TL series

Tiny washable toggle switches

Distinctive features and specifications

UG1006-A



- **Process sealed**
  - Single piece case
  - O-ring seal between actuator and bushing
  - Epoxy sealed terminals
- **Wide variety of contact materials**
- **Same PCB layout as TP, TR and TG tiny switches**

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ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - gold plated contacts : 0,4VA 20V max. AC or DC
  - silver plated contacts : 0,5A 48V max. AC or DC
- Minimum load : 10mA 50mV - 10µA 5VDC
- Contact resistance : 20 mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- 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

MATERIALS

- Case : PBT
- Actuator : brass, nickel plated
- 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

GENERAL SPECIFICATIONS

- Strength of terminals : pull-out force - 10N max.
- Operating temperature : -30°C to +85°C
- Moisture : 21 days 95 % (NFC 20-603 - IEC 68-2-3)
- Cleaning : solvents or water + detergent
- Wave soldering : 260°C - 5 sec.

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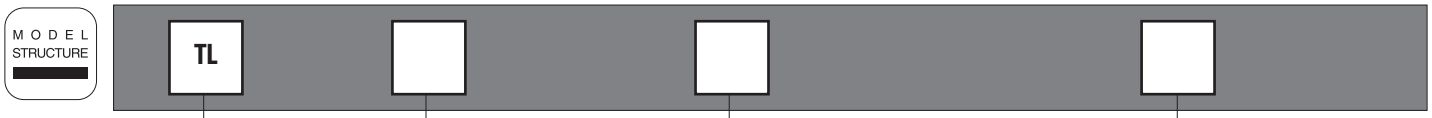
Overview



SERIES

Number of poles

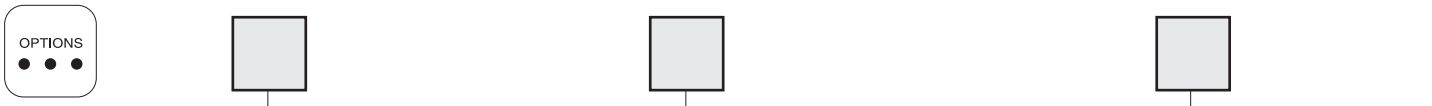
3	Single pole
4	Double pole

Electrical functions

6	ON	-	ON
9	ON	OFF	ON
7	MOM	OFF	MOM
8	ON	OFF	MOM
2	ON	-	MOM

Terminals

P0	Straight PC
Y0	Bracket mounting
W0	Right angle, horizontal mounting
WW	Right angle, vertical mounting
MW	Wire-wrap



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 (SP only)

Lever and case styles

Lever styles :

- Short - standard
- Medium
- Long
- Cylindrical

Codes according to lever finish and case colours : see "options" pages.

Insulated levers available.

Special options

00	No special requirement
07	Trimmed terminals - length 3,2 (.125)
08	Extended terminals
18	Switch without ground plate
20	Ground plate with 2 pins
25	Trimmed terminals - length 5 (.196)
30	Wire-wrap on bracket mounting models
50	Crimped ground plate pins

ABOUT THIS SERIES
On the following pages, you will find successively :
- model structure of switches
- options in the same order as in above chart

Dimensions : first dimensions are in mm while inches are shown as bracketted numbers.

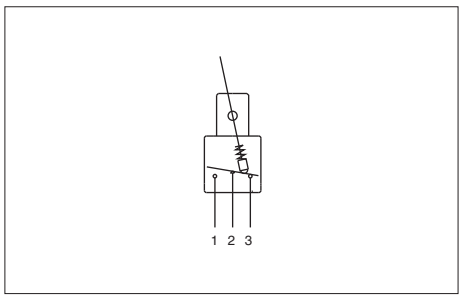
NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.

