

# FP series

## Fully illuminated pushbutton switches - momentary or latching

*Distinctive features and specifications*



- Suited for integrated designs
- Large but lightweight
- Pad printed or laser etched symbols
- Full actuator or symbol illumination, adaptable to design requirements

	Pad printing	Laser
Non-illuminated		
Illuminated		

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 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 : 300.000 cycles

### GENERAL SPECIFICATIONS

- Panel thickness : 1(.039) to 18 mm (.708) max.
- Total travel : 2,8 mm ± 0,5 mm
- Typical operating force : 8N ± 2N
- Mechanical life : 1 million cycles
- Torque : 3 Nm max. applied to nut
- Operating temperature : -40°C to +75°C

### MATERIALS

- Case : stanyl PA46
- Actuator : PA12
- Bushing/ bezel : PA66
- Contacts : silver, gold plated (code 4)
- Multi-wire lead AWG22
- Terminal seal : epoxy or termelt overmolding

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

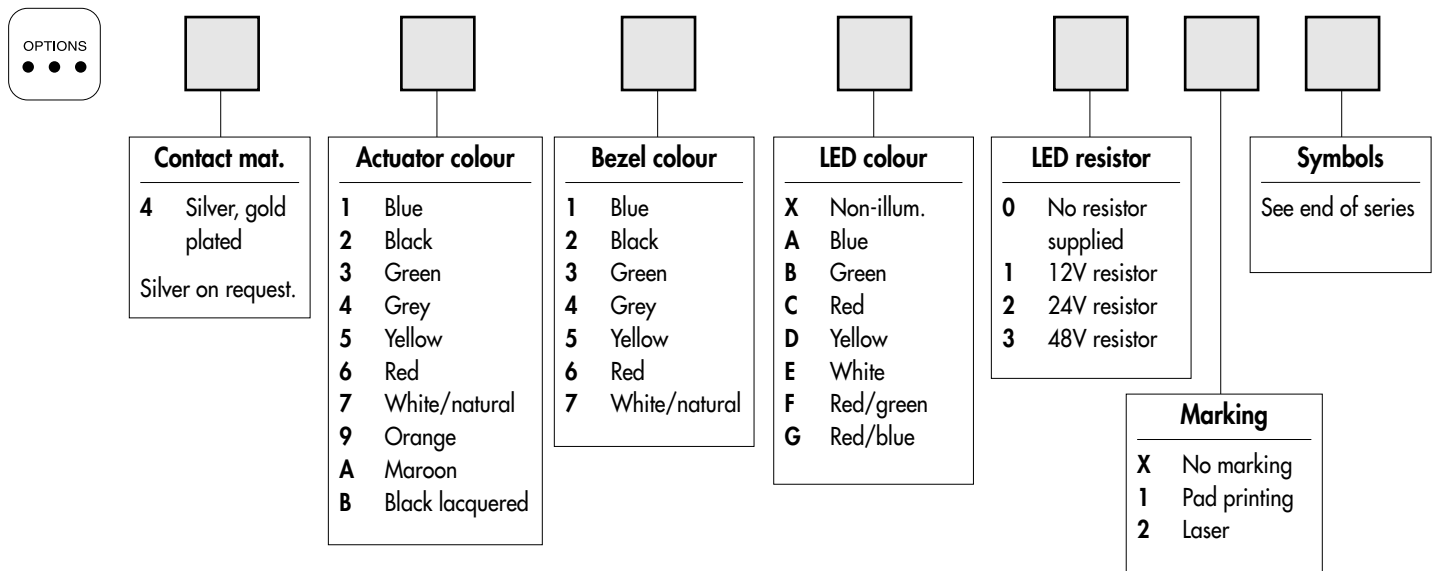
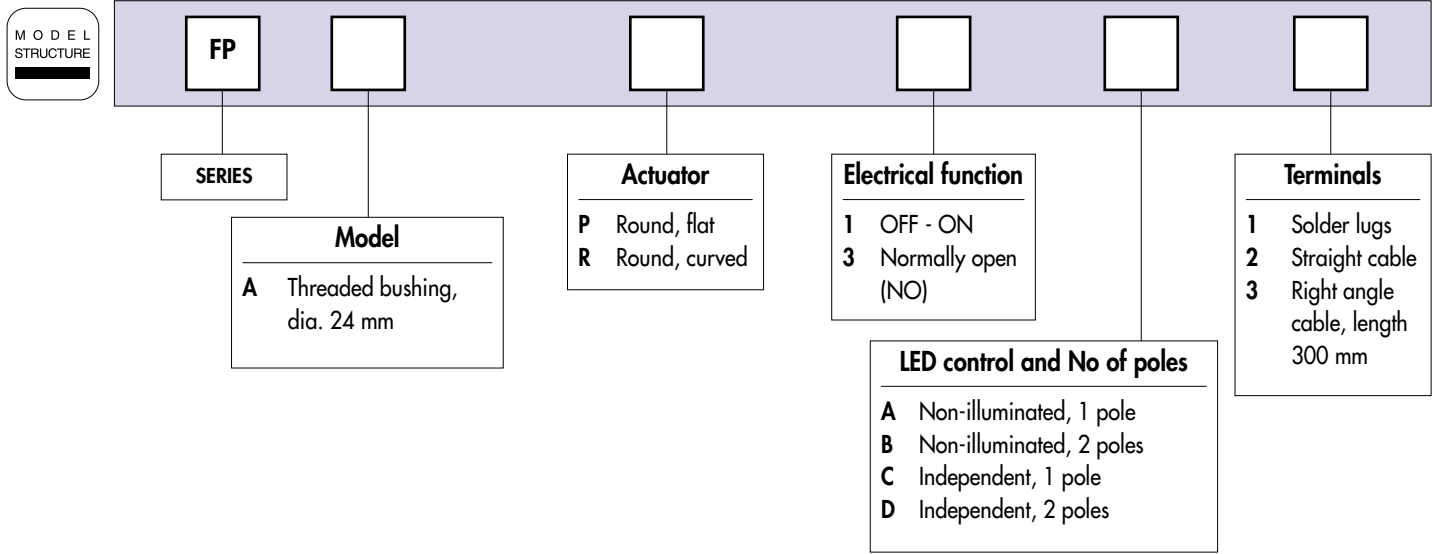
**Tolerance** : The general tolerance for dimensions in this brochure is ± 0,3 (.012).

