

APEM

KR series

Sealed power rocker switches

- Illuminated or non-illuminated
- Attractive styling
- Laser marking



KR series

Power rocker switches

Distinctive features and specifications



- New rocker design
- Illuminated or non-illuminated
- Sealed to IP 65, IP 67 pending
- Laser marking

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

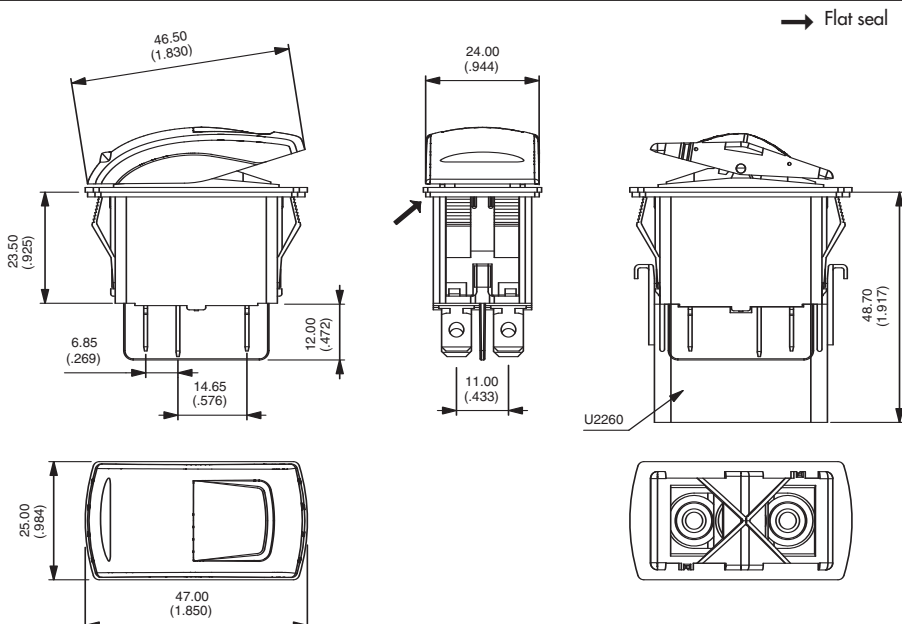
SEALING

Sealing is optional.
To order a sealed product, do not forget to complete appropriate box of ordering format on the following pages.

ENVIRONMENTAL SPECIFICATIONS

- Degree of protection : IP 65 (sealed version)
- 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

DIMENSIONS



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



Packaging unit : 40 pieces

Dimensions, specifications and data shown in this brochure are subject to change without notice.

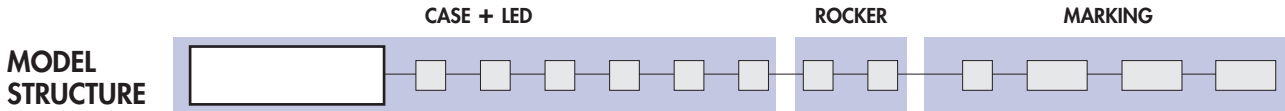
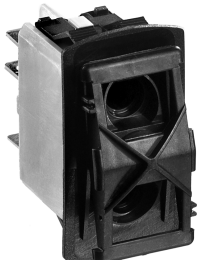
KR series

Power rocker switches

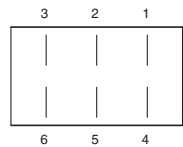
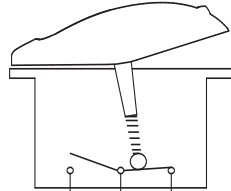
Case

HOW TO ORDER

- To order a complete product, fill in all the boxes of the following order guide.
- To order case only (without rocker), finish your order number with the LED wiring code.
- To order rocker only (without case), begin the order number with code KRR, then follow the order format from "rocker type" until the end of the options.

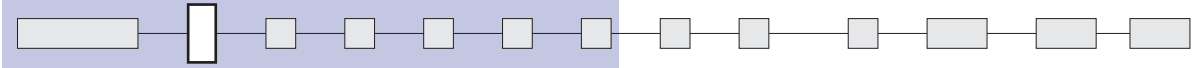



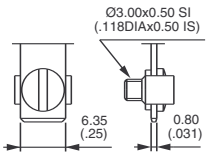
	2-3	1-2	
Single pole			
Double pole			
KR31	ON	OFF	
KR41	ON	ON	
KR44*	ON	ON	ON
KR44-1R*	ON	ON	MOM
KR35	MOM	ON	
KR36	ON	ON	
KR37	MOM	OFF	MOM
KR38	ON	OFF	MOM
KR39	ON	OFF	ON