Packaging unit : 100 pieces, except for models with WW terminals (50 pieces)

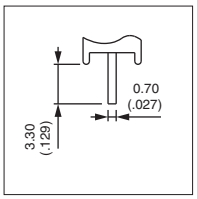
MODEL STRUCTURE

TL series

Tiny washable toggle switches



- Straight PC, right angle or wire-wrap terminals
- 1 and 2 pole configurations



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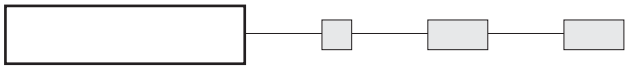
MODEL STRUCTURE

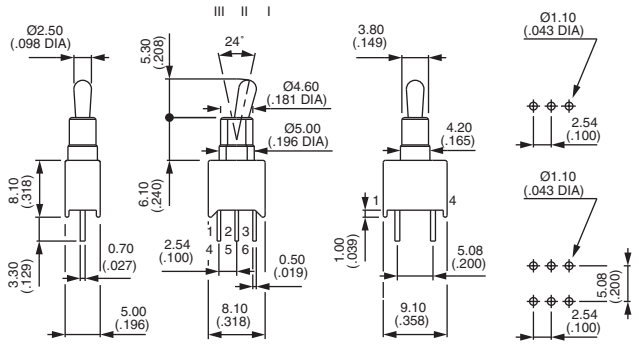


Shown with standard lever

Straight PC terminals : TL..P0



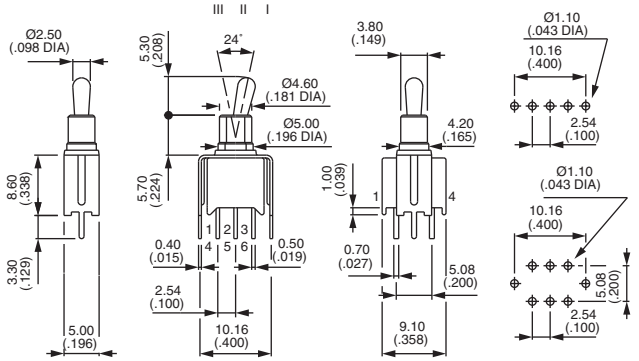
Single pole	Double pole	III	II	I
TL36P0	**TL46P0**	ON	-	ON
TL39P0	**TL49P0**	ON	OFF	ON
TL37P0	**TL47P0**	MOM	OFF	MOM
TL38P0	**TL48P0**	ON	OFF	MOM
TL32P0	**TL42P0**	ON	-	MOM



Straight PC terminals - bracket mounting : TL..Y0



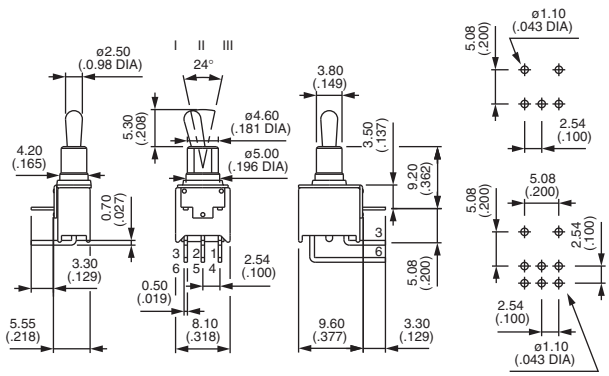
Single pole	Double pole	III	II	I
TL36Y0	**TL46Y0**	ON	-	ON
TL39Y0	**TL49Y0**	ON	OFF	ON
TL37Y0	**TL47Y0**	MOM	OFF	MOM
TL38Y0	**TL48Y0**	ON	OFF	MOM
TL32Y0	**TL42Y0**	ON	-	MOM



Right angle terminals - horizontal mounting : TL..W0



Single pole	Double pole	III	II	I
TL36W0	**TL46W0**	ON	-	ON
TL39W0	**TL49W0**	ON	OFF	ON
TL37W0	**TL47W0**	MOM	OFF	MOM
TL38W0	**TL48W0**	ON	OFF	MOM
TL32W0	**TL42W0**	ON	-	MOM



