

# 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.

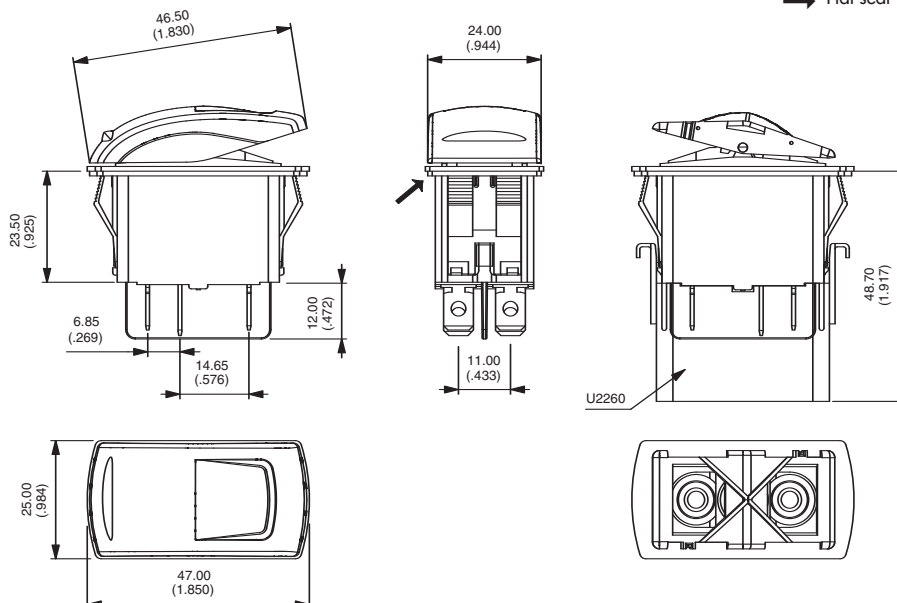
To order a sealed product, do not forget to complete appropriate box of ordering format on the following pages.

#### 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

→ Flat seal



**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.

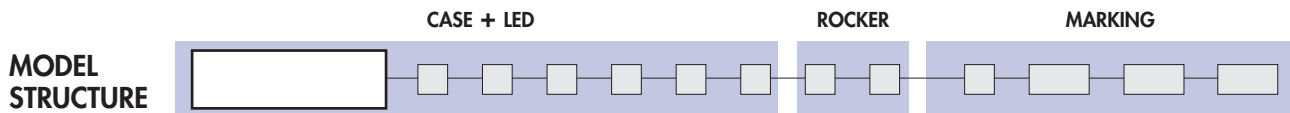
# KR series

## Power rocker switches

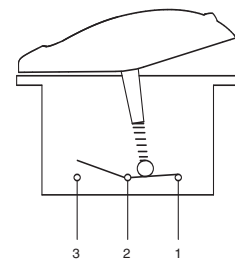
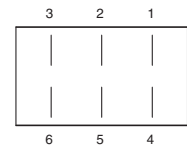
### Case

#### 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.

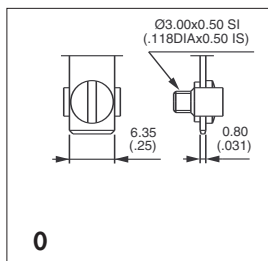
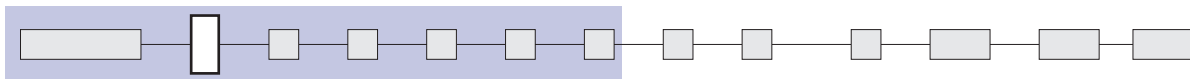


		2-3	1-2
		5-6	4-5
Single pole	Double pole		
KR31	KR41	ON - OFF	
	KR44*	ON ON ON	
	KR44-1R*	ON ON MOM	
KR35	KR45	MOM - ON	
KR36	KR46	ON - ON	
KR37	KR47	MOM OFF MOM	
KR38	KR48	ON OFF MOM	
KR39	KR49	ON OFF ON	



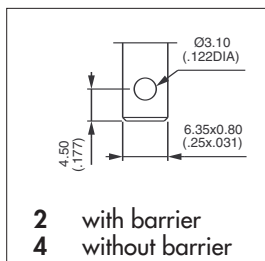
\* Function 4 : single pole in double pole case

