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

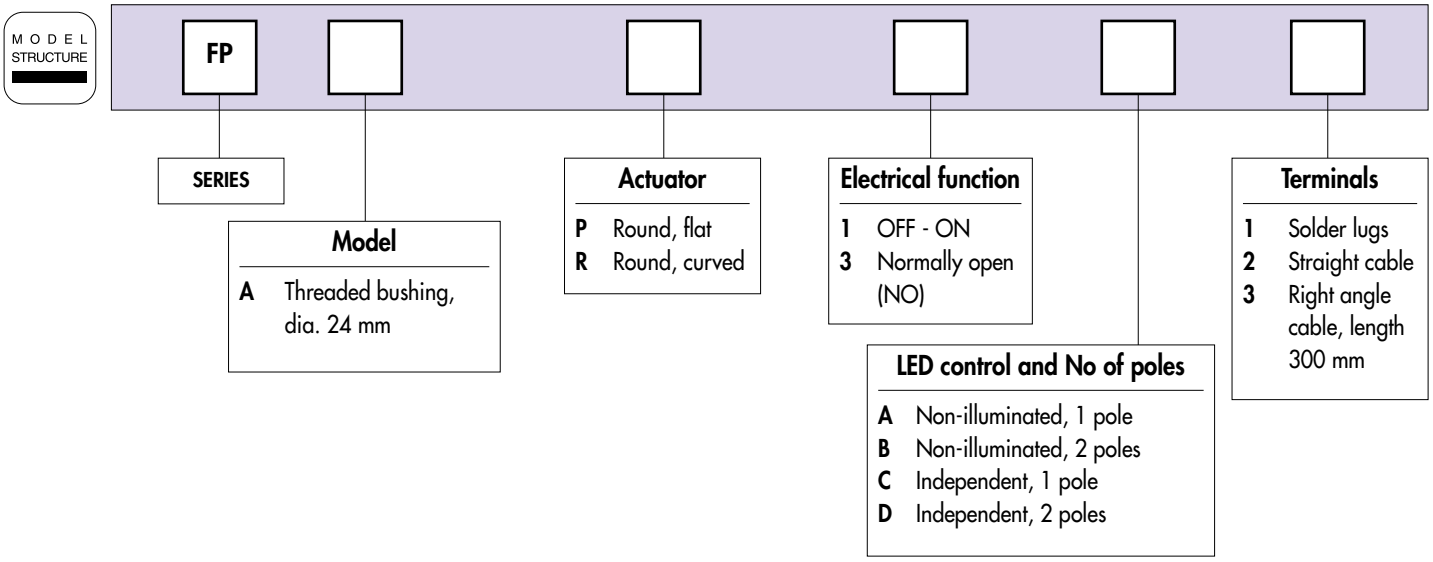
- Case : stanyl PA46
- Actuator : PA12
- Bushing/ bezel : PA66
- Contacts : silver, gold plated (code 4)
- Multi-wire lead AWG22
- Terminal seal : epoxy or termelt overmolding

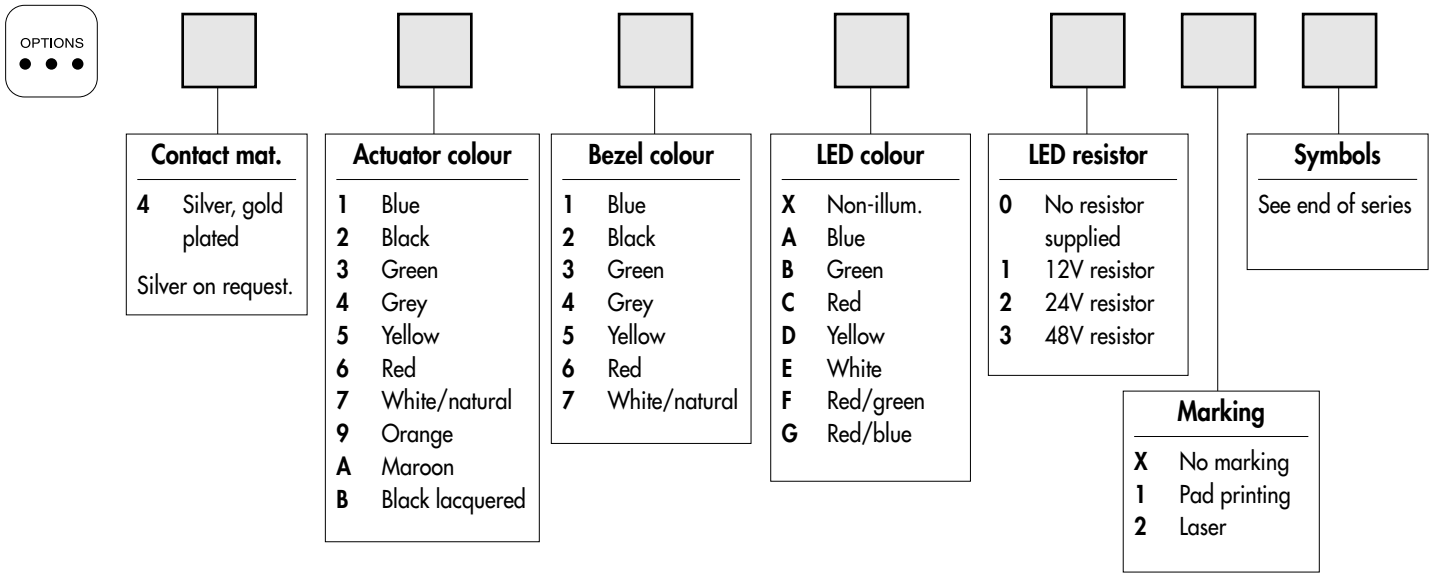
Dimensions : first dimensions are in mm while inches are shown as bracketted numbers.
Tolerance : The general tolerance for dimensions in this brochure is ± 0,3 (.012).
Dimensions, specifications and data shown in this brochure are subject to change without notice.

