



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



KG series

Power rocker switches



DISTINCTIVE FEATURES

Protected rocker

Illuminated or non-illuminated

VDE (EN 61058-1) approved

Sealed to IP65



ENVIRONMENTAL SPECIFICATIONS

- Degree of protection : IP65 according to IEC 60529
- 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
- Operating temperature :
 - 2 position models : -40 °C to + 85 °C (-40 °F to +185 °F)
 - 3 position models : -10 °C to + 65 °C (-14 °F to +149 °F)



ELECTRICAL AND GENERAL SPECIFICATIONS

- Current/voltage rating :
 - functions 1 (ON-OFF) and 6 (ON-ON) : 15 A 12 VDC, 10 A 24 VDC max., 10 mA 14 VDC min.
 - functions 4 (ON ON ON) and 4-1R (ON ON MOM) : 8 A 12 VDC, 5A 24VDC max.
 - other functions : 10 A 12 VDC, 8 A 24 VDC max.
- Initial contact resistance : 10 mΩ max. at 1 A 2 VDC
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- 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.
- Panel cut-out : 36.80 x 21.08 mm (1.149 x .830)
- Panel thickness : 0.8 mm to 4.6 mm
- Recommended thickness : between 2 mm and 3.5 mm

The company reserves the right to change specifications without notice.



KG series

Power rocker switches

AGENCY APPROVAL



12(4) A 250 VAC
T85/55 °C

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..

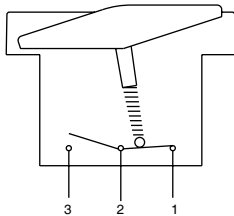


MATERIALS

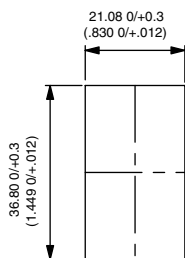
- Case : thermoplastic UL94-V0
- Terminals : brass, silver plated
- Contacts : silver grain
- Contact roller : brass, nickel plated



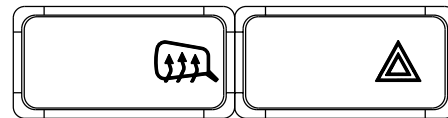
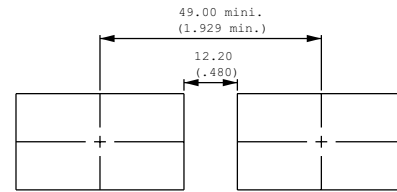
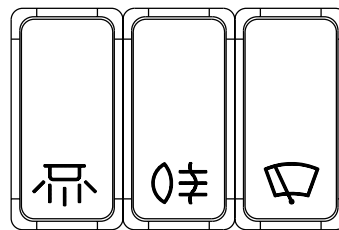
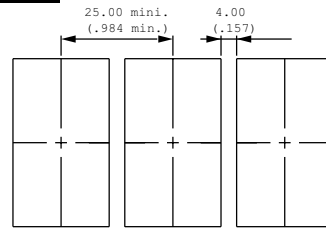
ELECTRICAL FUNCTIONS



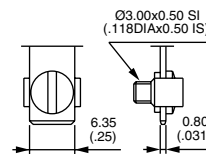
PANEL CUT-OUT



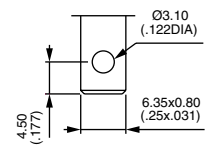
MATRIX MOUNTING



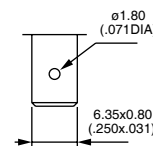
TERMINALS



Screw



Solder lug / quick-connect



Normalized quick-connect 6.35x0.8



BUILD YOUR PART NUMBER

CASE + LAMPS

KG [] [] [] [] [] [] [] [] [] []

SERIES

POLES

3 Single pole
4 Double pole

ELECTRICAL FUNCTIONS

1	ON	-	OFF
4	ON	ON	ON
4-1R	ON	ON	MOM
5	MOM	-	ON
6	ON	-	ON
7	MOM	OFF	MOM
8	ON	OFF	MOM
9	ON	OFF	ON

TERMINALS

0 Screw
2 Solder lug / quick-connect
3 Normalized quick-connect

LAMPS

LED 6 V, 12 V, 18 V
Neon 125 V or 250 V
Filament 6 V, 12 V, 24 V
Fluorescent 220 V or 110 V
Codes, see website.

