

# FP series

Fully illuminated pushbutton switches - bushing Ø 24 mm - momentary or latching

*Distinctive features and specifications*



Full actuator or symbol illumination

UG1212-A-R1

Suited for integrated designs

Large but lightweight

Sealed to IP69K

Pad printed or laser etched symbols

	Pad printing	Laser
Non-illuminated		
Illuminated		

## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (code 2) : 4A 12VDC
  - gold plated contacts (code 4) : 200mA 12VDC
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.000 Vrms 50 Hz min.
- Electrical life at full load :
  - Momentary models : 1 million cycles (gold plated contacts)
  - 400.000 cycles (silver contacts)
  - Latching models : 200.000 cycles

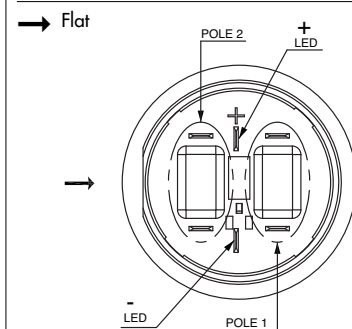
## MATERIALS

- Case : PA46
- Actuator : PA12
- Bushing/ bezel : PA66
- Contacts : silver (code 2) or silver, gold plated (code 4)
- Cable : length 300 mm, section depending on switch model
- Terminal seal : epoxy or overmolding

## GENERAL SPECIFICATIONS

- Sealing : IP69K according to DIN 40050-9
- Panel thickness : 1(.039) to 18 mm (.708) max.
- Total travel : 2,5 mm ± 0,5 mm
- Typical operating force : 8N ± 2N
- Low level or mechanical life :
  - Momentary models : 1 million cycles
  - Latching models : 200.000 cycles
- Torque : 3 Nm max. applied to nut
- Operating temperature : -40°C to +75°C

## WIRING DIAGRAM



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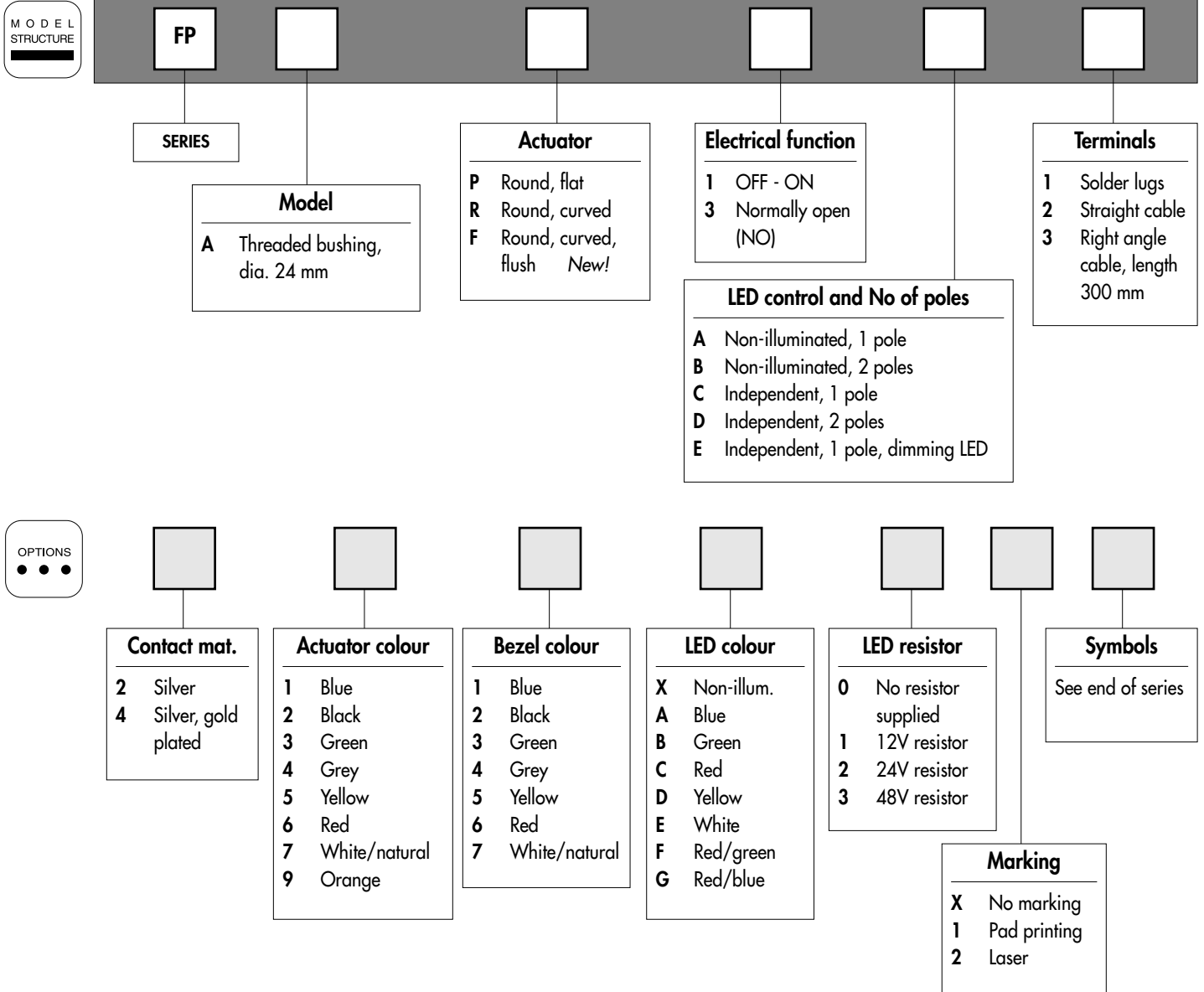
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Overview