#### TERMINALS



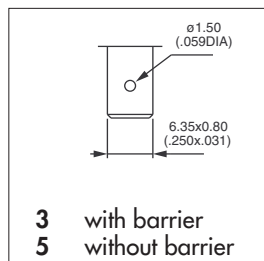
0

Screw



2 with barrier  
4 without barrier

Solder lug / quick-connect

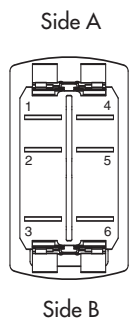


3 with barrier  
5 without barrier

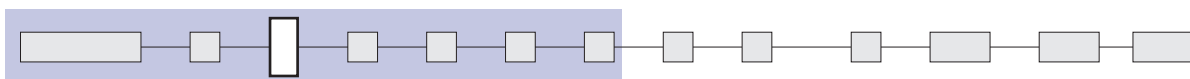
Quick-connect

Terminals 1 to 6  
are marked on the case.

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



#### CONTACT MATERIALS



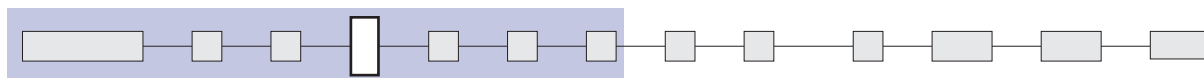
**A** Silver grain  
Functions ON-OFF and ON-ON : 15A 12VDC , 10A 24VDC max. - 10mA 14 VDC min.  
Other functions : 10A 12VDC, 8A 24VDC max.

