

Rocker and paddle switches



Section D

SMT TR	Tiny, SMT, washable	D 3
TR	Tiny, washable	D 5
S and SR	Miniature, washable	D 10
AS	Miniature, snap-in	D 20
7000	Miniature (includes 57000)	D 23
FM	Industrial, snap-in, panel cut-out 19 x 13 (.750 x .508)	D 41
KG	Power industrial, sealed, illuminated & non-illuminated	D 44
2600	Industrial, illuminated & non-illuminated	D 49

Selection guide

Rocker and paddle switches



Series	SMT TR	TR	S-SR	AS	7000	FM	2600	KG
Page	D-3	D-5	D-10	D-20	D-23	D-41	D-44	D-49
Poles	1	1,2	1,2	1	1,2	1	1,2	1,2
Maximum ratings	0,4VA 20V AC/DC	0,5A 48V AC/DC	2A 250VAC 4A 30VDC	2A 250VAC	3A 250VAC 4A 30VDC	10A 250VAC	16A 250VAC	15A 250VAC 15 A 12VDC
Illuminated						X	X	X
Mounting options								
Horizontal SMT	X							
Vertical Through hole		X	X	X	X	X		
Horizontal Through hole		X	X		X			
Vert. right angle Through hole		X	X		X			
Snap-in			X	X	X	X	X	X
Rear mounting			X		X			
Panel cut-out				18,65X8,9		19,2x12,9	30X22	36,8x21,1
Terminal options								
PCB	X	X	X	X	X	X		
Solder lugs			X	X	X	X	X	X
Quick-connect						X	X	X
Screw							X	X
Sealing	Process sealed	Process sealed	Process sealed	No	No	Optional boot	No	IP65

SMT TR series

Surface mount tiny washable rocker switches

Distinctive features and specifications



☐ Entirely designed for surface mount

☐ Tape and reel packaging

☐ Reflow solderable

- High temperature plastic materials
- Tin plated ground plate
- Terminal coating : tin alloy over nickel plating
- Terminals turned to the outside, preventing the shadow effect in infrared soldering and permitting visual inspection of solder joints
- Distance between case and circuit : 0,55 mm (.021)
- End stackable with 10,16 mm (.40) pitch
- Available with positioning pins to ensure switch orientation during the reflow process and increasing switch mechanical resistance

☐ Protected against electrostatic discharges (ESD) up to 10 KV

☐ Washable

Construction withstands cleaning processes, including hot water under pressure

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 0,4VA 20V max. AC or DC
- Minimum load : 10mA 50mV or 10µA 5VDC
- Initial 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 :
 - 2 position switches : 60.000 cycles
 - 3 position switches : 30.000 cycles
- Static resistance : 10 KV (Schaffner equipment)

GENERAL SPECIFICATIONS

- Operating temperature : -40°C to +85°C
- Moisture resistance : 21 days per IEC 512-6 test 11c
- Vibration resistance : 10-500 Hz / 10 g per IEC 512-4 test 6d
- Shock resistance : 50 g per IEC 512-4 test 6c

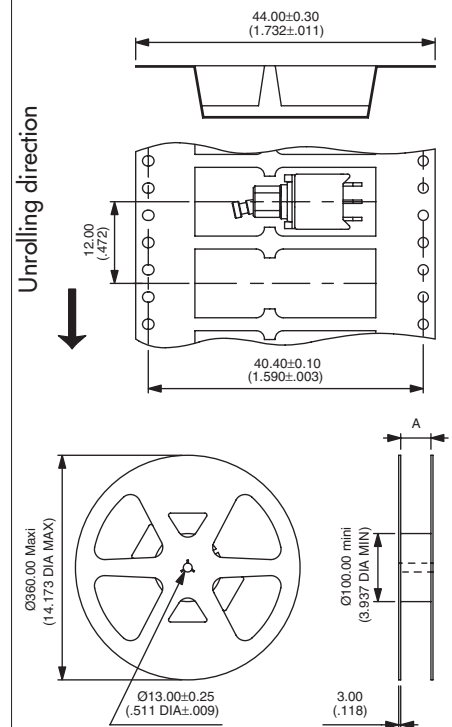
MATERIALS

- Case : high temperature plastic material UL94-V0
- Actuator : high temperature plastic rocker
- Ground plate and positioning pins : steel, tin plated
- Contacts : brass, gold plated
- Terminals : brass, with pure tin plating over nickel barrier

SOLDERING AND CLEANING

- Reflow soldering : infrared, vapor phase or infrared convection
- Washable per IEA-RS448-2 :
 - water + detergent - preferred
 - solvents
- Further information on reflow soldering : see end of catalogue.

PACKAGING



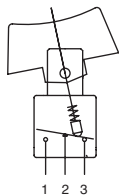
Tape width	24.00 (.944)	44.00 (1.732)
Reel (dimension A)	24.40+2.00/0.00 (.960+.078/.000)	44.40+2.00/0.00 (1.748+.078/.000)

Standard packaging unit : 700 pieces
Tape meeting international standard IEC - Publication 286-3 (EIA481A)
Start leader : 400 mm min.

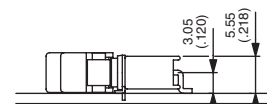
Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

SMT TR series

Surface mount tiny washable rocker switches



- With or without positioning pins
- Single pole

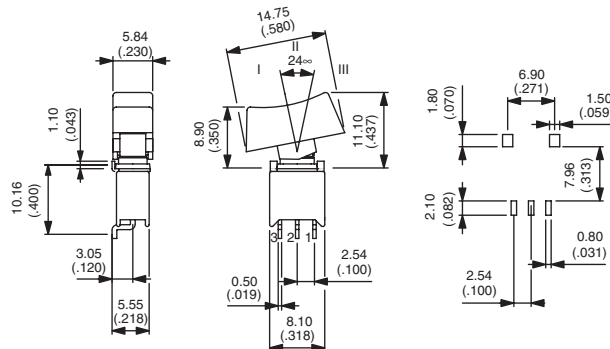


Without positioning pins



TR36WS80000
TR39WS80000
TR37WS80000
TR38WS80000
TR32WS80000

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



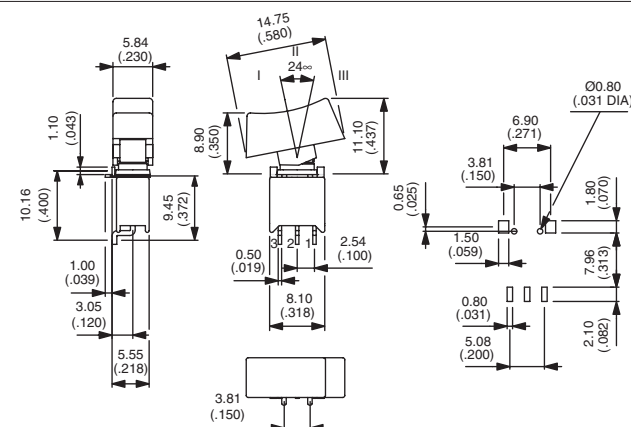
Supplied without rocker.

With positioning pins



TR36WS80065
TR39WS80065
TR37WS80065
TR38WS80065
TR32WS80065

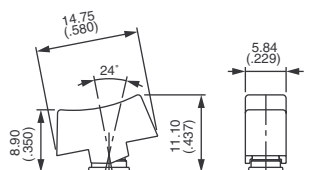
III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



Supplied without rocker.

ROCKERS

Order separately.



U4700

Rocker colours

Replace last "0" by number

1	blue	5	yellow
1/4	dark blue	6	red
2	black	7	ivory
3	green	7/1	white
4	grey	9	orange

TR series

Tiny washable rocker switches

Distinctive features and specifications



☐ Sealed

- Single piece case
- O-ring seal between actuator and bushing
- Epoxy sealed terminals

☐ Wide variety of contact materials

☐ Same PCB layout as tiny toggle (TL), pushbutton (TP) and slide switches (TG)

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 - 10 μ A 5VDC
- Contact resistance : 20 m Ω max.
- Insulation resistance : 1.000 M Ω 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 : 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

GENERAL SPECIFICATIONS

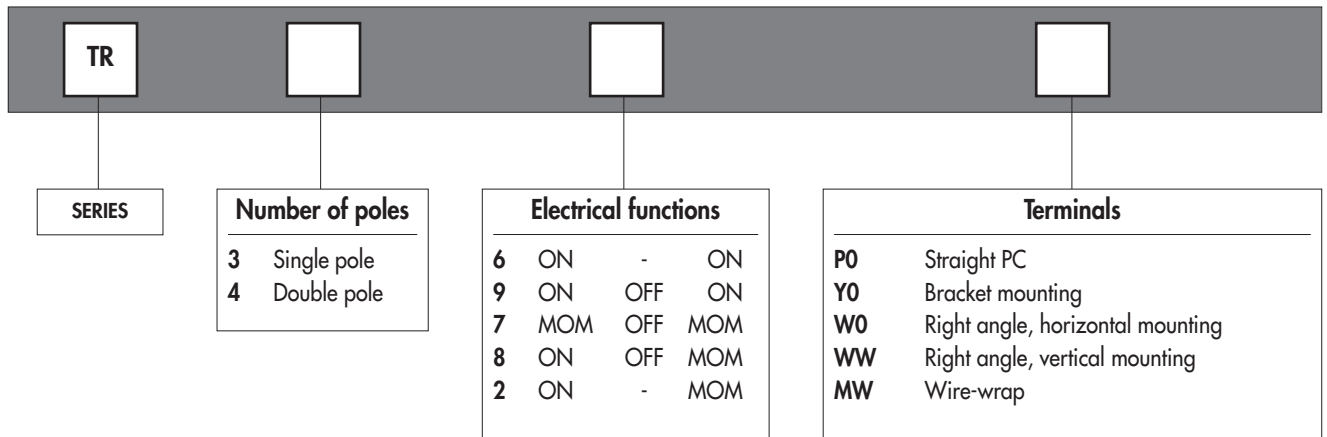
- Strength of terminals : pull-out force - 10N max.
- Operating temperature : -30°C to +85°C
- Moisture : 21 days 95 % (NFC 20-603 - IEC 68-2-3)
- Cleaning : solvents or water + detergent
- Wave soldering : 260°C - 5 sec.

TR series

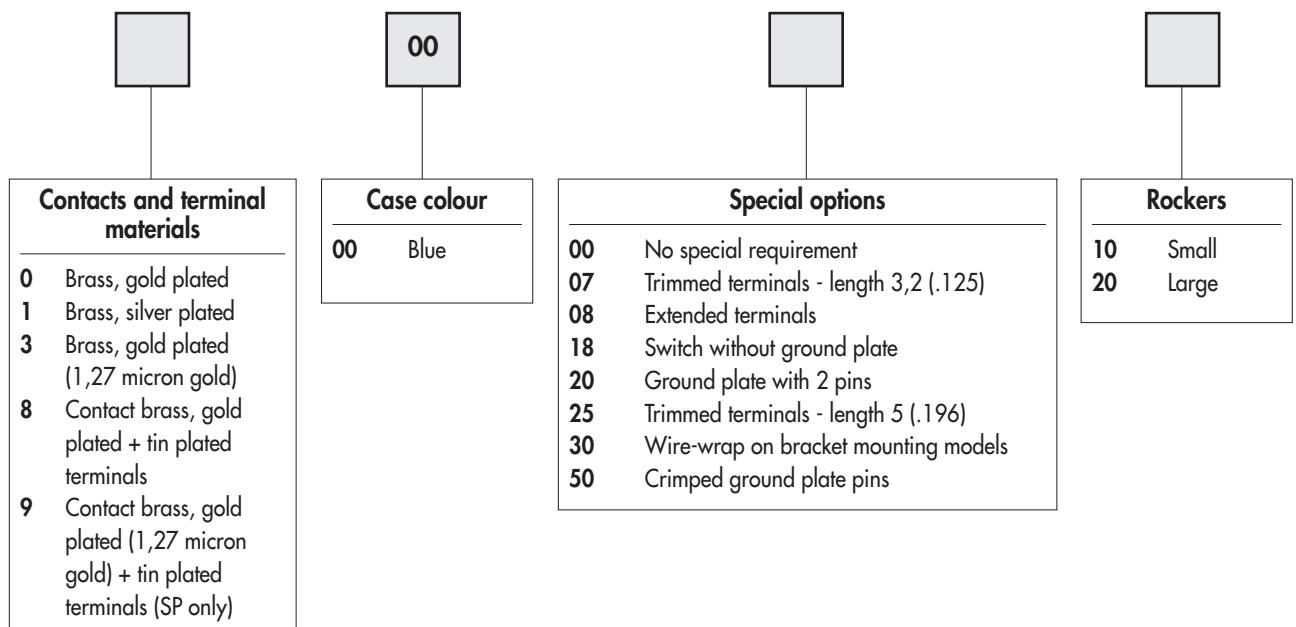
Tiny washable rocker switches

Overview

MODEL
STRUCTURE



OPTIONS



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.



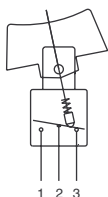
NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



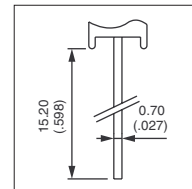
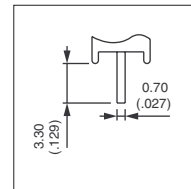
Packaging unit : 50 pieces.

TR series

Tiny washable rocker switches



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



MODEL STRUCTURE



Shown with small rocker (code 10)

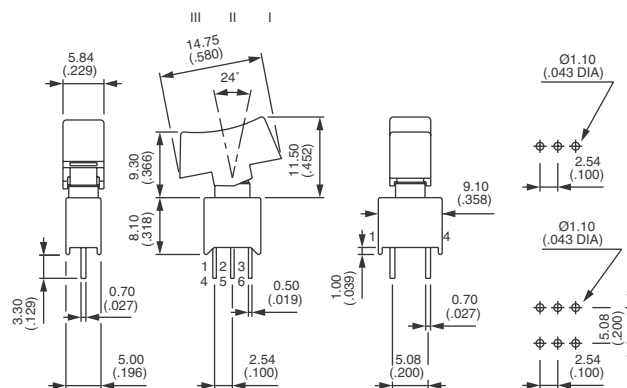
Straight PC terminals : TR..P0



Single pole Double pole

TR36P0	TR46P0
TR39P0	TR49P0
TR37P0	TR47P0
TR38P0	TR48P0
TR32P0	TR42P0

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



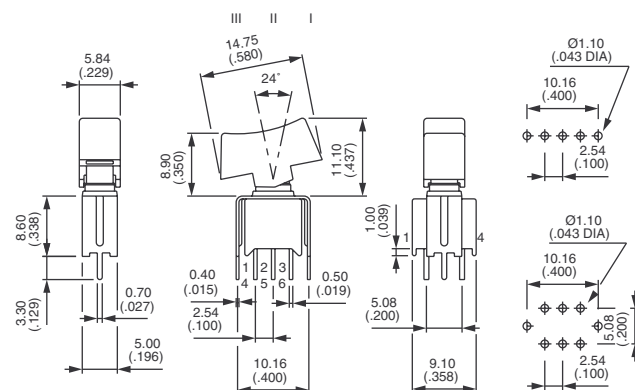
Straight terminals - bracket mounting : TR..Y0



Single pole Double pole

TR36Y0	TR46Y0
TR39Y0	TR49Y0
TR37Y0	TR47Y0
TR38Y0	TR48Y0
TR32Y0	TR42Y0

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



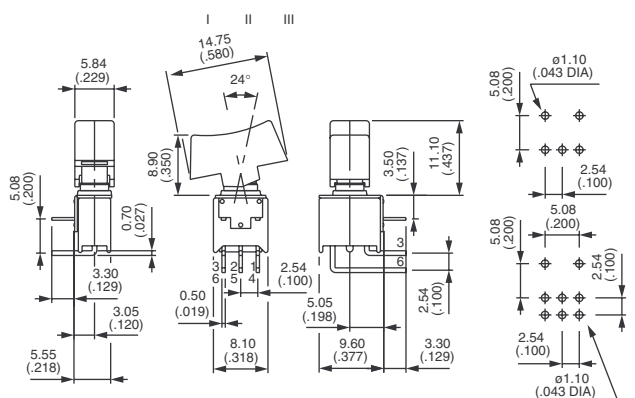
Right angle terminals - horizontal mounting : TR..W0



Single pole Double pole

TR36W0	TR46W0
TR39W0	TR49W0
TR37W0	TR47W0
TR38W0	TR48W0
TR32W0	TR42W0

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



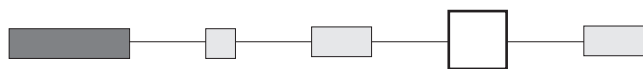
11



TR series

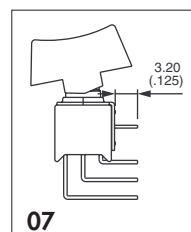
Tiny washable rocker switches

SPECIAL OPTIONS

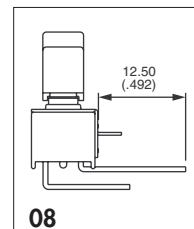


- 00** No special requirement
- 07** **Trimmed terminals** - length 3,2 mm (.125) for TR..WW models only
- 08** **Extended terminals** for TR..W0 models only
- 18** Switch **without ground plate** for TR..WW models only
- 20** **Ground plate with 2 pins** for TR..WW models only
- 25** **Trimmed terminals** - length 5 mm (.196) for all models, except TR..WW
- 30** **Wire-wrap terminals** on models with mounting **bracket**
- 50** **Crimping of ground plate pins.**
Retains switch on PCB during handling and wave soldering.
For models TR..W0, TR..WW and TR..Y0 single and double pole.

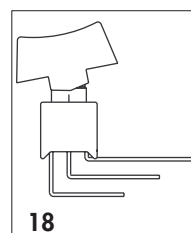
Marking on rocker : consult factory.



