

FM series

Snap-in rocker switches •
panel cut-out 19 x 13 (.750 x .508)



DISTINCTIVE FEATURES

For class II appliances

UL approved

Protection against moisture by double-shell case

Illuminated or non-illuminated

Optional sealing boot



ELECTRICAL AND GENERAL SPECIFICATIONS

- Approved ratings (functions 1 and 6) :
UL : 6 A 250 VAC & 125 VAC T 65°C
- Max. contact rating :
 - functions 1 and 6 : see above.
 - function 3 : 4 A 250 VAC
 - functions 8 and 9 : 6 A 250 VAC
- LED types available :
3.3 V (4 V max.) 10 mA LED (resistor to be series connected by the user)
5 V or 12 V LED with integrated resistor
- Initial contact resistance : 20 mΩ max.
- Insulation resistance : 1,000 MΩ min. at 500 VDC
- Dielectric strength :
 - functions 1 and 6 : 2,500 Vrms between terminals
 - functions 3, 8 and 9 : 1,500 Vrms between terminals
- Electrical life at full load : 10,000 cycles
- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)



MATERIALS

- Case, frame, rocker : PA6/6
- Contacts : silver
- Terminals : silver plated
- Lens : PC
- Lamp terminal : no plating
- Fluorescent lamp for blue or green lens, neon lamp for other colors

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

The company reserves the right to change specifications without notice.



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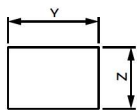
AGENCY APPROVALS



Availability : functions 1 and 6.
Marking : approved models are standard marked.



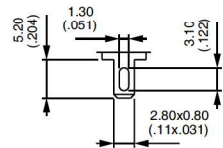
PANEL CUT-OUT



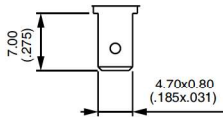
Panel thickness	Dim. Y	Dim. Z
0.75 to 1.25 mm	19.2 +0/-0.1	12.9 +0.15/-0
1.25 to 2 mm	19.4 +0/-0.1	12.9 +0.15/-0
2 to 3 mm	19.8 +0/-0.1	12.9 +0.15/-0



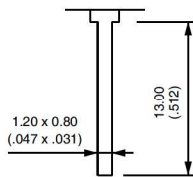
TERMINALS



2
Solder lug



8
Quick-connect



9
Straight PC
(functions 1 and 6 only)

FM series

Snap-in rocker switches •
panel cut-out 19 x 13 (.750 x .508) • non-illuminated



BUILD YOUR PART NUMBER

NON-ILLUMINATED
ILLUMINATED SEE NEXT PAGES

BASIC PART NUMBER

SERIES	ROCKER	ELECTRICAL FUNCTIONS	TERMINALS																										
FM	C Non illuminated Concave	<table border="1"> <tr><td>1</td><td>ON</td><td>-</td><td>OFF</td></tr> <tr><td>3</td><td>MOM</td><td>-</td><td>OFF</td></tr> <tr><td>6</td><td>ON</td><td>-</td><td>ON</td></tr> <tr><td>8</td><td>ON</td><td>OFF</td><td>MOM</td></tr> <tr><td>9</td><td>ON</td><td>OFF</td><td>ON</td></tr> </table>	1	ON	-	OFF	3	MOM	-	OFF	6	ON	-	ON	8	ON	OFF	MOM	9	ON	OFF	ON	<table border="1"> <tr><td>2</td><td>Solder lug</td></tr> <tr><td>8</td><td>Quick-connect</td></tr> <tr><td>9</td><td>Straight PC (funct. 1 & 6)</td></tr> </table>	2	Solder lug	8	Quick-connect	9	Straight PC (funct. 1 & 6)
1	ON	-	OFF																										
3	MOM	-	OFF																										
6	ON	-	ON																										
8	ON	OFF	MOM																										
9	ON	OFF	ON																										
2	Solder lug																												
8	Quick-connect																												
9	Straight PC (funct. 1 & 6)																												

OPTIONS

CONTACTS	FRAME COLOR	ROCKER COLORS	LENS COLOR	LAMP	MARKING																														
A Silver	2 Black Others : on request.	<table border="1"> <tr><td>1</td><td>Blue</td></tr> <tr><td>2</td><td>Black (std)</td></tr> <tr><td>3</td><td>Green</td></tr> <tr><td>4</td><td>Grey</td></tr> <tr><td>5</td><td>Yellow</td></tr> <tr><td>6</td><td>Red (std)</td></tr> <tr><td>7</td><td>Ivory</td></tr> <tr><td>7/1</td><td>White</td></tr> <tr><td>9</td><td>Orange</td></tr> </table>	1	Blue	2	Black (std)	3	Green	4	Grey	5	Yellow	6	Red (std)	7	Ivory	7/1	White	9	Orange	0 No lens	0 None	<table border="1"> <tr><td>000</td><td>None</td></tr> <tr><td>001</td><td>0</td></tr> <tr><td>002</td><td>0 -</td></tr> <tr><td>003</td><td>0 I</td></tr> <tr><td>004</td><td>I 0 II</td></tr> <tr><td>005</td><td>OFF 0</td></tr> </table>	000	None	001	0	002	0 -	003	0 I	004	I 0 II	005	OFF 0
1	Blue																																		
2	Black (std)																																		
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4	Grey																																		
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7	Ivory																																		
7/1	White																																		
9	Orange																																		
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002	0 -																																		
003	0 I																																		
004	I 0 II																																		
005	OFF 0																																		



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.