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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

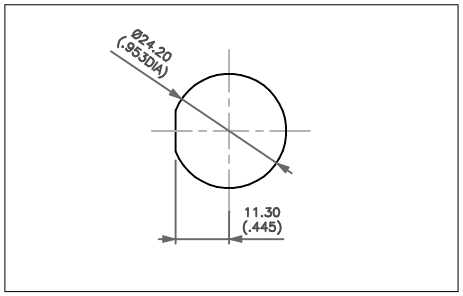
Packaging unit : solder lug versions : 20 pieces - cable versions : 1 piece

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Mounting by Ø 24 mm threaded bushing

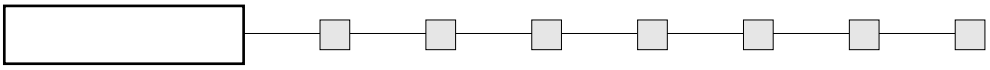
MODEL STRUCTURE



- 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 he desired options.

MODEL STRUCTURE

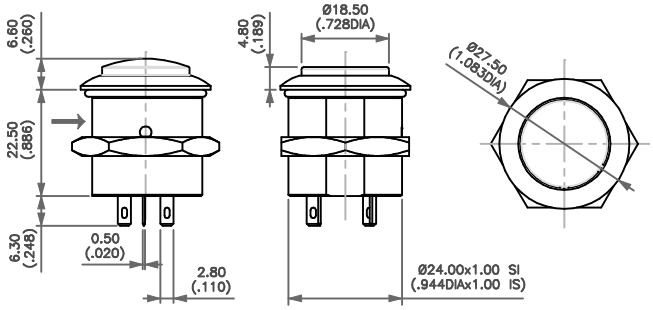


Solder lug terminals



LATCHING
Curved actuator
FPAR1•1 OFF - ON
Flat actuator
FPAP1•1 OFF ON

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

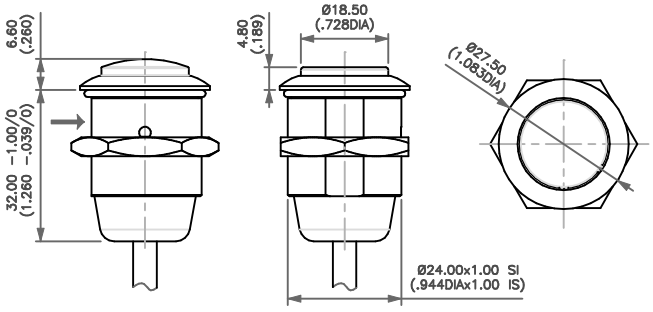


Straight cable terminals



LATCHING
Curved actuator
FPAR1•2 OFF - ON
Flat actuator
FPAP1•2 OFF ON

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

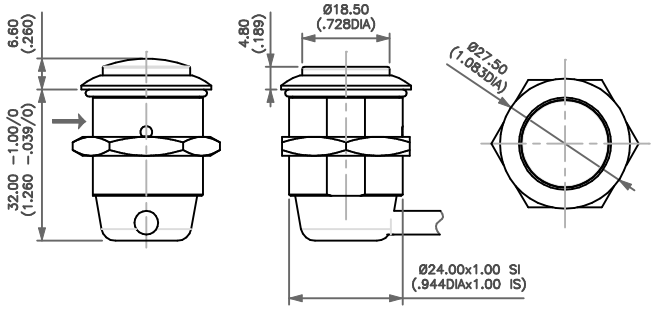


Right angle cable terminals



LATCHING
Curved actuator
FPAR1•3 OFF - ON
Flat actuator
FPAP1•3 OFF ON

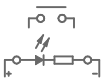
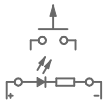
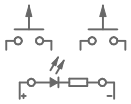
MOMENTARY (NO)
Curved actuator
FPAR3•3
Flat actuator
FPAP3•3