TL series

Tiny washable toggle switches

MODEL STRUCTURE

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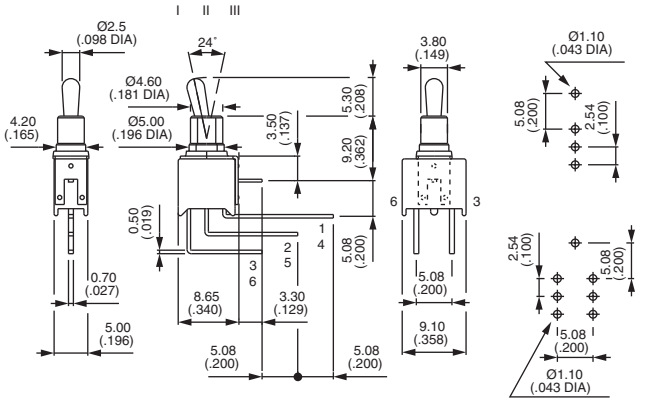
Right angle terminals - vertical mounting : TL..WW



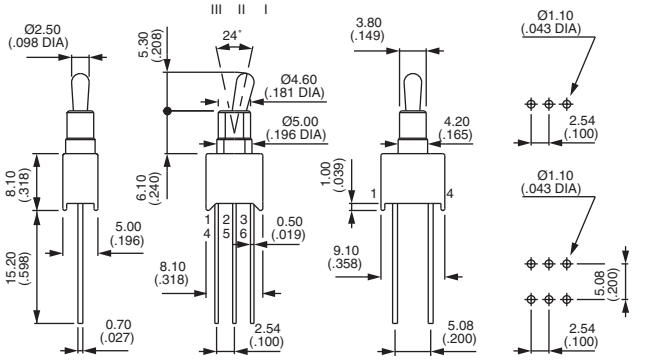
Single pole	Double pole	III	II	I
TL36WW	**TL46WW**	ON	-	ON
TL39WW	**TL49WW**	ON	OFF	ON
TL37WW	**TL47WW**	MOM	OFF	MOM
TL38WW*	**TL48WW***	ON	OFF	MOM
TL32WW*	**TL42WW***	ON	-	MOM



Wire-wrap terminals : TL..MW

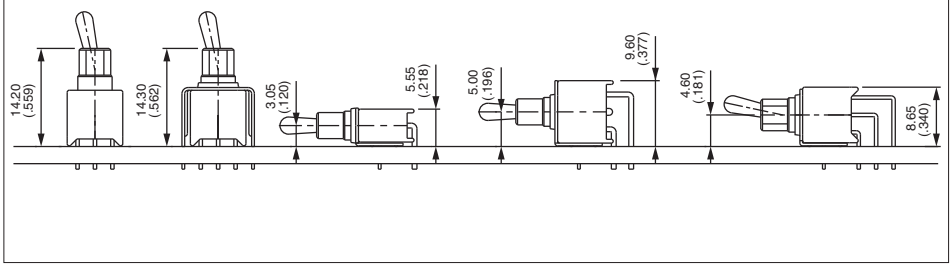


Single pole	Double pole	III	II	I
TL36MW	**TL46MW**	ON	-	ON
TL39MW	**TL49MW**	ON	OFF	ON
TL37MW	**TL47MW**	MOM	OFF	MOM
TL38MW	**TL48MW**	ON	OFF	MOM
TL32MW	**TL42MW**	ON	-	MOM

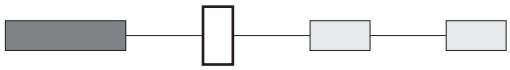


* Functions 2 and 8 : reversed connection available. Consult factory.

PCB MOUNTING

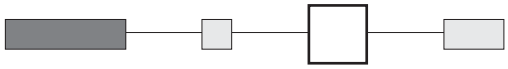


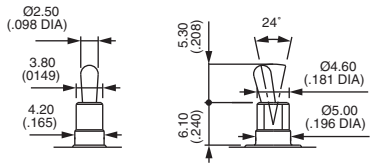
CONTACT AND TERMINAL MATERIALS



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)