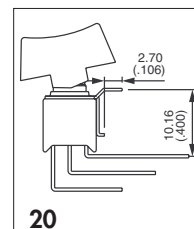
07



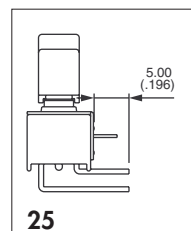
08



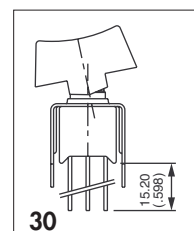
18



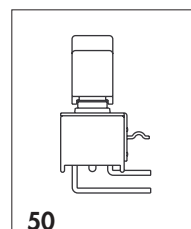
20



25

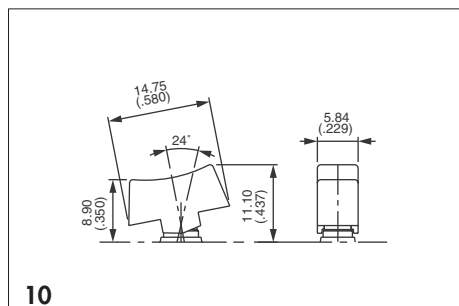
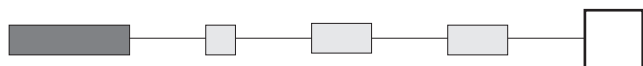


30



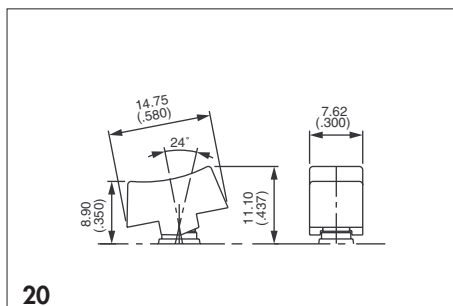
50

ROCKERS



10

Small



20

Large

Rocker colours	
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

S and SR series

Washable rocker and paddle switches

Distinctive features and specifications



❑ Sealed

- Secure assembly of the two case parts
- Internally sealed bushing
- Epoxy sealed terminals

❑ Process compatible (S series)

- Wave solderable
- Washable

❑ Optional ESD protection

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - silver contacts (A or 1) : 2A 250VAC - 5A 125VAC - 4A 30VDC
 - brass, gold plated contacts (CD or 0) : 0,4VA 20VAC or DC
 - silver, gold plated contacts (AD or 2) : 2A 250VAC - 5A 125VAC - 4A 30VDC (300mA 30VDC 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 or 1	40.000	40.000
CD or 0	100.000	50.000
AD or 2	40.000	40.000

MATERIALS

- Case and cover : UL94-V0, polyamide, glass filled or PES
- Actuator : polyamide
- Contacts
 - CD or 0** : brass, gold plated
 - A or 1** : silver
 - AD or 2** : silver, gold plated
- Terminal seal : epoxy

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 is 10N max.
- Operating temperature : -20°C to +85°C
- Storage temperature : -40°C to +85°C
- Moisture :
The insulating materials employed and the complete seal permit the switches to withstand a 56 days moisture test (IEC 68-2-3).
- Soldering - thermal shock (S series only) :
The switches are especially designed for flow soldering at 260°C during 5 seconds owing to high temperature polymer parts.
- Iron soldering (SR series) : 300°C 5 sec. max.
- Solderability : The switches are tested at 235°C according to IEC 68-2-20 after accelerated aging.

AGENCY APPROVALS



Availability : consult factory for details of approved models.

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

S series

Washable rocker and paddle switches

Overview

MODEL
STRUCTURE

S				
SERIES	Terminals	Bushing and terminals	Number of poles	Electrical functions
W	Right angle, horizontal mounting	2 Terminal spacing 4,7 (.185) or 3,81 (.150)	3 Single pole	6 ON - ON
WW	Right angle, vertical mounting	0 Terminal spacing 5,08 (.200) (SW switches)	4 Double pole	9 ON OFF ON
Y	Bracket mounting			7 MOM OFF MOM
				8 ON OFF MOM
				2 ON - MOM
				4TH ON ON ON

OPTIONS

Contact materials	Lever	Special options / insulated models	Approvals	Actuators
A Silver	-6	Blank No special requirement	UL	Rockers
AD Silver, gold plated	For rocker and paddle.	X653 Vertical right angle with stand-off plate	Availability : Consult factory for details of approved models.	U620 Large
CD Brass, gold plated		X1159 Insulated models		U730 Small
		See following pages.		Paddles
				U610 Narrow
				U700 Broad
				Bezels
				For SK models
				U1200
				U1210 For LED
				For SW, SWW and SY models
				U4602

ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as above

Specifications are on previous page.

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.

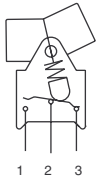


Packaging unit : 25 pieces to 50 pieces depending on models.

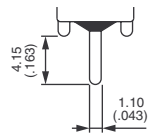
S series

Washable rocker and paddle switches

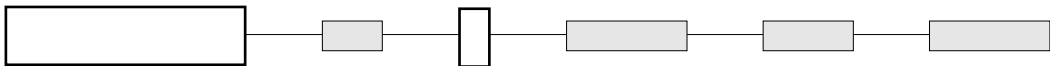
MODEL
STRUCTURE



- Straight PC or right angle terminals
- Models with snap-in mounting (SK)
- Terminal spacing 4,7 (.185) or 5,08 (.200) on SW switches
- 1 and 2 pole configurations



MODEL
STRUCTURE



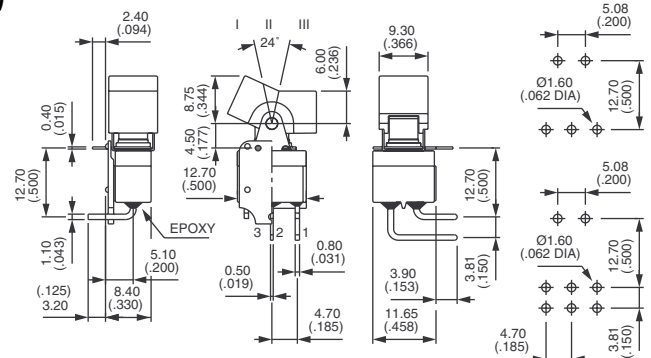
Shown with rocker U620

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



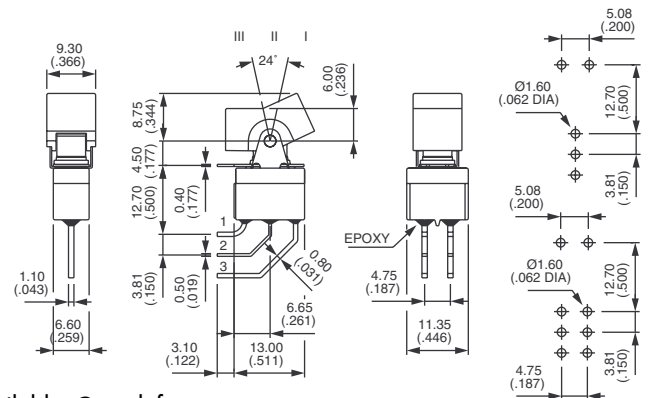
Single pole with stand-off plate, double pole without.

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



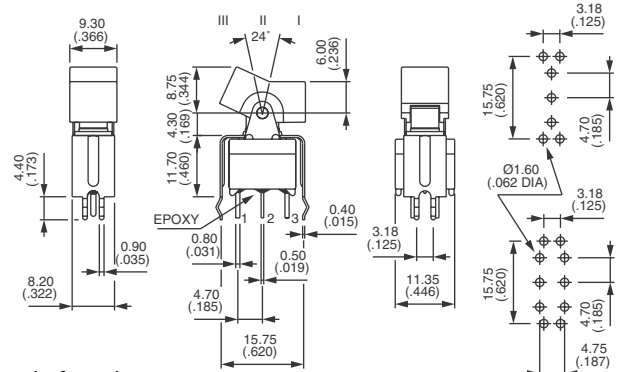
** Functions 2 and 8 : reversed connection available. Consult factory.

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 end of catalogue.

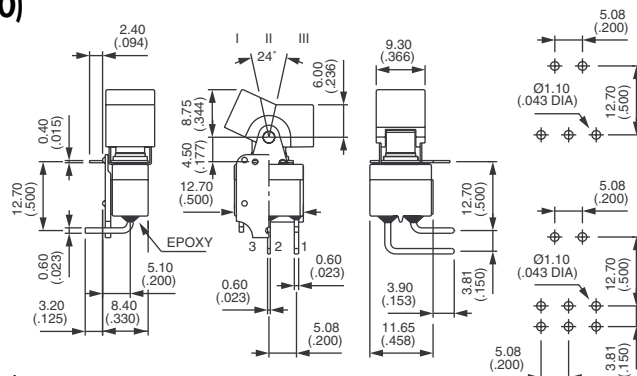
S series

Washable rocker and paddle switches

Right angle terminals - horizontal - spacing 5,08 (.200)



		III	II	I
Single pole	Double pole			
SW036-6	SW046-6	ON	-	ON
SW039-6	SW049-6	ON	OFF	ON
SW037-6	SW047-6	MOM	OFF	MOM
SW038-6	SW048-6	ON	OFF	MOM
SW032-6	SW042-6	ON	-	MOM
	SW044TH-6*	ON	ON	ON

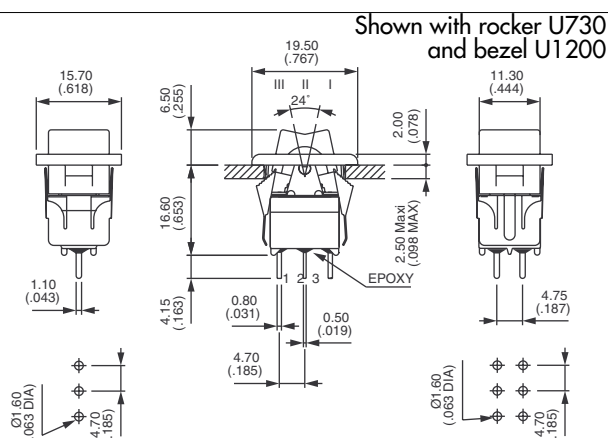


Single pole with stand-off plate, double pole without.

Straight PC terminals - snap-in mounting



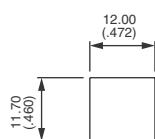
		III	II	I
Single pole	Double pole			
SK236-6	SK246-6	ON	-	ON
SK239-6	SK249-6	ON	OFF	ON
SK237-6	SK247-6	MOM	OFF	MOM
SK238-6	SK248-6	ON	OFF	MOM
SK232-6	SK242-6	ON	-	MOM
	SK244TH-6*	ON	ON	ON



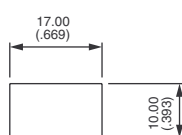
Shown with rocker U730 and bezel U1200

* Function 4 : SP in DP case - TH connection, see end of catalogue.

PANEL CUT-OUT

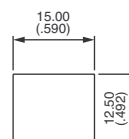


With rocker **U730**
or paddle **U700**



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

For SK only

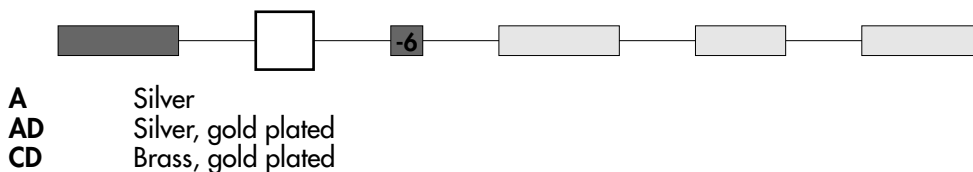


S series

Washable rocker and paddle switches

OPTIONS

CONTACT MATERIALS



SPECIAL OPTIONS / INSULATED MODELS



X653 Vertical right angle with stand-off plate

Shown with rocker U620



Single pole

SWW236-6 X653
SWW239-6 X653
SWW237-6 X653
SWW238-6 X653
SWW232-6 X653

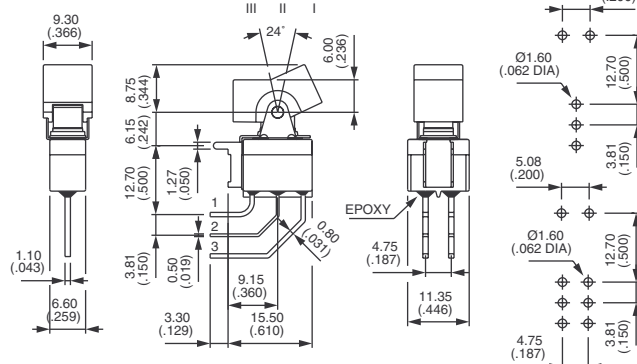
III II I

ON - ON
ON OFF ON
MOM OFF MOM
ON OFF MOM
ON - MOM

Double pole

SWW246-6 X653
SWW249-6 X653
SWW247-6 X653
SWW248-6 X653**
SWW242-6 X653**
SWW244TH-6 X653*

ON - ON
ON OFF ON
MOM OFF MOM
ON OFF MOM
ON - MOM
ON ON ON



* Function 4 : SP in DP case - TH connection, see end of catalogue.

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

X601

Silver plated brass contacts

Current/voltage rating for an electrical life of 20.000 cycles :

0,2A 250VAC - 0,4A 125VAC - 0,5A 30VDC

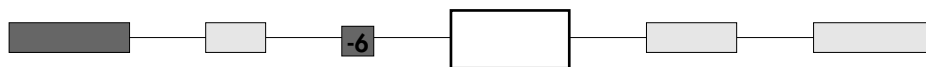
Minimum quantity : 5.000 per type and shipment.



S series

Washable rocker and paddle switches

SPECIAL OPTIONS / INSULATED MODELS (continued)



X1159 Insulated model protected against E.S.D. up to 12 KV - Horizontal right angle



Single pole

SW236-6 X1159
SW239-6 X1159
SW237-6 X1159
SW238-6 X1159
SW232-6 X1159

Double pole

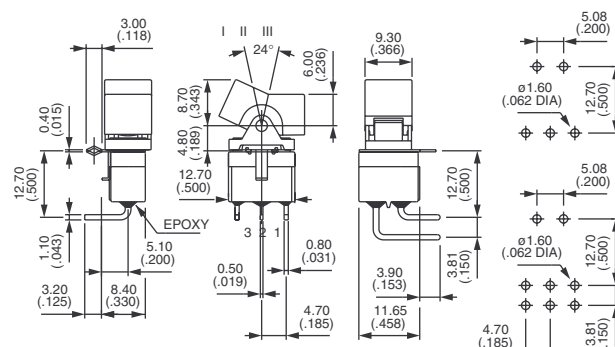
SW246-6 X1159
SW249-6 X1159
SW247-6 X1159
SW248-6 X1159
SW242-6 X1159
SW244TH-6 X1159*

III II I

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON

Shown with rocker U620



X1159 Insulated model protected against E.S.D. up to 12 KV - Vertical right angle



Single pole

SWW236-6 X1159
SWW239-6 X1159
SWW237-6 X1159
SWW238-6 X1159
SWW232-6 X1159

Double pole

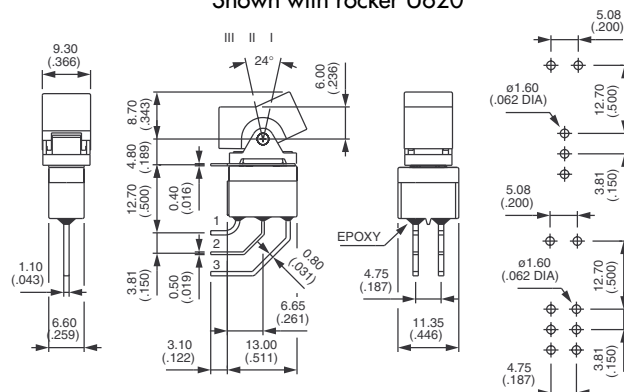
SWW246-6 X1159
SWW249-6 X1159
SWW247-6 X1159
SWW248-6 X1159**
SWW242-6 X1159**
SWW244TH-6 X1159*

III II I

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON

Shown with rocker U620



X1159 Insulated model protected against E.S.D. up to 12 KV - Straight PC terminals - bracket mounting



Single pole

SY236-6 X1159
SY239-6 X1159
SY237-6 X1159
SY238-6 X1159
SY232-6 X1159

Double pole

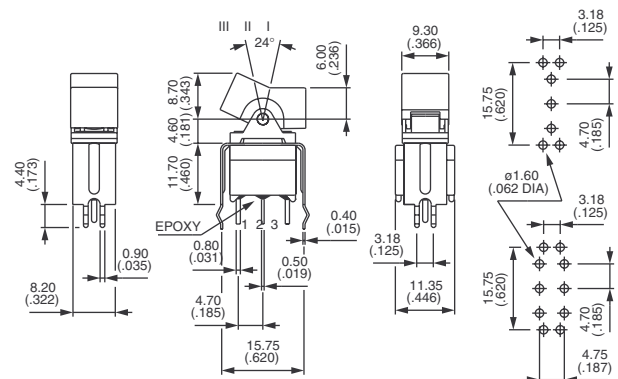
SY246-6 X1159
SY249-6 X1159
SY247-6 X1159
SY248-6 X1159**
SY242-6 X1159**
SY244TH-6 X1159*

III II I

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON

Shown with rocker U620



* Function 4 : SP in DP case - TH connection, see end of catalogue. ** Functions 2 and 8 : reversed connection available. Consult factory.

Above models available with all actuators shown on next page.

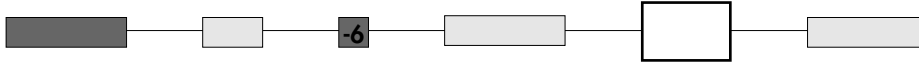
S series

Washable rocker and paddle switches

OPTIONS



AGENCY APPROVAL

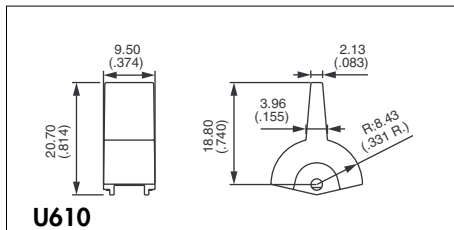
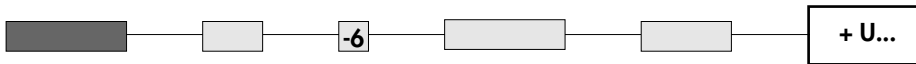


UL

Availability : consult factory for details of approved models.

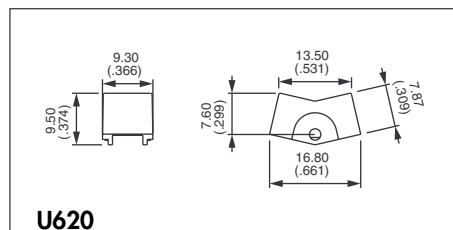
Marking : to order switches marked with the UL symbol, complete above box with "UL".
Blank : no agency approval required.

ACTUATORS



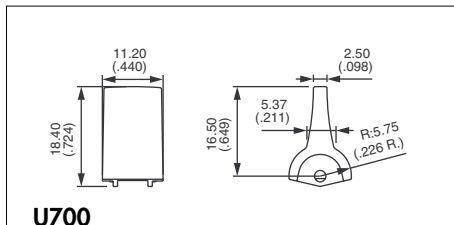
U610

Narrow paddle



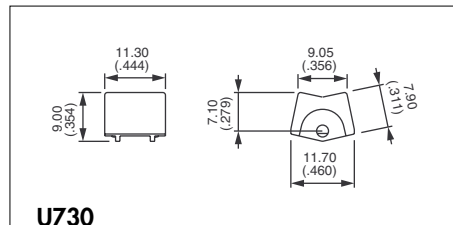
U620

Large rocker



U700

Broad paddle



U730

Small rocker

Actuator colours

Replace last "0" by number

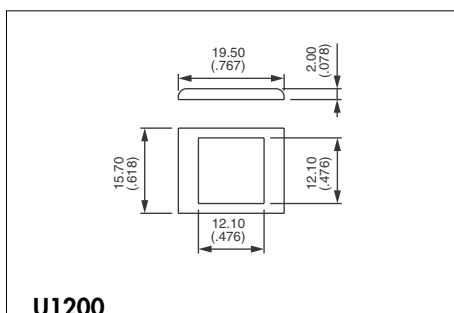
- | | |
|------------|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 6 | red |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |



U610 and U620 not available on SK models

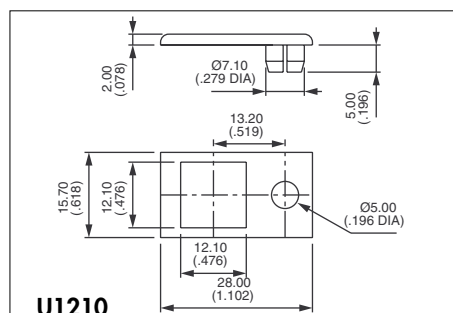
Bezels for SK model (snap-in)

Add bezel part number to actuator part number.