## ABOUT THIS SERIES

On the following pages, you will find successively :  
 model structure of switches and options in the same order as in above chart

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



**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

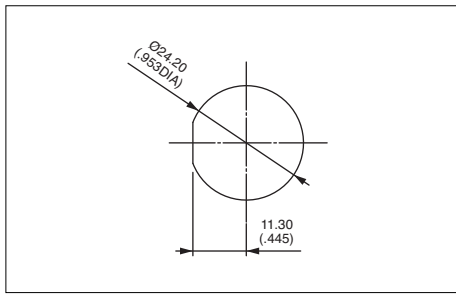


**Packaging unit** : solder lug versions : 20 pieces - cable versions : 1 piece



# FP series

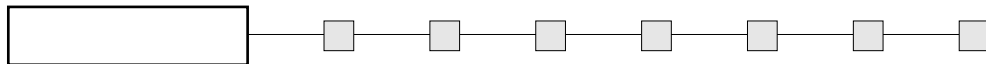
Fully illuminated pushbutton switches - bushing Ø 24 mm - momentary or latching



- Three terminal types
- Curved or flat actuator

To order a product, replace • with one of the codes selected under "LED control and number of poles" on next page, then add the desired options.

MODEL STRUCTURE



## Solder lug terminals



**LATCHING**  
Curved actuator  
**FPAR1•1**  
Flat actuator  
**FPAP1•1**

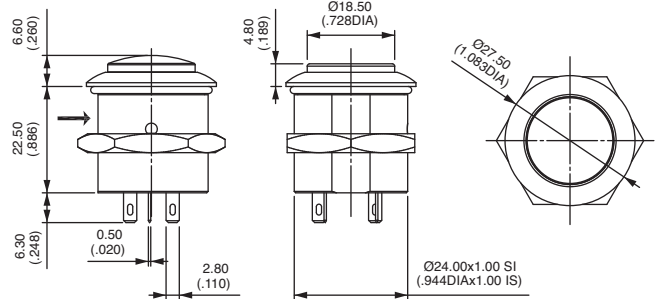
**MOMENTARY (NO)**  
Curved actuator  
**FPAR3•1**  
Flat actuator  
**FPAP3•1**

OFF - ON

OFF ON



→ Flat



## Straight cable terminals



**LATCHING**  
Curved actuator  
**FPAR1•2**  
Flat actuator  
**FPAP1•2**

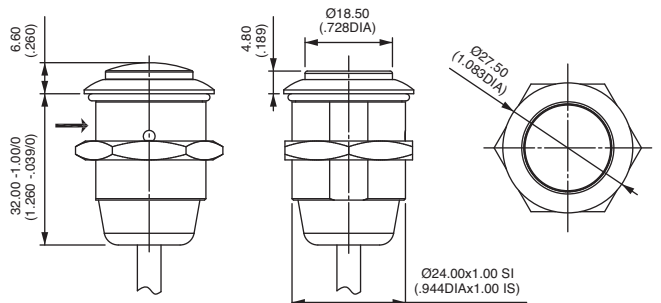
**MOMENTARY (NO)**  
Curved actuator  
**FPAR3•2**  
Flat actuator  
**FPAP3•2**