BEZEL

2 Black, sealed to IP65

LAMP WIRING

See following pages.

CONTACTS

A Silver grain

ACTUATOR

[] [] [] [] [] [] [] [] [] []

ROCKER COLOR

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

ROCKER SHAPE

Full rocker, opening on one side or on two sides : see following pages.

LENS COLOR

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

*Blue or green lens recommended with fluorescent lamp.

Actuator marking and symbols : see end of the series.



ABOUT THIS SERIES

- Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.
- Sealing boot** are available to protect the switches against dust and water. See "Sealing Boots" section of website.

KG series

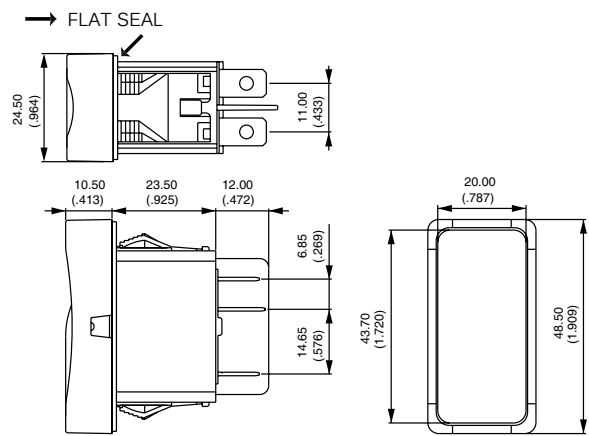
Power rocker switches

SOLDER LUG / QUICK-CONNECT TERMINALS

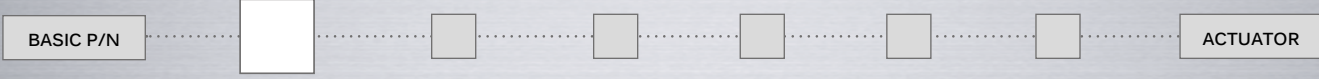


		2-3 5-6		1-2 4-5
Single pole	Double pole			
KG31	KG41	ON	-	OFF
	KG44*	ON	ON	ON
	KG44-1R*	ON	ON	MOM
KG35	KG45	MOM	-	ON
KG36	KG46	ON	-	ON
KG37	KG47	MOM	OFF	MOM
KG38	KG48	ON	OFF	MOM
KG39	KG49	ON	OFF	ON

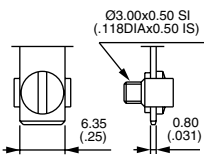
* Function 4 : single pole in double pole case



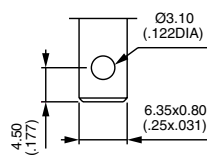
CASE + LAMPS



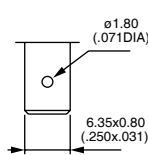
- 0 Screw
- 2 Solder lug / quick-connect
- 3 Normalized quick-connect



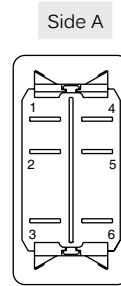
0



2



3

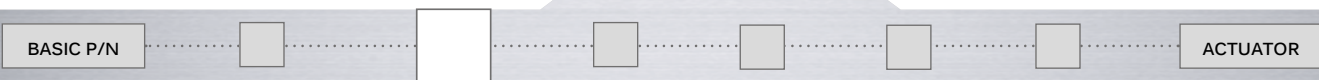


Side A

Side B

Terminals 1 to 6 are marked on the case.
Side A : terminals 1 and 4
Side B : terminals 3 and 6

CASE + LAMPS



- A Silver grain

CASE + LAMPS



- 2 Black, sealed to IP65

KG series

Power rocker switches

CASE + LAMPS

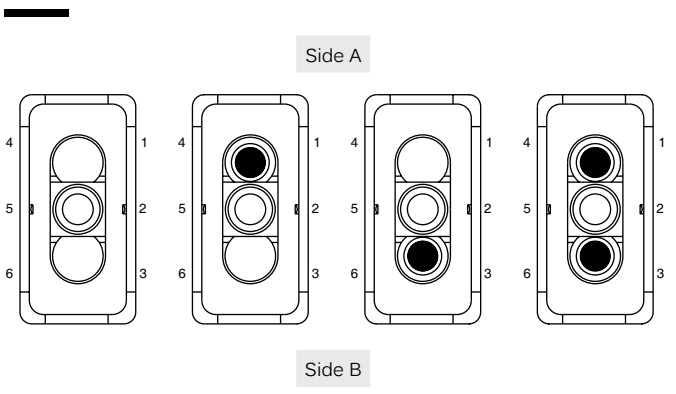
LAMPS



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

- X Without LED
- M Neon 125 V
- N Neon 250 V
- O Filament 6 V
- P Filament 12 V
- R Filament 24 V
- S Fluorescent 220 V
- T Fluorescent 110 V