U1200

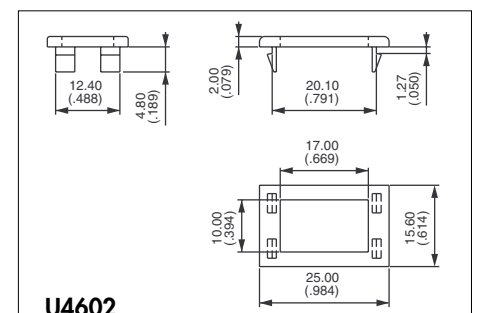
Bezel



U1210

Bezel for LED Ø 5 (.196) - not supplied

Bezel for SW - SWW and SY models



U4602

Black bezel - for rocker U620 only

SR series

Washable rocker and paddle switches

Overview

MODEL
STRUCTURE

SR

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
4	ON	ON	ON

Terminals

50 Solder lug

OPTIONS

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 plate
- 01 Standard plate +
accessories

Model

- 00 Standard

Actuators

- 10 Rocker
- 20 Paddle

ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as above

Specifications are at the beginning of this section (S and SR series).

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



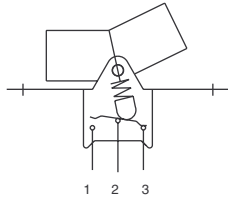
Packaging unit : 20 pieces.

SR series

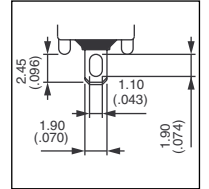
Washable rocker and paddle switches

Solder lug terminals

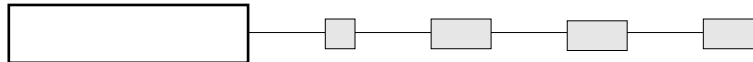
MODEL
STRUCTURE



- 1 and 2 pole configurations
- Iron soldering 300°C max. 5 seconds max.



MODEL
STRUCTURE



Shown with standard mounting plate (code 00)

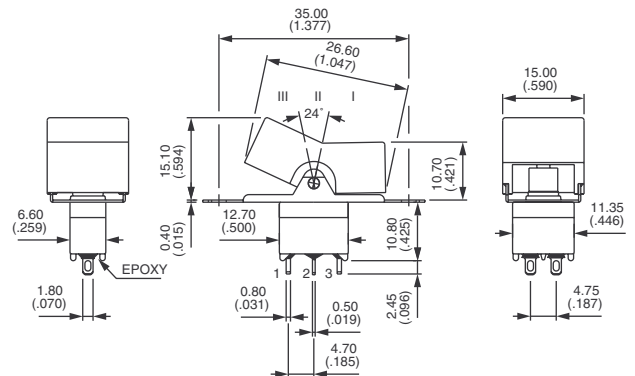
Solder lug terminals



Single pole Double pole

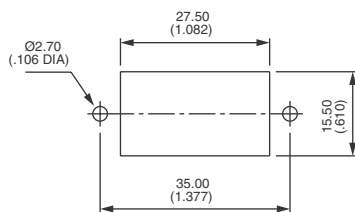
SR36S0	SR46S0
SR39S0	SR49S0
SR37S0	SR47S0
SR38S0	SR48S0
SR32S0	SR42S0
	SR44S0*

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON



* Function 4 : SP in DP case - TH connection, see end of catalogue.

PANEL CUT-OUT

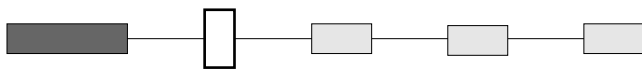




SR series

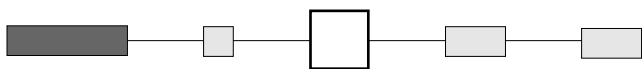
Washable rocker and paddle switches

CONTACT MATERIALS

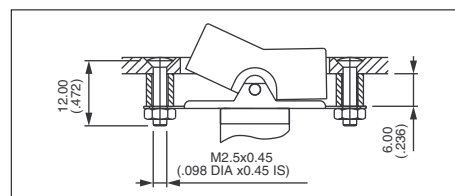


- 0 Brass, gold plated
- 1 Silver
- 2 Silver, gold plated
- 5 Special contact, lower rating, minimum quantity : consult factory.

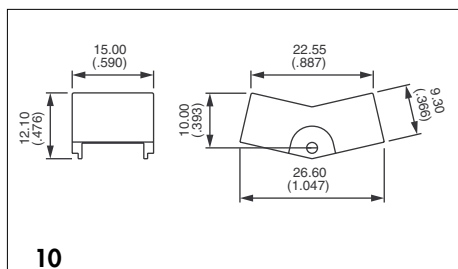
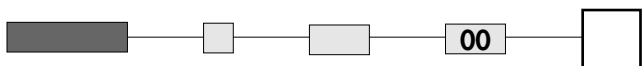
MOUNTING PLATE



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

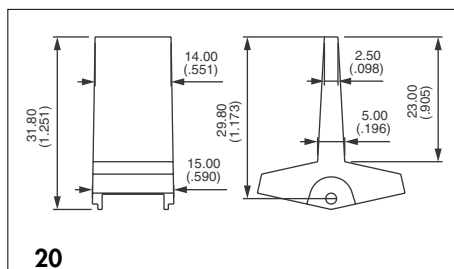


ACTUATORS



10

Rocker



20

Paddle

Actuator colours

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

AS series

Snap-in rocker switches

Distinctive features and specifications

- ☐ Double insulation
- ☐ Epoxy sealed terminals
- ☐ UL and CSA approved

ELECTRICAL AND GENERAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - silver contacts (code 1) and gold plated silver contacts (code 2) : 2A 250VAC - 4A 125VAC
 - gold plated brass contacts (code 0) : 0,4VA 20V AC or DC
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 10.000 MΩ min.
- Dielectric strength :
 - 1.000 Vrms 50 Hz min. between terminals
 - 4.000 Vrms 50 Hz min. between terminals and metal panel
- Electrical life : 50.000 cycles
- Operating temperature : -40°C to +85°C

MATERIALS

- Case : PES
- Actuator : polyamide
- Contacts
 - 0 : brass, gold plated
 - 1 : silver
 - 2 : silver, gold plated
 - 5 : special contact, lower rating
- Minimum quantity : consult factory.
- Terminal seal : epoxy

APPROVALS



Availability : consult factory for details or approved models.

Marking : to order switches marked with above approvals, complete last box of ordering format.

ABOUT THIS SERIES

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

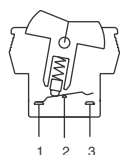


Packaging unit : 50 pieces.

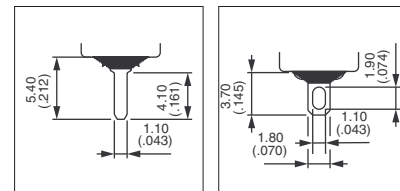


AS series

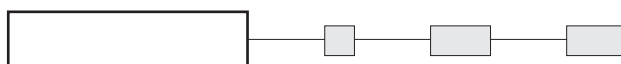
Snap-in rocker switches



- Black body
- Single pole configuration



MODEL
STRUCTURE

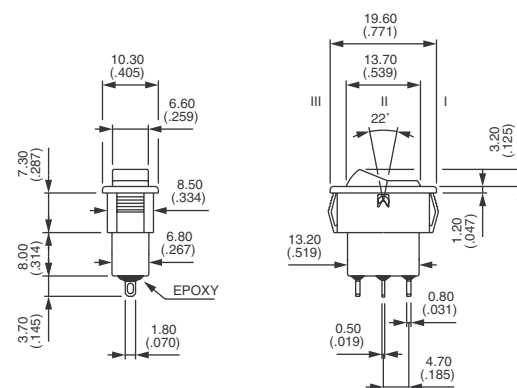


Solder lug terminals



AS36S0
AS39S0
AS37S0
AS38S0
AS32S0

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

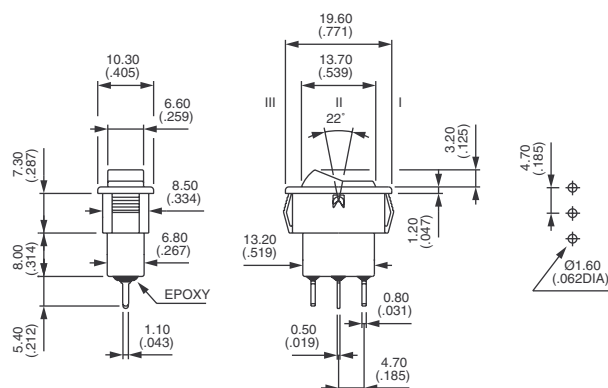


Straight PC terminals

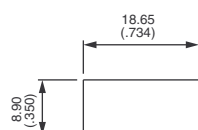


AS36P0
AS39P0
AS37P0
AS38P0
AS32P0

III	II	I
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM



PANEL CUT-OUT

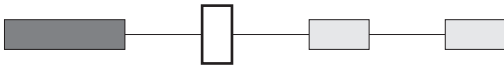


AS series

Snap-in rocker switches

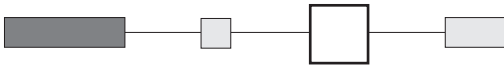
OPTIONS
● ● ●

CONTACT MATERIALS



- 0 Brass, gold plated
- 1 Silver
- 2 Silver, gold plated
- 5 Special contact, lower rating
Minimum quantity. Consult factory

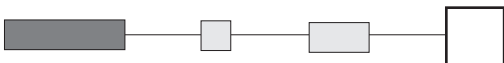
ACTUATORS



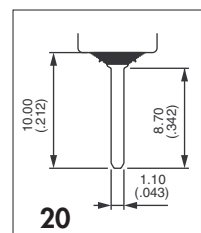
- 00 Black
- 01 Red
- 02 Grey
- 03 Blue
- 04 Ivory
- 07 White
- 09 Dark blue

For marking on actuator, consult factory.

OTHER OPTIONS



- 10 With **UL-CSA** marking
- 20 10 mm (.393) long straight PC terminals



7000 series

Rocker and paddle switches

Distinctive features and specifications



- ❑ Wide variety of actuators
- ❑ Many mounting styles for panel or PCB
- ❑ VDE, UL and CSA approved

ELECTRICAL SPECIFICATIONS

- Current/voltage rating with resistive load :

Contact	Maximum	Minimum	Level *
Silver A	3A 250VAC - 6A 125VAC - 4A 30VDC	50mA 10VDC	III and IV
Silver, gold plated AD	3A 250VAC - 6A 125 VAC - 4A 30VDC Gold plating withstands up to 100mA 30VDC.	10mA 50mV 10 μ A 5V	I to IV
Brass, gold plated CD	0,4 VA at 20VAC or DC	10mA 50mV 10 μ A 5V	I and II

- For inductive, lamp or capacitive loads, consult factory.
- Initial contact resistance : 10 m Ω
- Insulation resistance : 1.000 M Ω min. at 500VDC
- Dielectric strength :
 - 1.000 Vrms 50 Hz min. between terminals
 - 1.500 Vrms 50 Hz min. between poles
 - 1.500 Vrms 50 Hz min. between terminals and frame
- Contact bounce : 2 ms max.
- Electrical life : 50.000 cycles at full load

* For details, see technical information, end of catalogue.

MATERIALS

- Case : diallylphthalate (DAP) or high temperature plastic material (UL94-V0)
- Actuator : polyamide
- Housing : stainless steel or steel tin plated
- Bracket : steel, tin plated
- Contacts
 - A : silver
 - AD : silver, gold plated
 - CD : brass, gold plated
- Terminal seal : epoxy

GENERAL SPECIFICATIONS

- Mechanical life : 100.000 cycles
- Panel thickness : 1 (.039) to 2,5 mm(.098)
- Operating temperature : -40°C to +85°C

AGENCY APPROVALS



EN 61058-1



For VDE, refer to 57000 series.

Availability : consult factory for details of approved models.

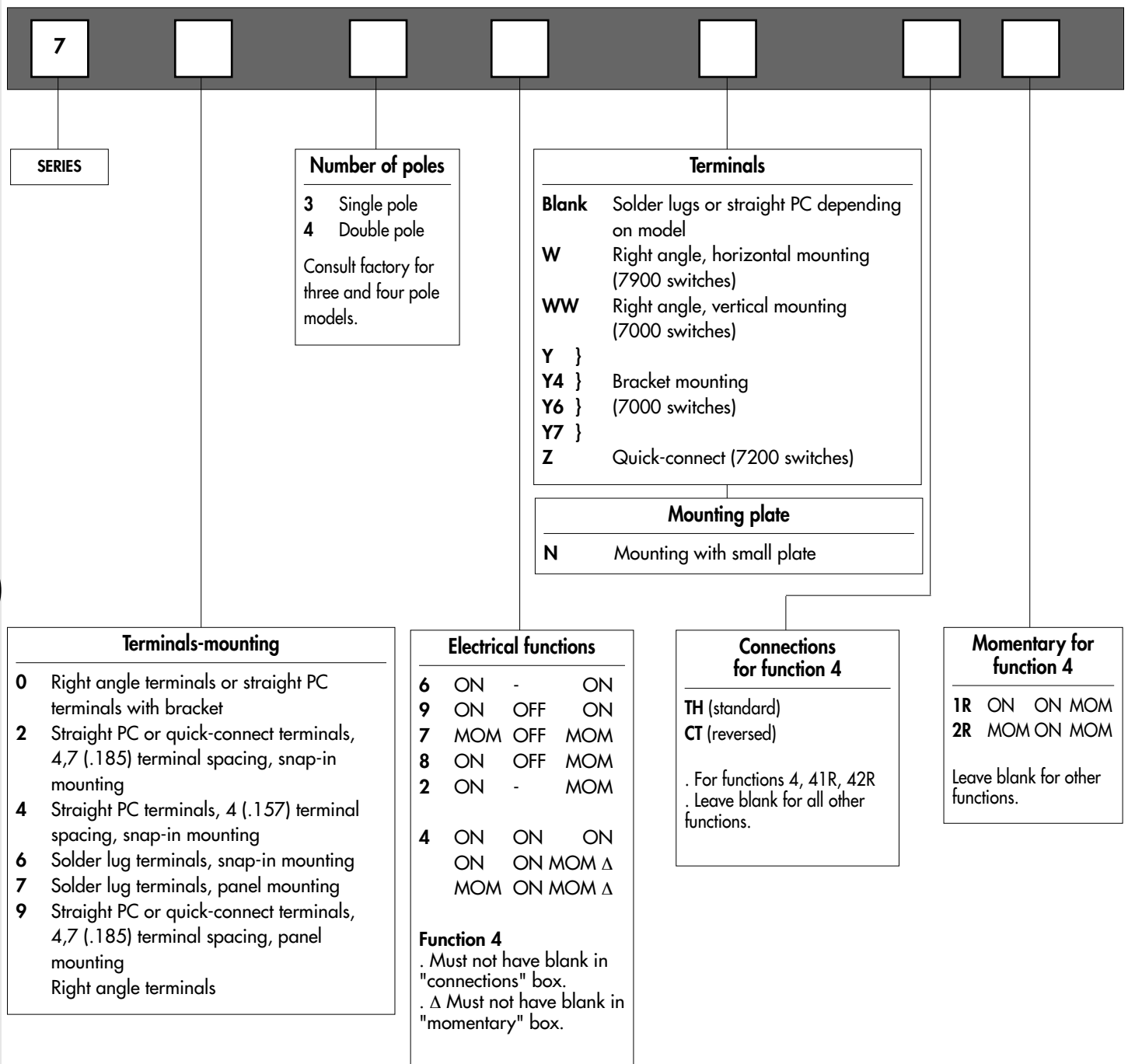
Marking : to order switches marked UL or CSA, complete appropriate box of ordering format.

7000 series

Rocker and paddle switches

Overview

MODEL
STRUCTURE



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 bracketed numbers.



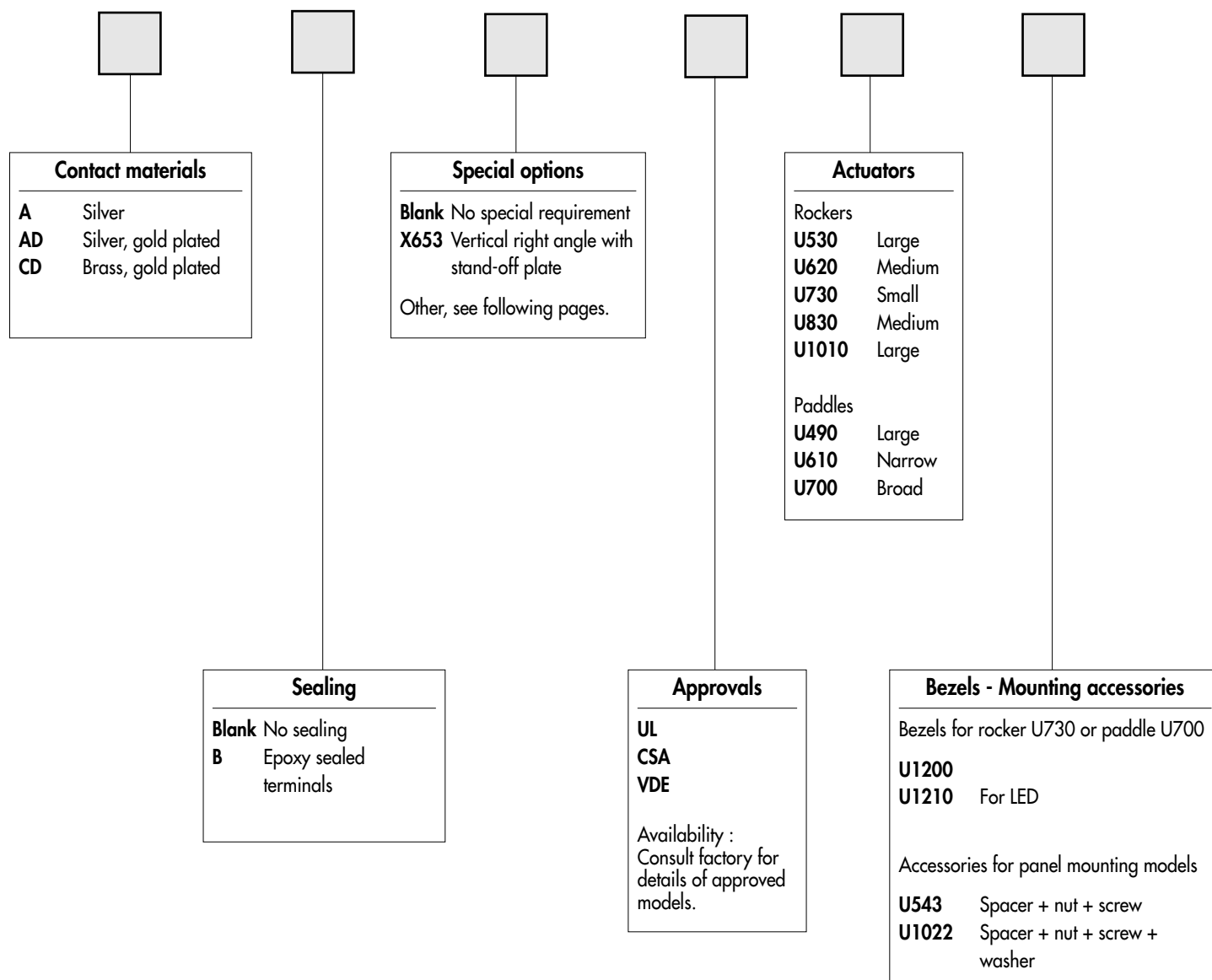
NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



7000 series

Rocker and paddle switches

Overview



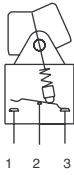
Packaging unit : 25 pieces.

