

UG1410A



- ☐ Protected rocker
- ☐ Illuminated or non-illuminated
- ☐ VDE (EN 61058-1) approved
- ☐ Sealed to IP65

ELECTRICAL SPECIFICATIONS

- Current/voltage rating :
 - functions 1 (ON-OFF) and 6 (ON-ON) : 15A 12VDC, 10A 24VDC max., 10mA 14VDC min.
 - functions 4 (ON ON ON) and 4-1R (ON ON MOM) : 8A 12VDC, 5A 24VDC max.
 - other functions : 10A 12VDC, 8A 24VDC max.
- 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.

MATERIALS

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

AGENCY APPROVAL



12(4)A 250VAC
T85/55°C

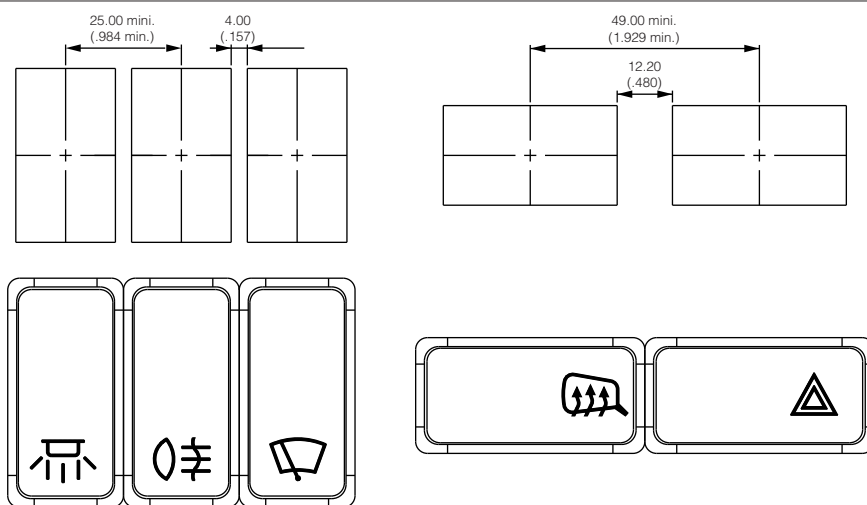
Availability : double pole models, functions ON-OFF and ON-ON.

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

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
3 position models : -10°C to + 65°C

MATRIX MOUNTING



Packaging unit : 40 pieces



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

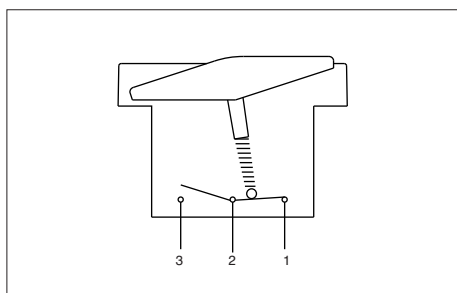
Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

The company reserves the right to change specifications without notice.

KG series

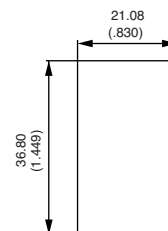
Power rocker switches

Case

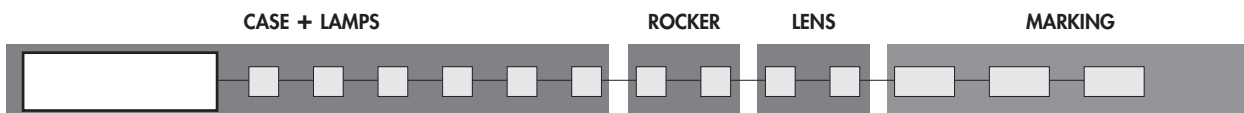


PANEL CUT-OUT

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



MODEL STRUCTURE



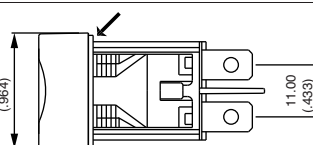
Single pole
KG31

Double pole
KG41
KG44*
KG44-1R*

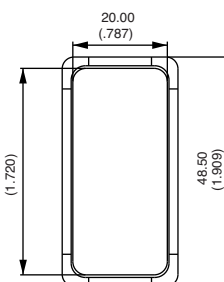
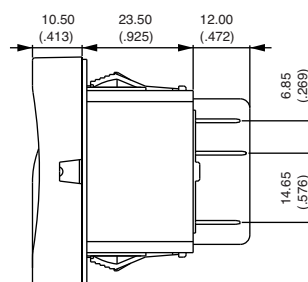
KG35
KG36
KG37
KG38
KG39