	Red	Green	Yellow	Blue	White
6 VDC	A	B	C	1	W
12 VDC	D	E	F	Z	V
18 VDC	G	H	I	-	-
24 VDC	J	K	L	Y	U



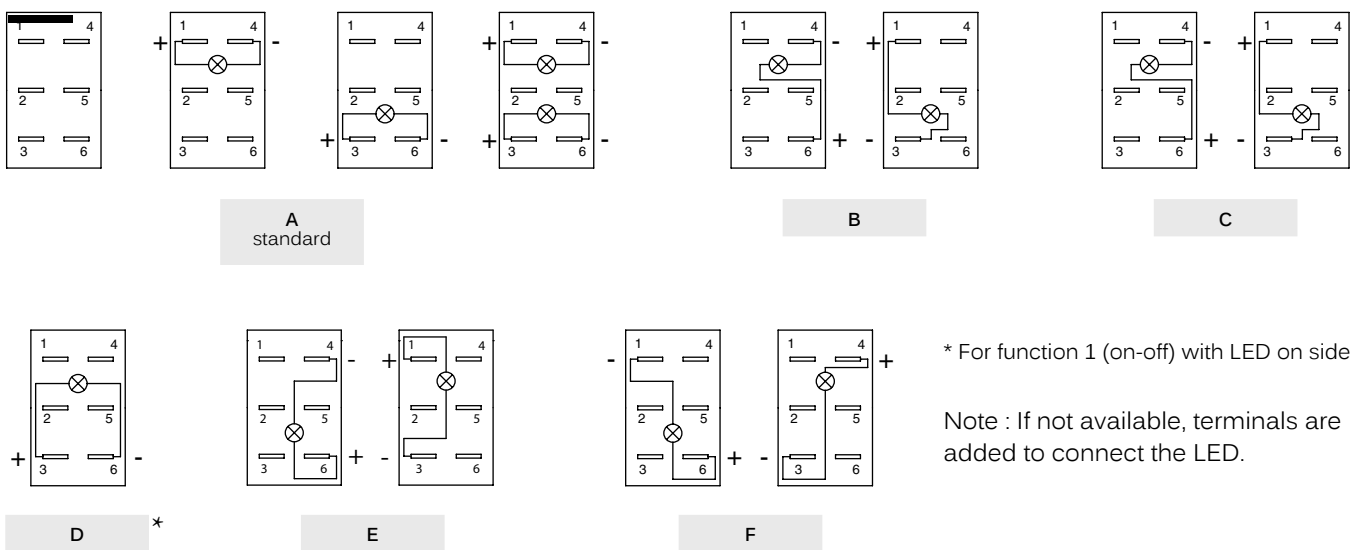
CASE + LAMPS

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.



* For function 1 (on-off) with LED on side A

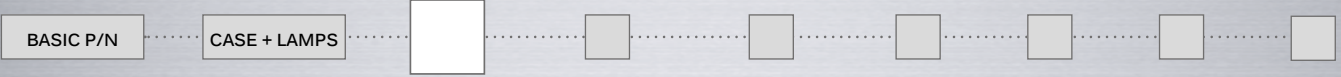
Note : If not available, terminals are added to connect the LED.

KG series

Power rocker switches

ACTUATOR

ROCKER COLOR



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

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

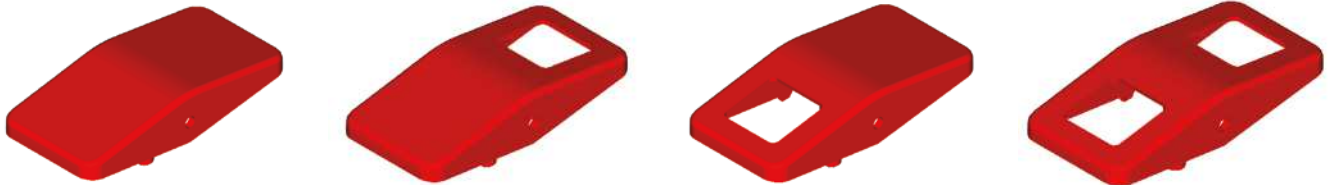
ACTUATOR

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.