7000 series

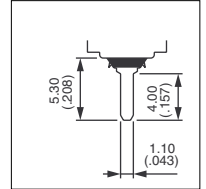
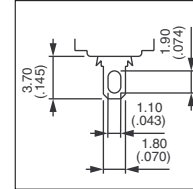
Rocker and paddle switches

Snap-in mounting : 7600 - 7200 - 7400

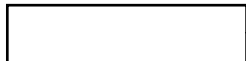
MODEL
STRUCTURE



- Solder lug or straight PC terminals
- Epoxy sealing standard on models with straight PC terminals



MODEL
STRUCTURE



Shown with rocker U730 and bezel U1200

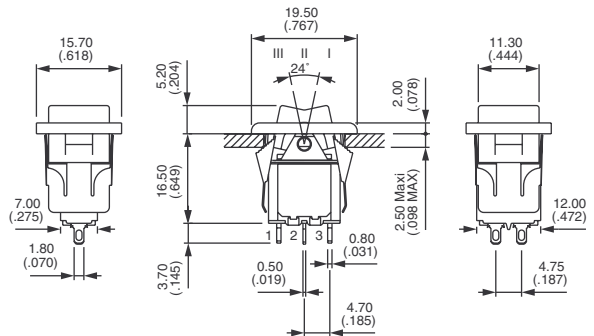
Solder lug terminals : 7600



Single pole Double pole

7636	7646
7639	7649
7637	7647
7638	7648
7632	7642
	7644*
	7644 1R*
	7644 2R*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



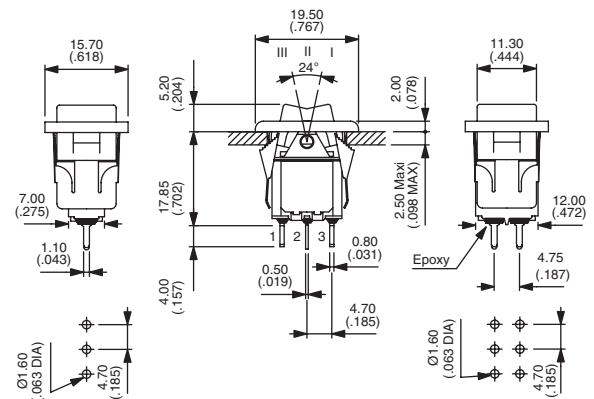
Straight PC terminals - spacing 4,7 (.185) : 7200



Single pole Double pole

7236 B	7246 B
7239 B	7249 B
7237 B	7247 B
7238 B	7248 B
7232 B	7242 B
	7244 B*
	7244 1R B*
	7244 2R B*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



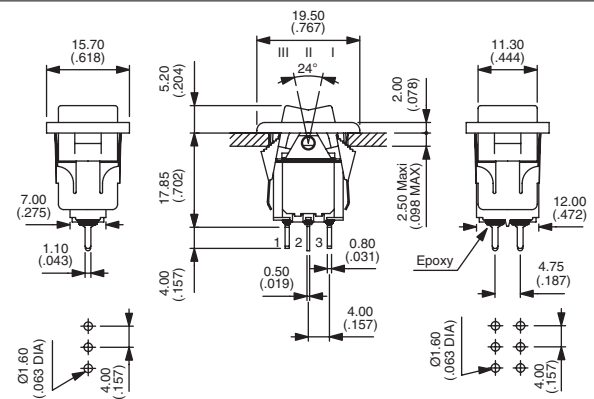
Straight PC terminals - spacing 4 (.157) : 7400



Single pole Double pole

7436 B	7446 B
7439 B	7449 B
7437 B	7447 B
7438 B	7448 B
7432 B	7442 B
	7444 B*
	7444 1R B*
	7444 2R B*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



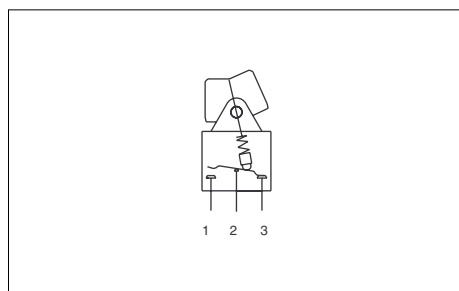
* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.



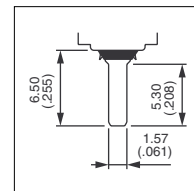
7000 series

Rocker and paddle switches

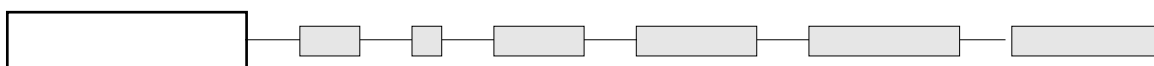
Snap-in mounting : 7200Z



- Quick-connect terminals



MODEL
STRUCTURE



Shown with rocker U730 and bezel U1200

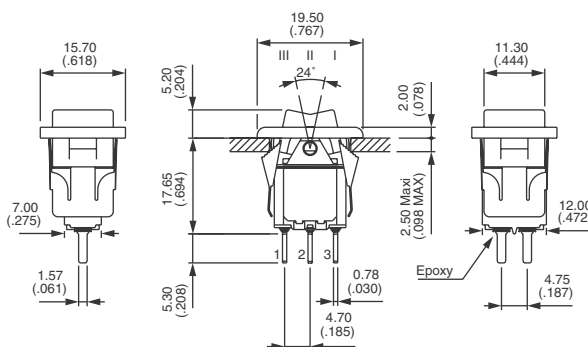
Quick-connect terminals : 7200Z



Single pole Double pole

7236Z	7246Z
7239Z	7249Z
7237Z	7247Z
7238Z	7248Z
7232Z	7242Z
	7244Z*
	7244Z 1R*
	7244Z 2R*

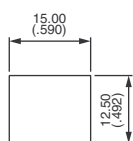
III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



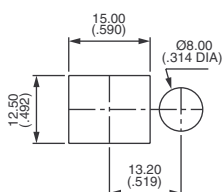
* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

PANEL CUT-OUT

7600 - 7200 - 7400 - 7200Z



With or without bezel U1200



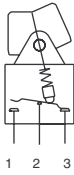
With bezel U1210

7000 series

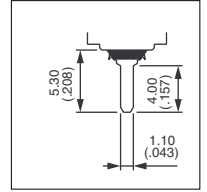
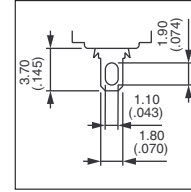
Rocker and paddle switches

Panel mounting : 7700 - 7900

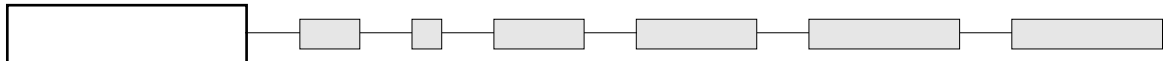
MODEL
STRUCTURE



- Large rocker or paddle
- Solder lug or straight PC terminals
- Quick-connect terminals : on request
- Epoxy sealing standard on models with straight PC terminals



MODEL
STRUCTURE



Shown with rocker U530

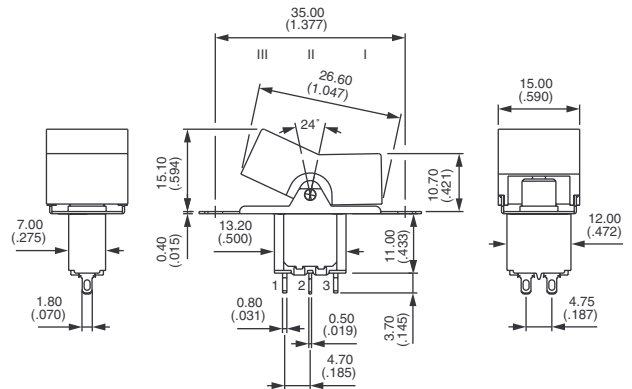
Solder lug terminals : 7700



Single pole Double pole

7736 7746
7739 7749
7737 7747
7738 7748
7732 7742
7744*
7744 1R*
7744 2R*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



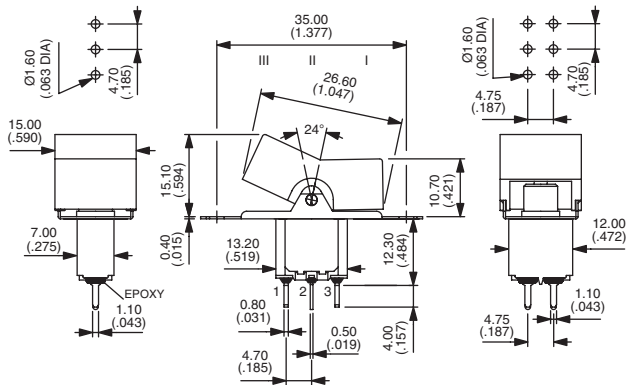
Straight PC terminals : 7900



Single pole Double pole

7936 B 7946 B
7939 B 7949 B
7937 B 7947 B
7938 B 7948 B
7932 B 7942 B
7944 B*
7944 1R B*
7944 2R B*

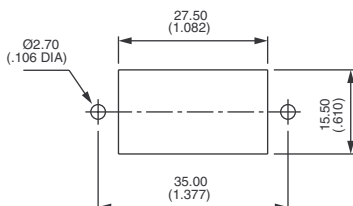
III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

PANEL CUT-OUT

7700 - 7900





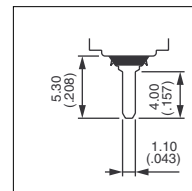
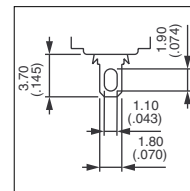
7000 series

Rocker and paddle switches

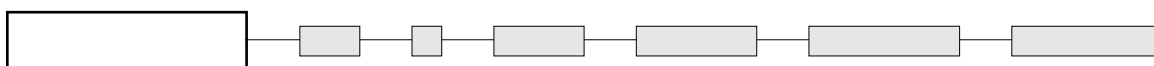
Panel mounting : 7700N - 7900N



- Small or medium rocker or paddle
- Solder lug or straight PC terminals
- Quick-connect terminals : on request
- Epoxy sealing standard on models with straight PC terminals



MODEL
STRUCTURE



Shown with rocker U620

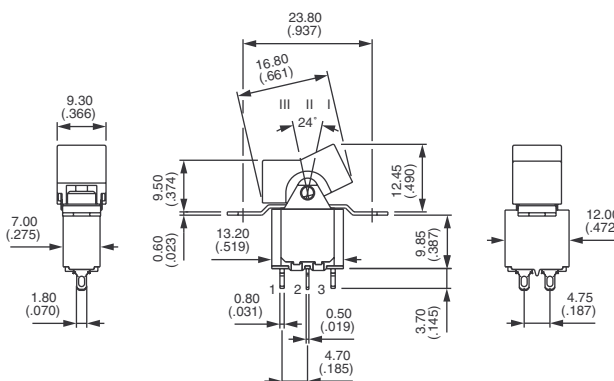
Solder lug terminals : 7700N



Single pole Double pole

7736N 7746N
7739N 7749N
7737N 7747N
7738N 7748N
7732N 7742N
7744N*
7744N 1R*
7744N 2R*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



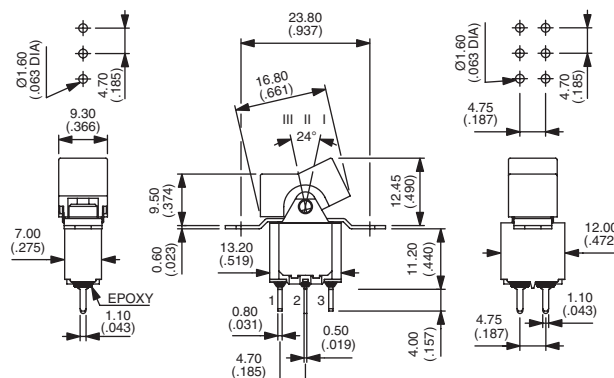
Straight PC terminals : 7900N



Single pole Double pole

7936N B 7946N B
7939N B 7949N B
7937N B 7947N B
7938N B 7948N B
7932N B 7942N B
7944N B*
7944N 1R B*
7944N 2R B*

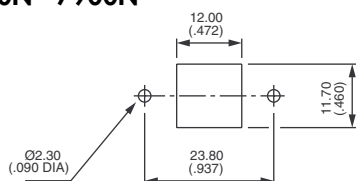
III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



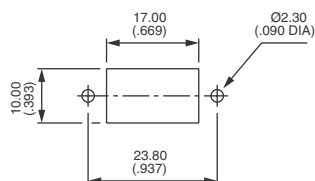
* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

PANEL CUT-OUT

7700N - 7900N



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



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

7000 series

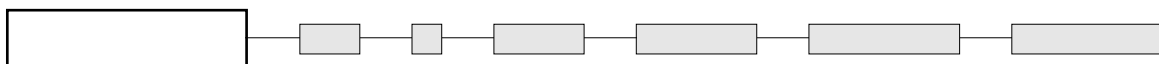
Rocker and paddle switches

Right angle terminals - horizontal : 7900W

MODEL
STRUCTURE



MODEL
STRUCTURE



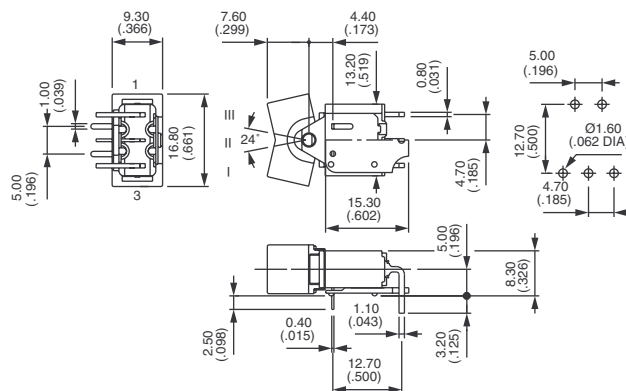
Shown with rocker U620

Single pole



7936W
7939W
7937W
7938W
7932W

III	II	I
2-3		1-2
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

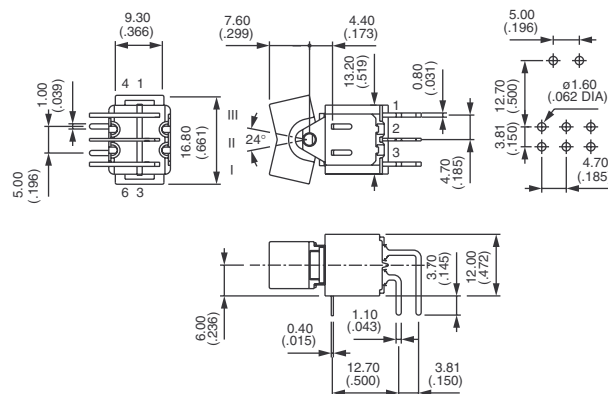


Double pole



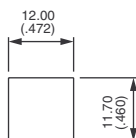
7946W
7949W
7947W
7948W
7942W
7944W*
7944W 1R*
7944W 2R*

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM

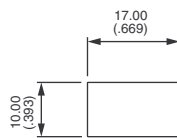


* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

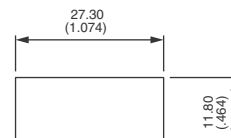
PANEL CUT-OUT



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



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



With large rocker **U1010**



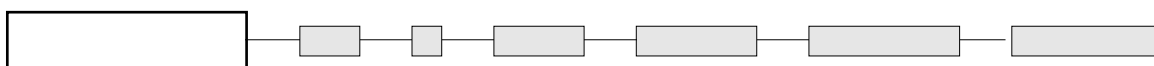
7000 series

Rocker and paddle switches

Right angle terminals - vertical : 7000WW



MODEL
STRUCTURE



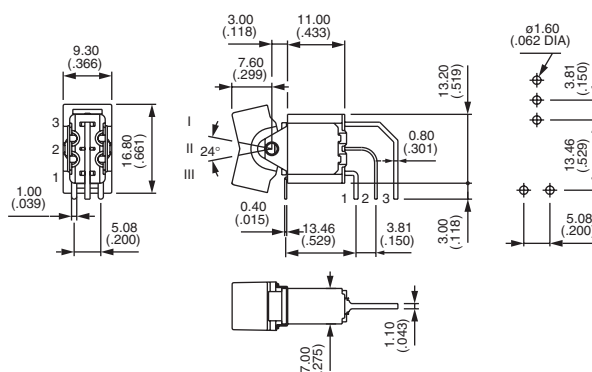
Shown with rocker U830

Single pole



7036WW
7039WW
7037WW
7038WW**
7032WW**

III	II	I
2-3		1-2
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

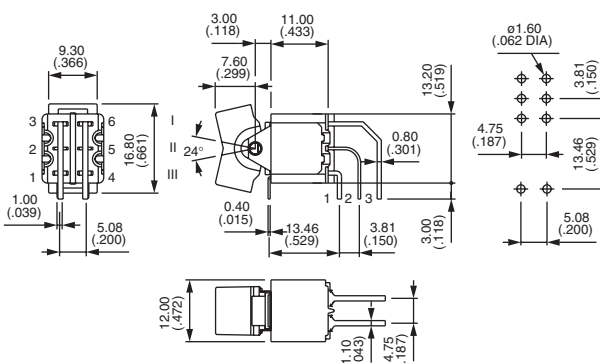


Double pole



7046WW
7049WW
7047WW
7048WW**
7042WW**
7044WW*
7044WW 1R*
7044WW 2R*

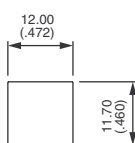
III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



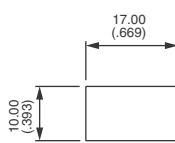
* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

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

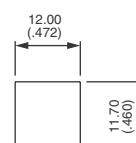
PANEL CUT-OUT



With small rocker **U730**



With medium rocker **U830**



With broad paddle **U700**

7000 series

Rocker and paddle switches

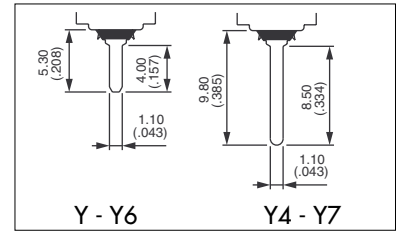
Straight PC terminals - bracket mounting : 7000Y

MODEL
STRUCTURE

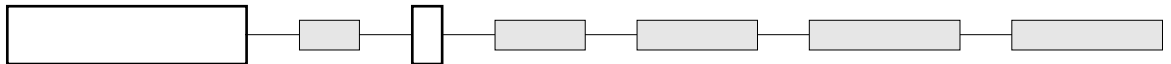


Brackets reduce mechanical stress on solder joints and increase the resistance to vibrations.

