filled or PES
- Actuator : polyamide
- Contacts
  - CD : brass, gold plated
  - A : silver
  - AD : silver, gold plated
- Terminal seal : epoxy

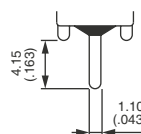
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.



## ELECTRICAL FUNCTIONS



## TERMINALS



Straight PC

## AGENCY APPROVAL



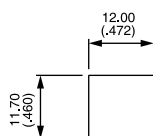
2 A 250 VAC  
4 A 125 VAC

**Availability** : consult factory for details of approved models.

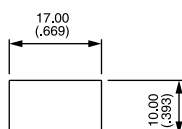
**Marking** : to order switches marked UL, complete appropriate box of ordering format.



## PANEL CUT-OUT



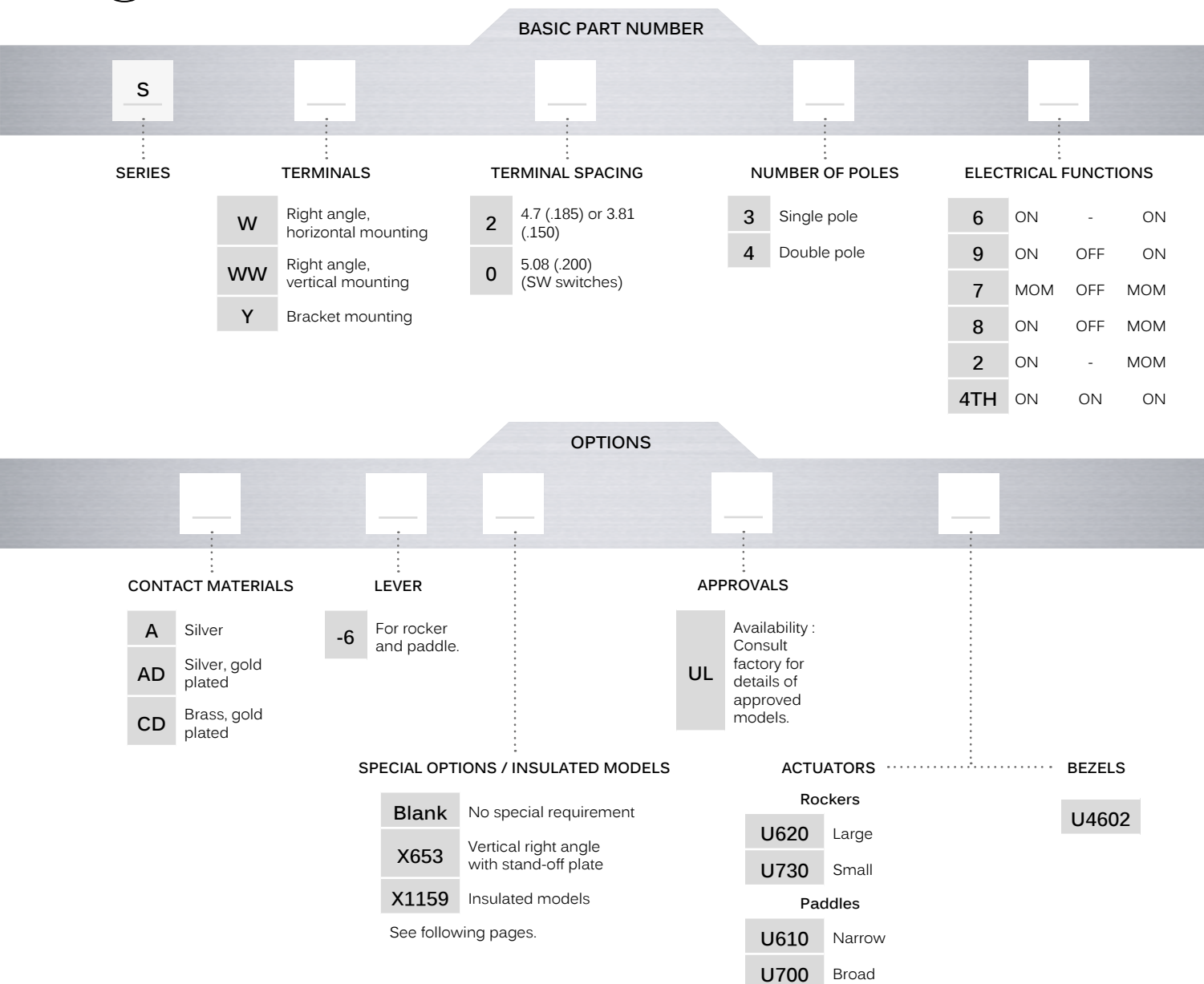
With rocker **U730** or paddle **U700**



With rocker **U620** or paddle **U610**



### BUILD YOUR PART NUMBER



### ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.



**Notice :** please note that not all combinations of above numbers are available. Refer to the following pages for further information.