A sealing boot is available to protect the switches against sand or splashing water. Part number U7720. See "Sealing boots" section of website.

FM series

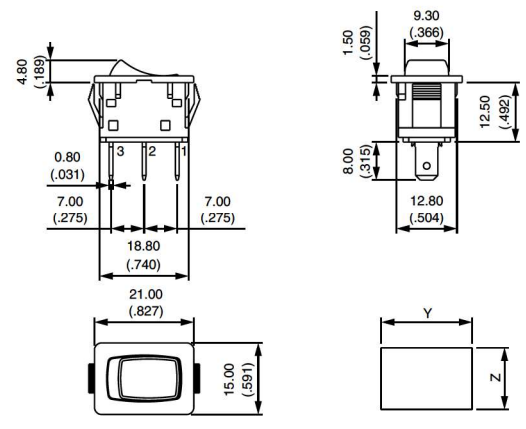
Snap-in rocker switches •
panel cut-out 19 x 13 (.750 x .508) • non-illuminated

NON-ILLUMINATED QUICK-CONNECT TERMINALS

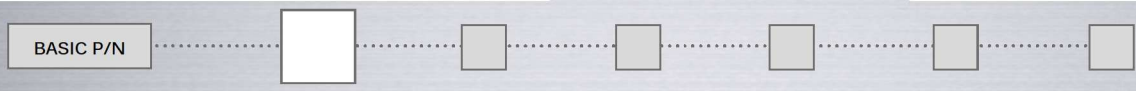


Single pole	1-2		2-3
FMC18	ON	-	OFF
FMC38	MOM	-	OFF
FMC68	ON	-	ON
FMC88	ON	OFF	MOM
FMC98	ON	OFF	ON

For solder lug terminals, replace 8 with 2 (FMC•2)
For straight PC terminals, replace 8 with 9 (FMC•9)



CONTACT MATERIALS



A Silver

FRAME COLOR



2 Black

Others : on request

ROCKER COLORS



- 1 Blue
- 2 Black (std)
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red (std)
- 7 Ivory
- 7/1 White
- 9 Orange

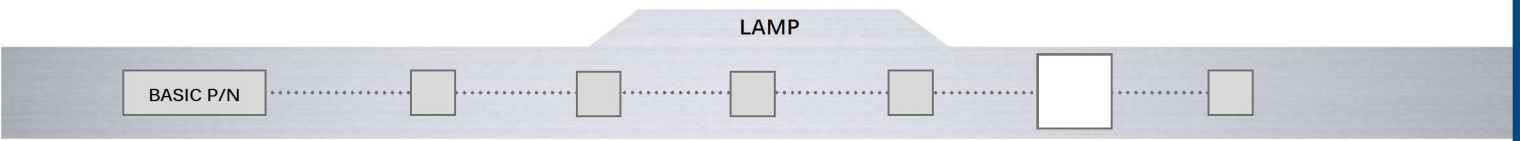
LENS COLOR



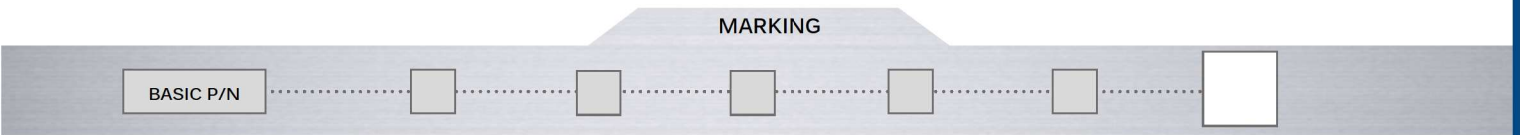
0 No lens

FM series

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0 None



Color of marking : white for black rockers - black for other colors - Other : on request.

000 None

001

0

002

0	—
---	---

003

○	I
---	---

004

I	0	II
---	---	----

005

0	II
---	----

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panel cut-out 19 x 13 (.750 x .508) • illuminated

BUILD YOUR PART NUMBER

ILLUMINATED

BASIC PART NUMBER

FM	L		
SERIES	ROCKER	ELECTRICAL FUNCTION	TERMINALS
	L Illuminated Concave	1 ON - OFF	8 Quick-connect

OPTIONS

A					
CONTACTS	FRAME COLOR	ROCKER COLORS	LENS COLOR		MARKING
A Silver	2 Black Others : on request.	1 Blue 2 Black (std) 3 Green 4 Grey 5 Yellow 6 Red (std) 7 Ivory 7/1 White 9 Orange	1 Blue* 3 Green* 5 Yellow 6 Red 8 Translucent 9 Orange * with fluorescent lamp		000 None 001 0

LAMP	LED 3.3 V 10 MA	LED 5 V	LED 12 V
A 220 V neon	E Blue	N Green	T Green
B 220 V fluor.	F Red/green	P Yellow	U Yellow
C 110 V neon	G Green	Q Red	V Red
D 110 V fluor.	H Yellow		
	J White		
	K Red		
	L orange		

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

No resistor**

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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.
-  **A sealing boot** is available to protect the switches against sand or splashing water. Part number U7720. See "Sealing boots" section of website.