	2-3	1-2	
	5-6	4-5	
	ON	-	OFF
	ON	ON	ON
	ON	ON	MOM
	MOM	-	ON
	ON	-	ON
	MOM	OFF	MOM
	ON	OFF	MOM
	ON	OFF	ON

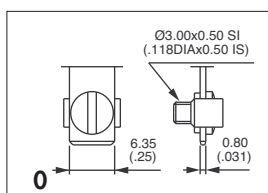
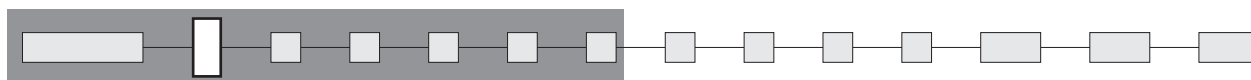
* Function 4 : single pole in double pole case



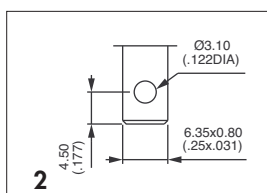
→ Flat seal



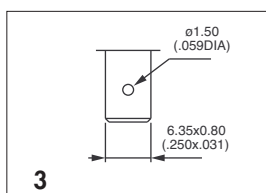
TERMINALS



Screw



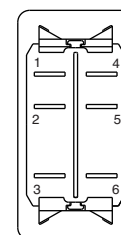
Solder lug / quick-connect



Quick-connect

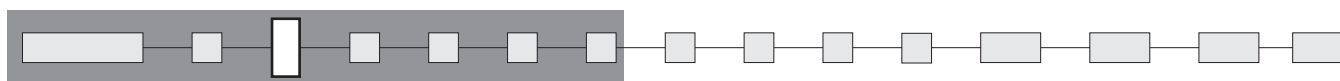
Terminals 1 to 6
are marked on the case.

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



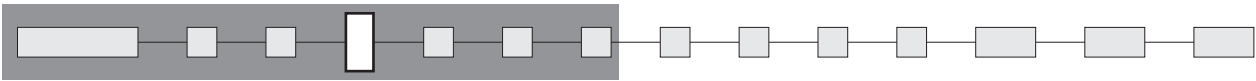
Side B

CONTACT MATERIALS



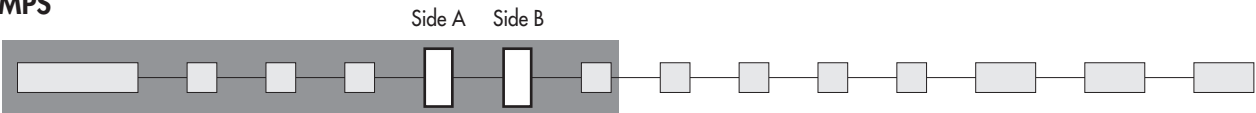
A Silver grain

BEZEL



2 Black, sealed to IP65

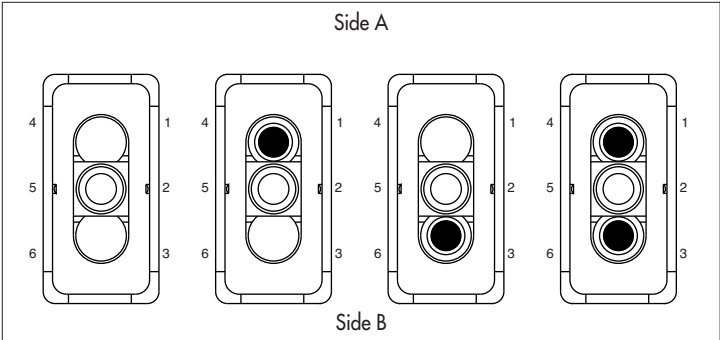
LAMPS



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

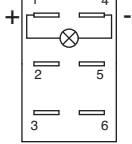
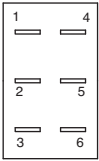
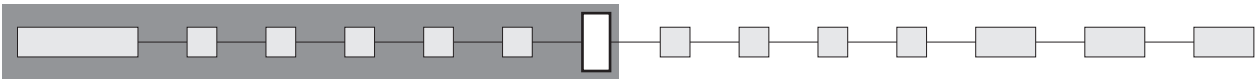
J	24V LED red
K	24V LED green
L	24V LED yellow
M	Neon 125V
N	Neon 250V
O	Filament 6V
P	Filament 12V
R	Filament 24V
S	Fluorescent 220V
T	Fluorescent 110V



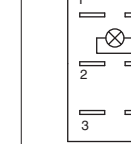
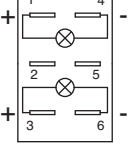
White and blue LEDs : on request.