- Epoxy sealed terminals standard (B included in model structure)



MODEL
STRUCTURE



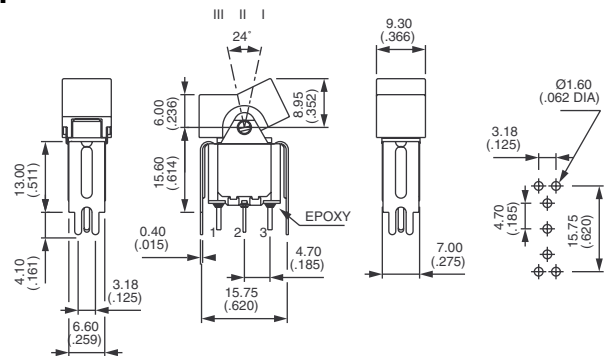
Shown with rocker U620

Short bracket - width 15,75 (.620) - single pole : 7030Y



7036Y B
7039Y B
7037Y B
7038Y B
7032Y B

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM

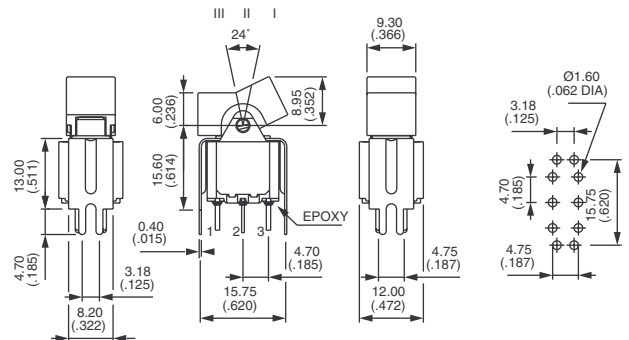


Short bracket - width 15,75 (.620) - double pole : 7040Y



7046Y B
7049Y B
7047Y B
7048Y B
7042Y B
7044Y* B
7044Y 1R* B
7044Y 2R* B

III	II	I
2-3		1-2
5-6		4-5
ON	-	ON
ON	OFF	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	-	MOM
ON	ON	ON
ON	ON	MOM
MOM	ON	MOM



* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

7000 series

Rocker and paddle switches

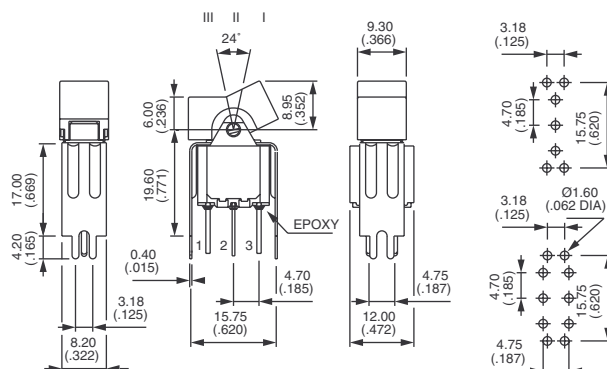
Straight PC terminals - bracket mounting : 7000Y4 - Y6 - Y7

Tall bracket - width 15,75 (.620) : 7000Y4



Single pole Double pole

7036Y4 B	7046Y4 B	III	II	I
7039Y4 B	7049Y4 B	2-3		1-2
7037Y4 B	7047Y4 B	5-6		4-5
7038Y4 B	7048Y4 B	ON	-	ON
7032Y4 B	7042Y4 B	ON	OFF	ON
	7044Y4* B	MOM	OFF	MOM
	7044Y4 1R* B	ON	OFF	MOM
	7044Y4 2R* B	ON	ON	MOM
		MOM	ON	MOM

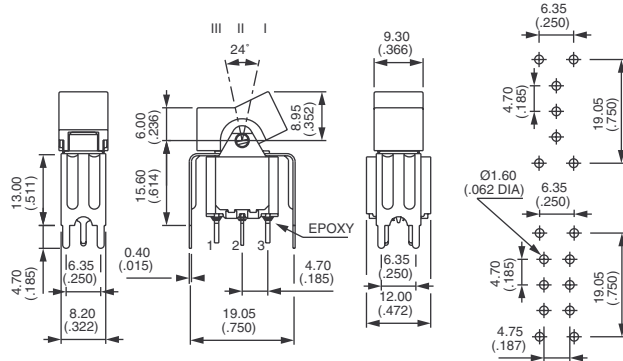


Short bracket - width 19,05 (.750) : 7000Y6



Single pole Double pole

7036Y6 B	7046Y6 B	III	II	I
7039Y6 B	7049Y6 B	2-3		1-2
7037Y6 B	7047Y6 B	5-6		4-5
7038Y6 B	7048Y6 B	ON	-	ON
7032Y6 B	7042Y6 B	ON	OFF	ON
	7044Y6* B	MOM	OFF	MOM
	7044Y6 1R* B	ON	OFF	MOM
	7044Y6 2R* B	ON	ON	MOM
		MOM	ON	MOM

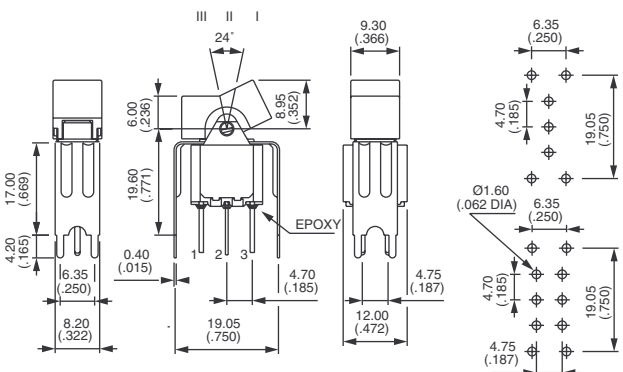


Tall bracket - width 19,05 (.750) : 7000Y7



Single pole Double pole

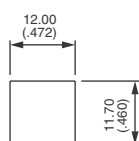
7036Y7 B	7046Y7 B	III	II	I
7039Y7 B	7049Y7 B	2-3		1-2
7037Y7 B	7047Y7 B	5-6		4-5
7038Y7 B	7048Y7 B	ON	-	ON
7032Y7 B	7042Y7 B	ON	OFF	ON
	7044Y7* B	MOM	OFF	MOM
	7044Y7 1R* B	ON	OFF	MOM
	7044Y7 2R* B	ON	ON	MOM
		MOM	ON	MOM



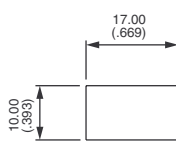
* Function 4 :SP in DP case - specify CT or TH connections, see end of catalogue.

PANEL CUT-OUT

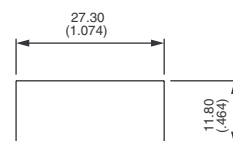
7000Y - Y4 - Y6 - Y7



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



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



With large rocker **U1010**

Rocker and paddle switches

• • •

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

```

graph LR
    Node1[Node 1] --> Node2[Node 2]
    Node2 --> Node3[Node 3]
    Node3 --> Node4[Node 4]
    Node4 --> Node5[Node 5]
    Node5 --> Node6[Node 6]
    Node6 --> Node7[Node 7]
    Node7 --> Null(( ))
  
```

Blank	No sealing
B	Epoxy sealed terminals

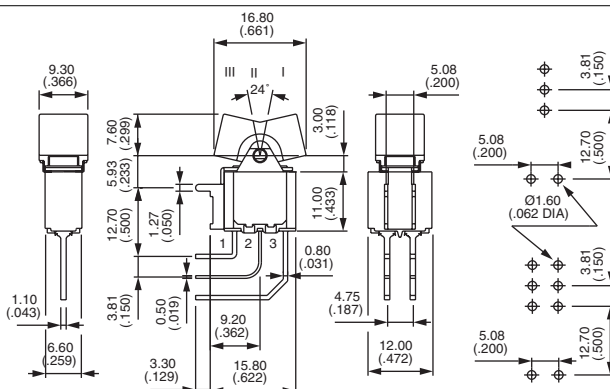


Blank	No special requirement
X653	Vertical right angle with stand-off plate

Shown with rocker U620



		III	II	I
		2-3		1-2
		5-6		4-5
Single pole	Double pole			
7036WW X653	7046WW X653	ON	-	ON
7039WW X653	7049WW X653	ON	OFF	ON
7037WW X653	7047WW X653	MOM	OFF	MOM
7038WW X653	7048WW X653**	ON	OFF	MOM
7032WW X653	7042WW X653**	ON	-	MOM
	7044WW X653*	ON	ON	ON
	7044 1RWW X653*	ON	ON	MOM
	7044 2RWW X653*	MOM	ON	MOM



* Function 4 : SP in DP case - specify CT or TH connections, see end of catalogue.

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

Actuators for X653 : small rocker U730 and medium rocker U620, broad paddle U700 and narrow paddle U610.

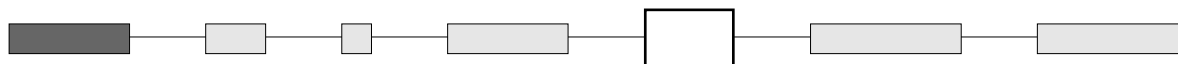
X601 Silver plated brass contacts
Current voltage rating for an electrical life of 20.000 cycles : 0,2A 250VAC - 0,4A 125VAC - 0,5A 30VDC
Minimum quantity : 5.000 pieces per model and shipment.



7000 series

Rocker and paddle switches

AGENCY APPROVALS



UL - CSA

All standard models

Availability : consult factory for details of approved combinations or options.

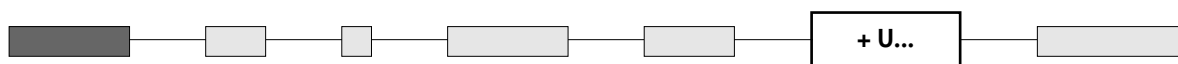
Marking : to order switches marked UL or CSA, complete above box with desired approvals.

Blank : no agency approval required.

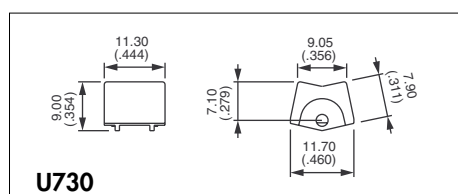
VDE - UL - CSA

Refer to **57000** series on the following pages.

ACTUATORS

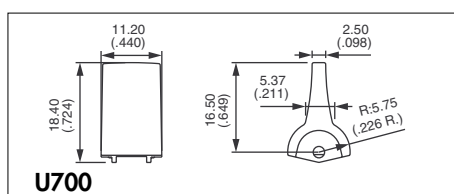


For snap-in mounting models : 7600 - 7200 - 7400 - 7200Z



U730

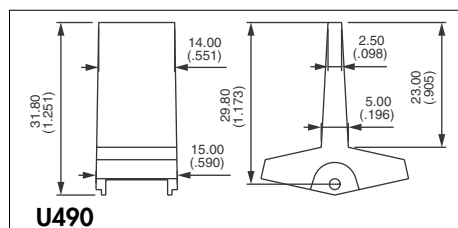
Small rocker



U700

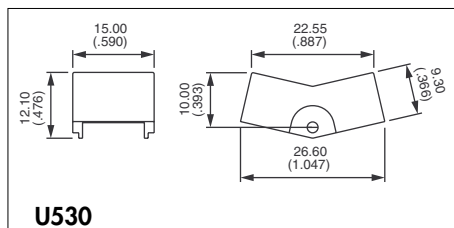
Broad paddle

For 7700 and 7900 models



U490

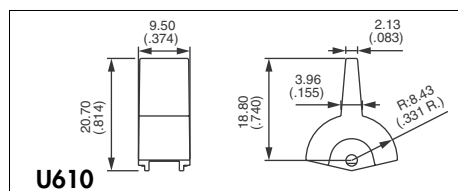
Large paddle



U530

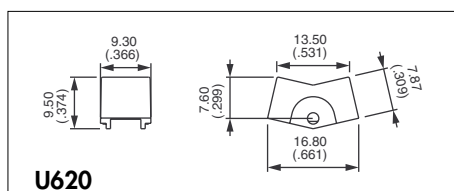
Large rocker

For 7700N - 7900N - 7900W - 7000WWX653 and 7000Y models



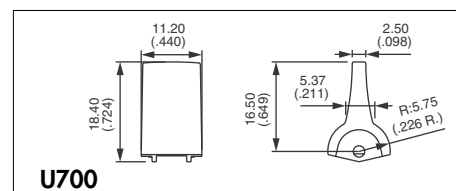
U610

Narrow paddle



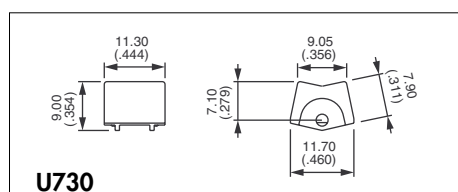
U620

Medium rocker



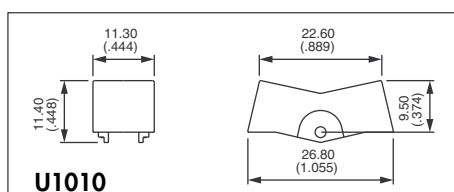
U700

Broad paddle



U730

Small rocker



U1010

Large rocker
For 7900W, available on DP only.

Actuator colours

Replace last "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

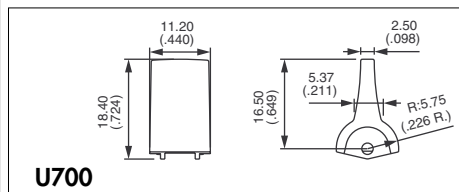
7000 series

Rocker and paddle switches

OPTIONS

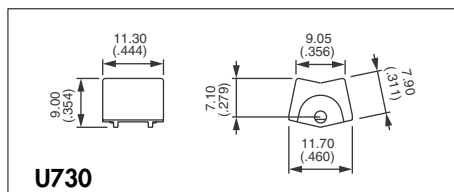
ACTUATORS (continued)

For 7000WW models



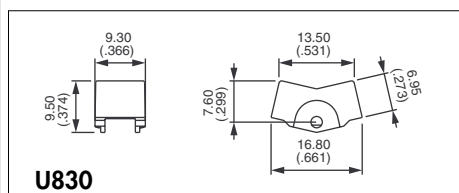
U700

Broad paddle



U730

Small rocker



U830

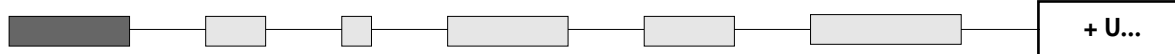
Medium rocker

Actuator colours

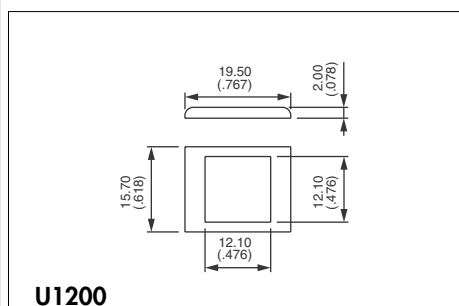
Replace last "0" by number

- | | |
|-----|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 6 | red |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |

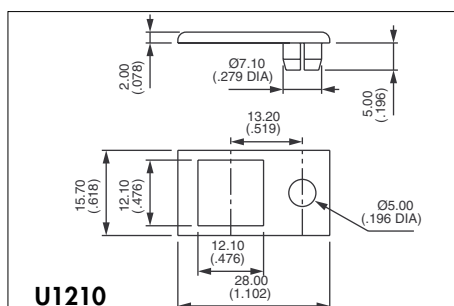
BEZELS - MOUNTING ACCESSORIES



Bezels for paddle U700 and rocker U730



U1200



U1210

For LED Ø 5 (.196) - not supplied

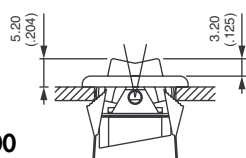
Bezel colours

Replace last "0" by number

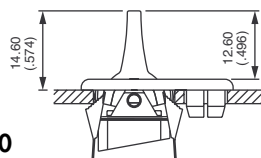
- | | |
|-----|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 6 | red |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |

STANDARD PANEL MOUNTING

Panel thickness with bezel 1 to 2,5 mm (.039 to .098)

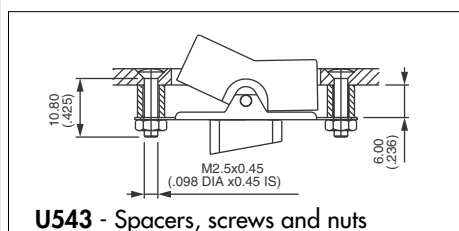


U730 + U1200



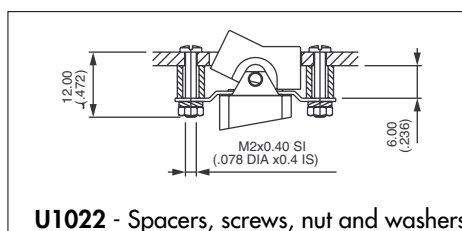
U700 + U1210

Mounting accessories



U543 - Spacers, screws and nuts

For rocker U530 or paddle U490



U1022 - Spacers, screws, nut and washers

For rockers U620 or U730
For paddles U610 or U700



57000 series

VDE approved rocker and paddle switches



EN 61058-1



- The switches described below are standard marked VDE.
- UL and CSA agency approvals are also available. To order a switch marked UL or CSA, please complete "Other agency approvals" box.

ELECTRICAL SPECIFICATIONS

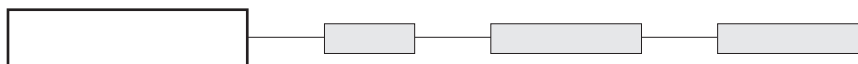
- Class I (normal insulation)
- Small contact opening : μ (< 3 mm (.118))
- Current/voltage rating with resistive load : 3A 250VAC - 6A 125 VAC
- Dielectric strength :
2.000 Vrms 50 Hz min. between poles and between terminals and frame
1.000 Vrms 50 Hz min. between terminals
- Special body for increased creepage distance and air gap : 3 mm (.118)

Further specifications, see 7000 series.