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ILLUMINATED QUICK-CONNECT TERMINALS

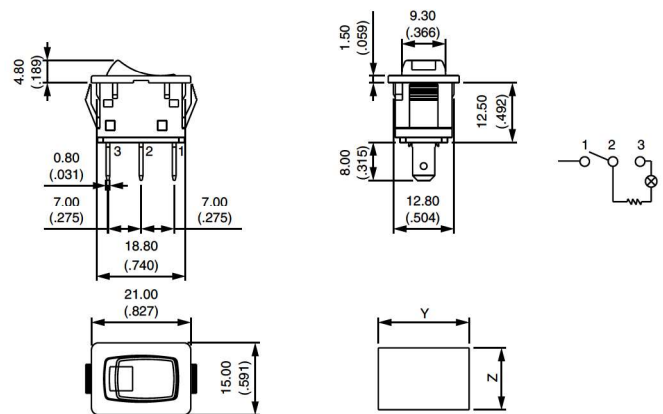


Single pole

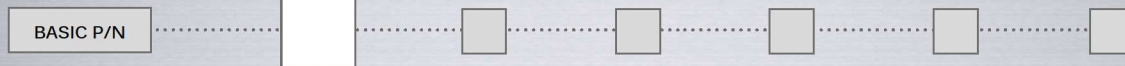
FML18

ON - OFF

For LED models, terminal 2 = cathode (-), terminal 3 = anode (+)



CONTACT MATERIALS



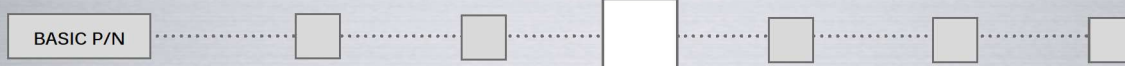
A Silver

FRAME COLOR



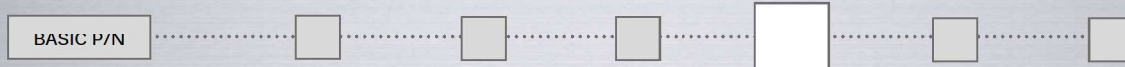
2 Black
Others : on request

ROCKER COLORS



- 1 Blue
- 2 Black (std)
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red (std)
- 7 Ivory
- 7/1 White
- 9 Orange

LENS COLORS

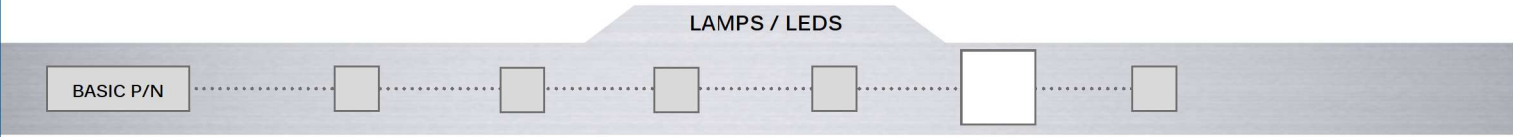


- 1 Blue *
- 3 Green *
- 5 Yellow
- 6 Red
- 8 Translucent
- 9 Orange

* with fluorescent lamp

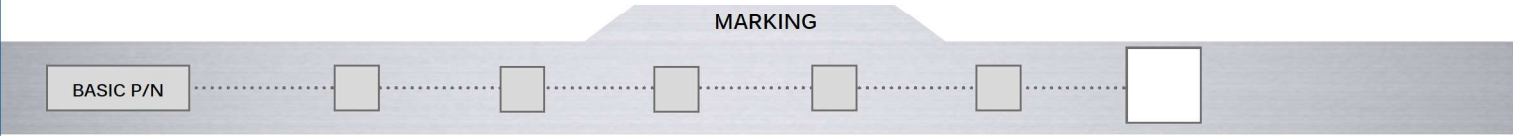
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LAMP		LED 3.3 V 10 mA		LED 5 V		LED 12 V	
A	220 V neon	E	Blue	N	Green	T	Green
B	220 V fluorescent	F	Red/green	P	Yellow	U	Yellow
C	110 V neon	G	Green	Q	Red	V	Red
D	110 V fluorescent	H	Yellow				
		J	White				
		K	Red				
		L	Orange				
		No resistor **					

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



Color of marking : white for black rockers - black for other colors - Other : on request.

000	None
001	0