LAMP WIRING

The lamp wiring diagram is shown on the case.



+

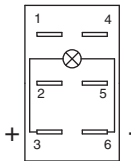


A (standard)

B

C

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



D - for function 1 (on-off)
with LED on side A

E

F

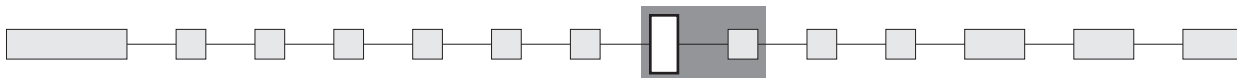
To order case only (without rocker), finish your order number with the lamp wiring code.

KG series

Power rocker switches

Rocker - Lenses

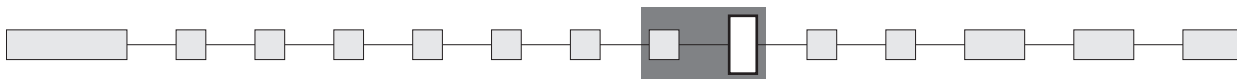
ROCKER COLOUR



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

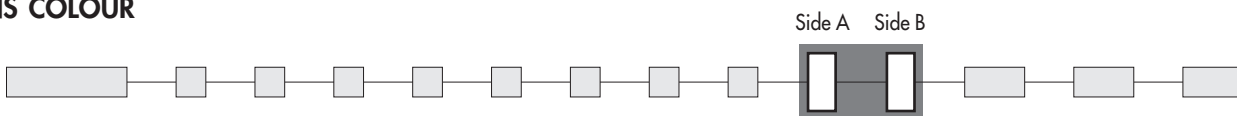


8
Opening on sides A and B

Other rocker shapes on customer specifications : on request.

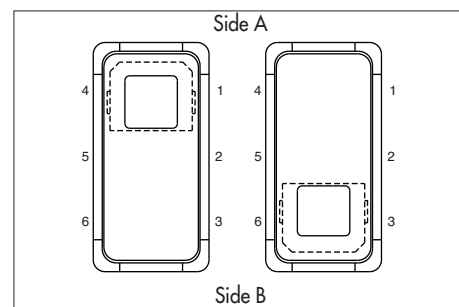
To order rocker only (without case), begin the order number with code KGR, then follow the order format from "rocker colour" until the end of the options.

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

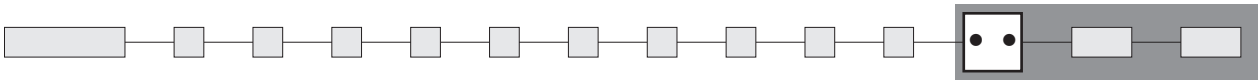


* Blue or green lens recommended with fluorescent lamp.

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.

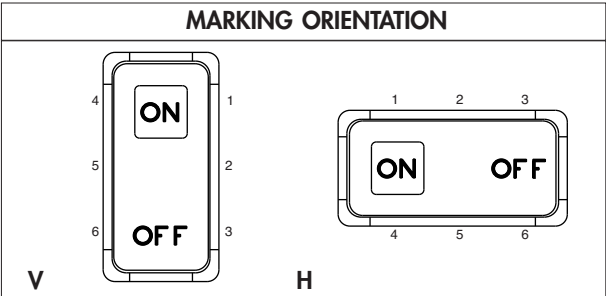
MARKING

If no marking required, leave all boxes blank.



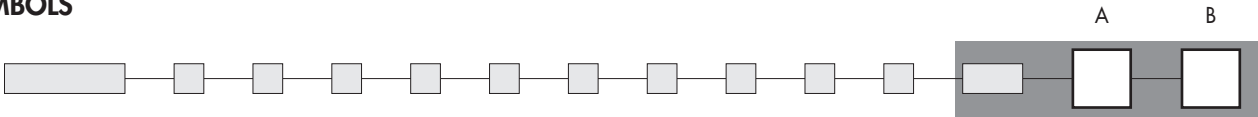
Select one option from each of the tables below.

