FNR series

Sealed rocker switches

✏ DISTINCTIVE FEATURES

Ideal for front / neutral / reverse selection
Easy to install
Excellent front panel sealing
Backlit logos

▣ ENVIRONMENTAL SPECIFICATIONS

• Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)

• Panel sealing; IP69K according to DIN 40050-9

⚡ ELECTRICAL SPECIFICATIONS

• Maximum voltage rating with resistive load: 24 VDC

• Current rating with resistive load: 0.03 to 1 A

• Initial contact resistance: <100 mohms

• Insulation resistance: >10 Gohms at 500 VDC

• Dielectric strength: 1000 Vrms 50 Hz min.

• Electrical life: 1.000.000 cycles at 100 mA
  100.000 cycles at 1 A

LED COMPONENT SPECIFICATIONS			
LED color	Forward current	Typ. forward voltage	Max. forward voltage
Blue	20 mA	3.3 V	4 V
Green	20 mA	2.1 V	2.5 V
Red	20 mA	1.9 V	2.5 V
Yellow	20 mA	2 V	2.5 V
White	20 mA	3.3 V	4 V
Red/green	20 mA	Red: 1.9 V / green: 2.1 V	2.5 V

A resistor must be series-connected by the user.

$$\text{Resistor value} = \frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$$
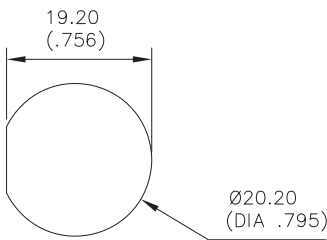
FNR series

Sealed rocker switches

GENERAL SPECIFICATIONS

- • Total travel: ± 15°.
- • Typical operating force at center: 5 N ± 1
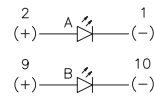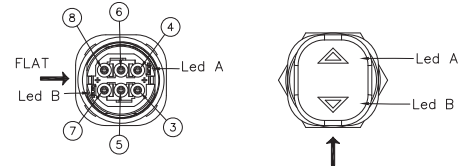- • Mechanical life: 1.000.000 cycles

MATERIALS

- • Contacts : Gold alloy
- • Case : PBT
- • Actuator : PA6-6
- • Overmoulding: Polyamide

APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.
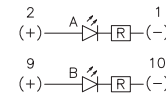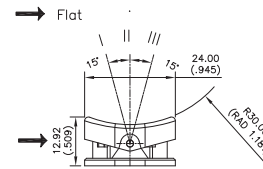
PANEL CUT-OUT

19.20 (.756)

Ø20.20 (DIA .795)

WIRING DIAGRAM

WIRING DIAGRAM

FLAT
Led B
Led A

Led A
Led B

2 (+) A 1 (−)
9 (+) B 10 (−)

Without resistor

2 (+) A R 1 (−)
9 (+) B R 10 (−)

With resistor

Wire colors (F & C output)	
10	Brown
9	Orange
8	White
7	Black
6	Blue
5	Yellow
4	Red
3	Green
2	Purple
1	Grey

POSITION

Flat
15° 15°
24.00 (.945)
12.92 (.509)
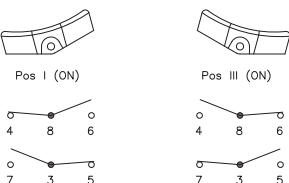R30.00 (RAD 1.181)

CONNECTOR FOR C OUTPUT

- • Illuminated : Molex 510651000
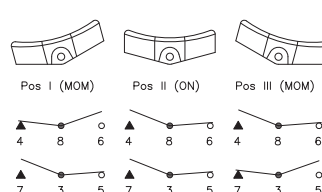- •Non-illuminated : Molex 510650600

ELECTRICAL FUNCTIONS AND CONNECTIONS

In the tables below, terminal connections as viewed from bottom of switch. Only the contact area is represented.

x = w/o terminal
o = with terminal
▲ = momentary

2 POSITIONS

Pos I (ON)   Pos III (ON)

