

# TR series

Subminiature washable rocker switches



## DISTINCTIVE FEATURES

- Process sealed
- Single piece case
- Front and rear sealing
- Wide variety of contact materials
- Same PCB layout as TL, TP and TG subminiature switches



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -30 °C to +85 °C (-22 °F to +185 °F)
- Moisture : 21 days 95 % (NFC 20-603 - IEC 68-2-3)



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold plated contacts : 0.4 VA 20 V max. AC or DC
  - silver plated contacts : 0.5 A 48 V max. AC or DC
- Minimum load : 10 mA 50 mV - 10 µA 5 VDC
- Contact resistance : 20 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :
  - 1,000 Vrms 50 Hz min. between terminals and frame
  - 500 Vrms 50 Hz min. between terminals
- Electrical life at full load :

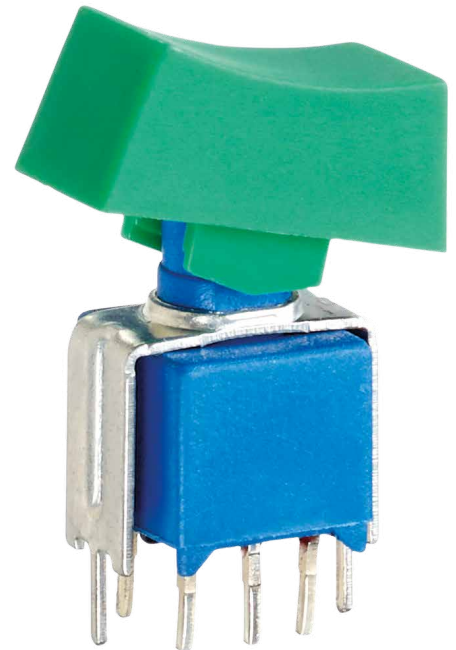
Contacts	Number of cycles	
	2 positions	3 positions
Gold plated	60,000	30,000
Silver plated	20,000	10,000



## GENERAL SPECIFICATIONS

- Strength of terminals : pull-out force - 10 N max
- Cleaning : solvents or water + detergent
- Wave soldering : 260 °C (500 °F) - 5 sec.

The company reserves the right to change specifications without notice.



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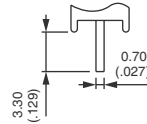
## MATERIALS

- Case : PBT
- Actuator : polyamide
- Contacts and terminals :
  - 0 : brass, gold plated
  - 1 : brass, silver plated
  - 3 : brass, gold plated (1.27 micron gold)
  - 8 : contact brass, gold plated + tin plated terminals
  - 9 : contact brass, gold plated (1.27 micron gold) + tin plated terminals
- Terminal seal : epoxy

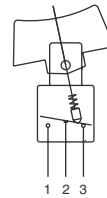
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.