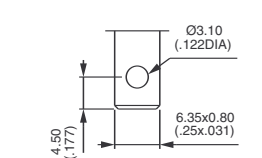
* Function 4 : single pole in double pole case

TERMINALS

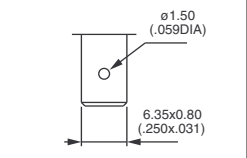




0
Screw

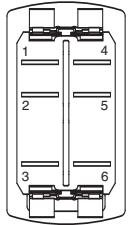


2 with barrier
4 without barrier



3 with barrier
5 without barrier

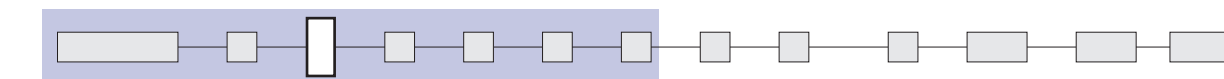
Side A



Side B

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

CONTACT MATERIALS



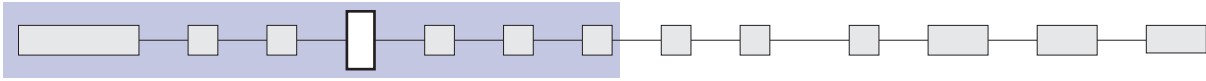
- A** Silver grain
 Functions ON-OFF and ON-ON : 15A 12VDC , 10A 24VDC max. - 10mA 14 VDC min.
 Other functions : 10A 12VDC, 8A 24VDC max.

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Power rocker switches

Illumination

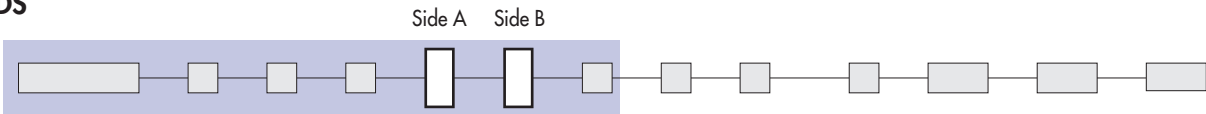
SEALING



Blank No sealing

K Sealed version

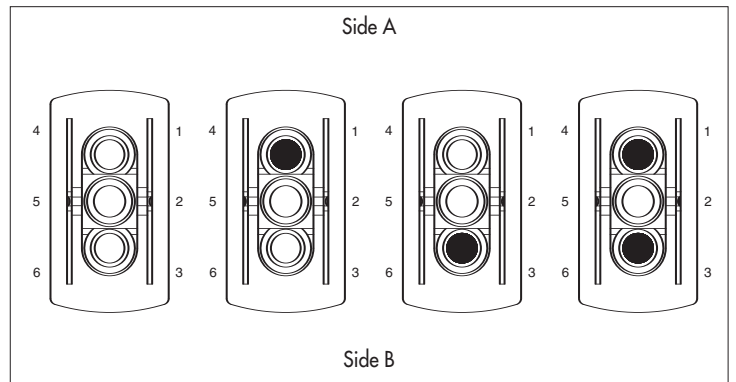
LEDS



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

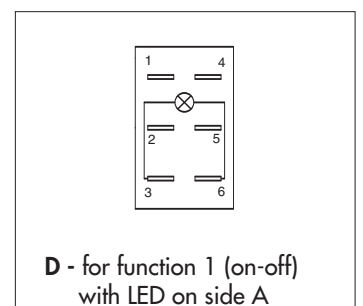
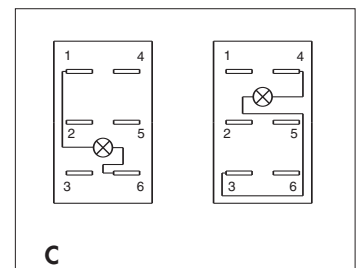
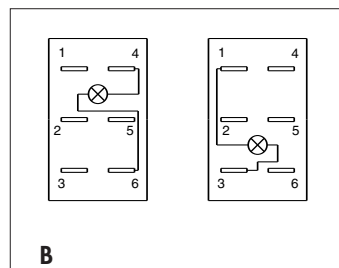
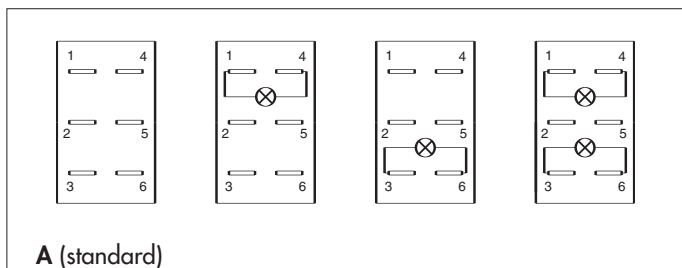
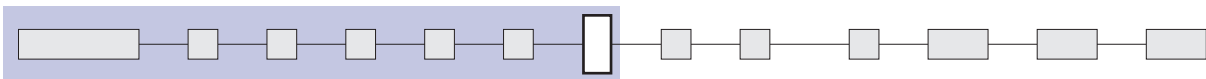
X	Without lamp
A	6V LED red
B	6V LED green
C	6V LED yellow
D	12V LED red
E	12V LED green
F	12V LED yellow