1

4

6

8

ACTUATOR

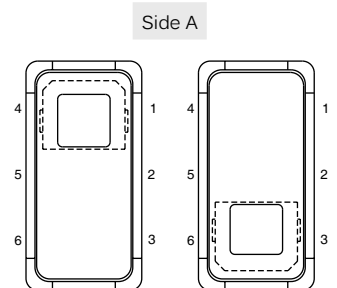
LENS COLOR



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 color" until the end of the options.

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 |



Side A

Side B

* Blue or green lens recommended with fluorescent lamp.

KG series

Power rocker switches

ACTUATOR

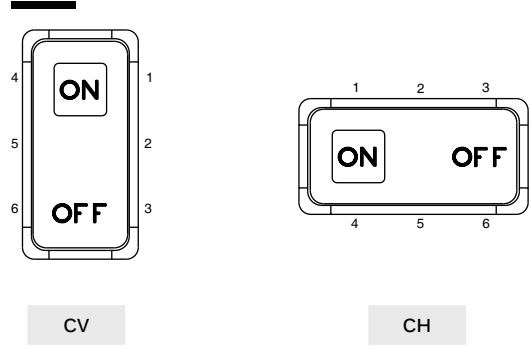
MARKING



If no marking required, leave box blank.

Marking by hot stamping

Other orientations : on request



ACTUATOR

SYMBOLS



XX No symbol

Available symbols

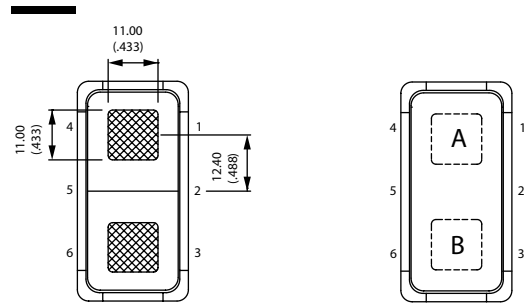
Complete each enlarged box with the one of the codes listed on the following pages.

Marking color

White marking for black rockers - Black marking for color rockers

Marking area

For illuminated versions. The symbol will be included in the hatched area.



K range

Power rocker switches and indicators • symbols and accessories

Most symbols meet the ISO 7000 standard “graphical symbols for use on equipment” (code given in bracket in the description).
Contact us for symbols not featured in the following tables.



CODE	SYMBOL	DESCRIPTION
XX	None	-
01	ON	-
02	OFF	-
03	○	-
04	I	-
05	II	-
06	STOP	-
07	A	Stop
08	M	Motion
09	▲	Up motion
10	▼	Down motion
11	☀	Hot
12	✖	Cold
13	⚠	Hazard warning (0085)
14	☀	Traveller lighting
15	☀	Driver lighting (1421)

CODE	SYMBOL	DESCRIPTION
16	☀	Revolving light
17	☐	Rear ventilator
18	☀	Heating (0637)
19	☐	Door opening
20	☀	Windshield demister/ defroster (0635)
21	☀	Windshield wiper (0086)
22	☀	Windshield washer (0088)
23	☀	Ventilator fan (0089)
24	☀	Side mirror defroster
25	⚙	Restarting pump
26	☀	Front fog lights (0633)
27	☀	Rear fog lights (0634)
28	☀	Propulsion system trim
29	☀	Beacon (1141)
30	⚓	Anchor
31	🔌	Electric motor (0011)

CODE	SYMBOL	DESCRIPTION
32	🚑	Emergency first aid vehicle (2565)
33	🚛	Load tipping (1557)
34	🚛	Loading light (2457)
35	🚜	Tractor, rear-ward (1667)
36	🚛	Combine, direction of movement (1678)
37	🚛	Use no forks (2406)
38	⚙	Transmission (1166)
39	☀	Working spot light (1145)
40	🚗	Engine (0640)
41	📢	Horn (0244)
42	🔒	Lock (1656)
43	TAXI	Taxi sign light (2551)
44	☀	Working light (1204)
45	☀	Working light symmetric (1204)
46	🔌	-
47	ASM	-

The company reserves the right to change specifications without notice.