# S series

Washable rocker and paddle switches

## RIGHT ANGLE TERMINALS - HORIZONTAL SPACING 4.7 (.185)



|  | Single pole | Double pole | III | II  | I   |
|--|-------------|-------------|-----|-----|-----|
|  | SW236-6     | SW246-6     | ON  | -   | ON  |
|  | SW239-6     | SW249-6     | ON  | OFF | ON  |
|  | SW237-6     | SW247-6     | MOM | OFF | MOM |
|  | SW238-6     | SW248-6     | ON  | OFF | MOM |
|  | SW232-6     | SW242-6     | ON  | -   | MOM |
|  |             | SW244TH-6*  | ON  | ON  | ON  |

\*Function 4 : SP in DP case - TH connection, see "Technical information" on website.  
Single pole with stand-off plate, double pole without.

## RIGHT ANGLE TERMINALS - VERTICAL



|  | Single pole | Double pole | III | II  | I   |
|--|-------------|-------------|-----|-----|-----|
|  | SWW236-6    | SWW246-6    | ON  | -   | ON  |
|  | SWW239-6    | SWW249-6    | ON  | OFF | ON  |
|  | SWW237-6    | SWW247-6    | MOM | OFF | MOM |
|  | SWW238-6    | SWW248-6    | ON  | OFF | MOM |
|  | SWW232-6    | SWW242-6    | ON  | -   | MOM |
|  |             | SWW244TH-6* | ON  | ON  | ON  |

\*Functions 2 and 8 : reversed connection available. Consult factory.

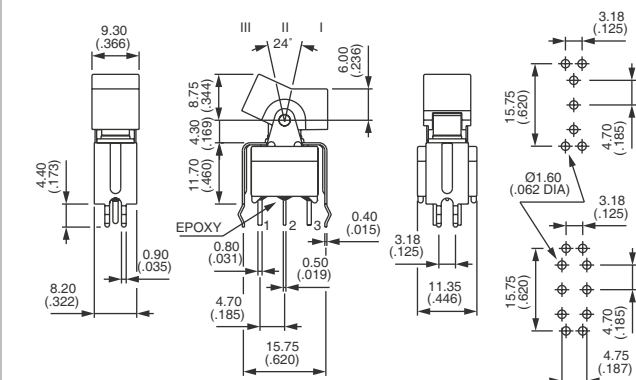
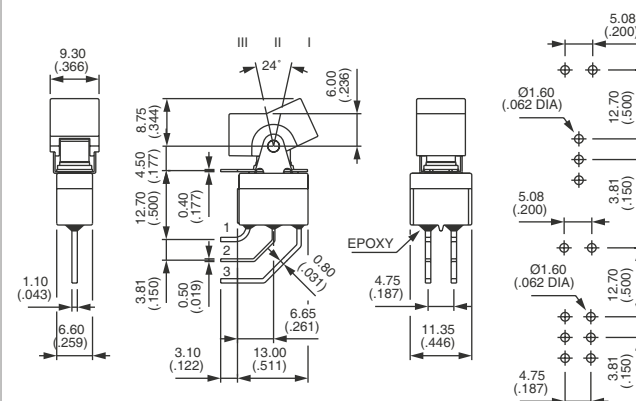
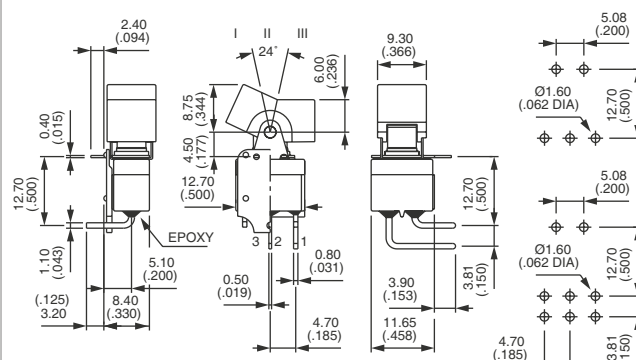
## BRACKET MOUNTING