J	24V LED red
K	24V LED green
L	24V LED yellow



LED WIRING

The LED wiring diagram is shown on the case.



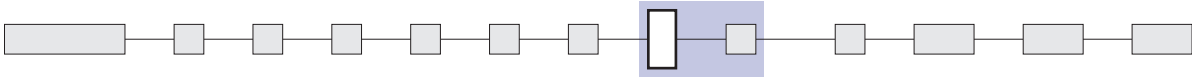
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Rockers - Marking

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

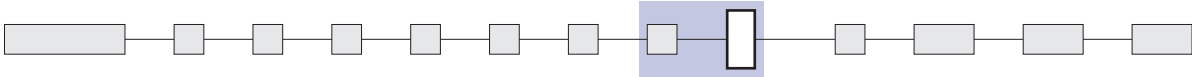
ROCKER TYPE



- 1 For non-illuminated application
- 2 For illuminated application

Other rocker types : on request.

ROCKER COLOUR

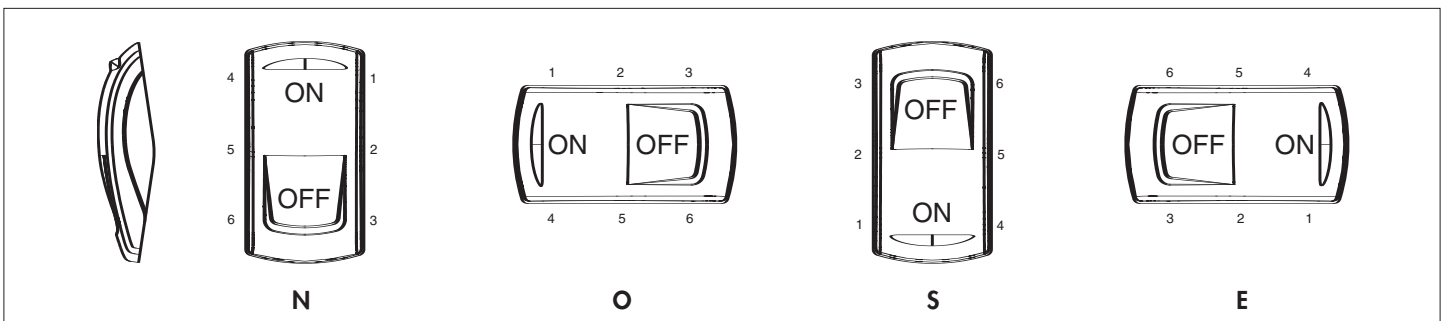
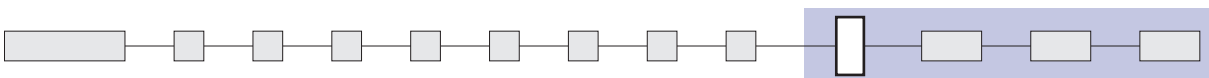


1	Blue
1/4	Dark blue
2	Black
3	Green
4	Grey

5	Yellow
6	Red
7	Ivory
9	Orange

MARKING ORIENTATION

If no marking required, leave box blank.



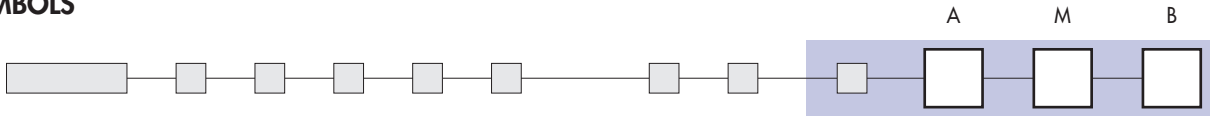
Other orientations : on request

KR series

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Marking

SYMBOLS

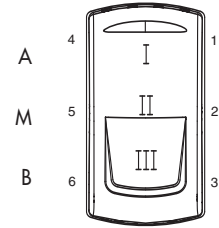


White marking for black rockers - Black marking for colour rockers - Other : on request.
Marking in M area : on request.

