

4600 and 4400 series

Toggle switches

Distinctive features and specifications



- High current/voltage rating in a small case
- Butt action contacts
- Insulated or metal lever
- UL, CSA and VDE (EN 61058-1) approved

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - silver contacts (A) : 4A 250VAC - 6A 125VAC
 - silver plated copper contacts (C) : 2A 250VAC - 3A 125VAC
- Approved electrical ratings : see table below
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1.000 MΩ min. at 500VDC
- Dielectric strength :
 - 2.000 Vrms 50 Hz min. between terminals
 - 2.500 Vrms 50 Hz min. between poles and between terminals and frame
- Electrical life : 10.000 cycles at full load

Model for peak currents

Model 4600S with silver cadmium oxide contacts is **discontinued**. It will be replaced by a switch with silver tin oxide contacts.

APPROVALS	MODELS	POLES	FUNCTIONS	APPROVED RATINGS
UL/CSA	4600A	1-2	1-6-9	3A 250VAC - 6A 125VAC
VDE (EN 61058-1)	4400A	1-2	1-6	4(2)A 250VAC
	4600A	1-2-3	1-6	4(2)A 250VAC

MATERIALS

- Case : melamine phenolic
- Actuator :
 - insulated : polyamide ,6-6
 - non-insulated : brass, nickel plated
- Bushing :
 - insulated : polyamide 6-6
 - non-insulated : brass, nickel plated
- Contacts :
 - A : silver
 - C : copper, silver plated

GENERAL SPECIFICATIONS

- Torque : 0,95 Nm (.70 Ft.lb) max. applied to nut
- Panel thickness : 5 mm (.196) between 2 nuts
- Operating temperature : -20°C to +55°C
- Hand soldering : 270°C max. for 10 seconds max. - iron Ø3 (.118)

AGENCY APPROVALS



EN 61058-1

Availability : see above chart.

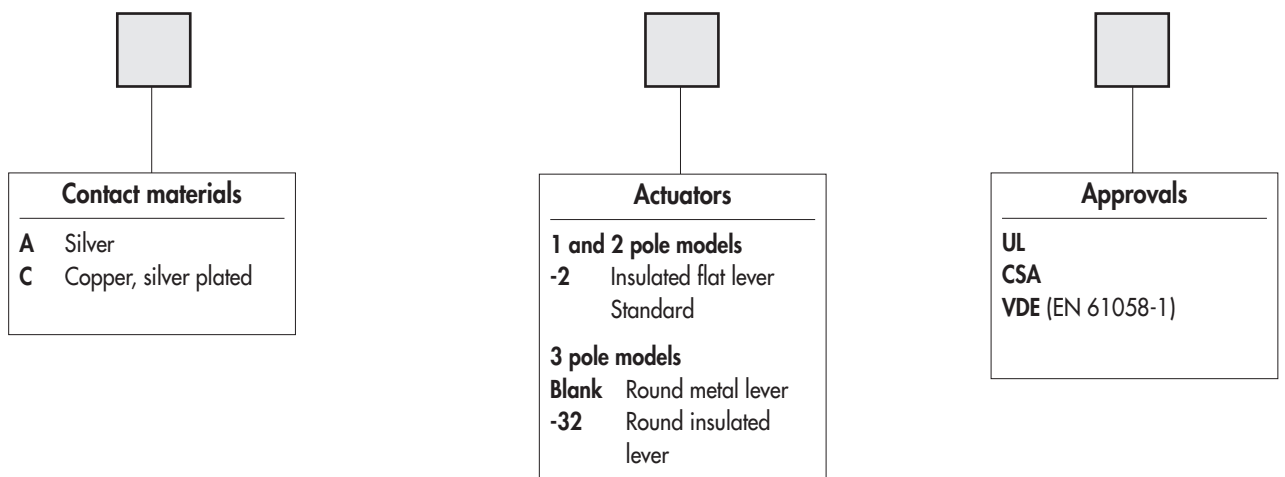
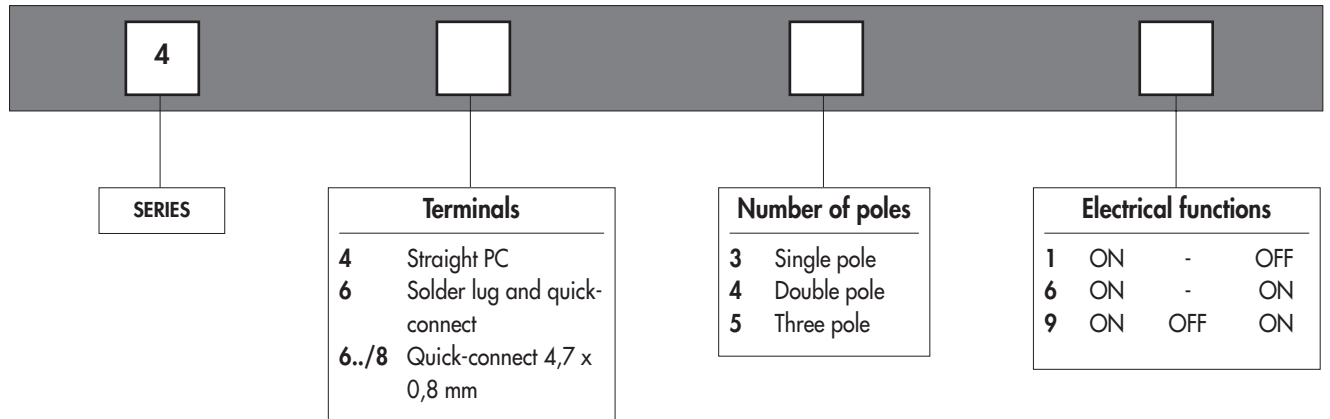
Marking : VDE approved models are standard marked.