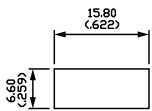
## TERMINALS



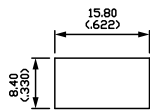
## ELECTRICAL FUNCTIONS



## PANEL CUT-OUT



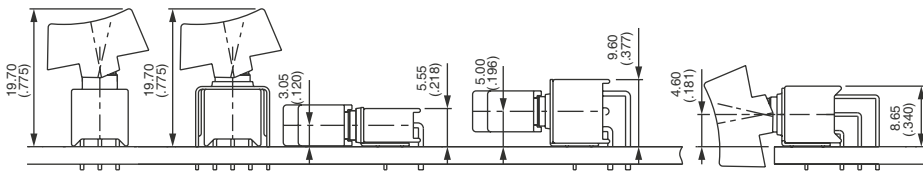
With small rocker



With large rocker

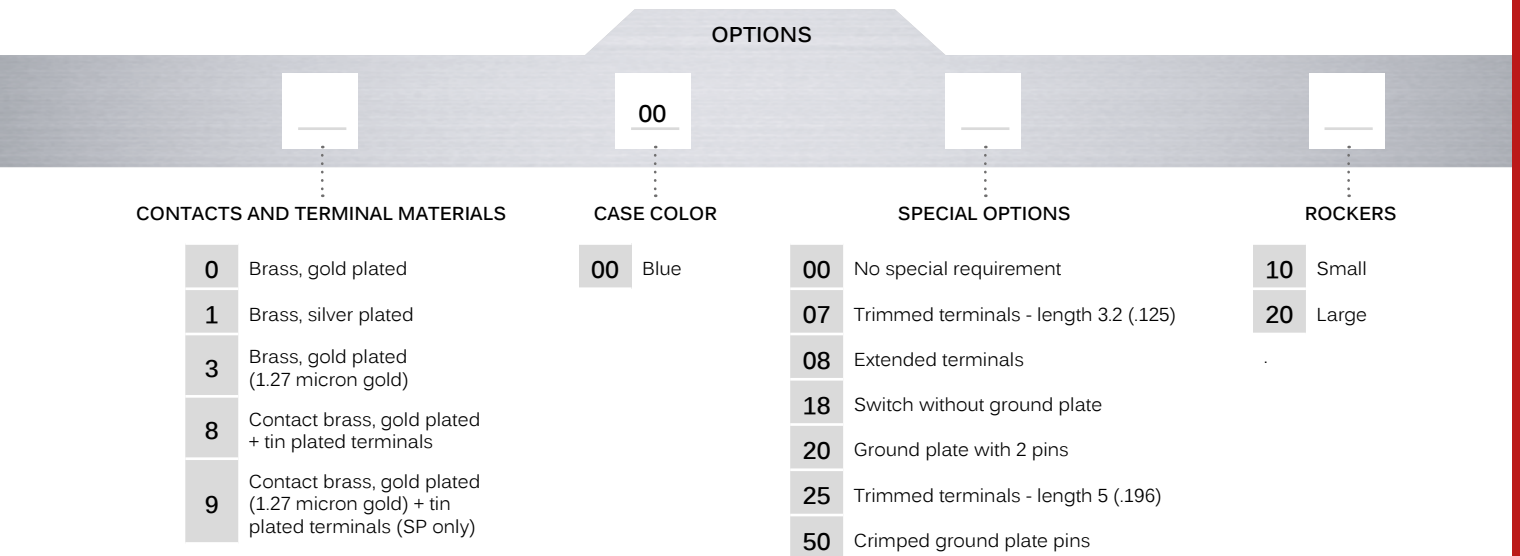
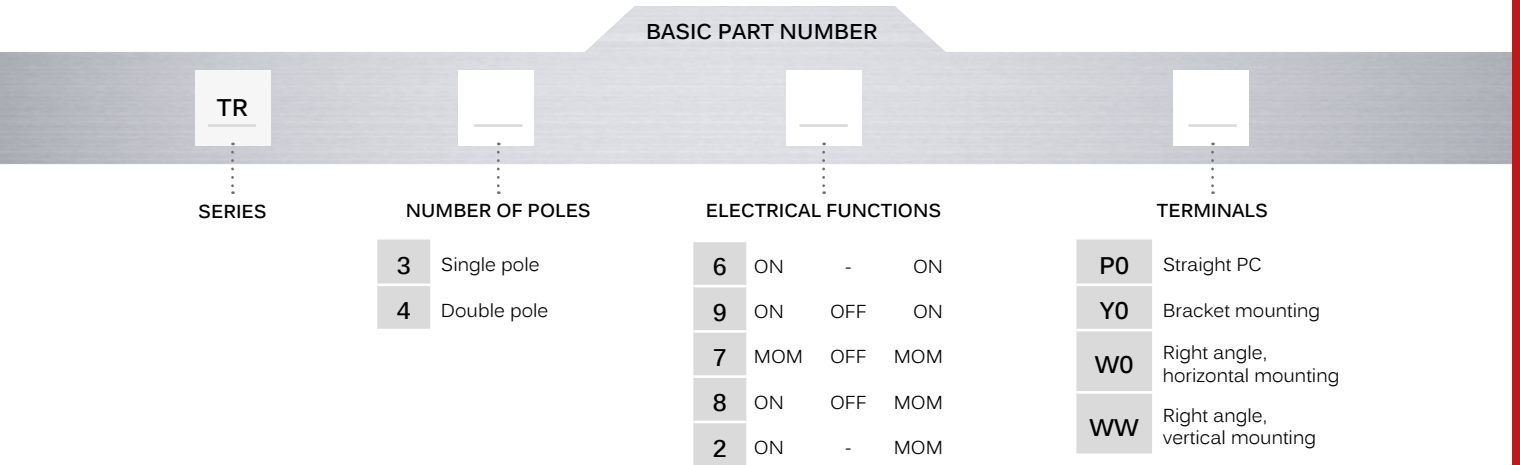