# KR series

## Power rocker switches

### Illumination

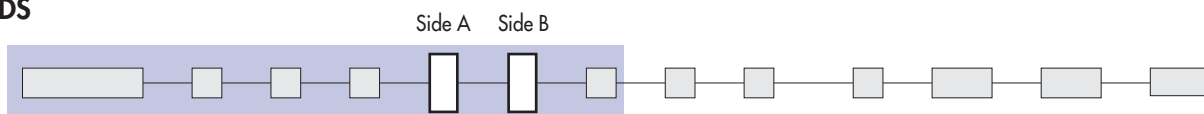
#### SEALING



**Blank** No sealing

**K** Sealed version

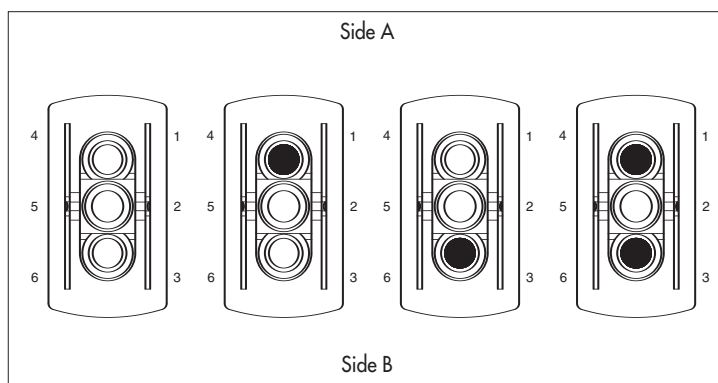
#### LEDs



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

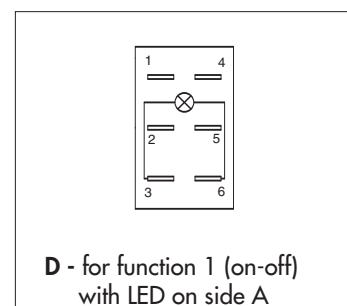
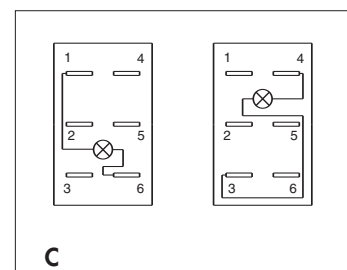
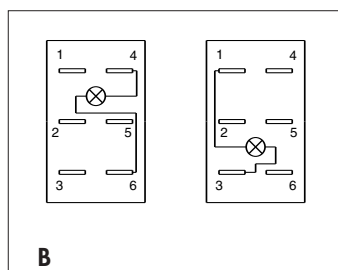
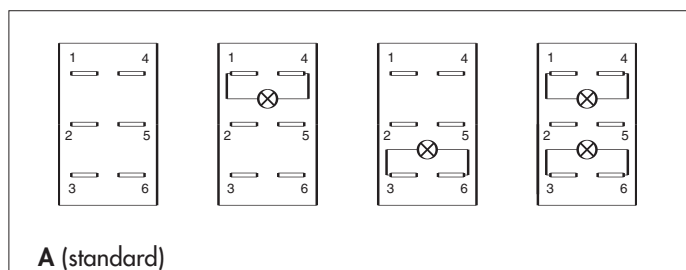
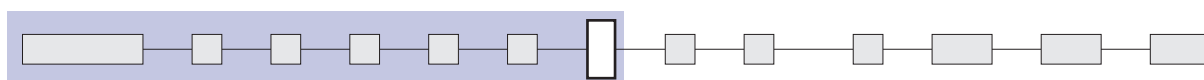
<b>X</b>	Without lamp
<b>A</b>	6V LED red
<b>B</b>	6V LED green
<b>C</b>	6V LED yellow
<b>D</b>	12V LED red
<b>E</b>	12V LED green
<b>F</b>	12V LED yellow

<b>J</b>	24V LED red
<b>K</b>	24V LED green
<b>L</b>	24V LED yellow



#### LED WIRING

The LED wiring diagram is shown on the case.



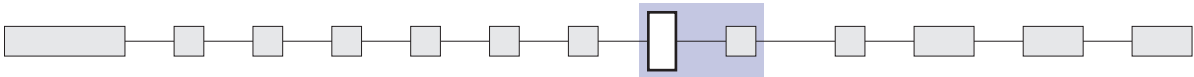
# KR series

## Power rocker switches

### 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.

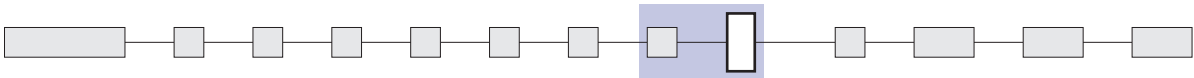
#### ROCKER TYPE



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

Other rocker types : on request.

#### ROCKER COLOUR

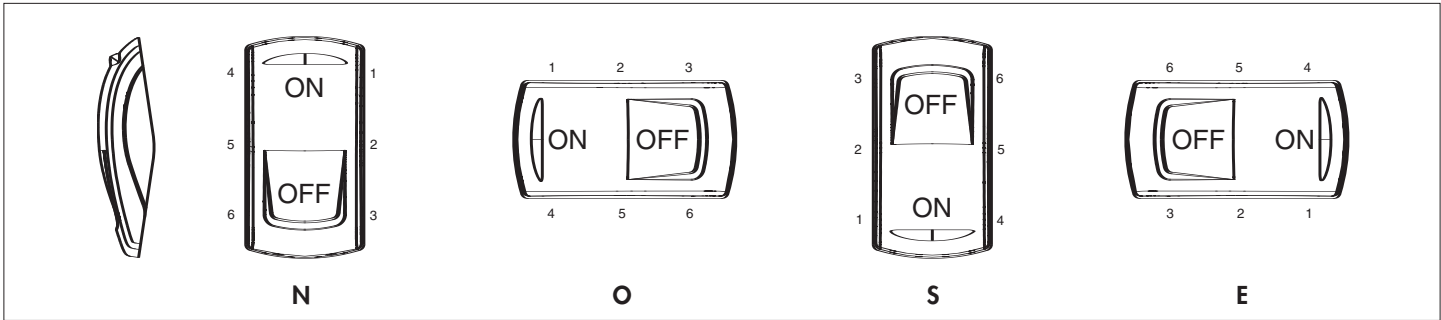
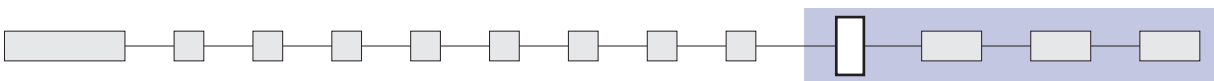


1	Blue
1/4	Dark blue
2	Black
3	Green
4	Grey

5	Yellow
6	Red
7	Ivory
9	Orange

#### MARKING ORIENTATION

If no marking required, leave box blank.