MATERIALS

- Contacts : silver
- Case : diallyphthalate (DAP)
- Actuators : polyamide
- Housing : stainless steel or steel tin plated
- Terminal seal : epoxy

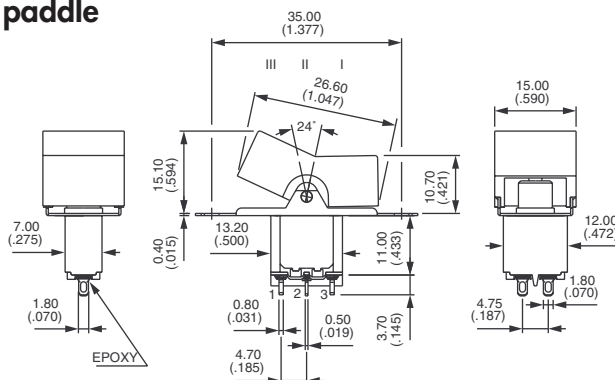
MODEL
STRUCTURE



Shown with rocker U530

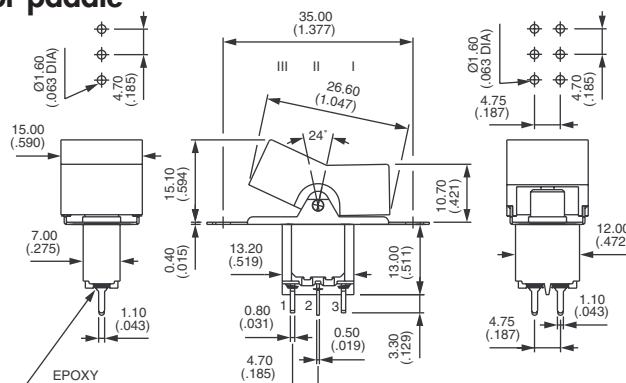
Panel mounting - solder lug terminals - large rocker or paddle

	III	II	I
	2-3		1-2
	5-6		4-5
Single pole			
57736A	ON	-	ON
57739A	ON	OFF	ON
Double pole			
57746A			
57749A			



Panel mounting - straight PC terminals - large rocker or paddle

	III	II	I
	2-3		1-2
	5-6		4-5
Single pole			
57936A	ON	-	ON
57939A	ON	OFF	ON
Double pole			
57946A			
57949A			



57000 series

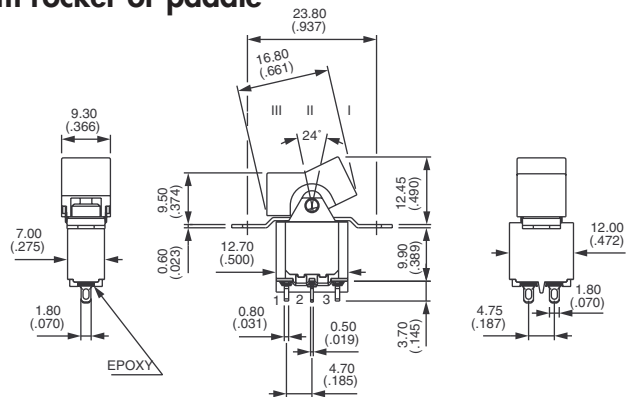
VDE approved rocker and paddle switches

MODEL
STRUCTURE

Shown with rocker U620

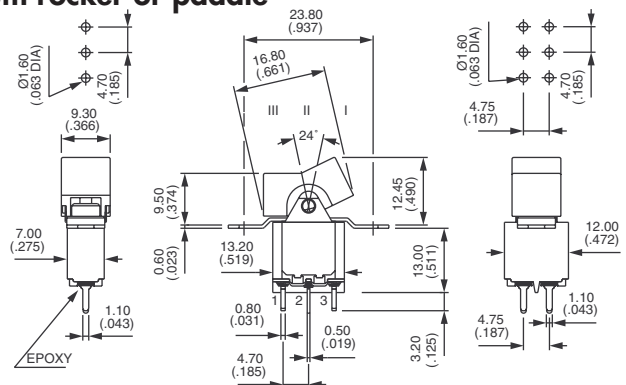
Panel mounting - solder lug terminals - small or medium rocker or paddle

		III	II	I
		2-3		1-2
		5-6		4-5
Single pole	Double pole			
57736NA	57746NA	ON	-	ON
57739NA	57749NA	ON	OFF	ON



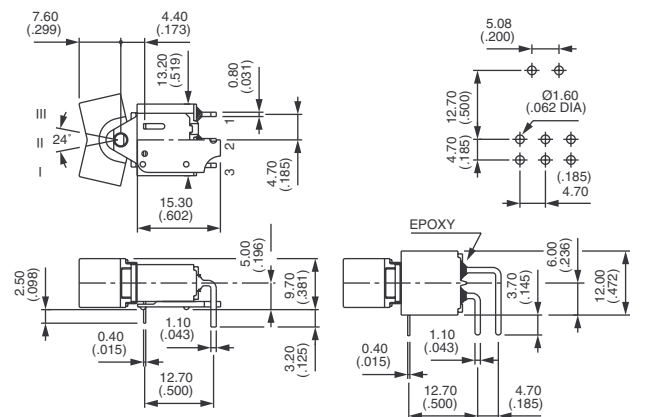
Panel mounting - straight PC terminals - small or medium rocker or paddle

		III	II	I
		2-3		1-2
		5-6		4-5
Single pole	Double pole			
57936NA	57946NA	ON	-	ON
57939NA	57949NA	ON	OFF	ON



Right angle terminals - horizontal

		III	II	I
		2-3		1-2
		5-6		4-5
Single pole	Double pole *			
57936WA	57946WAX433	ON	-	ON
57939WA	57949WAX433	ON	OFF	ON



Also available for VERTICAL mounting (on request).

PANEL CUT-OUT : Refer to 7000 series

* In double pole W models, spacing between poles on PCB is different from standard : 4,70 mm (.185) instead of 3,81 mm (.150). Part number X433.



57000 series

VDE approved rocker and paddle switches

OTHER AGENCY APPROVALS



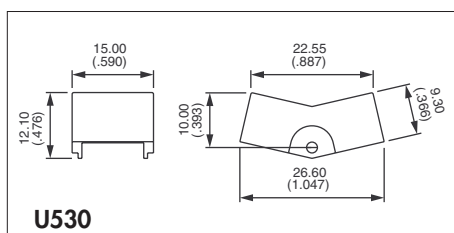
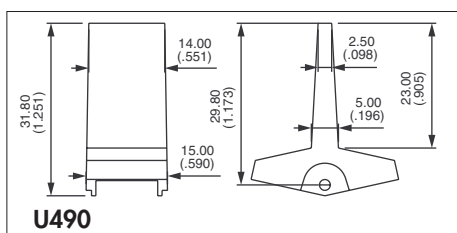
UL - CSA

To order a switch additionally marked UL and/or CSA, complete above box with desired approvals.

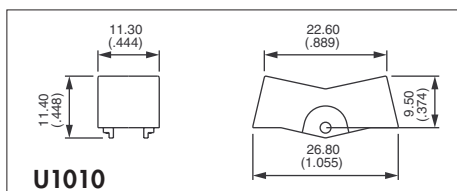
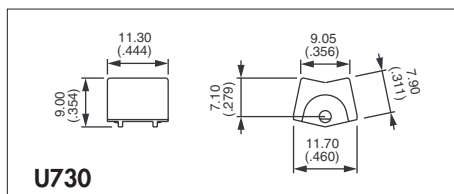
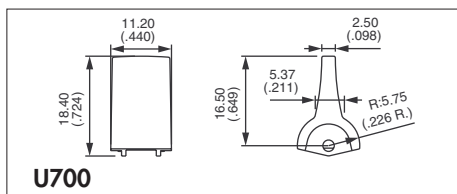
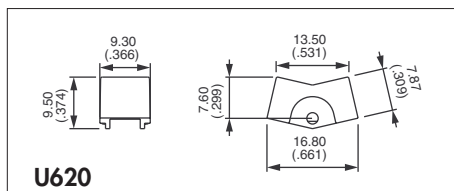
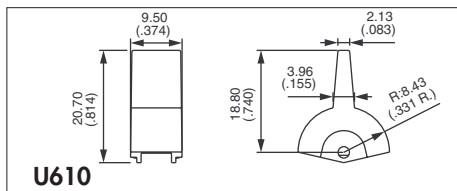
ACTUATORS



For 57000A models



For 57000NA and 57000WA models



For 57000WA, available on double pole only

Actuator colours

Replace last "0" by number

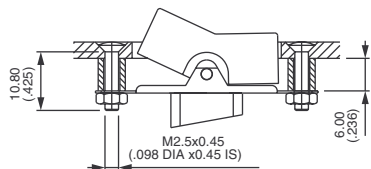
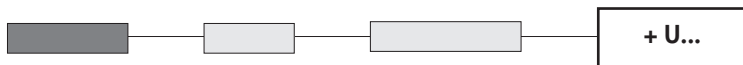
- | | |
|-----|-----------|
| 1 | blue |
| 1/4 | dark blue |
| 2 | black |
| 3 | green |
| 4 | grey |
| 5 | yellow |
| 7 | ivory |
| 7/1 | white |
| 9 | orange |

57000 series

VDE approved rocker and paddle switches

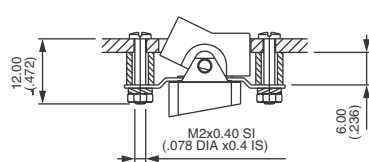
OPTIONS

MOUNTING ACCESSORIES



U543 - Spacers, screws and nuts

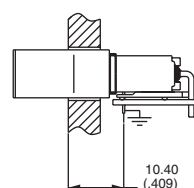
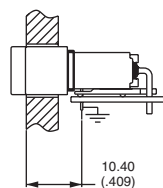
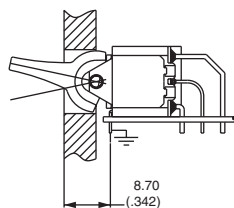
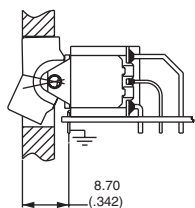
For rocker U530 or paddle U490



U1022 - Spacers, screws, nut and washers

For rockers U620 or U730
For paddles U610 or U700

MOUNTING RECOMMENDATIONS



D

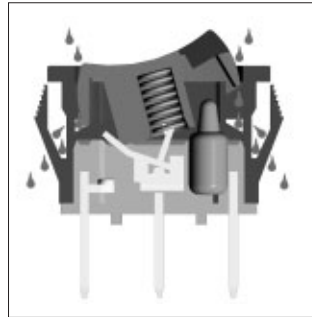
FM series

Snap-in rocker switches - panel cut-out 19 x 13 (.750 x .508)

Distinctive features and specifications

- ☐ Illuminated and non-illuminated
- ☐ For class II appliances
- ☐ VDE and UL approved
- ☐ Protection against moisture by double-shell case

When the switch is submitted to moisture (drops, condensation), the double-shell case conducts the liquid outside, thus protecting the contact area and terminals. The light dripping inside the equipment resulting from this should be evacuated by adequate arrangement on back of panel.



- ☐ Protection by boot

In case of sand or splashing water, the best protection consists of insulating the rocker from these aggressive elements. This can be achieved with transparent PVC boot **U5720**. Order separately, see section H.

AGENCY APPROVALS



EN 61058-1



Availability : functions 1 and 6

Marking : approved models are standard marked.

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



Packaging unit : 150 pieces.

FM series

Snap-in rocker switches - panel cut-out 19 x 13 (.750 x .508)

Single pole - non-illuminated

- Approved ratings (functions 1 and 6) :
VDE : 10(4)A 250VAC T85°C - **UL** : 6A 250VAC & 125VAC T65°C
- Max. contact rating :
 - functions 1 and 6 : see above.
 - function 3 : 4A 250VAC
 - functions 8 and 9 : 6A 250VAC
- Initial contact resistance : 20mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : - functions 1 and 6 : 2.500 Vrms between terminals
- functions 3, 8 and 9 : 1.500 Vrms between terminals
- Electrical life at full load : 10 000 cycles

- Operating temperature :
-20°C to +85°C
- Case, frame, rocker : PA6/6
- Contacts : silver
- Terminals : silver plated
- Panel cut-out :

Panel thickness	Dim. Y	Dim. Z
0,75 to 1,25 mm	19,2 +0/-0,1	12,9 +0,15/-0
1,25 to 2 mm	19,4 +0/-0,1	12,9 +0,15/-0
2 to 3 mm	19,8 +0/-0,1	12,9 +0,15/-0

FM	C			A			0	0	
SERIES	Electrical functions			Contacts	Frame colour	Rocker colours	Lamp	Lens colour	Marking *
	1 ON - OFF 3 MOM - OFF 6 ON - ON 8 ON OFF MOM 9 ON OFF ON			A Silver	2 Black Others : on request.	1 Blue 2 Black (std) 3 Green 4 Grey 5 Yellow 6 Red (std) 7 Ivory 7/1 White 9 Orange	0 None	0 No lens	000 None 001 0 002 0 - 003 0 I 004 I 0 II 005 0 0
Rocker					Terminals				
C Non illum. Concave					2 Solder lug 8 Quick-conn. 9 Straight PC (funct. 1 & 6)				

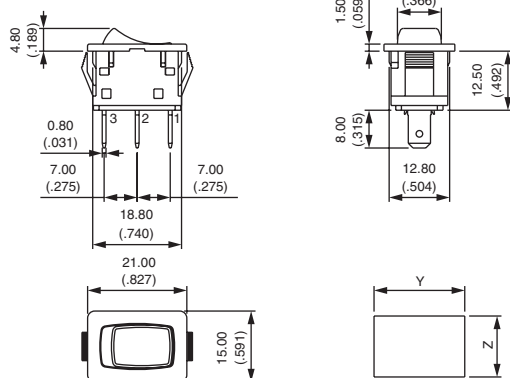
* Colour of marking : white for black rockers - black for other colours - Other : on request.

Single throw and double throw switch



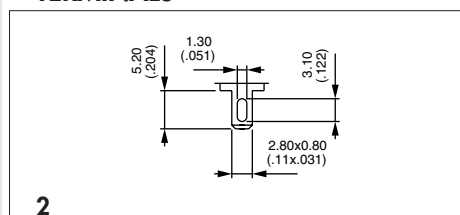
FMC1
FMC3
FMC6
FMC8
FMC9

1-2	2-3
ON - OFF	
MOM - OFF	
ON - ON	
ON OFF MOM	
ON OFF ON	



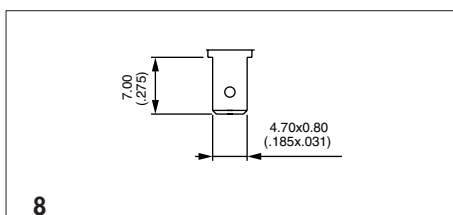
Shown with quick-connect terminals

TERMINALS



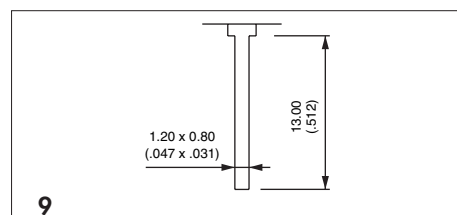
2

Solder lug



8

Quick-connect



9

Straight PC (functions 1 and 6 only)

FM series

Snap-in rocker switches - panel cut-out 19 x 13 (.750 x .508)

Single pole - illuminated

- Approved ratings :
VDE : 10(4)A 250VAC T85°C - **UL** : 6A 250VAC & 125VAC T65°C
- LED types available :
3,3V (4V max.) 10mA LED (resistor to be series connected by the user)
5V or 12V LED with integrated resistor
- Initial contact resistance : 20mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : 2.500 Vrms between terminals
- Electrical life at full load : 10 000 cycles
- Operating temperature: - 20°C to + 85°C
- Case, frame and rocker : PA6/6

- Lens : PC
- Contacts : silver
- Terminals : silver plated
- Lamp terminal : no plating
- Fluorescent lamp for blue or green lens, neon lamp for other colours
- Panel cut-out :

Panel thickness	Dim. Y	Dim. Z
0,75 to 1,25 mm	19,2 +0/-0,1	12,9 +0,15/-0
1,25 to 2 mm	19,4 +0/-0,1	12,9 +0,15/-0
2 to 3 mm	19,8 +0/-0,1	12,9 +0,15/-0

FM	L	1	8	A					
SERIES	Electr. function			Contacts	Rocker colour		Lens colour	Lamp	Marking *
	1 ON - OFF			A Silver	1 Blue 2 Black (std) 3 Green 4 Grey 5 Yellow 6 Red (std) 7 Ivory 7/1 White 9 Orange		1 Blue * 3 Green * 5 Yellow 6 Red 8 Translucent 9 Orange * w. fluorescent lamp	A 220V neon B 220V fluor. C 110V neon D 110V fluor.	000 None 001 0
	Rocker	Terminals	Frame colour					LED 3,3V 10mA	LED 5V
	L Illumin. concave	8 Quick-connect	2 Black Others : on request.					E Blue F Red/green G Green H Yellow J White K Red L Orange No resistor**	N Green P Yellow Q Red
									LED 12V
									T Green U Yellow V Red

* **Colour of marking** : white for black rockers - black for other colours - Other : on request.

