

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



EN 61058-1

12(4)A 250VAC
T85/55°C

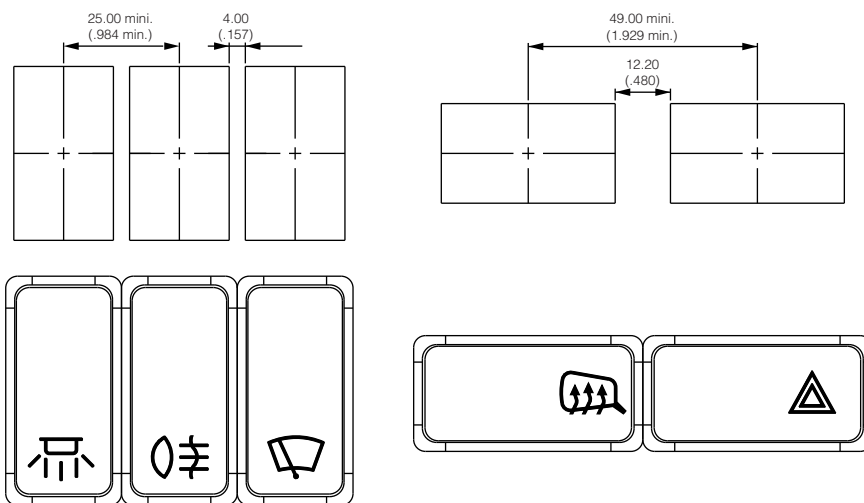
Availability : double pole models, functions ON-OFF and ON-ON.

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.

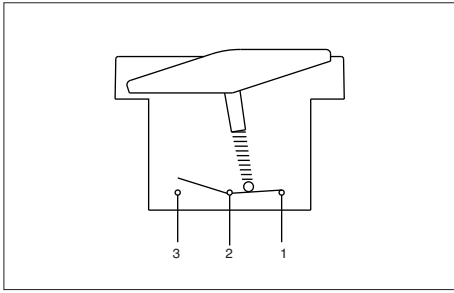
Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

The company reserves the right to change specifications without notice.

KG series

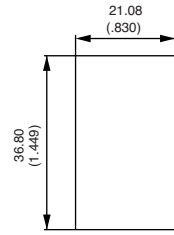
Power rocker switches

Case

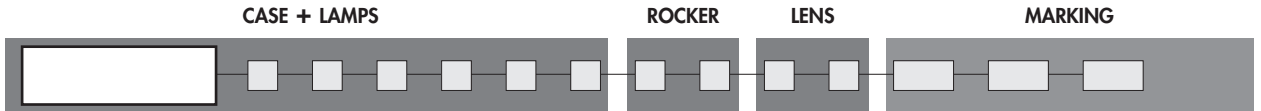


PANEL CUT-OUT

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

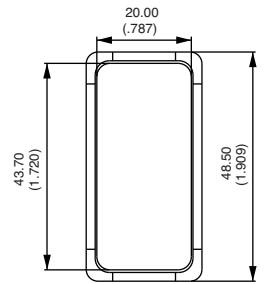
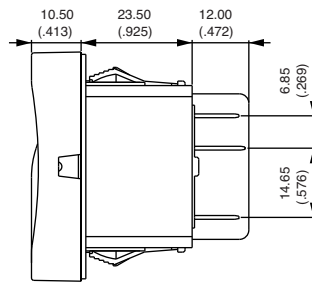
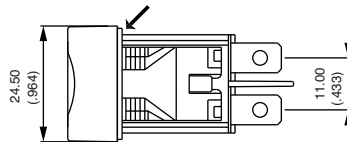


MODEL STRUCTURE



| Single pole | Double pole | 2-3 | 1-2 |
|-------------|-------------|-------------|-----|
| 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 | |

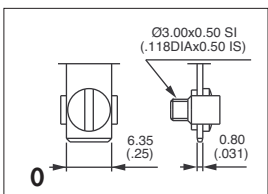
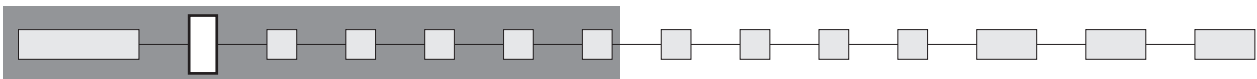
| 5-6 | 4-5 |
|-----|-----|
| | |
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| | |



