

# FD series

Double icon illuminated pushbuttons •  
bushing Ø 24 or 26 mm • momentary or latching



## DISTINCTIVE FEATURES

- Double icon actuator
- Snap-in and threaded bushing models
- Large but lightweight
- Sealed to IP69K (threaded bushing version)



## ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing :
  - Threaded bushing version : IP69K according to DIN 40050-9
  - Snap-in version : IP54 according to IEC 60529 with panel gasket and 2 mm panel thickness
- Operating temperature : -40 °C to +75 °C (40 °F to +167 °F)



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (code 2) : 4 A 12 VDC
  - gold plated contacts (code 4) : 200 mA 12 VDC
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- 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

LED COMPONENT SPECIFICATIONS			
LED color	Forward current	Typ. forward voltage	Max. forward voltage
Red/Green	20 mA / 20 mA	2.2 V / 3.2V	2.8 V / 4 V

A resistor must be series-connected by the user  
Resistor value = supply voltage - LED forward voltage

LED forward current



The company reserves the right to change specifications without notice.

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## GENERAL SPECIFICATIONS

- Panel thickness :
  - Snap-in version :  
1.5 (.059) to 2 mm (.078) with panel gasket  
2 (.078) to 2.5mm (.098) without panel gasket
  - Threaded bushing version :1(.039) to 15,5mm (.590) max.
- Total travel : 2.5 mm  $\pm$  0.5 mm
- Typical operating force : 8 N  $\pm$  2 N
- Low level or mechanical life :
  - Momentary models : 1 million cycles
  - Latching models : 200,000 cycles
- Torque : 2 Nm max. applied to nut



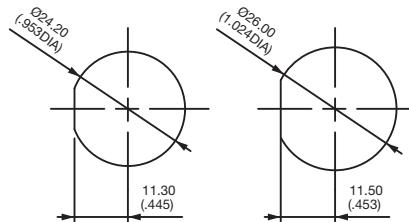
## MATERIALS

- Case : PA46
- Actuator : PA12
- Bushing/ bezel : PA66
- Contacts : silver (code 2) or silver, gold plated (code 4)