To order switches marked UL-CSA, complete appropriate box of ordering format.

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Overview



ABOUT THIS SERIES

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.



Sealing boots are available on 3 pole models to protect the switches against dust and water. They are presented in section H.



Mounting accessories : standard hardware supplied with all models : 1 hex nut U166 and 1 knurled nut U520 in the same colour as the lever (insulated models) or U411 nickel plated (metal lever models). Standard and special hardware available are presented in section I.



Packaging unit : 20 pieces.

4600 and 4400 series

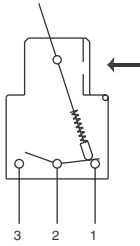
Toggle switches

Insulated flat lever

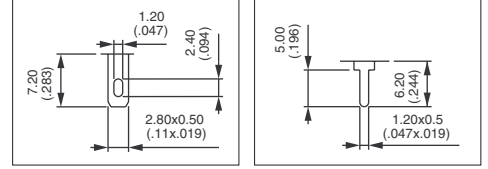
MODEL
STRUCTURE



→ Keyway



- Solder lug/quick-connect terminals 2,8 x 0,5 (.110 x .019)
- Straight PC terminals or quick-connect terminals 4,7 x 0,8 (.185 x .031)
- 2 and 3 maintained positions
- 1 and 2 pole configurations



MODEL
STRUCTURE



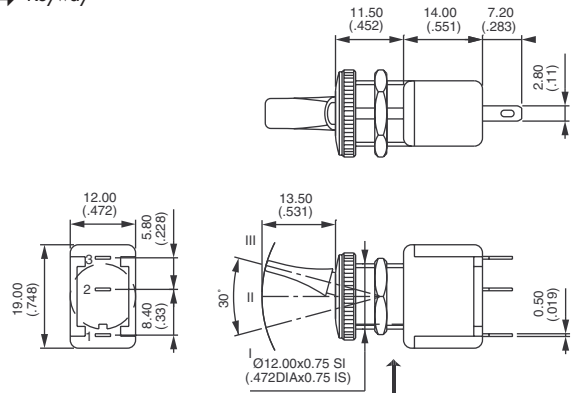
Solder lug/quick-connect terminals - single pole

→ Keyway



4631-2
4636-2
4639-2

	III	II	I
4631-2	ON	-	OFF
4636-2	ON	-	ON
4639-2	ON	OFF	ON



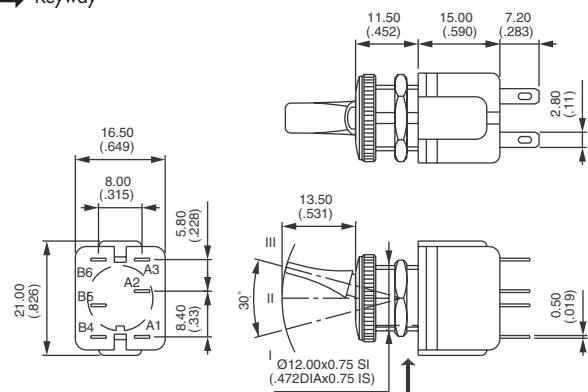
Solder lug/quick-connect terminals - double pole