|  | Single pole | Double pole | III | II  | I   |
|--|-------------|-------------|-----|-----|-----|
|  | SY236-6     | SY246-6     | ON  | -   | ON  |
|  | SY239-6     | SY249-6     | ON  | OFF | ON  |
|  | SY237-6     | SY247-6     | MOM | OFF | MOM |
|  | SY238-6     | SY248-6     | ON  | OFF | MOM |
|  | SY232-6     | SY242-6     | ON  | -   | MOM |
|  |             | SY244TH-6*  | ON  | ON  | ON  |

\*Function 4 : SP in DP case - TH connection, see "Technical information" on website.

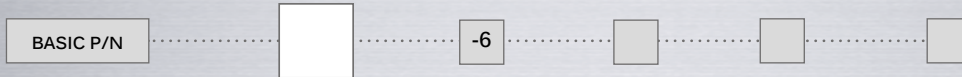
Shown with rocker U620



# S series

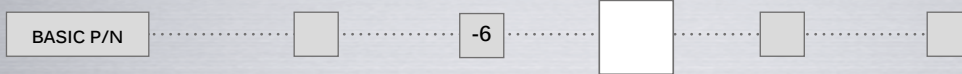
Washable rocker and paddle switches

## CONTACT MATERIALS



- A Silver
- AD Silver, gold plated
- CD Brass, gold plated

## SPECIAL OPTIONS / INSULATED MODELS



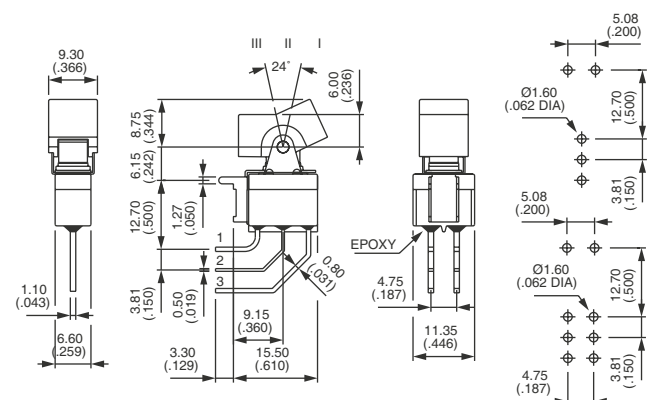
- X601** Silver plated brass contacts  
Current/voltage rating for an electrical life of 20,000 cycles : 0.5 A 30 VDC  
Minimum quantity : 5,000 per type and shipment.
- X653** Vertical right angle **with stand-off plate**
- X1159** **Insulated model** protected against E.S.D. up to 12 KV - **Vertical right angle**  
Available with all actuators shown on next page.

### OPTION X653



|                  | III | II  | I   |
|------------------|-----|-----|-----|
| Single pole      |     |     |     |
| SWW236-6 X653    | ON  | -   | ON  |
| SWW239-6 X653    | ON  | OFF | ON  |
| SWW237-6 X653    | MOM | OFF | MOM |
| SWW238-6 X653    | ON  | OFF | MOM |
| SWW232-6 X653    | ON  | -   | MOM |
| Double pole      |     |     |     |
| SWW246-6 X653    | ON  | -   | ON  |
| SWW249-6 X653    | ON  | OFF | ON  |
| SWW247-6 X653    | MOM | OFF | MOM |
| SWW248-6 X653**  | ON  | OFF | MOM |
| SWW242-6 X653**  | ON  | -   | MOM |
| SWW244TH-6 X653* | ON  | ON  | ON  |