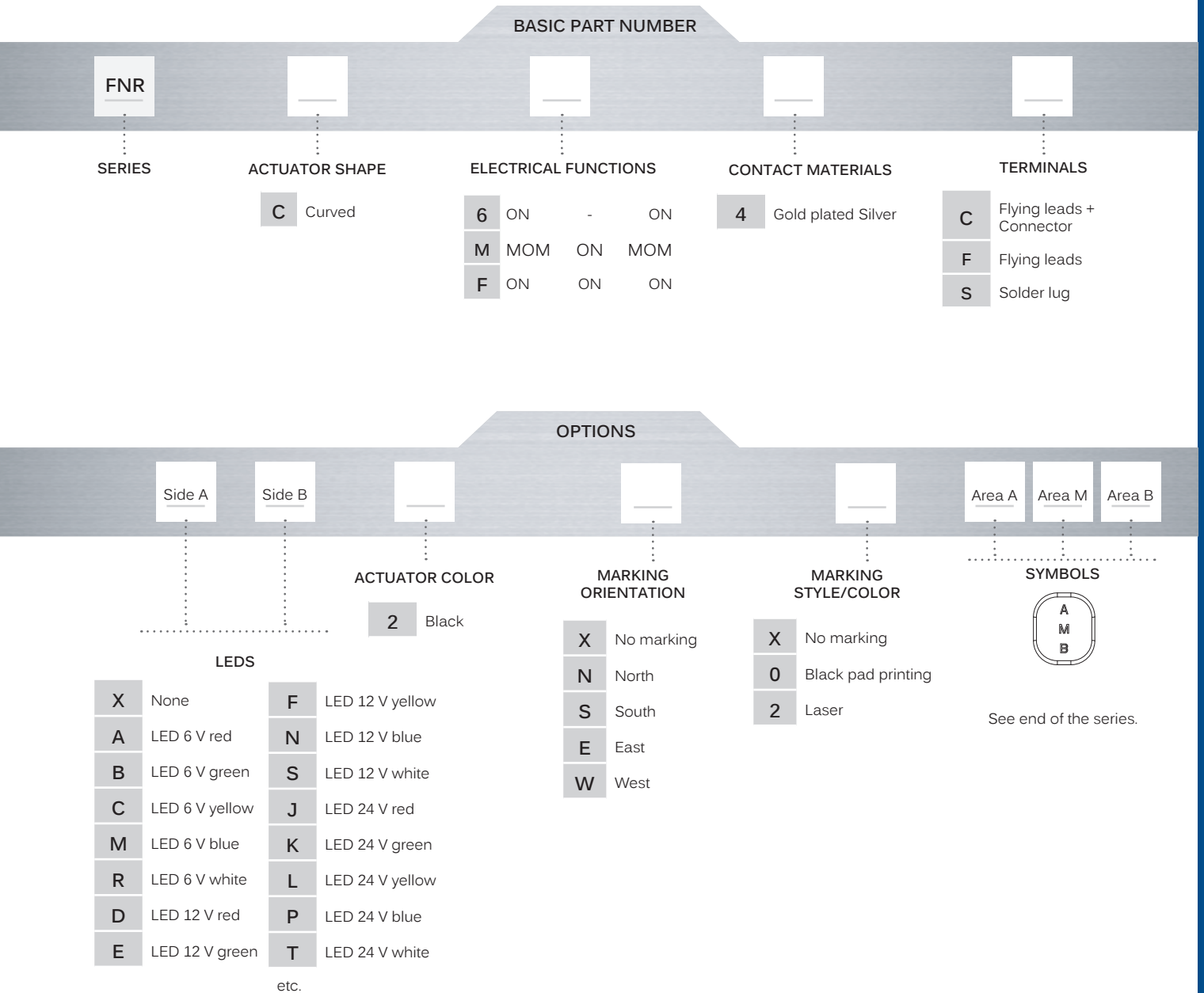4 8 6
7 3 5

4 8 6
7 3 5

3 POSITIONS MOM-ON-MOM

Pos I (MOM)   Pos II (ON)   Pos III (MOM)

4 8 6
7 3 5

4 8 6
7 3 5

4 8 6
7 3 5

3 POSITIONS ON-ON-ON

Pos I (ON)   Pos II (ON)   Pos III (ON)

4 8 6
7 3 5

4 8 6
7 3 5

4 8 6
7 3 5

FNR series

Sealed rocker switches

BUILD YOUR PART NUMBER

BASIC PART NUMBER

FNR				
SERIES	ACTUATOR SHAPE	ELECTRICAL FUNCTIONS	CONTACT MATERIALS	TERMINALS

ACTUATOR SHAPE

C	Curved

ELECTRICAL FUNCTIONS

6	ON	-	ON
M	MOM	ON	MOM
F	ON	ON	ON

CONTACT MATERIALS

4	Gold plated Silver

TERMINALS

C	Flying leads + Connector
F	Flying leads
S	Solder lug

OPTIONS

Side A	Side B				Area A	Area M	Area B
LEDS		ACTUATOR COLOR	MARKING ORIENTATION	MARKING STYLE/COLOR		SYMBOLS	

ACTUATOR COLOR

2	Black

LEDS

X	None	F	LED 12 V yellow
A	LED 6 V red	N	LED 12 V blue
B	LED 6 V green	S	LED 12 V white
C	LED 6 V yellow	J	LED 24 V red
M	LED 6 V blue	K	LED 24 V green
R	LED 6 V white	L	LED 24 V yellow
D	LED 12 V red	P	LED 24 V blue
E	LED 12 V green	T	LED 24 V white

etc.