K range

Power rocker switches and indicators • symbols and accessories

CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION
48		All wheel drive	69		Engine idle control	90		ECAS reset
49		Differential lock (1662)	70		Cruise res/set	91		Driver windows heating
50		-	71		Driver windows up/down	92		Cruise set
51		-	72		Middle door opening	93		Air bag up/down
52		-	73		Front door opening	94		Read lighting
53		-	74		Lighting in baggage room	95		Lighting main switch
54		Rear window wiper (0097)	75		Cruise on/off	96		Heating using water
55		Rear window washer (0099)	76		TV	97		Low beam
56		Lower load (2223)	77		Pump	98		Position lights
57		Cab lock (1560)	78		Toilet	99		Diesel acceleration
58		Extraction	79		Toilet decontamination	A1		Manual mode
59		Pumping in	80		Front windshield heating	A2		Clockwise cabin rotation
60		Rear PTO (1572)	81		Aus	A3		Anticlockwise cabin rotation
61		Front PTO	82		Radiator fan	A4		-
62		Rockshaft down	83		Remove retarder	A5		-
63		Rockshaft up	84		Restricted speed	A6		Parking brake
64		Indicator	85		Preheater	A7		-
65		Brake release	86		ABS detection	A8		-
66		Baggage room left door	87		ECAS detection	A9		-
67		Baggage room right door	88		Engine stop	AA		-
68		Power blinds	89		Cruise res/cancel	AB		-

K range

Power rocker switches and indicators • symbols and accessories

CODE	SYMBOL	DESCRIPTION
AC		-
AD		-
AE		-
AF		-
AG		Battery charging condition (0247)
AH		Turn signals (0084)
AJ		High beam (0082)
AK		Differential lock, bogie (2600)
AL		Brushing with a rotating brush (0070)
AM		Differential lock, transfer case 4x4 (2475)
AN		Loader bucket, float (1441)
AP		Loader bucket (1437)
AQ		Rear window washer & wiper (0098)
AR		Header, Header drive (1579)
AS		Excavator/backhoe boom side shift (2091)
AT		Chemical water treatment (1851)
AU		Grapple skidder, single funct° boom (1762)

CODE	SYMBOL	DESCRIPTION
AV		-
AW		-
AY		-
AZ		-
B1	HIGH	-
B2	LOW	-
B3		-

Legend scale

Depending on space available on the product (see "Symbols" section at the end of each series).

K range

Power rocker switches and indicators • symbols and accessories

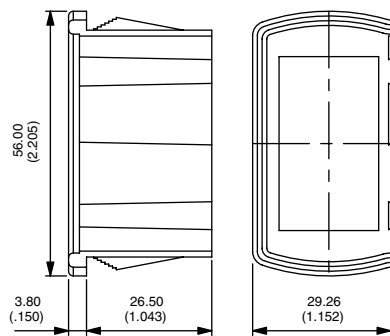
MOUNTING PANELS

(NOT AVAILABLE FOR USE WITH THE KH SERIES)

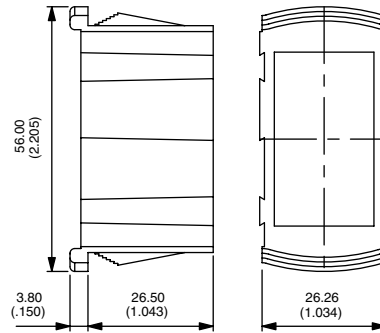
MOUNTING PANEL END

MOUNTING PANEL MIDDLE

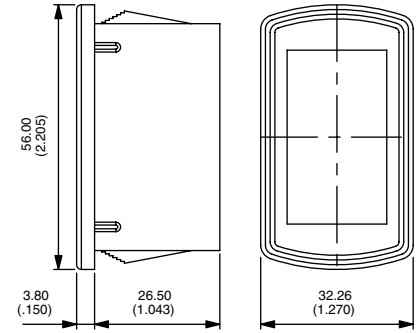
SINGLE MOUNTING PANEL



U2261



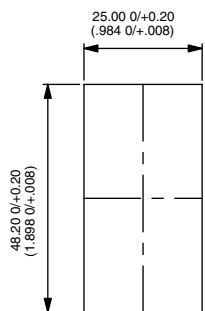
U2262



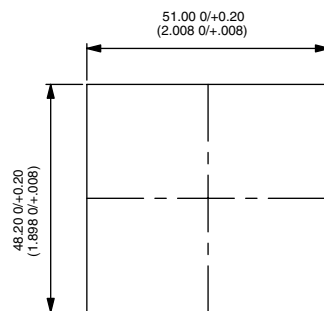
U2267

Recommended panel thickness : 1.10 mm - 1.80 mm - 2.60 mm - 3.40 mm - 4.20 mm - 5 mm - 5.80 mm