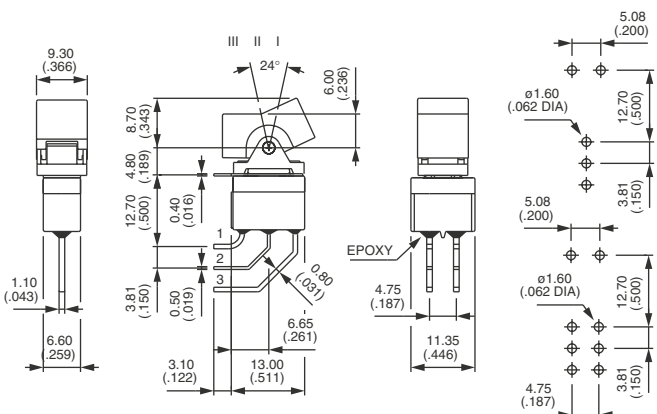
### Shown with rocker U620



### OPTION X1159



|                   | III | II  | I   |
|-------------------|-----|-----|-----|
| Single pole       |     |     |     |
| SWW236-6 X1159    | ON  | -   | ON  |
| SWW239-6 X1159    | ON  | OFF | ON  |
| SWW237-6 X1159    | MOM | OFF | MOM |
| SWW238-6 X1159    | ON  | OFF | MOM |
| SWW232-6 X1159    | ON  | -   | MOM |
| Double pole       |     |     |     |
| SWW246-6 X1159    | ON  | -   | ON  |
| SWW249-6 X1159    | ON  | OFF | ON  |
| SWW247-6 X1159    | MOM | OFF | MOM |
| SWW248-6 X1159**  | ON  | OFF | MOM |
| SWW242-6 X1159**  | ON  | -   | MOM |
| SWW244TH-6 X1159* | ON  | ON  | ON  |

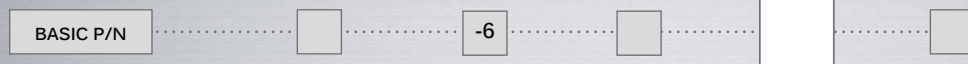


\* Function 4 : SP in DP case - TH connection, see "Technical information" on website.  
\*\* Functions 2 and 8 : reversed connection available. Consult factory.

# S series

Washable rocker and paddle switches

## AGENCY APPROVAL



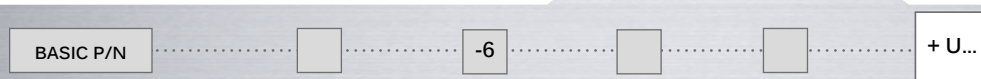
UL

Blank No agency approval required

Availability : consult factory for details of approved models.

Marking : to order switches marked with the UL symbol, complete above box with "UL".

## ACTUATORS

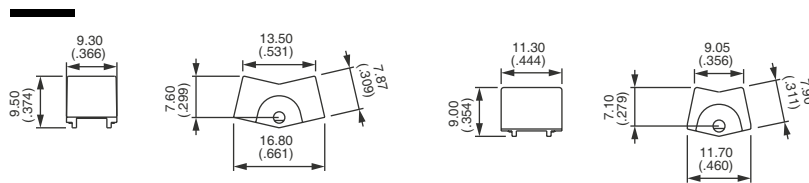


## ROCKERS AND PADDLES

- U620** Large rocker
- U730** Small rocker
- U610** Narrow paddle
- U700** Broad paddle

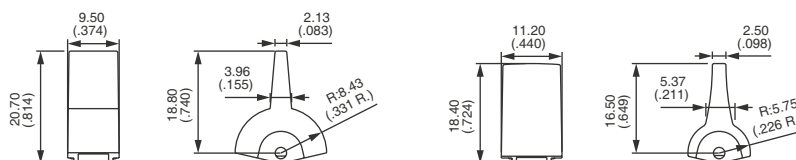
For cap colors, replace "0" with number :

- 1** Blue
- 1/4** Dark blue
- 2** Black
- 3** Green
- 4** Grey
- 5** Yellow
- 6** Red
- 7/1** White
- 9** Orange



U620

U730

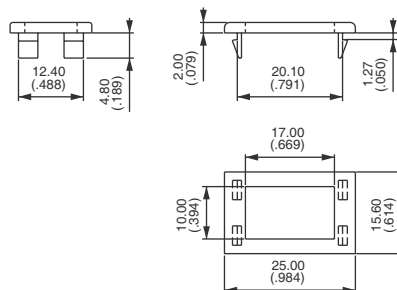


U610

U700

## BEZEL

**U4602** Black bezel - for rocker U620 only



U4602

# SR series

Washable rocker and paddle switches



## DISTINCTIVE FEATURES

- Process sealed
- Front and rear sealing
- Large rocker



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)
- Storage temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Moisture : The insulating materials employed and the complete seal permit the switches to withstand a 56 days moisture test (IEC 68-2-3).
- Iron soldering : 300 °C (572 °F) 5 sec. max.
- Solderability : The switches are tested at 235 °C (455 °F) according to IEC 68-2-20 after accelerated aging.