→ Keyway



4641-2
4646-2
4649-2

	III	II	I
4641-2	ON	-	OFF
4646-2	ON	-	ON
4649-2	ON	OFF	ON



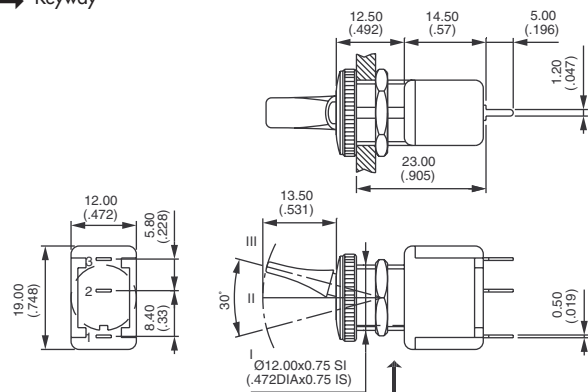
Straight PC terminals - single pole

→ Keyway



4431-2
4436-2
4439-2

	III	II	I
4431-2	ON	-	OFF
4436-2	ON	-	ON
4439-2	ON	OFF	ON





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Toggle switches

Insulated flat lever

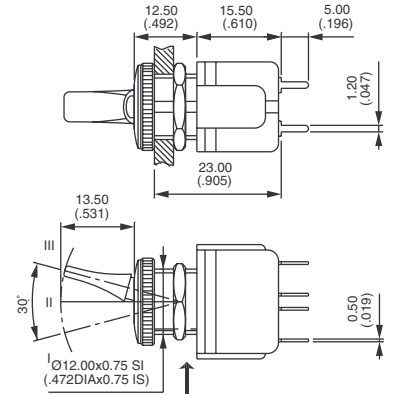
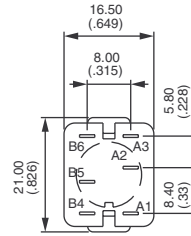
Straight PC terminals - double pole

→ Keyway



4441-2
4446-2
4449-2

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



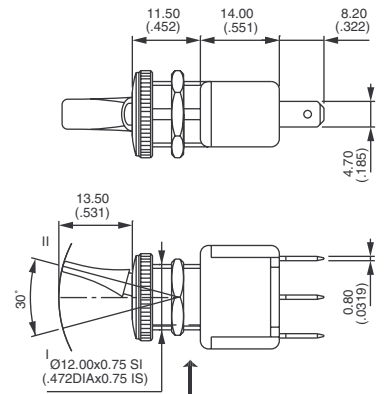
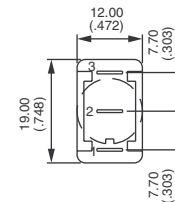
Quick-connect terminals 4,7 x 0,8 (.185 x .031) - single pole

→ Keyway

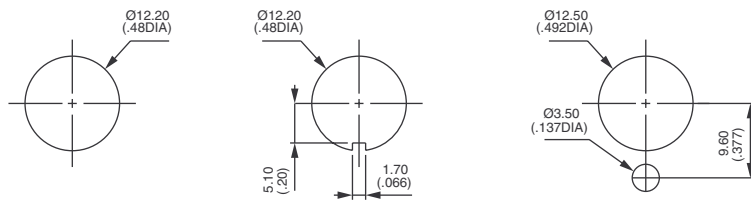


4631/8-2
4636/8-2

I	II	
ON	-	OFF
ON	-	ON



PANEL CUT-OUT



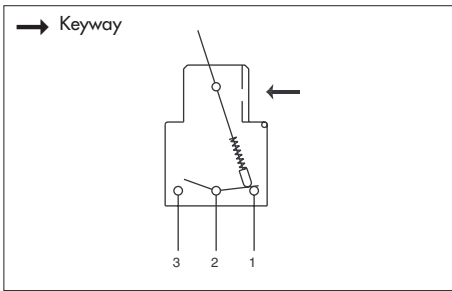
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Toggle switches