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

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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 bracketted 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

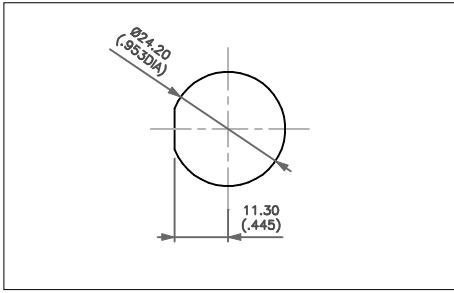


**Packaging unit** : solder lug versions : 20 pieces - cable versions : 1 piece

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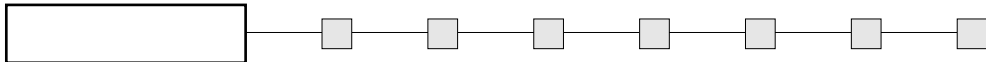
Mounting by  $\varnothing 24$  mm threaded bushing



- 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

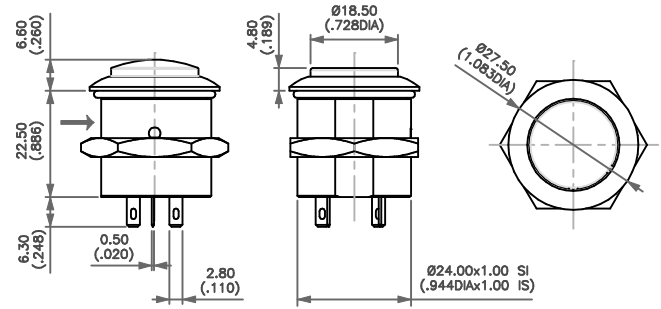


**LATCHING**  
Curved actuator  
**FPAR1•1**  
Flat actuator  
**FPAP1•1**

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

OFF - ON

OFF ON



## Straight cable terminals

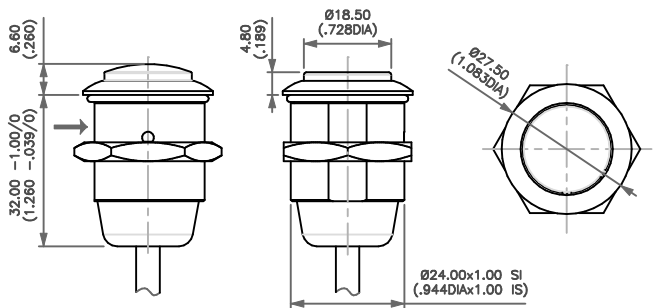


**LATCHING**  
Curved actuator  
**FPAR1•2**  
Flat actuator  
**FPAP1•2**

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

OFF - ON

OFF ON



## Right angle cable terminals

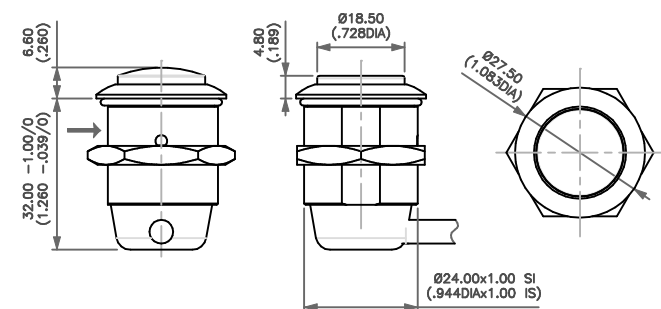


**LATCHING**  
Curved actuator  
**FPAR1•3**  
Flat actuator  
**FPAP1•3**

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

OFF - ON

OFF ON