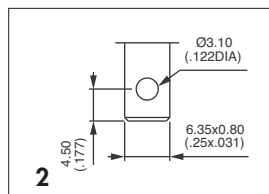
→ Flat seal

* Function 4 : single pole in double pole case

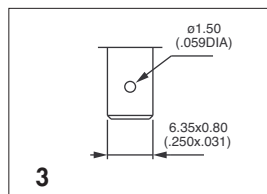
TERMINALS



Screw



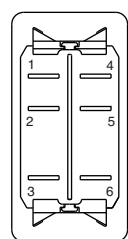
Solder lug / quick-connect



Quick-connect

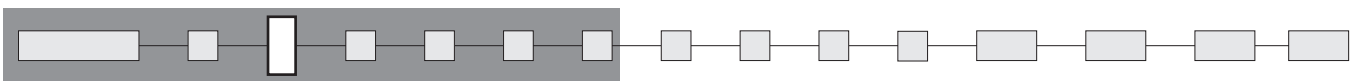
Terminals 1 to 6 are marked on the case.

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



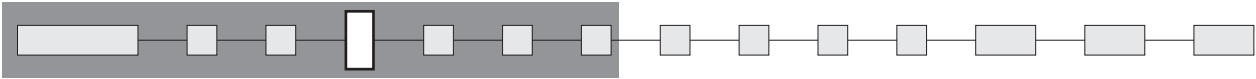
Side B

CONTACT MATERIALS



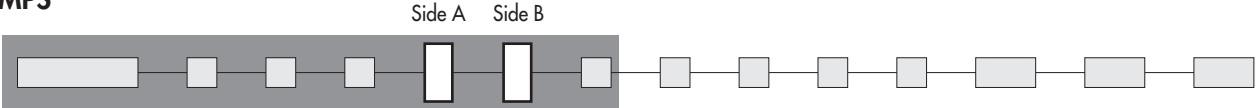
A Silver grain

BEZEL



2 Black, sealed to IP65

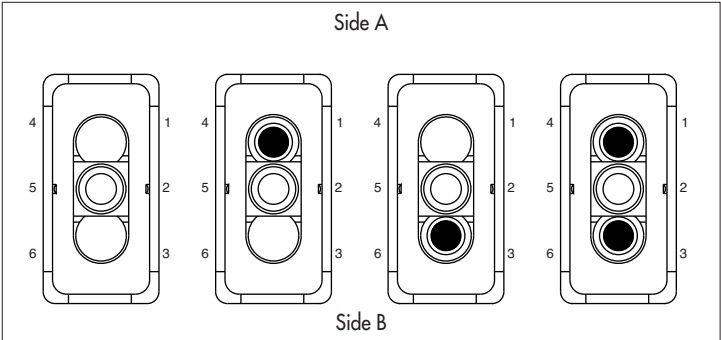
LAMPS



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 |

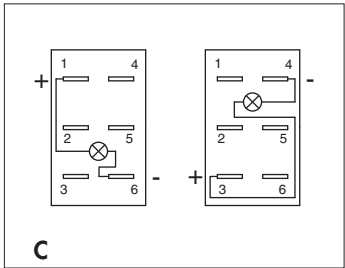
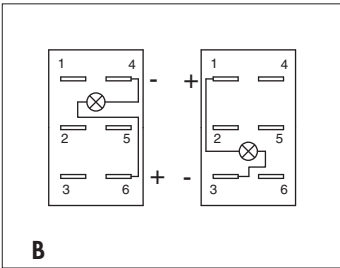
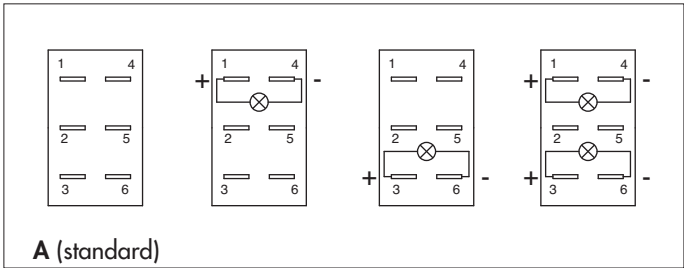
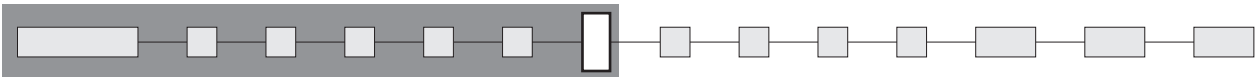
| | |
|---|------------------|
| J | 24V LED red |
| K | 24V LED green |
| L | 24V LED yellow |
| M | Neon 125V |
| N | Neon 250V |
| O | Filament 6V |
| P | Filament 12V |
| R | Filament 24V |
| S | Fluorescent 220V |
| T | Fluorescent 110V |