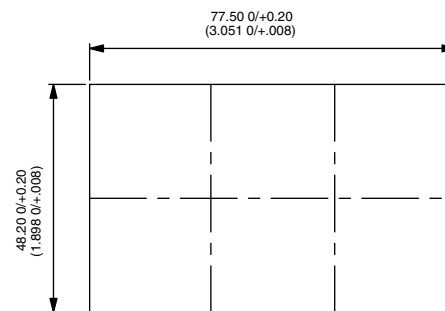
MOUNTING PANEL CUT-OUT



For 1 element U2267



For 2 elements U2261



For 3 elements (2xU2261 + 1x U2262)

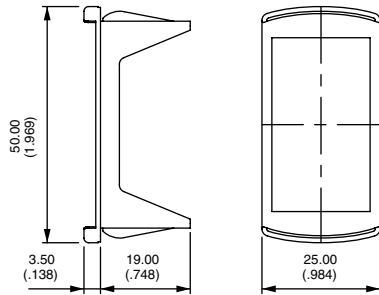
For additional elements, add 26.40 mm (1.039)

K range

Power rocker switches and indicators • symbols and accessories

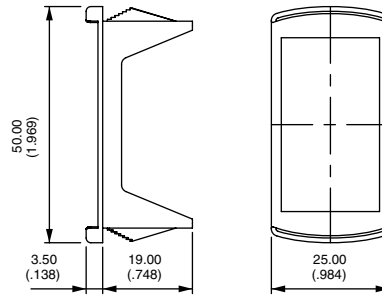
22 X 44 ADAPTERS

FRONT PANEL DISMOUNTING



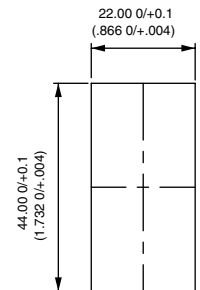
U3060

REAR PANEL DISMOUNTING



U3070

PANEL CUT-OUT



Recommended panel thickness

U3060 0.60 mm to 1.50 mm

U3070 1.60 mm -0.1/0 to 5.60 mm -0.1/0 in stages of 0.40 mm

Adapter colors (replace 0 with code)

- 1/4 Dark blue
- 2 Black
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White

ACTUATOR REMOVING TOOL

(NOT SUITABLE FOR USE WITH KH1 MODELS - 4-SIDE PROTECTION GUARDS)

Extract actuator (KR only)

Allows the extraction of the rocker / rocker support assembly. Place the 2 claws under the support and push as indicated by the arrow.

Extract rocker (KR only)

Allows to separate the rocker from its support. Insert the tool between rocker and support as indicated by the arrow. Pull out the tool in the opposite direction.

Extract switch (KR, KL and KI)

Allows to extract switch from panel mounting units. 2 Tools are necessary. Insert the tools between switch and panel mounting units from the rear to compress the snap-in device. Pull off switch manually.



U3052

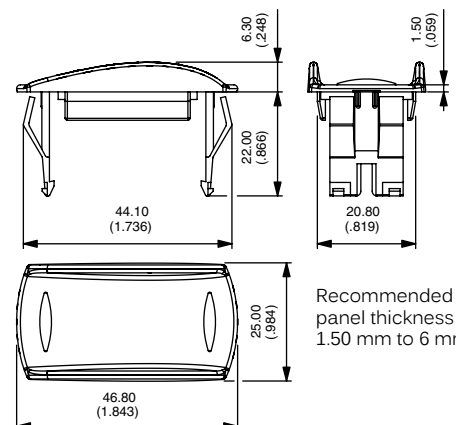
2 tools are supplied

BLANKING CAPS

Usefull for future extensions.