## PCB MOUNTING





### 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.

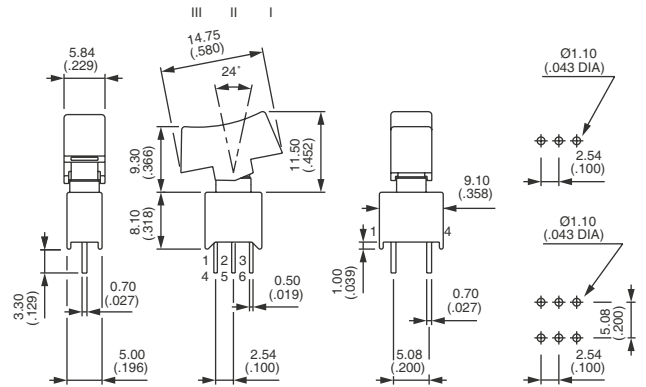
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## STRAIGHT PC TERMINALS : TR..PO



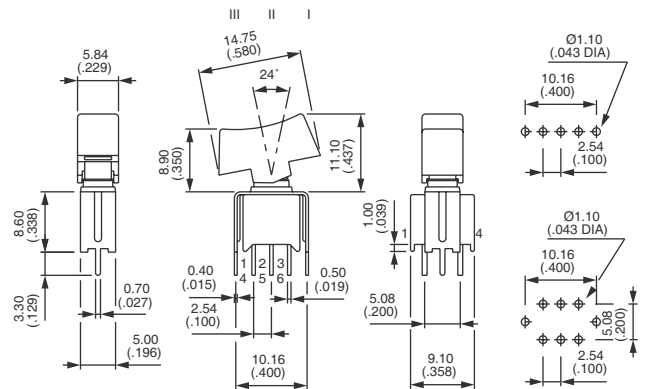
	Single pole	Double pole	III	II	I
	TR36P0	TR46P0	ON	-	ON
	TR39P0	TR49P0	ON	OFF	ON
	TR37P0	TR47P0	MOM	OFF	MOM
	TR38P0	TR48P0	ON	OFF	MOM
	TR32P0	TR42P0	ON	-	MOM



## STRAIGHT TERMINALS BRACKET MOUNTING : TR..Y0



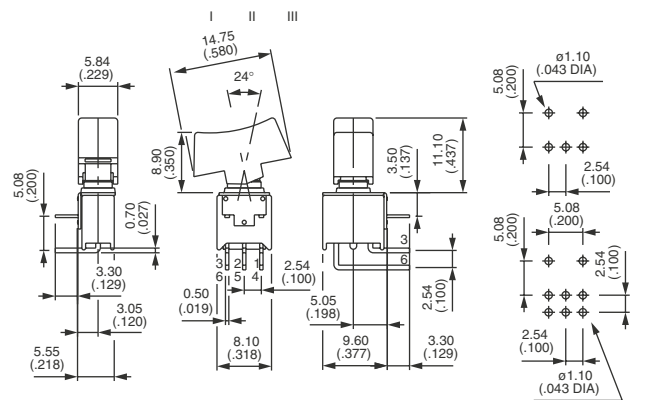
	Single pole	Double pole	III	II	I
	TR36Y0	TR46Y0	ON	-	ON
	TR39Y0	TR49Y0	ON	OFF	ON
	TR37Y0	TR47Y0	MOM	OFF	MOM
	TR38Y0	TR48Y0	ON	OFF	MOM
	TR32Y0	TR42Y0	ON	-	MOM



## RIGHT ANGLE TERMINALS HORIZONTAL MOUNTING : TR..W0



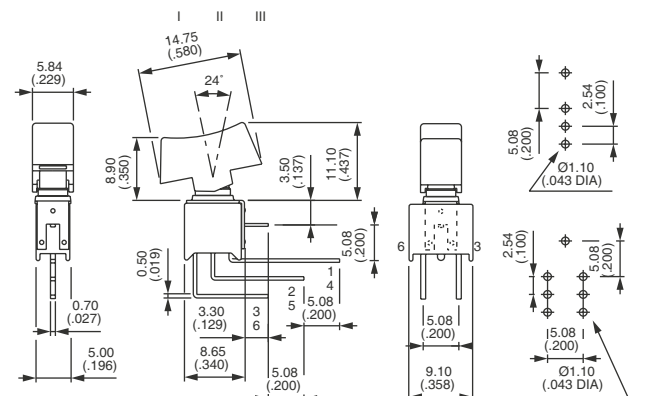
	Single pole	Double pole	III	II	I
	TR36W0	TR46W0	ON	-	ON
	TR39W0	TR49W0	ON	OFF	ON
	TR37W0	TR47W0	MOM	OFF	MOM
	TR38W0	TR48W0	ON	OFF	MOM
	TR32W0	TR42W0	ON	-	MOM