MARKING ORIENTATION

X	No marking
N	North
S	South
E	East
W	West

MARKING STYLE/COLOR

X	No marking
0	Black pad printing
2	Laser

SYMBOLS

A
M
B

See end of the series.

ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

Notice: please note that not all combinations of above numbers are available. Refer to the following pages for further information.

Mounting accessories : Standard hardware supplied : 1 hex nut and 1 O-Ring
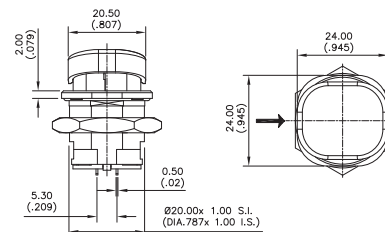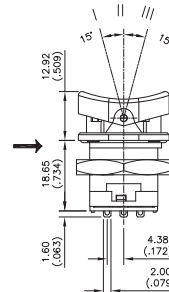
FNR series

Sealed rocker switches

SOLDER LUG TERMINALS

CURVED ACTUATOR

FNRC64S	ON	ON
FNRCM4S	MOM	ON	MOM
FNRCF4S	ON	ON	ON

FLYING LEADS TERMINALS

CURVED ACTUATOR

FNRC64F	ON	ON
FNRCM4F	MOM	ON	MOM
FNRCF4F	ON	ON	ON
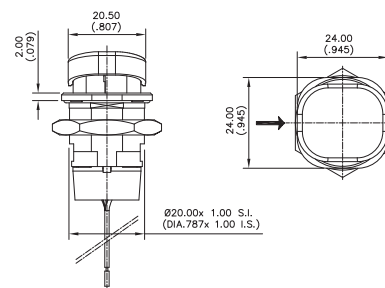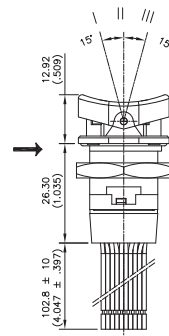
FLYING LEADS + CONNECTOR TERMINALS

CURVED ACTUATOR

FNRC64C	ON	ON
FNRCM4C	MOM	ON	MOM
FNRCF4C	ON	ON	ON

FNR series

Sealed rocker switches

LEDS

| BASIC P/N | Side A | Side B | | | | | | |
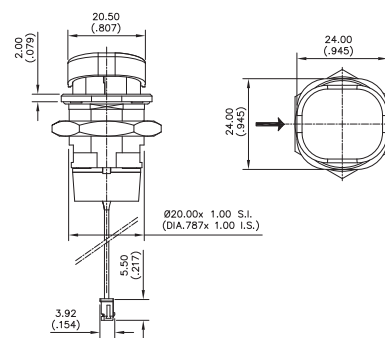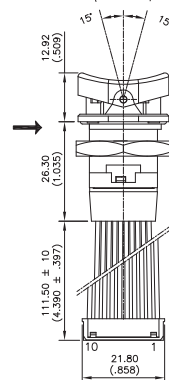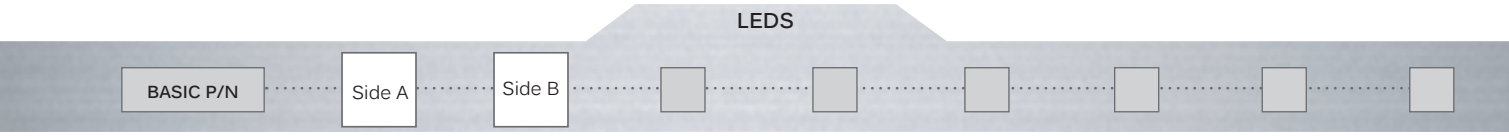
Complete each enlarged box with one of the codes listed below.