MARKING METHOD	
C	Hot stamping



Other orientations :
on request

SYMBOLS



XX No symbol

Available symbols : see end of section D.

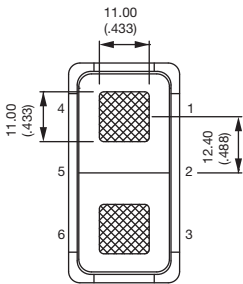
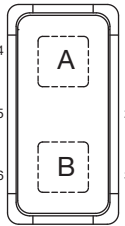
Marking colour

White marking for black rockers - Black marking for colour rockers

Other : on request.

Marking area

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



K range

Power rocker switches and indicators

Symbols

UG1410A

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

Legend scale :

KR series : 1:1

KL, KG and KI series : depending on space available on the product (see "Symbols" section at the end of each series).

CODE	SYMBOL	DESCRIPTION
XX	None	-
01	ON	-
02	OFF	-
03	O	-
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 sign light (2551)
44	☀	Working light (1204)
45	☀	Working light symmetric (1204)
46	☀	-
47	ASM	-

K range

Power rocker switches and indicators

Symbols

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Legend scale :

KR series : 1:1

KL, KG and KI series : depending on space available on the product (see "Symbols" section at the end of each series).

CODE	SYMBOL	DESCRIPTION
48		All wheel drive
49		Differential lock (1662)
50		-
51		-
52		-
53		-
54		Rear window wiper (0097)
55		Rear window washer (0099)
56		Lower load (2223)
57		Cab lock (1560)
58		Extraction
59		Pumping in
60		Rear PTO (1572)
61		Front PTO
62		Rockshaft down
63		Rockshaft up

CODE	SYMBOL	DESCRIPTION
64		Indicator
65		Brake release
66		Baggage room left door
67		Baggage room right door
68		Power blinds
69		Engine idle control
70		Cruise res/set
71		Driver windows up/down
72		Middle door opening
73		Front door opening
74		Lighting in baggage room
75		Cruise on/off
76		TV
77		Pump
78		Toilet
79		Toilet decontamination

CODE	SYMBOL	DESCRIPTION
80		Front windshield heating
81		Aus
82		Radiator fan
83		Remove retarder
84		Restricted speed
85		Preheater
86		ABS detection
87		ECAS detection
88		Engine stop
89		Cruise res/cancel
90		ECAS reset
91		Driver windows heating
92		Cruise set
93		Air bag up/down
94		Read lighting
95		Lighting main switch

K range

Power rocker switches and indicators

Symbols

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

Legend scale :

KR series : 1:1

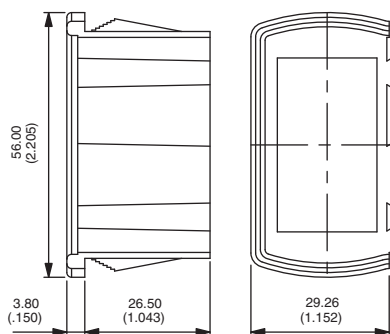
KL, KG and KI series : depending on space available on the product (see "Symbols" section at the end of each series).

CODE	SYMBOL	DESCRIPTION
96		Heating using water
97		Low beam
98		Position lights
99		Diesel acceleration
A1		Manual mode
A2		Clockwise cabin rotation
A3		Anticlockwise cabin rotation
A4		-
A5		-
A6		Parking brake
A7		-
A8		-
A9		-
AA		-
AB		-
AC		-

CODE	SYMBOL	DESCRIPTION
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)

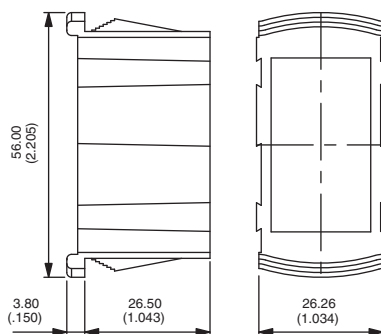
CODE	SYMBOL	DESCRIPTION
AV		-
AW		-
AY		-
AZ		-
B1	HIGH	-
B2	LOW	-
B3		-