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (A) : 4 A 30 VDC
  - brass, gold plated contacts (CD) : 0.4 VA 20 VAC or DC
  - silver, gold plated contacts (AD) : 4 A 30 VDC (300 mA 30 VDC for gold plating)
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min.
- Dielectric strength : 1,000 Vrms 50 Hz min.
- Electrical life with nominal load :

| Contacts | Number of cycles |             |
|----------|------------------|-------------|
|          | 2 positions      | 3 positions |
| A        | 40,000           | 40,000      |
| CD       | 100,000          | 50,000      |
| AD       | 40,000           | 40,000      |



## GENERAL SPECIFICATIONS

- Mechanical strength : Terminals are strengthened by a ground plate ensuring the rigidity of the switch on the board. Actuator strength is 10 N max.

The company reserves the right to change specifications without notice.



# SR series

Washable rocker and paddle switches

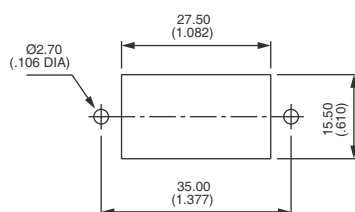


## MATERIALS

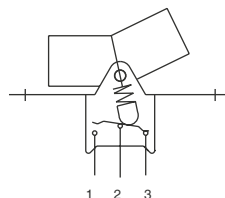
- Case and cover : UL94-V0, polyamide, glass filled or PES
- Actuator : polyamide
- Contacts
  - 0 : brass, gold plated
  - 1 : silver
  - 2 : silver, gold plated
  - 5 : special, lower rating
- Terminal seal : epoxy