** Resistor value = $\frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$

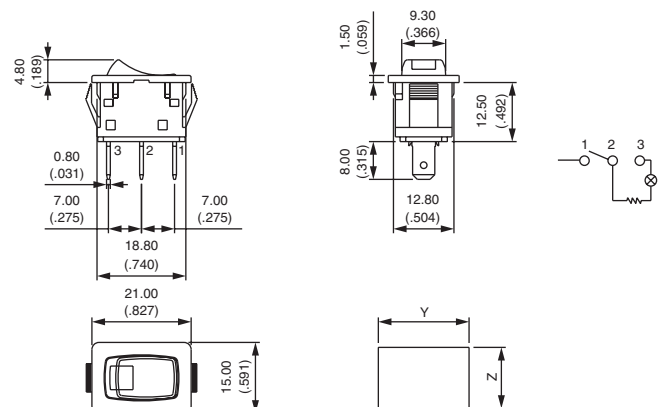
Illuminated switches - quick-connect terminals



FML1

ON - OFF

For LED models, terminal 2 = cathode (-), terminal 3 = anode (-)



KG series

Power rocker switches

Distinctive features and specifications

- ☐ Illuminated or non-illuminated
- ☐ Protected rocker
- ☐ Sealed to IP 65
- ☐ Laser marking
- ☐ VDE (EN 61058-1) approved

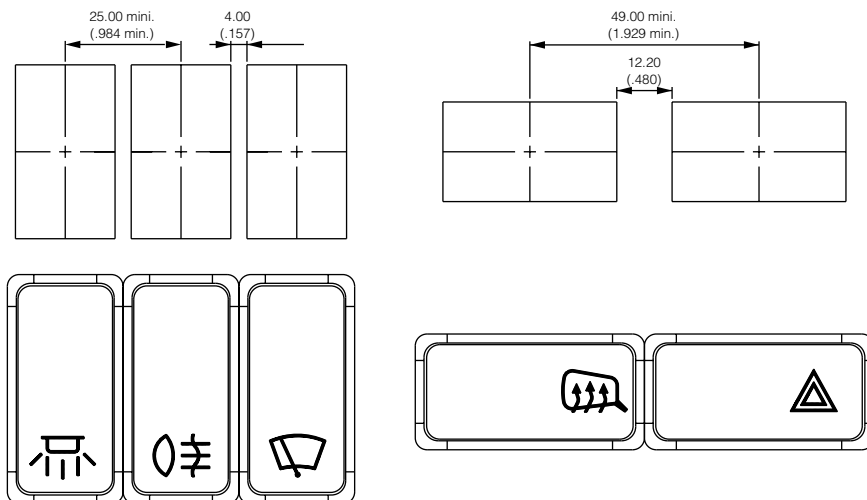
ELECTRICAL SPECIFICATIONS

- Current/voltage rating :
 - functions 1 (ON-OFF) and 6 (ON-ON) : 15A 12VDC, 10A 24VDC, 15A 250VAC max., 10mA 14VDC min.
 - functions 4 (ON ON ON) and 4-1R (ON ON MOM) : 8A 12VDC, 5A 24VDC, 8A 250VAC max.
 - other functions : 10A 12VDC, 8A 24VDC, 10A 250VAC max.
- VDE approved ratings : 12(4)A 250VAC, T85/55°C
- Initial contact resistance : 10 mΩ max. at 1A 2VDC
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : 2.000 Vrms 50 Hz min. between terminals
- Electrical life : 10.000 cycles min.
- Mechanical life : 2 position models : 100.000 cycles min.
3 position models : 30.000 cycles min.

ENVIRONMENTAL SPECIFICATIONS

- Degree of protection : IP 65
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500 Hz - 10 g according to IEC 512-4, test 6d
- Salt spray resistance : 96 hours according to IEC 512-6, test 11f
- Moisture resistance : 56 days according to IEC 68-2-3
- Operating temperature : 2 position models : -40°C to + 85°C
3 position models : -10°C to + 65°C

MATRIX MOUNTING



MATERIALS

- Case and bezel : thermoplastic UL94-V0
- Terminals : brass, silver plated
- Contacts : silver grain
- Contact roller : brass, nickel plated

REAR PROTECTION OR SEALING

The KG switches are also available with wire lead terminals (lead 16AWG max.) :

- Models with **protection cover**, as shown on photo below,
- Models with **rear sealing** provided by the overmoulding of terminals in a resin base.

On request.



AGENCY APPROVAL



EN 61058-1

Availability : double pole models, functions ON-OFF and ON-ON.

Marking : to order switches marked VDE, add "VDE" at the end of model number.

Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

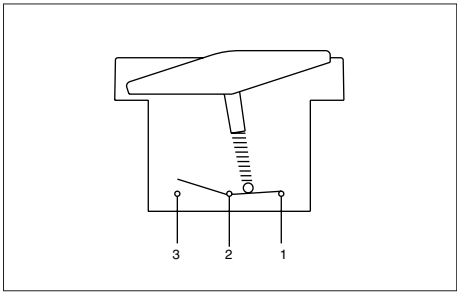


Packaging unit : 40 pieces

KG series

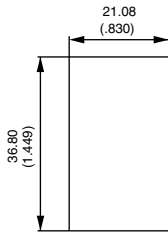
Power rocker switches

Case

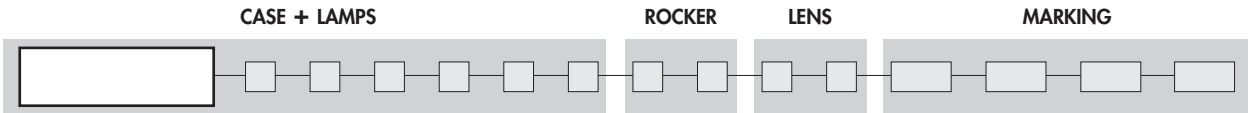


PANEL CUT-OUT

Panel thickness :
0,8 mm to 4,6 mm
Recommended thickness :
between 2 mm and 3,5 mm



MODEL STRUCTURE



	Single pole	Double pole	2-3	1-2
KG31	KG41	ON - OFF	5-6	4-5
	KG44*	ON ON ON		
	KG44-1R*	ON ON MOM		
KG35	KG45	MOM - ON		
KG36	KG46	ON - ON		
KG37	KG47	MOM OFF MOM		
KG38	KG48	ON OFF MOM		
KG39	KG49	ON OFF ON		

* Function 4 : single pole in double pole case

24.50 (.964)

11.00 (.433)

10.50 (.413)

23.50 (.925)

12.00 (.472)

6.85 (.269)

14.65 (.576)

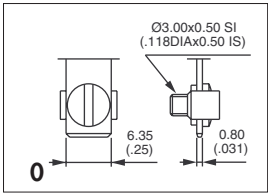
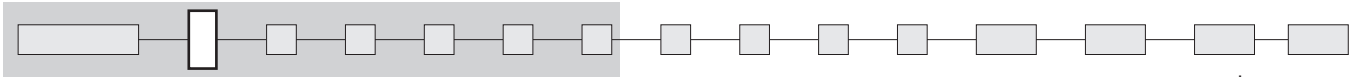
49.70 (1.720)

20.00 (.787)

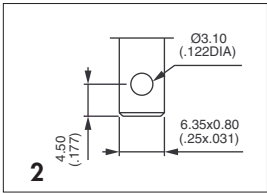
48.50 (1.909)

→ Flat seal

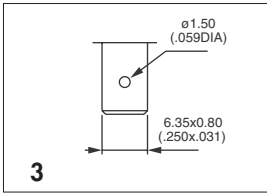
TERMINALS



Screw



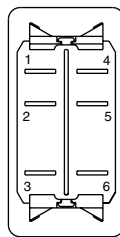
Solder lug / quick-connect



Quick-connect

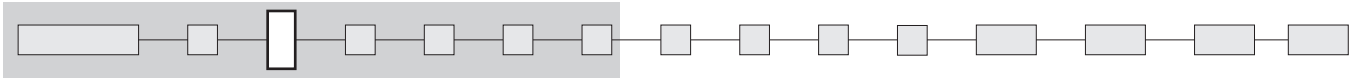
Terminals 1 to 6
are marked on the case.

Side A : terminals 1 and 4
Side B : terminals 3 and 6



Side B

CONTACT MATERIALS



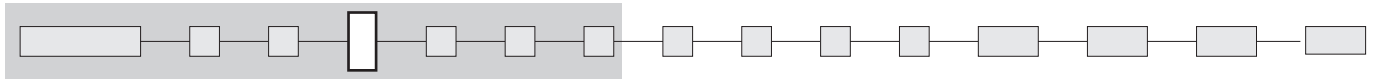
A Silver grain
Functions ON-OFF and ON-ON : 15A 12VDC , 10A 24VDC, 15A 250VAC max. - 10mA 14 VDC min.
Other functions : 10A 12VDC, 8A 24VDC, 10A 250VAC max.

KG series

Power rocker switches

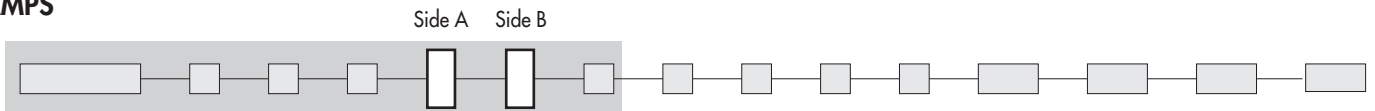
Lamps

BEZEL



2 Black, sealed to IP 65

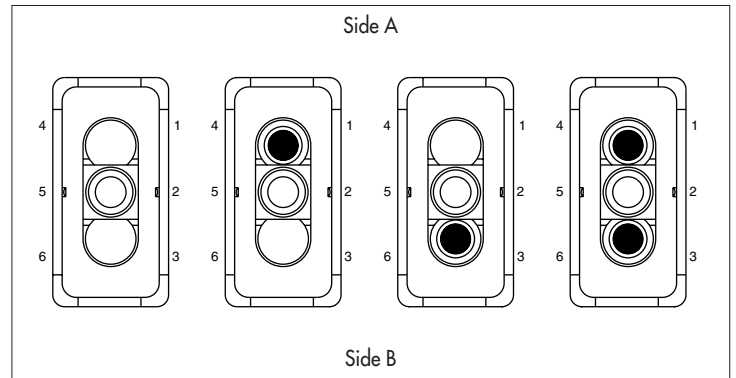
LAMPS



Complete each enlarged box with one of the codes listed below.

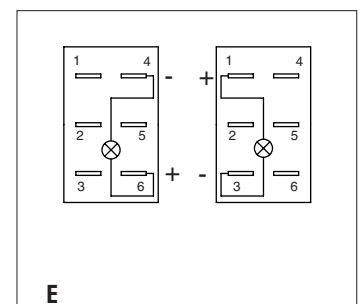
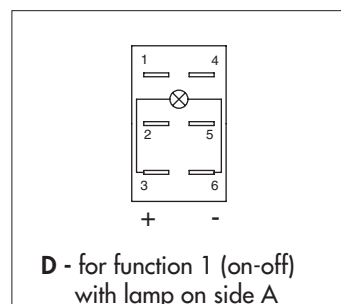
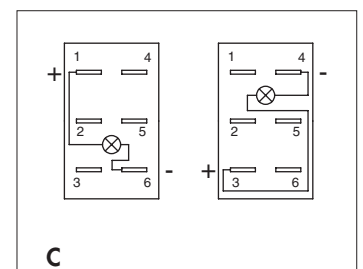
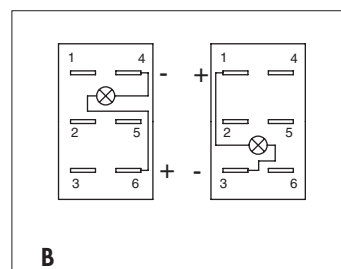
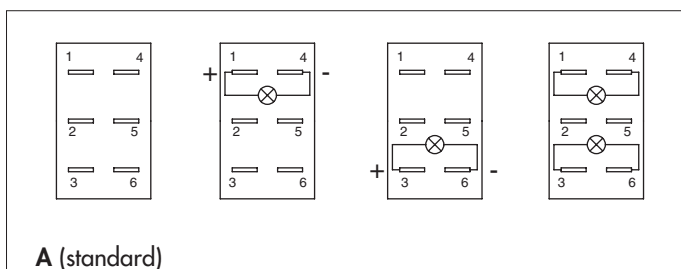
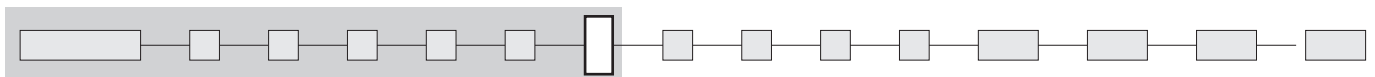
X	Without lamp
A	6V LED red
B	6V LED green
C	6V LED yellow
D	12V LED red
E	12V LED green
F	12V LED yellow
G	18V LED red
H	18V LED green
I	18V LED yellow

J	24V LED red
K	24V LED green
L	24V LED yellow
M	Neon 125V
N	Neon 250V
O	Filament 6V
P	Filament 12V
R	Filament 24V
S	Fluorescent 220V
T	Fluorescent 110V



LAMP WIRING

The lamp wiring diagram is shown on the case.



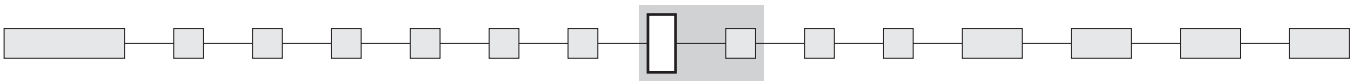
To order case only (without rocker), finish your order number with the lamp wiring code.

KG series

Power rocker switches

Rockers - lenses

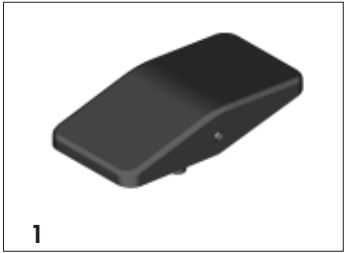
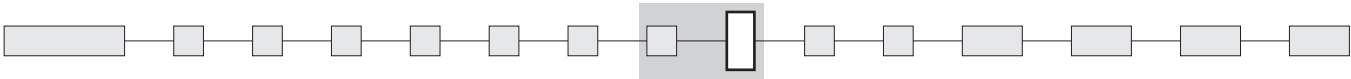
ROCKER COLOUR



1	Blue
1/4	Dark blue
2	Black
3	Green
4	Grey

5	Yellow
6	Red
7	Ivory
9	Orange

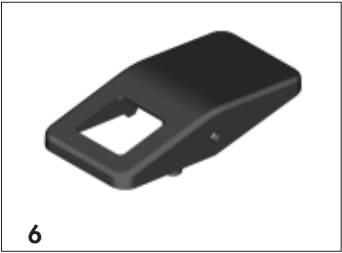
ROCKER SHAPE



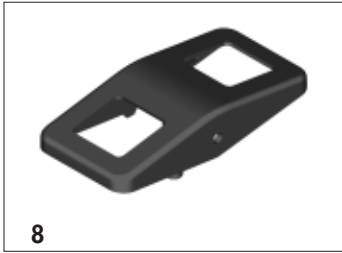
1
Full rocker



4
Opening on side A



6
Opening on side B

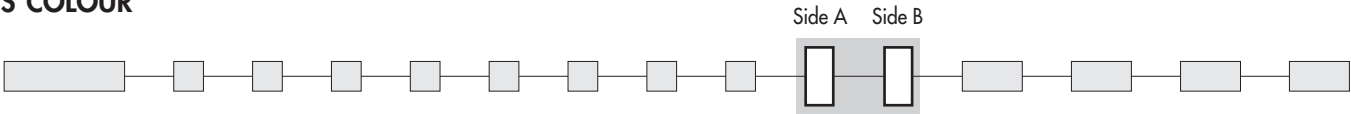


8
Opening on sides A and B

Other rocker shapes on customer specifications : on request.

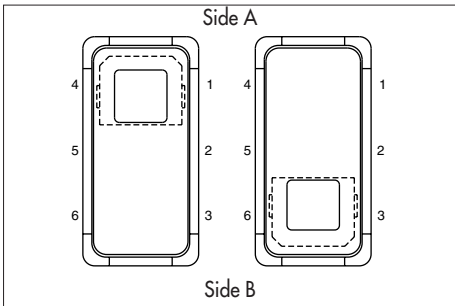
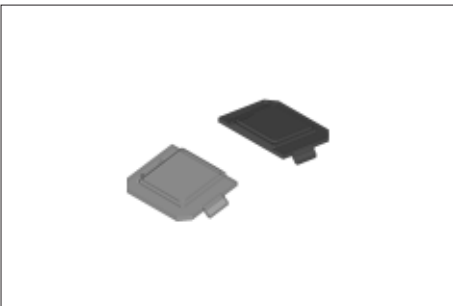
To order rocker only (without case), begin the order number with code KGR, then follow the order format from "rocker colour" until the end of the options.

LENS COLOUR



Complete each enlarged box with one of the codes listed below.

X	No lens
1	Blue *
3	Green *
6	Red
9	Orange
B	White
T	Translucent



* Blue or green lens recommended with fluorescent lamp.

To order lenses only, begin the order number with the codes :
KGLA for lens A and KGLB for lens B,
then follow the order format from "lens colour" until the end of the options.

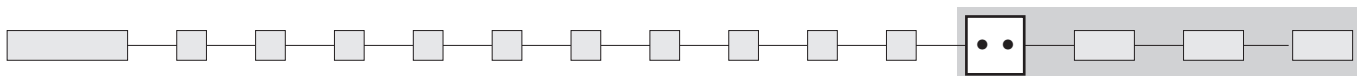
KG series

Power rocker switches

Marking

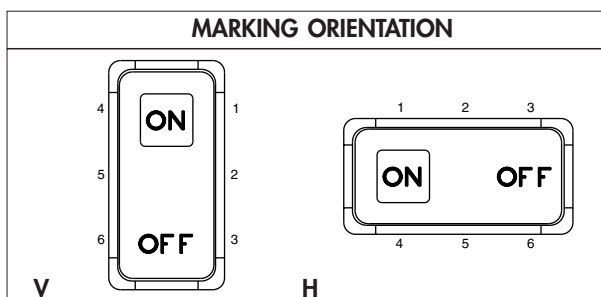
MARKING

If no marking required, leave all boxes blank.



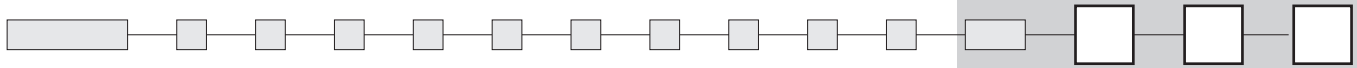
Select one option from each of the tables below.

MARKING METHOD	
L	Laser (on request)
C	Hot stamping



Other orientations :
on request

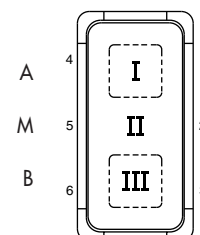
SYMBOLS



White marking for black rockers - Black marking for colour rockers - Other : on request.
Marking in M area : on request.

CODE	SYMBOL	DESCRIPTION
XX	None	-
01	ON	-
02	OFF	-
03	○	-
04		-
05		-
06	STOP	-
07	A	Stop
08	M	Motion
09	△	Up motion

CODE	SYMBOL	DESCRIPTION
10	▽	Down motion
11	☀	Hot
12	✱	Cold
13	⚠	Hazard lights
14	☀	Traveller lighting
15	☀	Driver lighting
16	☀	Revolving light
17	☀	Rear ventilator
18	☀	Heating
19	☀	Door opening



20	☀	Windshield demister/defroster
21	☀	Windshield wiper
22	☀	Windshield washer
23	☀	Ventilator
24	☀	Side mirror defroster
25	☀	Restarting pump
26	☀	Front fog lights
27	☀	Rear fog lights

2600 series

Illuminated and non-illuminated rocker switches

Distinctive features and specifications



- ☐ Three rocker shapes : plain, V-shaped or concave
- ☐ Various rocker colours
- ☐ Frame with protection guard on 2600LP models
- ☐ UL, CSA, VDE and NF (EN 61058-1) approved

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load and approved ratings : see table below.
- Initial contact resistance : 10mΩ max. at 1A 2VDC
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength : 2.500 Vrms 50 Hz min. between terminals
3.000 Vrms 50 Hz min. between terminals and metal panel
- Electrical life : 10.000 cycles at full load

FUNCTIONS	APPROVED RATINGS				DIRECT CURRENT	
	CSA	UL	VDE	NF	24 VDC	12 VDC
	CSA 22-2	UL 1054	EN 61058-1	EN 61058-1		
ON - OFF ON - ON	1/6 HP 125VAC 16A 125VAC 16A 250VAC 1/3 HP 250VAC	1/6 HP 125VAC 16A 125VAC 16A 250VAC 1/3 HP 250VAC	10(4)A 250VAC T 85/55	-	10A	15A
ON - OFF - ON	10A 125VAC 10A 250VAC 1/6 HP 125/250VAC	10A 125VAC 10A 250VAC 1/6 HP 125/250VAC	LI option 10(4)A 250VAC	LI option 10(4)A 250VAC	8A	10A
ON - ON - ON	-	-	-	-	5A	8A
OTHERS	10A 125VAC 10A 250VAC 1/6 HP 250VAC	-	LI option 10(4)A 250VAC	LI option 10(4)A 250VAC	8A	10A

MATERIALS

- Case : melamine/polyester
- Frame : polyamide
- Actuator : polyamide
- Contacts :
 - A : silver
 - C : copper, silver plated

GENERAL SPECIFICATIONS

- Panel thickness : 0,8 mm to 4 mm (.031 to .157)
- Operating temperature :
 - silver contacts (A) : -20°C to +125°C
 - silver plated contacts (C) : -10°C to +55°C

AGENCY APPROVALS



EN 61058-1 EN 61058-1

Availability : consult factory for details of approved models.