MOUNTING PANEL END



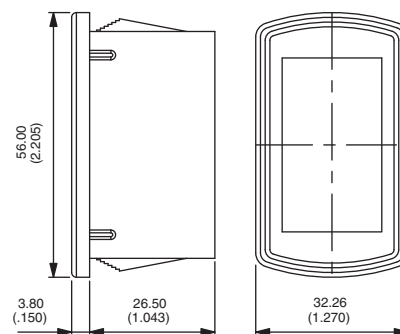
U2261

MOUNTING PANEL MIDDLE



U2262

SINGLE MOUNTING PANEL



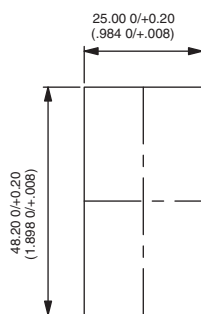
U2267

Recommended panel thickness : 1,10 mm - 1,80 mm - 2,60 mm - 3,40 mm - 4,20 mm - 5 mm - 5,80 mm

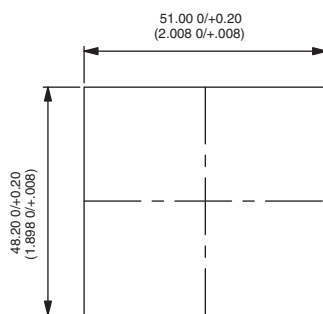
MOUNTING PANEL CUT-OUT

For additional elements, add 26,40 mm (1.039)

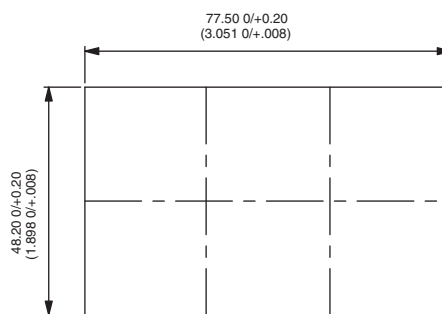
For 1 element U2267



For 2 elements U2261

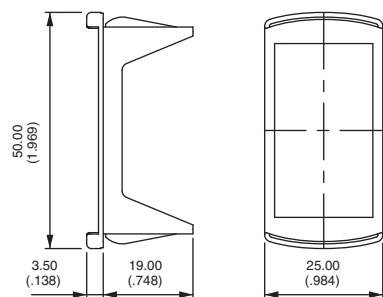


For 3 elements (2xU2261 + 1x U2262)



22 x 44 ADAPTER

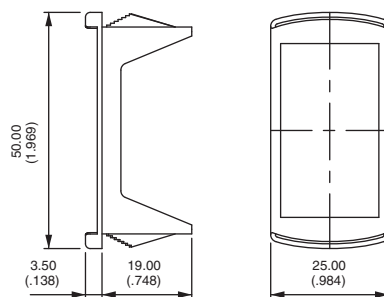
Front panel dismounting



U3060

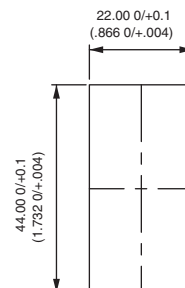
22 x 44 ADAPTER

Rear panel dismounting



U3070

PANEL CUT-OUT



Adapter colours (replace 0 with code)
 1/4 : dark blue - 2 : black - 4 : grey
 5 : yellow - 6 : red - 7/1 : white

Recommended panel thickness : 0,60 mm to 1,50 mm

Recommended panel thickness : 1,60 mm -0,1/0 to 5,60 mm -0,1/0 in stages of 0,40 mm

K range

Power rocker switches and indicators

Accessories for KR, KL and KI series

ACTUATOR REMOVING TOOL



U3052

2 tools are supplied

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.

CONNECTORS

Standard colour : black. Other colours : on request.

Connectors cannot be combined with wiring types H and I.

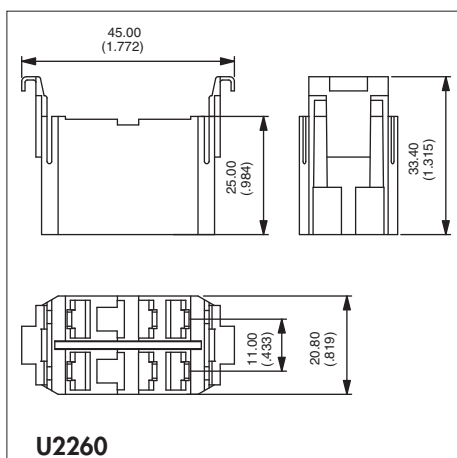


U2260

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.