## RIGHT ANGLE TERMINALS VERTICAL MOUNTING : TR..WW



	Single pole	Double pole	III	II	I
	TR36WW	TR46WW	ON	-	ON
	TR39WW	TR49WW	ON	OFF	ON
	TR37WW	TR47WW	MOM	OFF	MOM
	TR38WW*	TR48WW*	ON	OFF	MOM
	TR32WW*	TR42WW*	ON	-	MOM

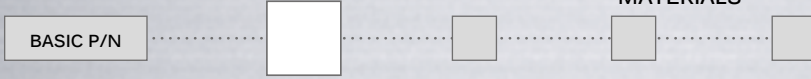


\*Functions 2 and 8 : reversed connection available . Consult factory.

# TR series

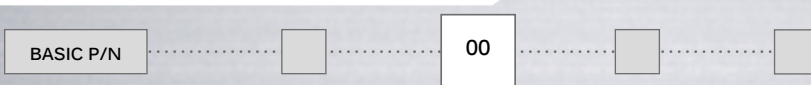
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## CONTACT AND TERMINAL MATERIALS



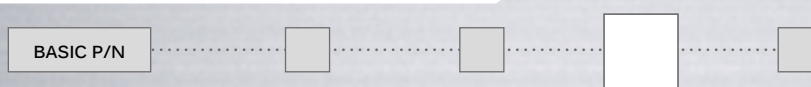
- 0 Brass, gold plated
- 1 Brass, silver plated
- 3 Brass, gold plated (1.27 micron gold)
- 8 Contact brass, gold plated + tin plated terminals
- 9 Contact brass, gold plated (1.27 micron gold) + tin plated terminals (single pole only)

## CASE COLOR

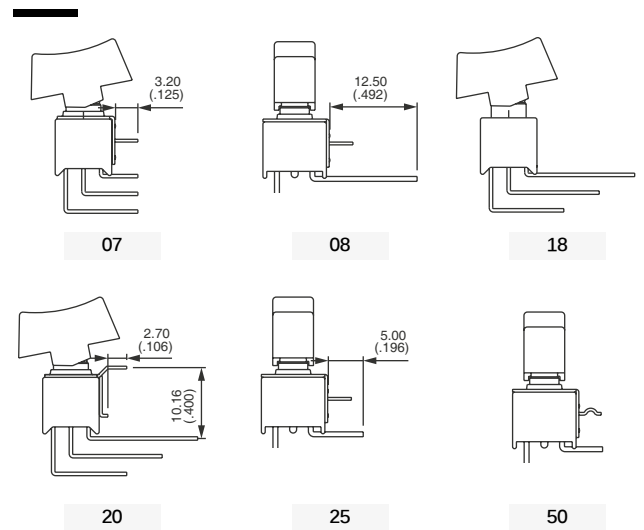


- 00 Blue

## SPECIAL OPTIONS



- 00 No special requirement
- 07 **Trimmed terminals** - length 3.2 mm (.125) for TR..WW models only
- 08 **Extended terminals** for TR..W0 models only
- 18 Switch **without ground plate** for TR..WW models only
- 20 **Ground plate with 2 pins** for TR..WW models only
- 25 **Trimmed terminals** - length 5 mm (.196) for all models, except TR..WW
- 50 **Crimping of ground plate pins.**  
Retains switch on PC during handling and wave soldering.  
For models TR..W0, TR..WW and TR..Y0 single and double pole.



Marking on rocker : consult factory.

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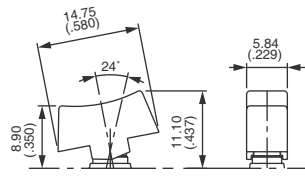
## ROCKERS

BASIC P/N

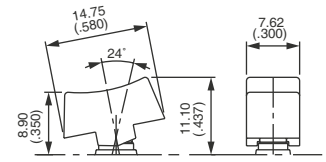
- 10 Small
- 20 Large

For cap colors, replace "0" by number :

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



10



20