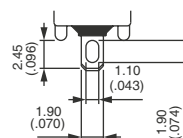
## PANEL CUT-OUT



## ELECTRICAL FUNCTIONS



## TERMINALS



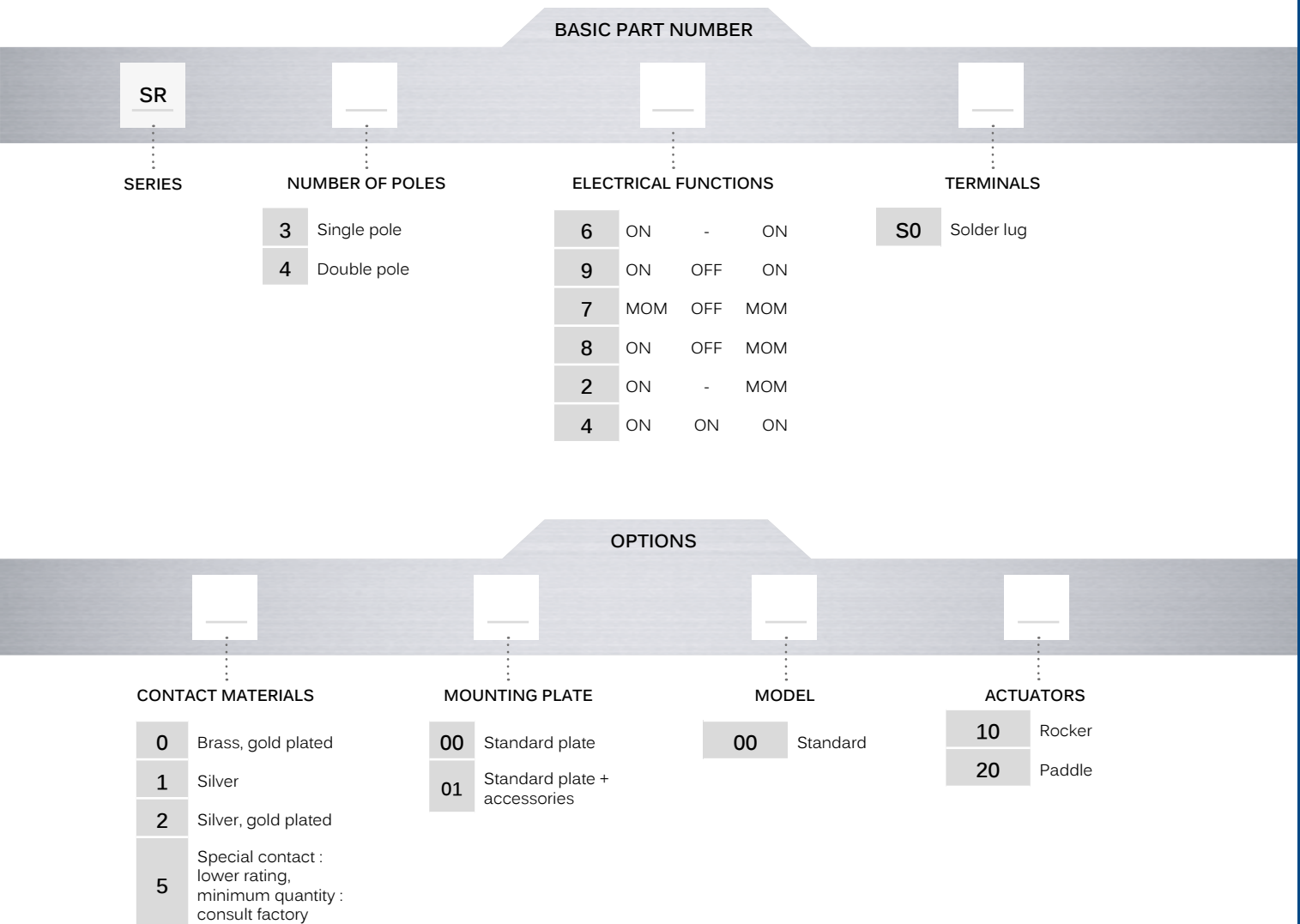
Solder lug

# SR series

Washable rocker and paddle switches



## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.



**Notice :** please note that not all combinations of above numbers are available. Refer to the following pages for further information.

# SR series

Washable rocker and paddle switches

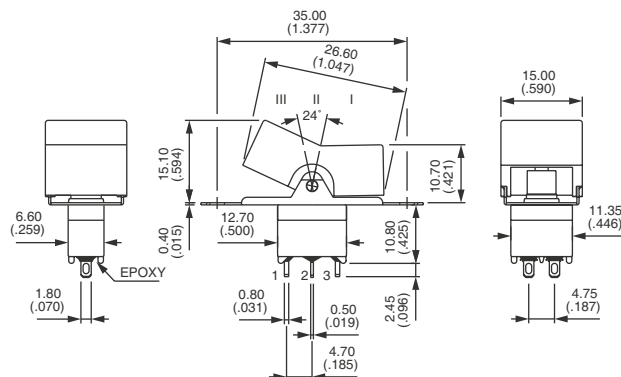
## SOLDER LUG TERMINALS



|             |             | III | II  | I   |
|-------------|-------------|-----|-----|-----|
| Single pole | Double pole |     |     |     |
| SR36S0      | SR46S0      | ON  | -   | ON  |
| SR39S0      | SR49S0      | ON  | OFF | ON  |
| SR37S0      | SR47S0      | MOM | OFF | MOM |
| SR38S0      | SR48S0      | ON  | OFF | MOM |
| SR32S0      | SR42S0      | ON  | -   | MOM |
|             | SR44S0*     | ON  | ON  | ON  |

\* Function 4 : SP in DP case - TH connection, see "Technical information" on website.

Shown with standard mounting plate (code 00)



## CONTACT MATERIALS

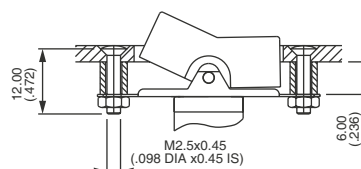


- 0 Brass, gold plated
- 1 Silver
- 2 Silver, gold plated
- 5 Special contact, lower rating, minimum quantity : consult factory.

## MOUNTING PLATE



- 00 Standard mounting plate
- 01 Standard mounting plate + mounting accessories (spacers, screws and nuts)



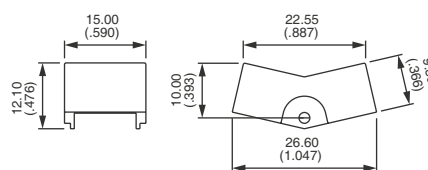
## ACTUATORS



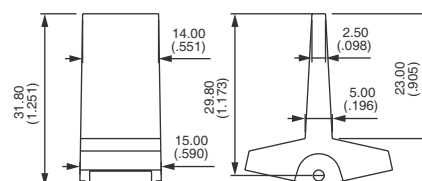
- 10 Rocker
- 20 Paddle

For cap colors, replace "0" with number :

- 1 Blue
- 1/4 Dark blue
- 2 Black
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White
- 9 Orange



10



20