Shaded area = standard marking

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	☘ ² ☘ ¹	Windshield demister/defroster
21	☘ ² ☘ ¹	Windshield wiper
22	☘	Windshield washer
23	☘	Ventilator
24	☘	Side mirror defroster
25	☘	Restarting pump
26	☘	Front fog lights
27	☘	Rear fog lights

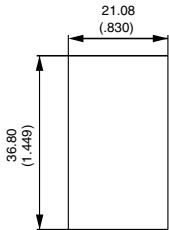
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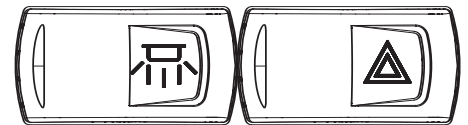
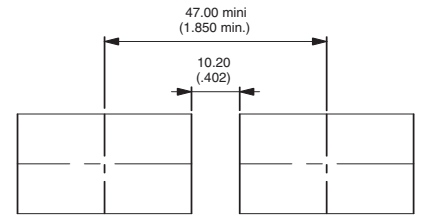
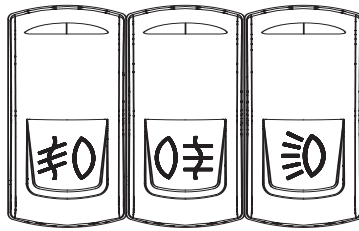
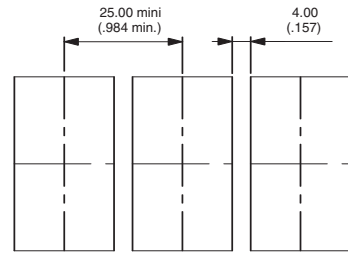
Mounting - Accessories

SWITCH PANEL CUT-OUT

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



MATRIX MOUNTING



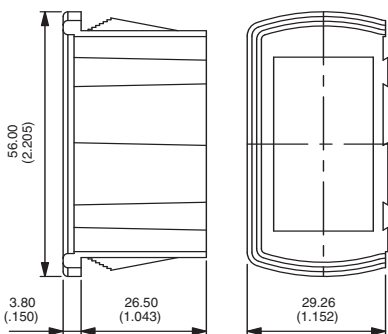
CONNECTOR



U2260

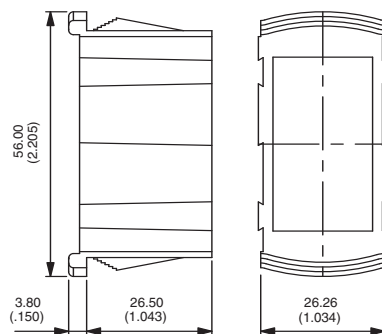
For use with terminals type 2, 3,
4 or 5.
6,35 (1/4) tabs to be fitted by the user
(example : AMP/Tyco 0-0141013-2).

MOUNTING PANEL END



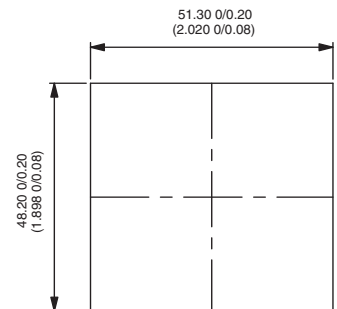
U2261

MOUNTING PANEL MIDDLE



U2262

MOUNTING PANEL CUT-OUT



APEM, a world of switching capabilities

The APEM group is one of the world's largest switch and switch panel manufacturers.

APEM designs, develops, manufactures and sells electro-mechanical components to multiple industrial markets including: instrumentation, medical, security, communications, industrial automation, interactive kiosk, avionics, military and transport.

Other APEM sealed products



■ Piezo switches

Piezo switches have no moving parts, are dust and water proof and their metal surface is impervious to other types of contamination.



■ " I " range of pushbuttons

This range consists of several series of sealed pushbuttons (IP, IB, IS, IF, IA) and a large variety of models: round or square, momentary or latching, illuminated or non-illuminated, plastic or metallic.



■ Sealing boots

Sealing boots for toggle, pushbutton or rocker prevent dust, sand or water from getting into switches. They are available in a wide range of colours.



Addresses of sales subsidiaries and distributors network on
www.apem.com