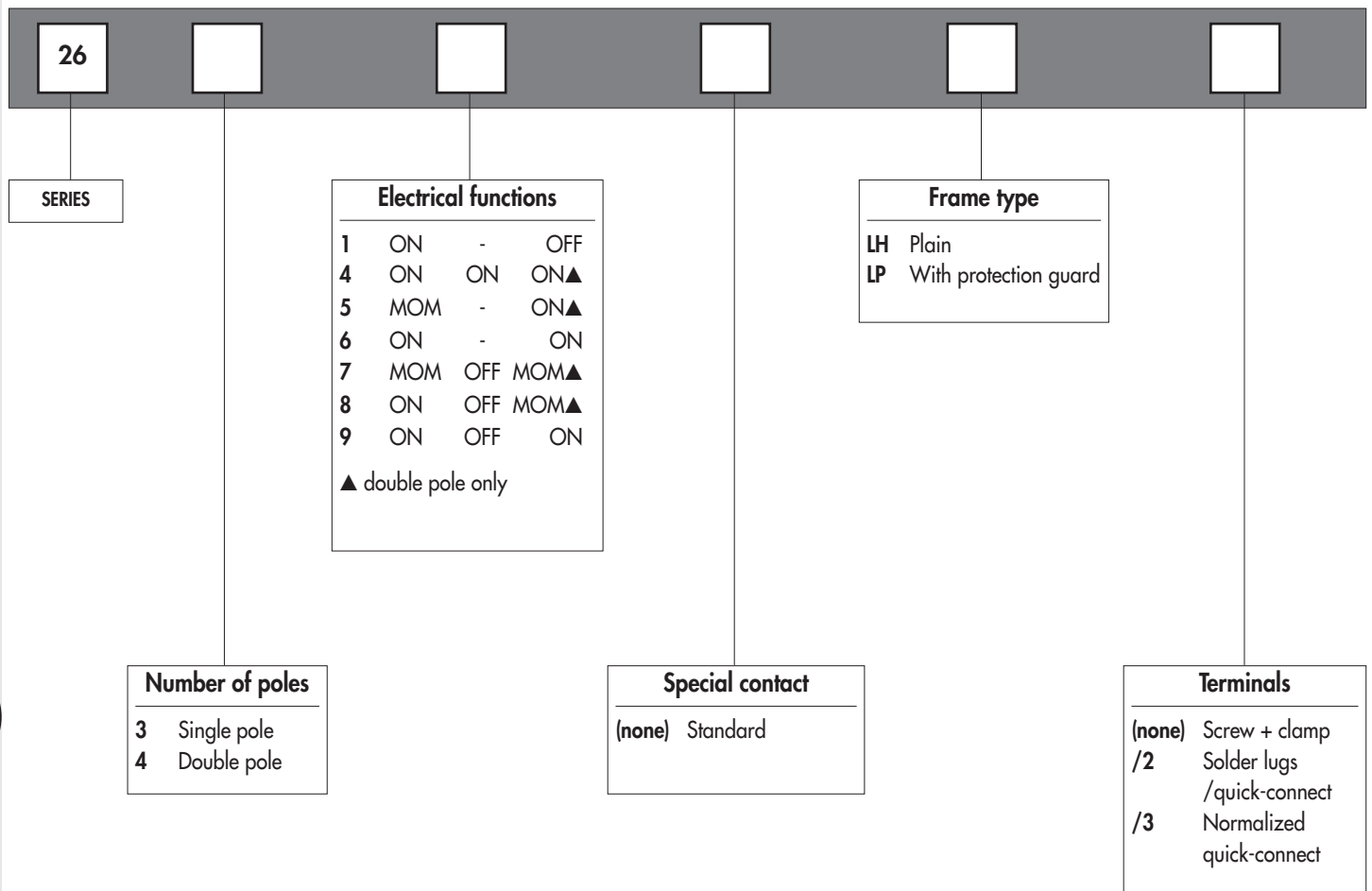
Marking : approved models are standard marked.

2600 series

Illuminated and non-illuminated rocker switches

Overview

MODEL
STRUCTURE



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 bracketed numbers.



Sealing boot U2150 available to protect the switches against dust and water. See section H.



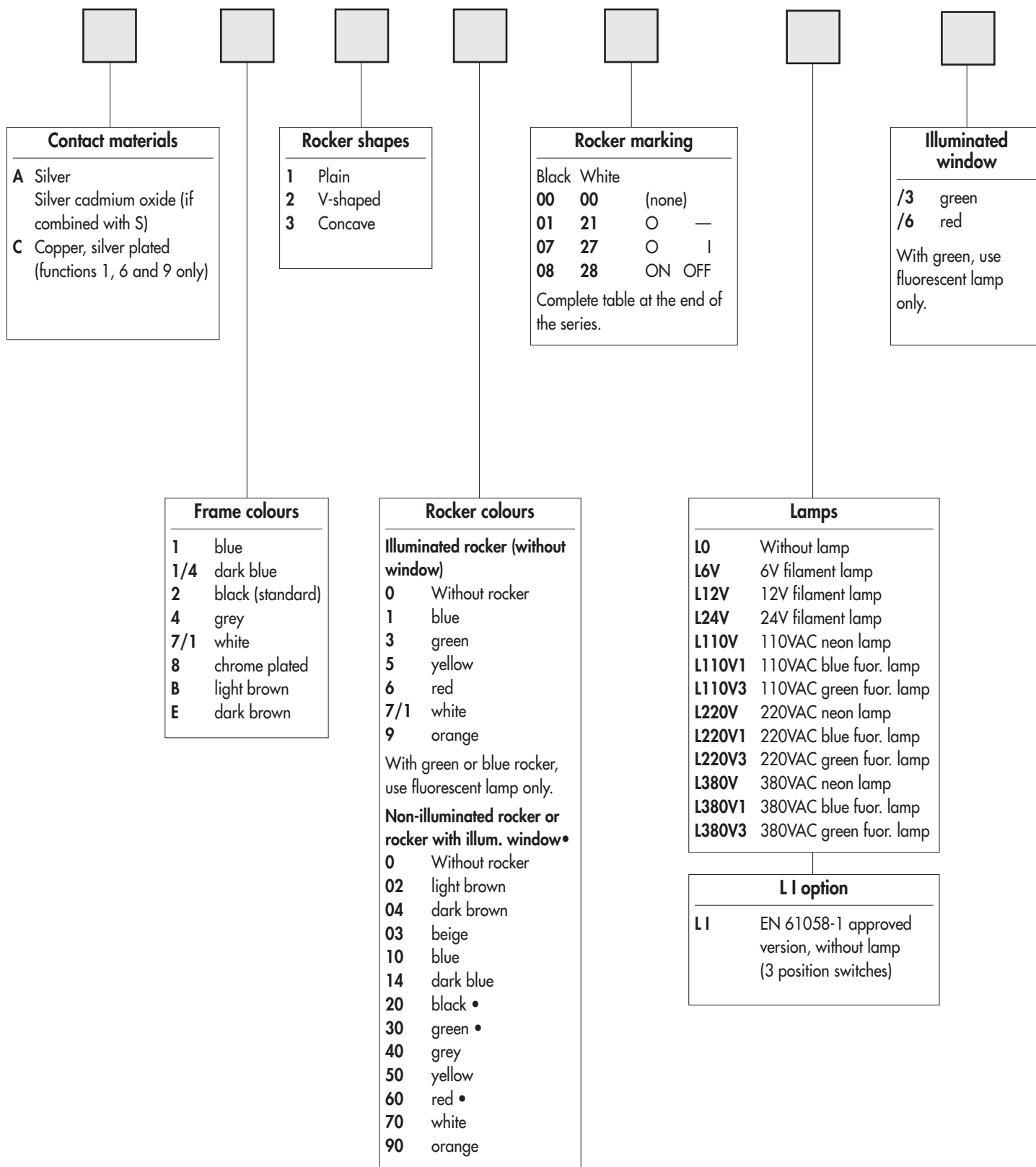
NOTICE : please note that not all combinations of above numbers are available.
Refer to the following pages for further information.



2600 series

Illuminated and non-illuminated rocker switches

Overview

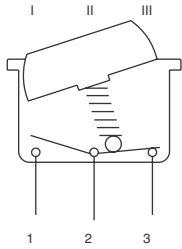


Packaging unit : 20 pieces per type and colour.

2600 series

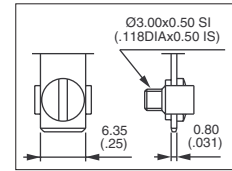
Illuminated and non-illuminated rocker switches

MODEL
STRUCTURE

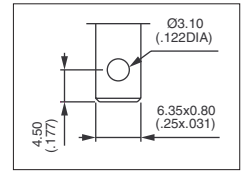


- Model 2600LP with protection guard
- 1 and 2 pole configurations

2640LH



2640LH/2



MODEL
STRUCTURE

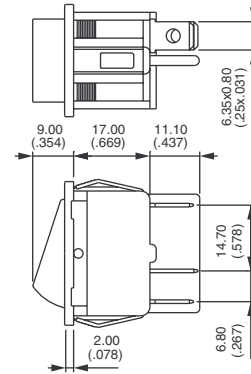
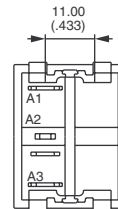


2600LH - single pole



Screw term. + clamp	Solder lug/ quick-connect
2631LH	2631LH/2
2636LH	2636LH/2
2639LH	2639LH/2

III	II	I
A2-A1	A2-A3	
B5-B4	B5-B6	
ON	-	OFF
ON	-	ON
ON	OFF	ON

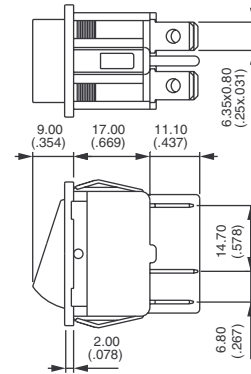
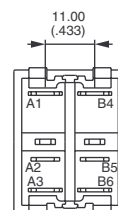


2600LH - double pole



Screw term. + clamp	Solder lug/ quick-connect
2641LH	2641LH/2
2644LH*	2644LH/2*
2645LH	2645LH/2
2646LH	2646LH/2
2647LH	2647LH/2
2648LH	2648LH/2
2649LH	2649LH/2

III	II	I
A2-A1	A2-A3	
B5-B4	B5-B6	
ON	-	OFF
ON	ON	ON
MOM	-	ON
ON	-	ON
MOM	OFF	MOM
ON	OFF	MOM
ON	OFF	ON



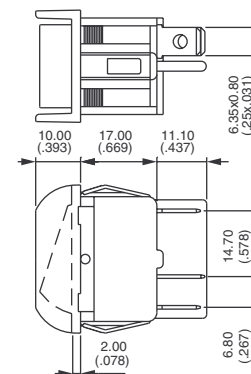
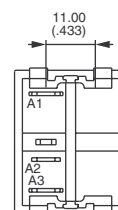
* Function 4 : SP in DP case, see end of catalogue.

2600LP - with protection guard - single pole



Screw term. + clamp	Solder lug/ quick-connect
2631LP	2631LP/2
2636LP	2636LP/2
2639LP	2639LP/2

III	II	I
A2-A1	A2-A3	
B5-B4	B5-B6	
ON	-	OFF
ON	-	ON
ON	OFF	ON





2600 series

Illuminated and non-illuminated rocker switches

2600LP - with protection guard - double pole

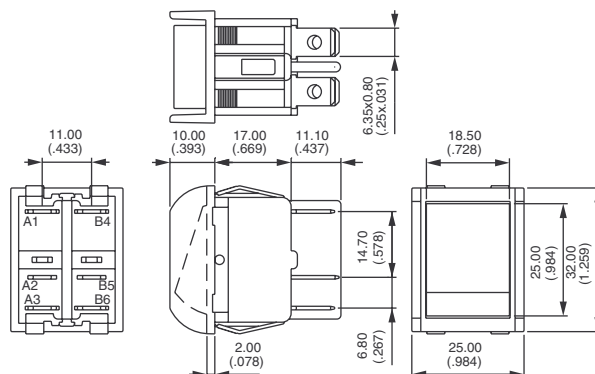


Screw term. + clamp

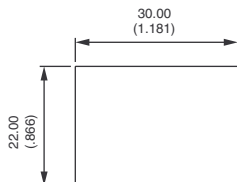
Solder lug/ quick-connect

		III	II	I
2641LP	2641LP/2	A2-A1	A2-A3	
2644LP*	2644LP/2*	B5-B4	B5-B6	
2645LP	2645LP/2	ON	-	OFF
2646LP	2646LP/2	ON	ON	ON
2647LP	2647LP/2	MOM	-	ON
2648LP	2648LP/2	ON	-	ON
2649LP	2649LP/2	ON	-	ON
		ON	OFF	MOM
		ON	OFF	MOM
		ON	OFF	ON

* Function 4 : SP in DP case, see end of catalogue.



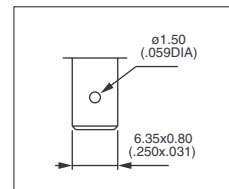
PANEL CUT-OUT



TERMINAL OPTION

Specify after LH or LP.

/3 Normalized quick-connect terminals 6,35 x 0,8 (.250 x .031)

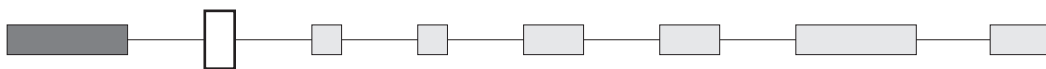


2600 series

Illuminated and non-illuminated rocker switches

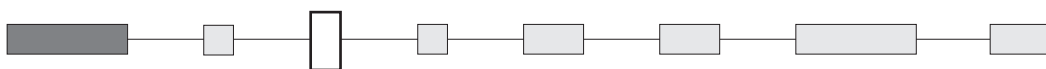
OPTIONS
● ● ●

CONTACT MATERIALS



- A** Silver
C Copper, silver plated (available with functions 1, 6 and 9 only)

FRAME COLOURS

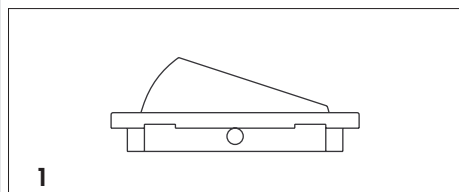
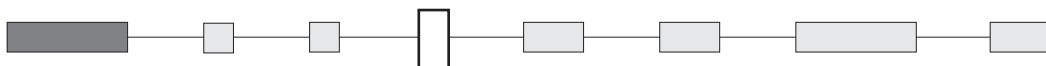


- 1** Blue
1/4 Dark blue
2 Black (standard)
4 Grey
7/1 White
8 Chrome plated
B Light brown
E Dark brown



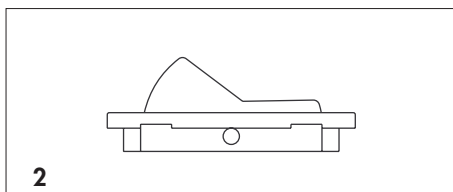
This option has UL approval only.

ROCKER SHAPES



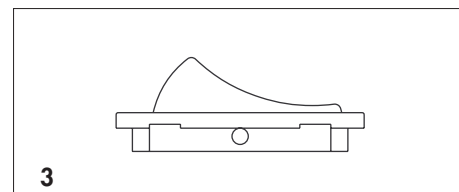
1

Plain



2

V-shaped



3

Concave



2600 series

Illuminated and non-illuminated rocker switches

ROCKER COLOURS



For illuminated switches

	Without rocker	Blue*	Green*	Yellow	Red	White	Orange
Plain rocker P/N	-	U881	U883	U885	U886	U887	U889
V-shaped rocker P/N	-	U861	U863	U865	U866	U867	U869
Concave rocker P/N	-	U871	U873	U875	U876	U877	U879
Colour code	0	1	3	5	6	7/1	9

* With green or blue rocker, use fluorescent lamp only.

For non-illuminated switches or switches with illuminated window (•)

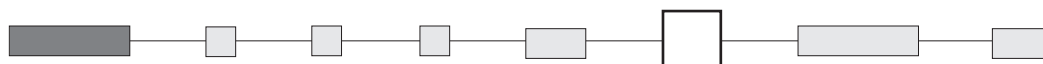
	Without rocker	Light brown	Dark brown	Beige	Blue	Dark blue	Black	Green	Grey	Yellow	Red	White	Orange
Plain rocker P/N	-	U1250B	U1250BF	U1250	U1251	U1251/4	U1252	U1253	U1254	U1255	U1256	U1257	U1259
V-shaped rocker P/N	-	U1270B	U1270BF	U1270	U1271	U1271/4	U1272	U1273	U1274	U1275	U1276	U1277	U1279
Concave rocker P/N	-	U1260B	U1260BF	U1260	U1261	U1261/4	U1262	U1263	U1264	U1265	U1266	U1267	U1269
Colour code	0	02	04	03	10	14	20•	30•	40	50	60•	70	90

Complete box with one of above colour codes.

To order rockers separately, use their P/N (U....) and complete box with code 0.

Rockers with illuminated windows (codes 20, 30, 60) : part numbers on request.

ROCKER MARKING



MARKING		4 1	4 1	4 1	4 1	4 1	4 1	3 6	4 1	4 1	4 1	4 1
COLOUR	-	6 3	6 3	6 3	6 3	6 3	6 3	1 4	6 3	6 3	6 3	6 3
Black	00	01	02	06	07	08	03	04	05*	40	43*	46
Red	00	11	12	16	17	18	13	14	15*	41	44*	47
White	00	21	22	26	27	28	23	24	25*	42	45*	48

* Not available on V-shaped rockers

Special markings and marking on rockers with illuminated window : consult factory.