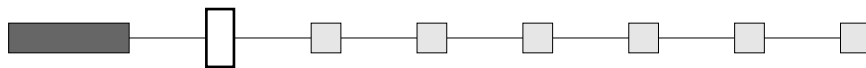


### LED CONTROL AND NUMBER OF POLES

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>		

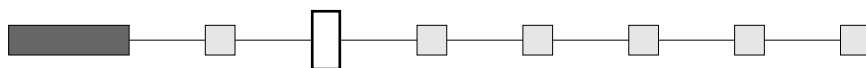
### CONTACT MATERIALS



**4** Silver, gold plated

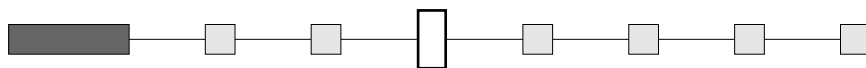
Silver : on request.

### ACTUATOR COLOUR



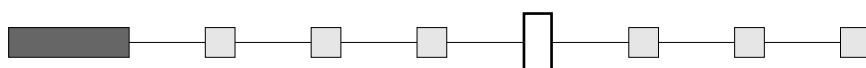
**1** : blue - **2** : black - **3** : green - **4** : grey - **5** : yellow - **6** : red - **7** : white/natural  
**9** : orange - **A** : maroon - **B** : black, lacquered

### BEZEL COLOUR



**1** : blue - **2** : black - **3** : green - **4** : grey - **5** : yellow  
**6** : red - **7** : white/natural - **8** : bright chrome

### LED COLOUR



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

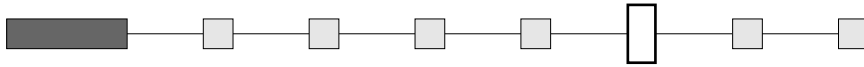
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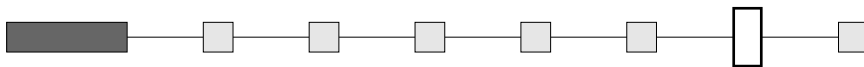
## Options

### LED RESISTOR



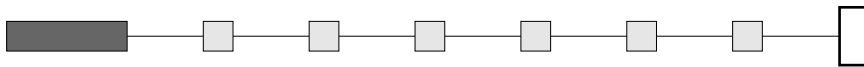
- 0 No resistor supplied
- 1 12V resistor
- 2 24V resistor
- 3 48V resistor

### MARKING



- X No marking
- 1 Pad printing
- 2 Laser

### SYMBOLS



- XX No symbol

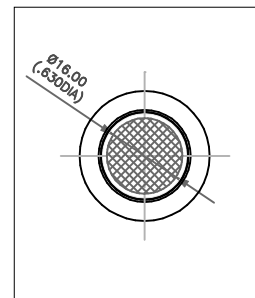
**Available symbols**  
See following pages.