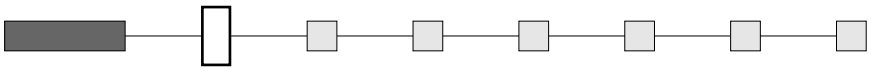
LED CONTROL AND NUMBER OF POLES

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

	Function 1 (latching)	Function 3 (momentary)
Non-illuminated one pole **A**		
Non-illuminated two poles **B**		

	Function 1 (latching)	Function 3 (momentary)
Independent one pole **C**		
Independent two poles **D**		

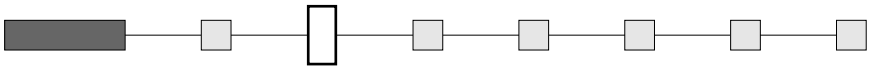
CONTACT MATERIALS



4 Silver, gold plated

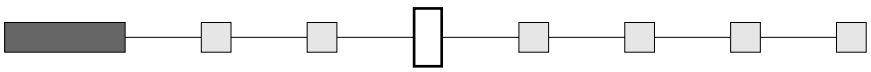
Silver : on request.

ACTUATOR COLOUR



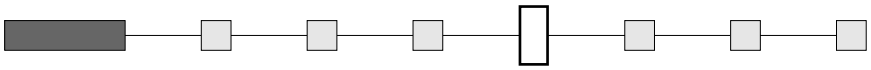
1 : blue - **2** : black - **3** : green - **4** : grey - **5** : yellow - **6** : red - **7** : white/natural
9 : orange - **A** : maroon - **B** : black, lacquered

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

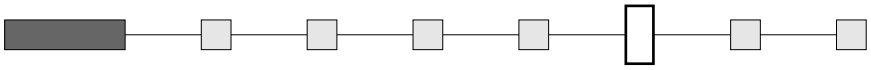
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Options

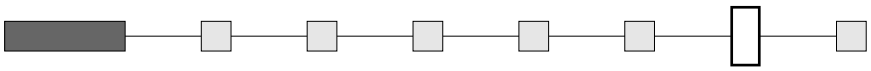
OPTIONS

LED RESISTOR



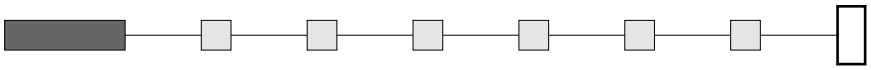
0 No resistor supplied
1 12V resistor
2 24V resistor
3 48V resistor

MARKING



X No marking
1 Pad printing
2 Laser

SYMBOLS

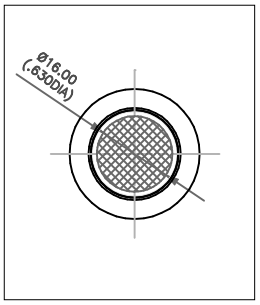


XX No symbol

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

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Symbols

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Legend scale :

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

CODE	SYMBOL	DESCRIPTION
48		All wheel drive
49		Differential lock (1662)
50		-
51		-
52		-
53	N	-
54		Rear window wiper (0097)
55		Rear window washer (0099)
56		Lower load (2223)
57		Cab lock (1560)
58		Extraction
59		Pumping in
60		Rear PTO (1572)
61		Front PTO
62		Rockshaft down
63		Rockshaft up

CODE	SYMBOL	DESCRIPTION
64		Indicator
65		Brake release
66		Baggage room left door
67		Baggage room right door
68		Power blinds
69		Engine idle control
70	CRUISE RES/SET	Cruise res/set
71		Driver windows up/down
72		Middle door opening
73		Front door opening
74		Lighting in baggage room
75	CRUISE ON/OFF	Cruise on/off
76	TV	TV
77		Pump
78	WC	Toilet
79		Toilet decontamination

CODE	SYMBOL	DESCRIPTION
80		Front windshield heating
81	AUS	Aus
82		Radiator fan
83		Remove retarder
84		Restricted speed
85		Preheater
86		ABS detection
87		ECAS detection
88		Engine stop
89	CRUISE RES/CAN	Cruise res/cancel
90		ECAS reset
91		Driver windows heating
92	CRUISE SET+/SET-	Cruise set
93		Air bag up/down
94		Read lighting
95		Lighting main switch

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
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		-