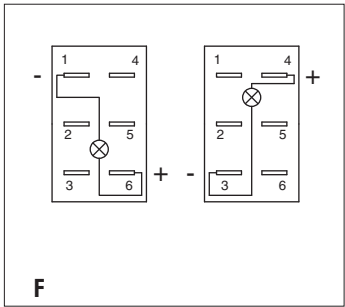
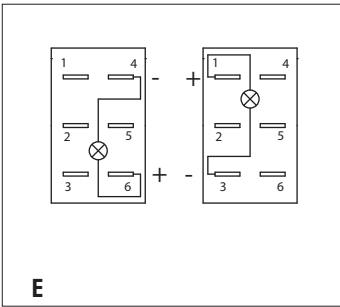
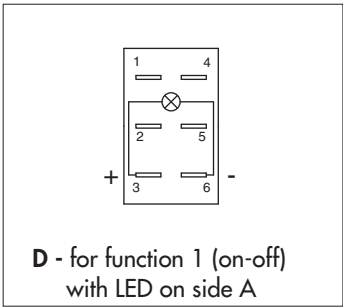
White and blue LEDs : on request.

LAMP WIRING

The lamp wiring diagram is shown on the case.



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



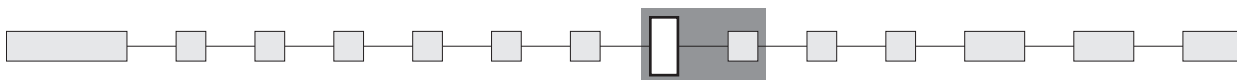
To order case only (without rocker), finish your order number with the lamp wiring code.

KG series

Power rocker switches

Rocker - Lenses

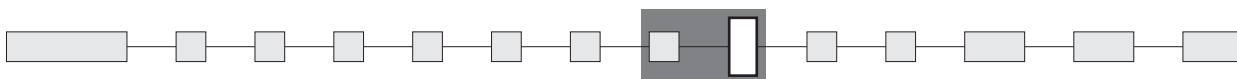
ROCKER COLOUR



| | |
|-----|-----------|
| 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



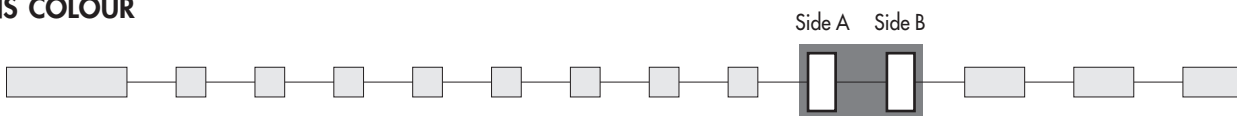
8

Opening on sides A and B

Other rocker shapes on customer specifications : on request.

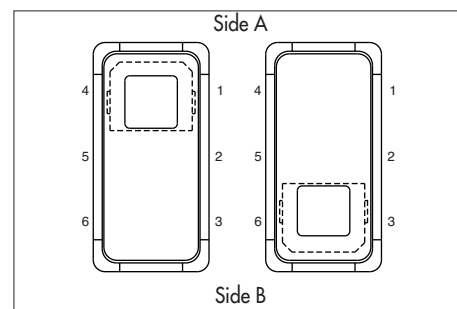
To order rocker only (without case), begin the order number with code KGR, then follow the order format from "rocker colour" until the end of the options.

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.