OFF - ON

OFF ON



→ Flat



## Right angle cable terminals



**LATCHING**  
Curved actuator  
**FPAR1•3**  
Flat actuator  
**FPAP1•3**

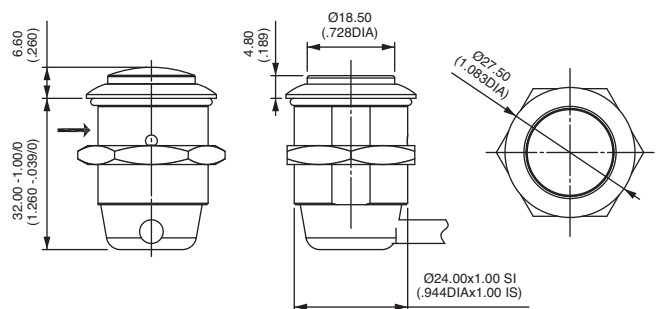
**MOMENTARY (NO)**  
Curved actuator  
**FPAR3•3**  
Flat actuator  
**FPAP3•3**

OFF - ON

OFF ON



→ Flat



B2

# FP series

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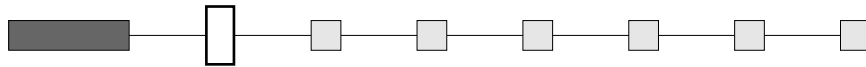
## Options

### LED CONTROL AND NUMBER OF POLES

Complete the model numbers on previous pages with one of the following codes.

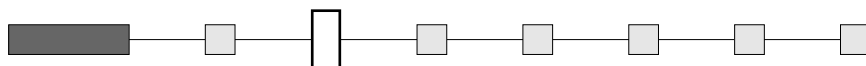
	Function 1 (latching)	Function 3 (momentary)		Function 1 (latching)	Function 3 (momentary)
Non-illuminated one pole <b>A</b>			Independent one pole <b>C</b>		
Non-illuminated two poles <b>B</b>			Independent two poles <b>D</b>		
			Independent one pole Dimming LED <b>E</b>		dotted line = jumper to be wired by the user. LED- has to be wired to one pin of pole 2.

### CONTACT MATERIALS



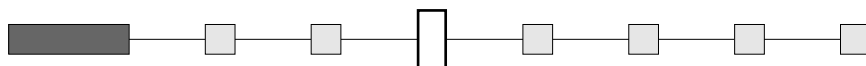
- 2 Silver
- 4 Silver, gold plated

### ACTUATOR COLOUR



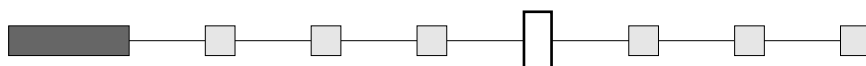
- 1 : blue - 2 : black - 3 : green - 4 : grey - 5 : yellow - 6 : red - 7 : white/natural - 9 : orange

### BEZEL COLOUR



- 1 : blue - 2 : black - 3 : green - 4 : grey - 5 : yellow - 6 : red - 7 : white/natural

### LED COLOUR

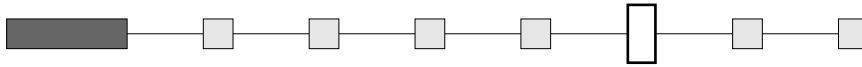


- X : non-illuminated
- A : blue - B : green - C : red - D : yellow - E : white - F : red/green - G : red/blue

B2

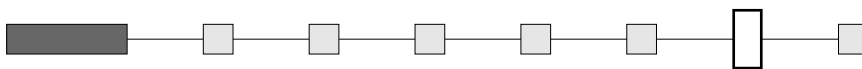


### LED RESISTOR



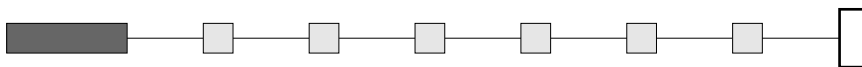
- 0 No resistor supplied
- 1 12V resistor
- 2 24V resistor
- 3 48V resistor

### MARKING



- X No marking
- 1 Pad printing
- 2 Laser

### SYMBOLS



- XX No symbol

**Available symbols**  
See end of K-range, section D.

#### Marking colour

White marking for illuminated actuators (laser etching) and non-illuminated black actuators (pad printing). Black marking for non-illuminated colour actuators (pad printing). Other : on request.

#### Marking area

The symbol will be included in the hatched area.