X   Without LED

	Red	Green	Yellow	Blue	White	Red/green
No resistor	**U**	**V**	**W**	**Y**	**Z**	**-**
12 VDC	**D**	**E**	**F**	**N**	**S**	**2**
24 VDC	**J**	**K**	**L**	**P**	**T**	**3**

12 VDC is calibrated for 15 VDC max
24 VDC is calibrated for 30 VDC max
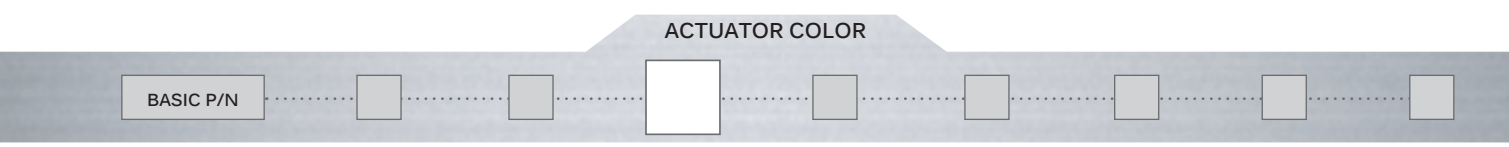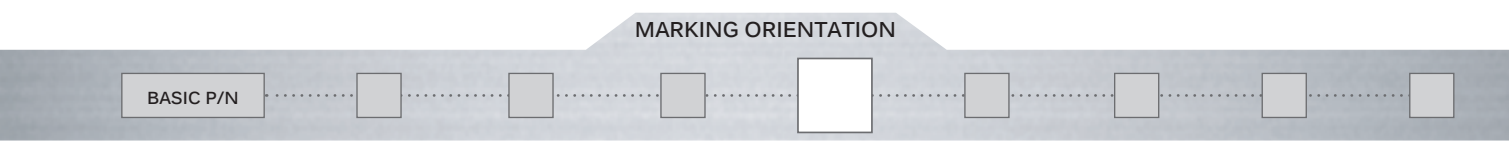
ACTUATOR COLOR

| BASIC P/N | | | | | | | | |

2   Black

MARKING ORIENTATION

| BASIC P/N | | | | | | | | |

X   No marking
N   North
S   South
E   East
W   West

MARKING STYLE /COLOR

| BASIC P/N | | | | | | | | |

X   No marking
0   Black pad printing
2   Laser

SYMBOLS

| BASIC P/N | | | | | | Area A | Area M | Area B |
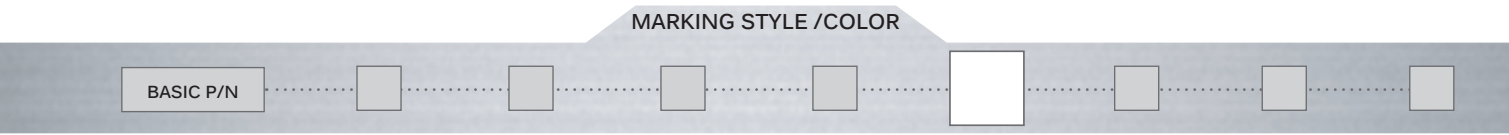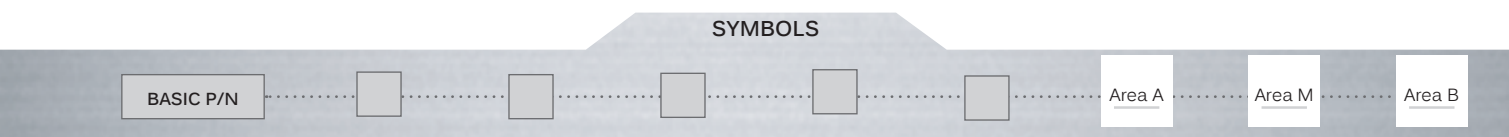
XXX   No marking
Other markings : see logo list

A
M
B
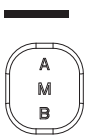
X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Rocker Switches *category:*

Click to view products by Apem *manufacturer:*

Other Similar products are found below :

LTILA6E-1S-WH-RC-FN12VXCR1 6-1571986-9 8007K26N324V52 8055K32Z7V 8055K52Z7V 8138K20E6M50 84206L 84312LX PREDD5-07F-BB0GW 999-16716-002 999-16716-003 999-16716-004 A101J1V3Q004 A101J2ZQ004 A101J4ZQ004 A101J51CB0004 A103J1ZQ004 A201J1AQ004 A201J3ZB004 A201J50ZQ004 A203J51ZQ0004 A435S1YZQ H8500XBBBBL-A H8653VBBG2577W HB130CHNWWNAAC R13112ABB-602W 1251.0303 AE205J60V3B004 1352.0107 1500G51E 1571099-3 1571987-4 1571987-5 1571989-7 1571988-5 B123J77V7B2 B226J50W4Q22P B433J37ZQ22M 160212E 1634200-7 1801.1164 1839.1502 PANEL-PLUG-VHP-BLACK PANEL-PLUG-VHP-WT K1ABBSCADN K2ABAAAAAA KG312A2DXD246X 250011E714 2600HM11E 2600R21E