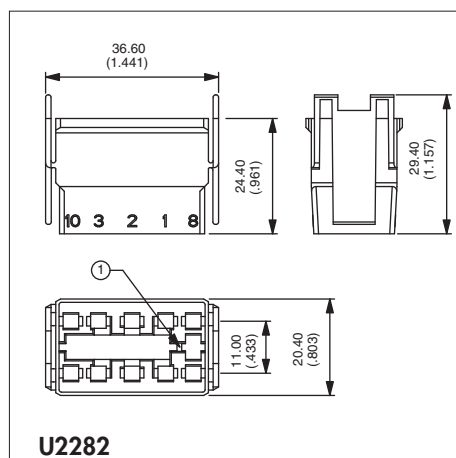
U2260



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).



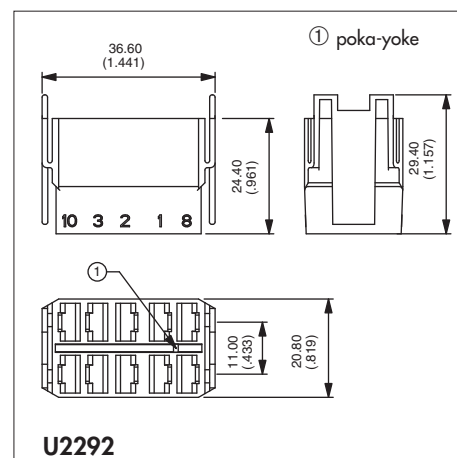
U2282



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).



U2292

K range

Power rocker switches and indicators

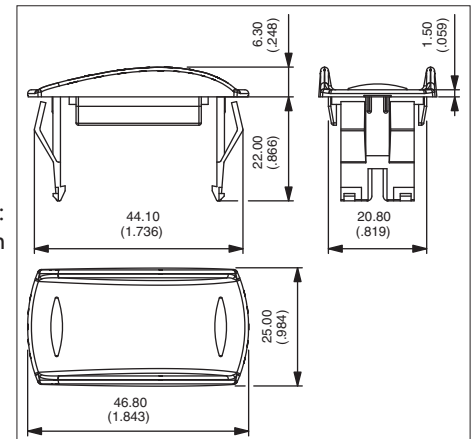
Accessories for KR, KL and KI series

HOLE PLUGS

Usefull for future extensions.

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

Recommended panel thickness :
1,50 mm to 6 mm



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

Mouser Electronics

Authorized Distributor

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Apem:

[KG312A2DXD246X](#) [KG352A2XXA21XX](#) [KG372A2DXA246X](#) [KG382A2XXA21XX](#) [KG392A2XXA21XX](#)
[KG472A2DXA246X](#) [KG472A2XXA21XX](#) [KG492A2DXA246X](#) [KG492A2XXA21XX](#) [KG352A2DX246X](#)
[KG352A2DXA246X](#) [KG372A2XXA21XX](#) [KG362A2DXA246X](#) [KG362A2XXA21XX](#) [KG312A2XXA21XX](#)
[KG452A2DXA246X](#) [KG452A2XXA21XX](#) [KG462A2DXA246X](#) [KG462A2XXA21XX](#) [KG412A2XXA21XX](#)
[KG412A2DXD246X](#) [KG312A2KXD24TX](#) [KG312A2SXD241XCV01XX02](#) [KG312A2XXA](#) [KG312A2XXA21XXCV01XX02](#)
[KG312A2XXA61XX](#) [KG313A2KXD24TX](#) [KG313A2XXA21XX](#) [KG372A2EEA28TTCV09XX10](#) [KG372A2TTA2833XX](#)
[KG373A2XXA21XXCV09XX10](#) [KG410A2SXD241X](#) [KG410A2TXD243X](#) [KG412A2XDA26X6](#) [KG412A2XEA26X3](#)
[KG412A2XNA26X6](#) [KG412A2XSA26X3](#) [KG412A2XXA](#) [KG412A2XXA61XX](#) [KG462A2XXA](#)
[KG463A2XXA61XXCH03XX04](#) [KG492A2XXA](#) [KG463A2RXB246X](#)