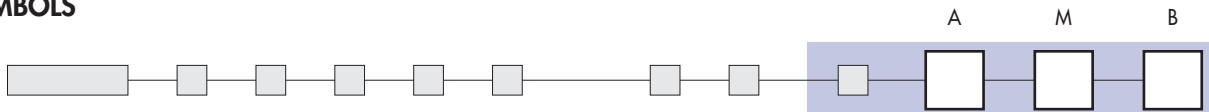
Other orientations : on request

# KR series

## Power rocker switches

### Marking

#### SYMBOLS



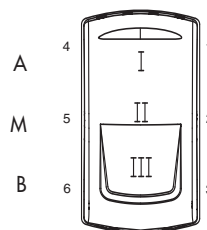
White marking for black rockers - Black marking for colour rockers - Other : on request.

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

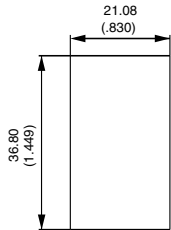
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## Power rocker switches

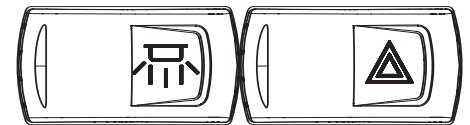
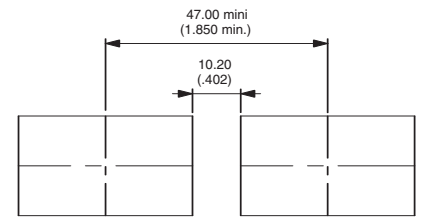
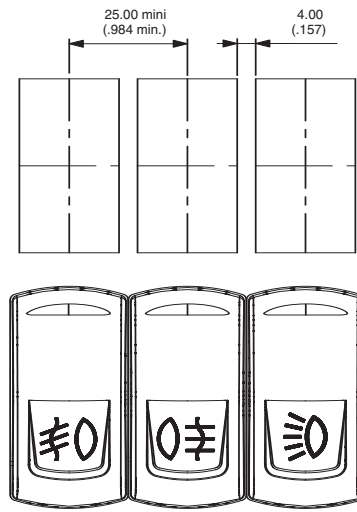
### Mounting - Accessories

#### SWITCH PANEL CUT-OUT

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



#### MATRIX MOUNTING



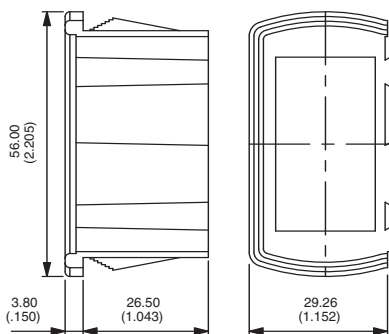
#### CONNECTOR



U2260

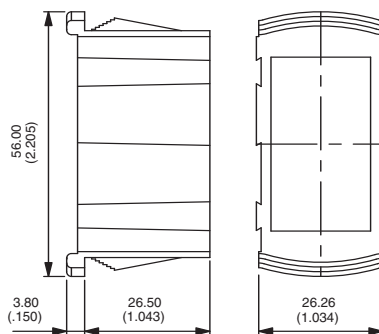
For use with terminals type 2, 3, 4 or 5.  
6,35 (1/4) tabs to be fitted by the user  
(example : AMP/Tyco 0-0141013-2).

#### MOUNTING PANEL END



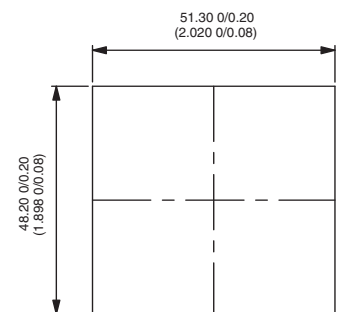
U2261

#### 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](http://www.apem.com)**