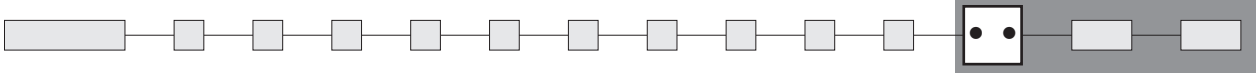
KG series

Power rocker switches

Marking

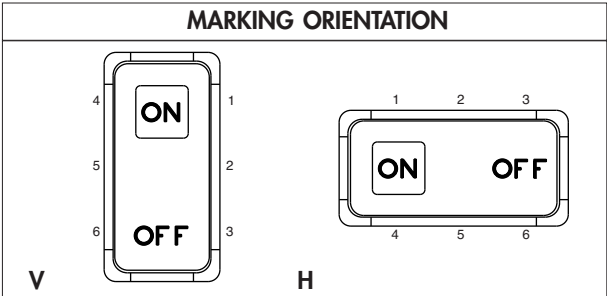
MARKING

If no marking required, leave all boxes blank.



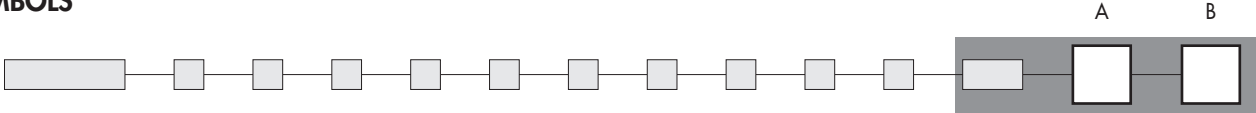
Select one option from each of the tables below.

| MARKING METHOD | |
|----------------|--------------|
| C | Hot stamping |



Other orientations :
on request

SYMBOLS



XX No symbol

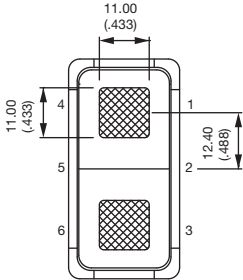
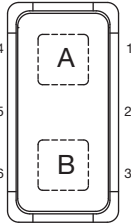
Available symbols : see end of section D.

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 | CODE | SYMBOL | DESCRIPTION | CODE | SYMBOL | DESCRIPTION |
|------|---|------------------------|------|---|--------------------------------------|------|---|---------------------------------------|
| XX | None | - | 16 |  | Revolving light | 32 |  | Emergency first aid vehicle (2565) |
| 01 | ON | - | 17 |  | Rear ventilator | 33 |  | Load tipping (1557) |
| 02 | OFF | - | 18 |  | Heating (0637) | 34 |  | Loading light (2457) |
| 03 | ○ | - | 19 |  | Door opening | 35 |  | Tractor, rear-ward (1667) |
| 04 | I | - | 20 |  | Windshield demister/defroster (0635) | 36 |  | Combine, direction of movement (1678) |
| 05 | II | - | 21 |  | Windshield wiper (0086) | 37 |  | Use no forks (2406) |
| 06 | STOP | - | 22 |  | Windshield washer (0088) | 38 |  | Transmission (1166) |
| 07 | A | Stop | 23 |  | Ventilator fan (0089) | 39 |  | Working spot light (1145) |
| 08 | M | Motion | 24 |  | Side mirror defroster | 40 |  | Engine (0640) |
| 09 |  | Up motion | 25 |  | Restarting pump | 41 |  | Horn (0244) |
| 10 |  | Down motion | 26 |  | Front fog lights (0633) | 42 |  | Lock (1656) |
| 11 |  | Hot | 27 |  | Rear fog lights (0634) | 43 |  | Taxi sign light (2551) |
| 12 |  | Cold | 28 |  | Propulsion system trim | 44 |  | Working light (1204) |
| 13 |  | Hazard warning (0085) | 29 |  | Beacon (1141) | 45 |  | Working light symmetric (1204) |
| 14 |  | Traveller lighting | 30 |  | Anchor | 46 |  | - |
| 15 |  | Driver lighting (1421) | 31 |  | Electric motor (0011) | 47 | ASM | - |