Connectors can be hanged on specific hole plugs. Contact APEM.

- | | | | |
|---------|-----------|-------|--------|
| U2271 | Blue | U2275 | Yellow |
| U2271/4 | Dark blue | U2276 | Red |
| U2272 | Black | U2277 | Ivory |
| U2273 | Green | U2279 | Orange |
| U2274 | Grey | | |



K range

Power rocker switches and indicators • symbols and accessories

CONNECTORS

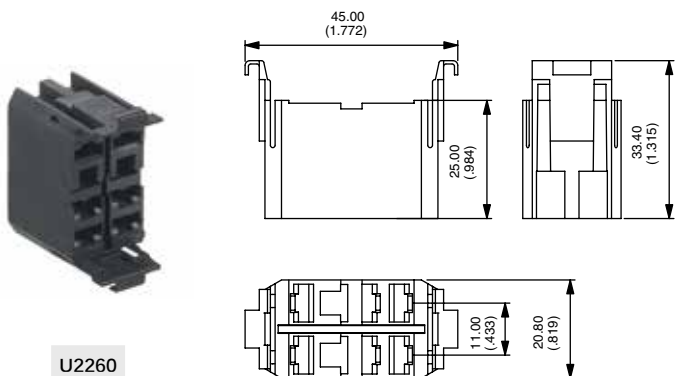
Standard color : black. Other colors : on request. Connectors cannot be combined with wiring types H and I.

U2260 6 terminal version. For use with terminals type 2, 3, 4 or 5.
6.35 (1/4) tabs to be fitted by the user (example : TE42282-2).
Can be used for the KG series.

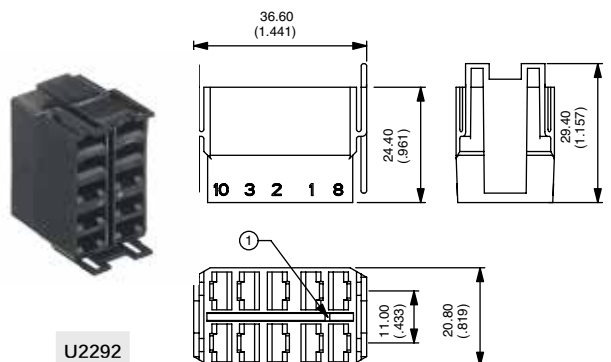
U2282 10 terminal version. For use with terminals type H or J.
2.8 (.110) tabs to be fitted by the user (example : AMP/Tyco 0-927779-3).

U2292 10 terminal version : For use with terminals type B, C, E or F.
6.35 (1/4) tabs to be fitted by the user (example : TE42282-2).

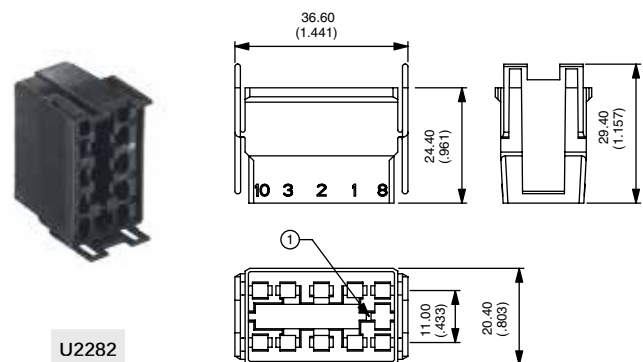
U3152 10 terminal version. For use with terminals type B, C, E or F.
6.35 (1/4) tabs to be fitted by the user (example : "Timer" terminals TE927833-2)



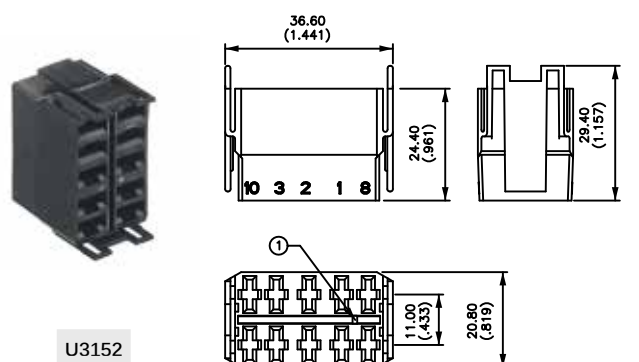
U2260



U2292



U2282



U3152