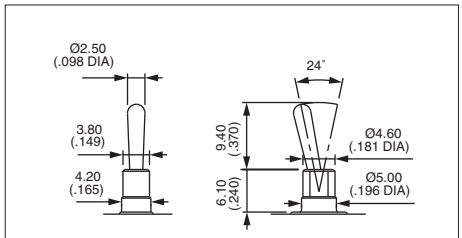
LEVER AND CASE STYLES





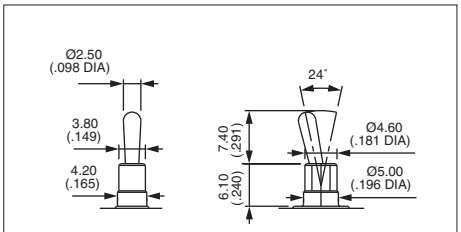
Short - standard

LEVER \ CASE	Blue	Black
Nickel plated	**00**	**50**
Matt black	**01**	**51**



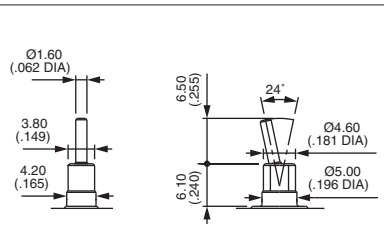
Long

LEVER \ CASE	Blue	Black
Nickel plated	**02**	**52**
Matt black	**03**	**53**



Medium

LEVER \ CASE	Blue	Black
Nickel plated	**04**	**54**
Matt black	**05**	**55**



Cylindrical

LEVER \ CASE	Blue	Black
Nickel plated	-	**56**

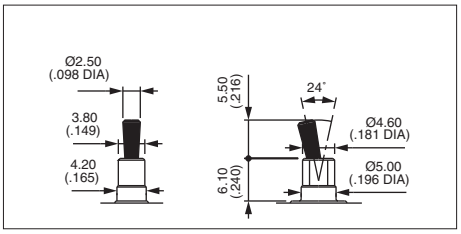
TL series

Tiny washable toggle switches

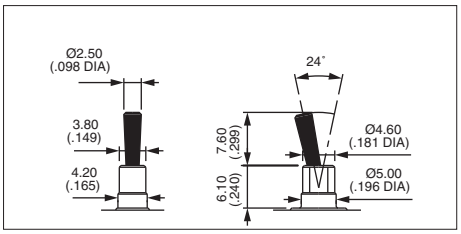
OPTIONS

LEVER AND CASE STYLES (continued)

Insulated levers - Protected against electrostatic discharges (ESD) up to 10KV. Black colour.

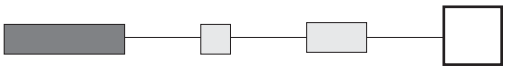


40 With blue case
94 With black case

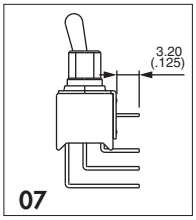


30 With blue case
90 With black case

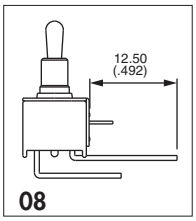
SPECIAL OPTIONS



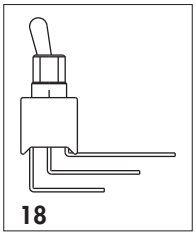
00 No special requirement



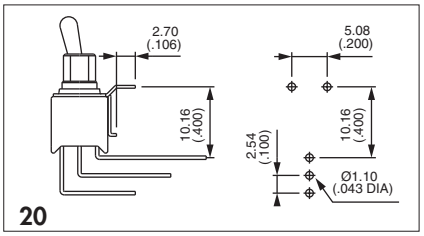
07 **Trimmed terminals** - length 3,2 mm (.125) for TL..WW models only



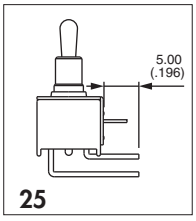
08 **Extended terminals** for TL..W0 models only



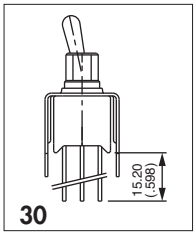
18 Switch **without ground plate** for TL..WW models only



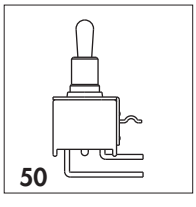
20 **Ground plate with 2 pins** for TL..WW models only



25 **Trimmed terminals** - length 5 mm (.196) for all models, except TL..WW



30 **Wire-wrap terminals** on models with mounting **bracket**



50 **Crimped ground plate pins**.
Retains switch on PCB during handling and wave soldering.
For models TL..W0, TL..WW and TL..Y0 single and double pole.