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 | CODE | SYMBOL | DESCRIPTION | CODE | SYMBOL | DESCRIPTION |
|------|---|---------------------------|------|---|--------------------------|------|---|--------------------------|
| 48 |  | All wheel drive | 64 |  | Indicator | 80 |  | Front windshield heating |
| 49 |  | Differential lock (1662) | 65 |  | Brake release | 81 | AUS | Aus |
| 50 |  | - | 66 |  | Baggage room left door | 82 |  | Radiator fan |
| 51 |  | - | 67 |  | Baggage room right door | 83 |  | Remove retarder |
| 52 |  | - | 68 |  | Power blinds | 84 |  | Restricted speed |
| 53 | N | - | 69 |  | Engine idle control | 85 |  | Preheater |
| 54 |  | Rear window wiper (0097) | 70 | CRUISE RES/SET | Cruise res/set | 86 |  | ABS detection |
| 55 |  | Rear window washer (0099) | 71 |  | Driver windows up/down | 87 |  | ECAS detection |
| 56 |  | Lower load (2223) | 72 |  | Middle door opening | 88 |  | Engine stop |
| 57 |  | Cab lock (1560) | 73 |  | Front door opening | 89 | CRUISE RES/CAN | Cruise res/cancel |
| 58 |  | Extraction | 74 |  | Lighting in baggage room | 90 |  | ECAS reset |
| 59 |  | Pumping in | 75 | CRUISE ON/OFF | Cruise on/off | 91 |  | Driver windows heating |
| 60 |  | Rear PTO (1572) | 76 | TV | TV | 92 | CRUISE SET+/SET- | Cruise set |
| 61 |  | Front PTO | 77 |  | Pump | 93 |  | Air bag up/down |
| 62 |  | Rockshaft down | 78 | WC | Toilet | 94 |  | Read lighting |
| 63 |  | Rockshaft up | 79 |  | Toilet decontamination | 95 |  | Lighting main switch |