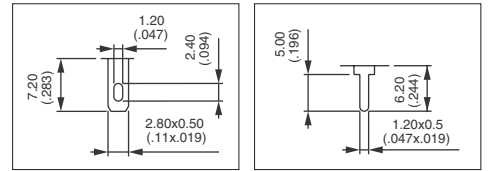
Round lever - three pole



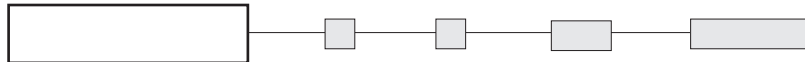
A



- Solder lug or straight PC terminals
- 2 and 3 maintained positions



MODEL STRUCTURE



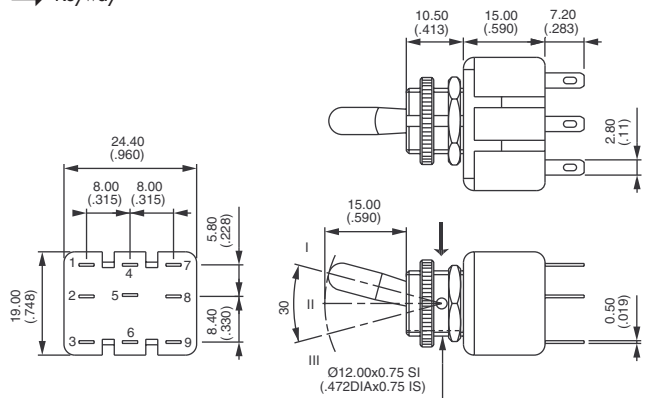
Solder lug terminals - metal lever

→ Keyway



4651
4656
4659

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



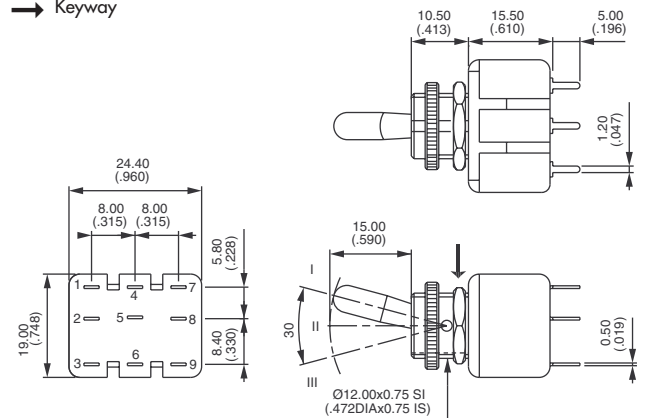
Straight PC terminals - metal lever

→ Keyway



4451
4456
4459

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



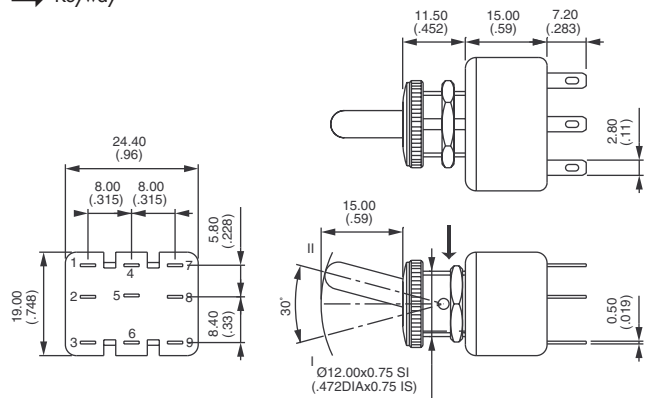
Solder lug terminals - insulated lever - silver contacts

→ Keyway



4651A-32
4656A-32

I	II	
ON	-	OFF
ON	-	ON

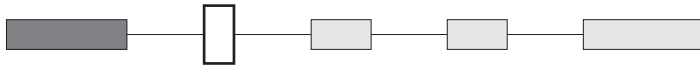




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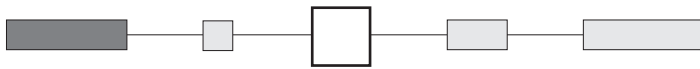
Toggle switches

CONTACT MATERIALS



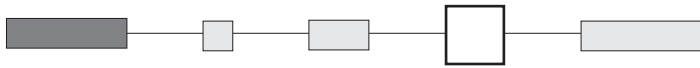
- A Silver
- C Copper, silver plated

ACTUATORS



- Blank Round, metal lever for 3 pole only
- 2 Insulated flat lever for single and double pole only
- 3 Insulated round lever for 3 pole VDE approved only

ACTUATOR COLOURS

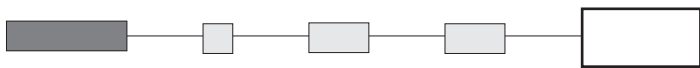


- 1 Blue
- 2 Black (standard)
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White
- 9 Orange



Black : standard colour - reduced delivery time
 Minimum order of 500 pieces for non-standard colours.

APPROVALS



UU (UL-CSA) Single and double pole only

Availability : see specifications for details of approved models.

Marking : to order switches marked UL-CSA, complete above box with 'UU'.
 Other approvals available as standard, see specifications.