#### 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.



Most symbols meet the ISO 7000 standard "graphical symbols for use on equipments" (code given in bracket in the description). Contact us for symbols not featured in the following tables.

#### Legend scale :

Depending on space available on the product (see "Symbols" section).

CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION
XX	None	-	16		Revolving light	32		Emergency first aid vehicle (2565)
01	ON	-	17		Rear ventilator	33		Load tipping (1557)
02	OFF	-	18		Heating (0637)	34		Loading light (2457)
03	O	-	19		Door opening	35		Tractor, rear-ward (1667)
04	I	-	20		Windshield demister/defroster (0635)	36		Combine, direction of movement (1678)
05	II	-	21		Windshield wiper (0086)	37		Use no forks (2406)
06	STOP	-	22		Windshield washer (0088)	38		Transmission (1166)
07	A	Stop	23		Ventilator fan (0089)	39		Working spot light (1145)
08	M	Motion	24		Side mirror defroster	40		Engine (0640)
09		Up motion	25		Restarting pump	41		Horn (0244)
10		Down motion	26		Front fog lights (0633)	42		Lock (1656)
11		Hot	27		Rear fog lights (0634)	43		Taxi sign light (2551)
12		Cold	28		Propulsion system trim	44		Working light (1204)
13		Hazard warning (0085)	29		Beacon (1141)	45		Working light symmetric (1204)
14		Traveller lighting	30		Anchor	46		-
15		Driver lighting (1421)	31		Electric motor (0011)	47	ASM	-

# FP series









































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### Symbols

Most symbols meet the ISO 7000 standard "graphical symbols for use on equipments" (code given in bracket in the description). Contact us for symbols not featured in the following tables.

#### Legend scale :

Depending on space available on the product (see "Symbols" section).

CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION	CODE	SYMBOL	DESCRIPTION
48		All wheel drive	64		Indicator	80		Front windshield heating
49		Differential lock (1662)	65		Brake release	81	AUS	Aus
50		-	66		Baggage room left door	82		Radiator fan
51		-	67		Baggage room right door	83		Remove retarder
52		-	68		Power blinds	84		Restricted speed
53	N	-	69		Engine idle control	85		Preheater
54		Rear window wiper (0097)	70	CRUISE RES/SET	Cruise res/set	86		ABS detection
55		Rear window washer (0099)	71		Driver windows up/down	87		ECAS detection
56		Lower load (2223)	72		Middle door opening	88		Engine stop
57		Cab lock (1560)	73		Front door opening	89	CRUISE RES/CAN	Cruise res/cancel
58		Extraction	74		Lighting in baggage room	90		ECAS reset
59		Pumping in	75	CRUISE ON/OFF	Cruise on/off	91		Driver windows heating
60		Rear PTO (1572)	76	TV	TV	92	CRUISE SET+/SET-	Cruise set
61		Front PTO	77		Pump	93		Air bag up/down
62		Rockshaft down	78	WC	Toilet	94		Read lighting
63		Rockshaft up	79		Toilet decontamination	95		Lighting main switch

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**Legend scale :**

Depending on space available on the product (see "Symbols" section).

CODE	SYMBOL	DESCRIPTION
96		Heating using water
97		Low beam
98		Position lights
99		Diesel acceleration
A1		Manual mode
A2		Clockwise cabin rotation
A3		Anticlockwise cabin rotation
A4		-
A5		-
A6		Parking brake
A7		-
A8		-
A9		-
AA		-
AB		-
AC		-

CODE	SYMBOL	DESCRIPTION
AD		-
AE		-
AF		-
AG		Battery charging condition (0247)
AH		Turn signals (0084)
AJ		High beam (0082)
AK		Differential lock, bogie (2600)
AL		Brushing with a rotating brush (0070)
AM		Differential lock, transfer case 4x4 (2475)
AN		Loader bucket, float (1441)
AP		Loader bucket (1437)
AQ		Rear window washer & wiper (0098)
AR		Header header drive (1579)
AS		Excavator/backhoe boom side shift (2091)
AT		Chemical water treatment (1851)
AU		Grapple skidder, single funct° boom (1762)

CODE	SYMBOL	DESCRIPTION
AV		-
AW		-
AY		-
AZ		-
B1	HIGH	-
B2	LOW	-
B3		-