K range

Power rocker switches and indicators

















Symbols

















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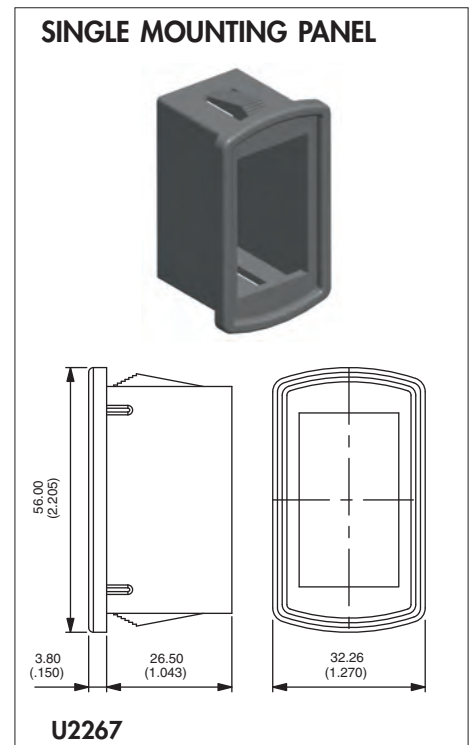
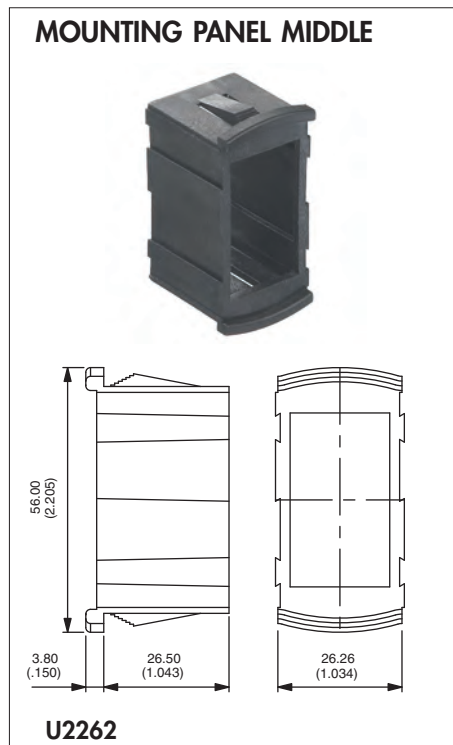
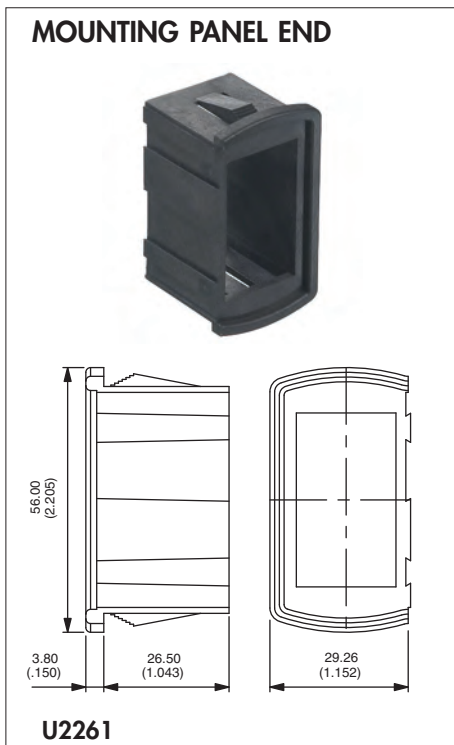
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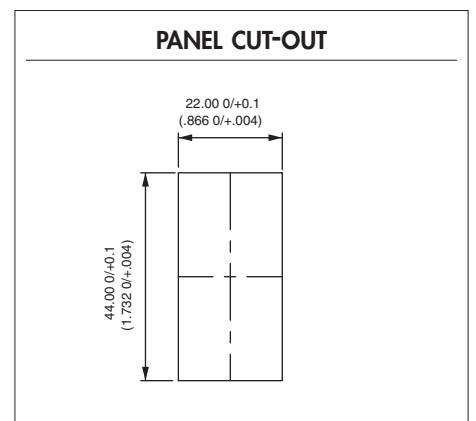
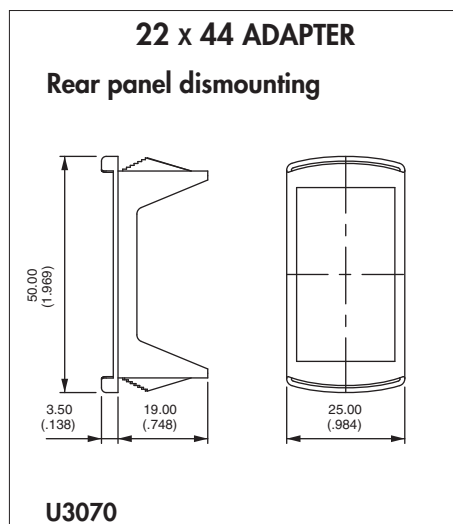
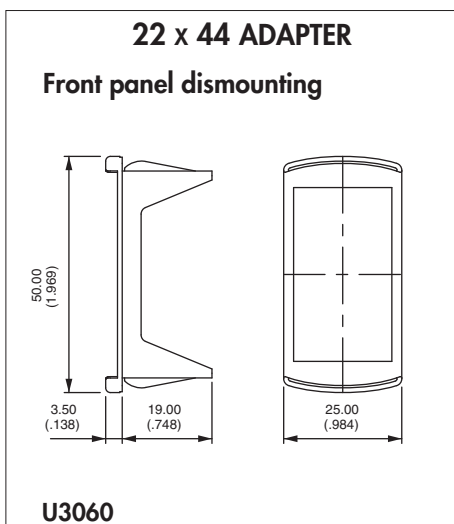
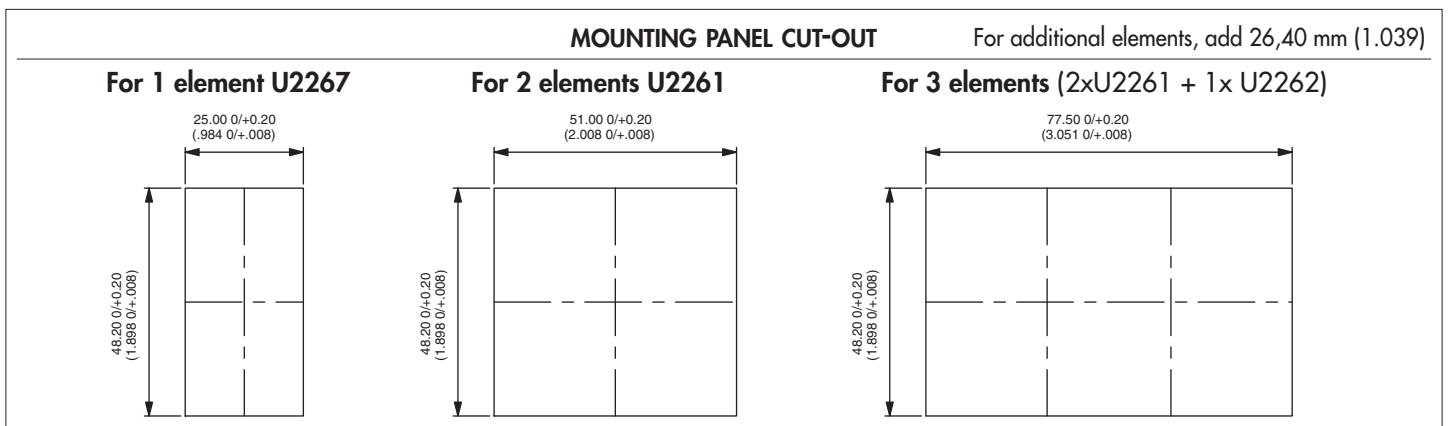
| CODE | SYMBOL | DESCRIPTION |
|------|---|------------------------------|
| 96 |  | Heating using water |
| 97 |  | Low beam |
| 98 |  | Position lights |
| 99 |  | Diesel acceleration |
| A1 |  | Manual mode |
| A2 |  | Clockwise cabin rotation |
| A3 |  | Anticlockwise cabin rotation |
| A4 |  | - |
| 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 |  | - |



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



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

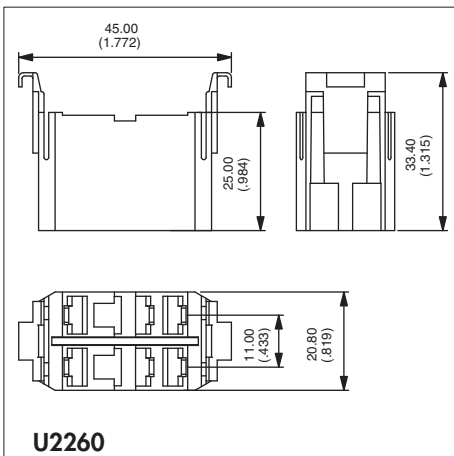
Standard colour : black. Other colours : on request.
Connectors cannot be combined with wiring types H and I.



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.



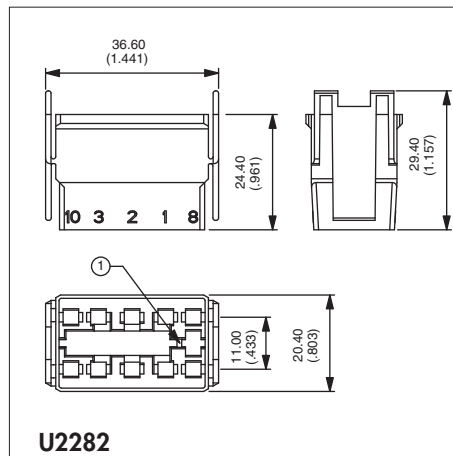
U2260



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).



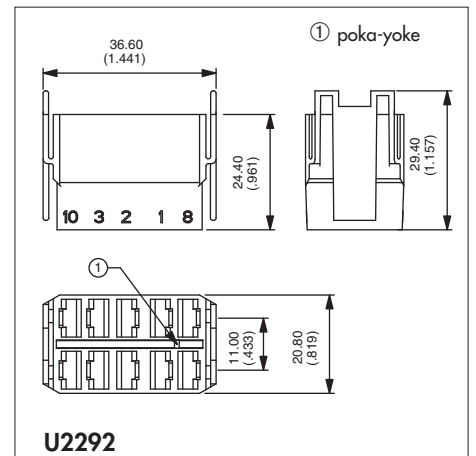
U2282



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

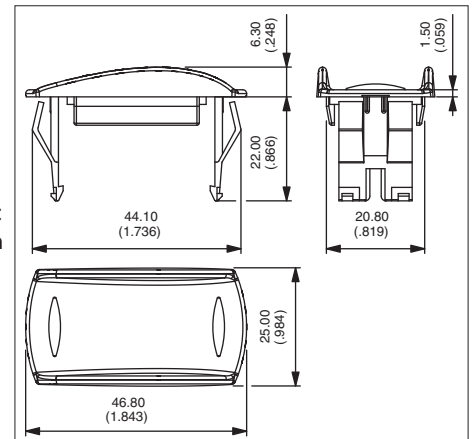
Accessories for KR, KL and KI series

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.