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

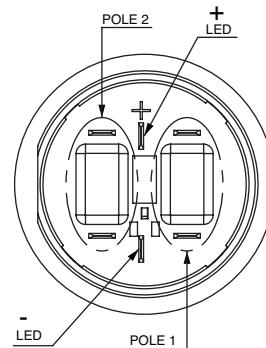


## PANEL CUT-OUT



## WIRING DIAGRAM

→ FLAT

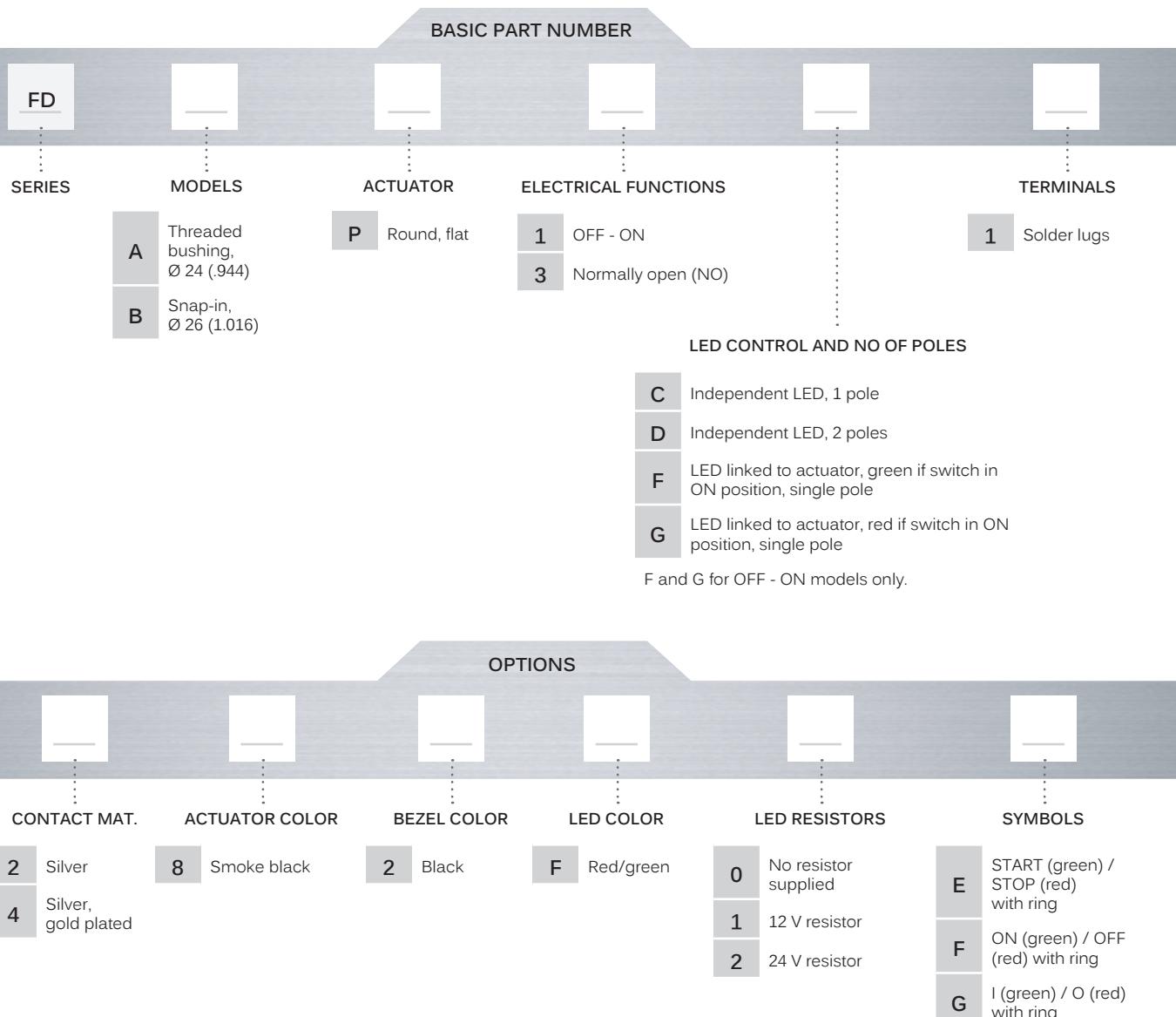


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## BUILD YOUR PART NUMBER



## 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.

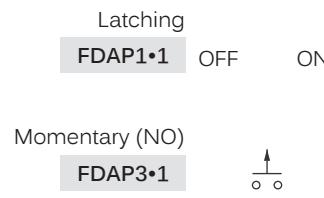
**Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

**Mounting accessories** : Standard hardware supplied : 1 hex nut (threaded bushing version) and 1 panel gasket.

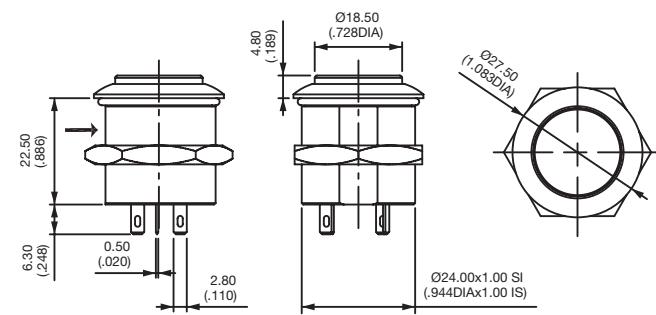
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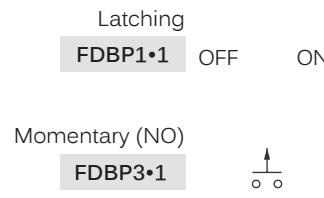
## MOUNTING BY THREADED BUSHING Ø 24 (.944)



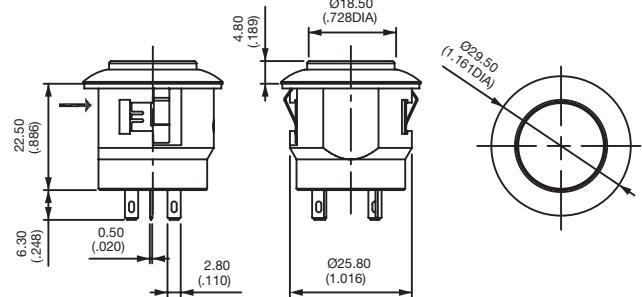
→ FLAT



## SNAP-IN MOUNTING Ø 26 (1.024)



→ FLAT



## LED CONTROL AND NUMBER OF POLES

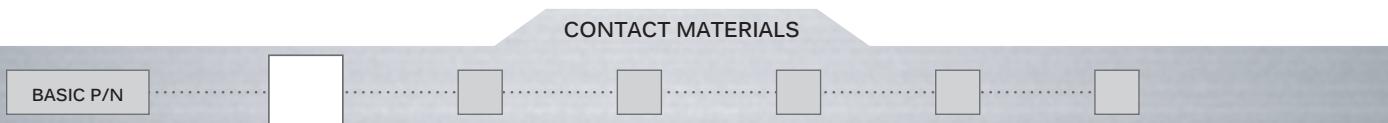
To order a product, replace • with one of the following codes, then add the desired options.

	Function 1 (latching)	Function 3 (momentary)
Independent LED single pole C		
Independent LED double pole D		
Green LED in ON position single pole F		-
Red LED in ON position single pole G		-

green line = jumper to be wired by the user. LED- has to be wired to one pin of pole 2.

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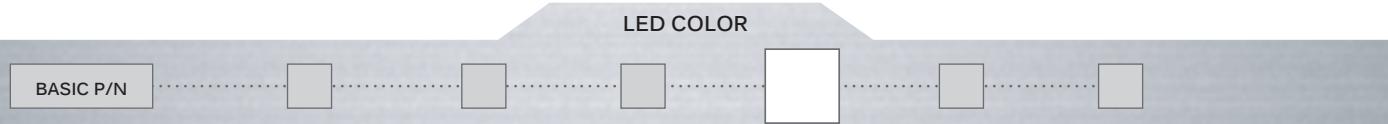
2 Silver  
4 Silver, gold plated



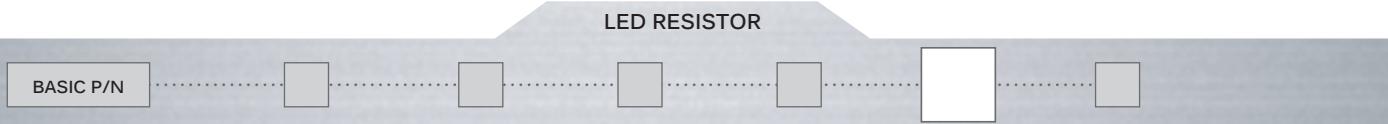
8 Smoke black



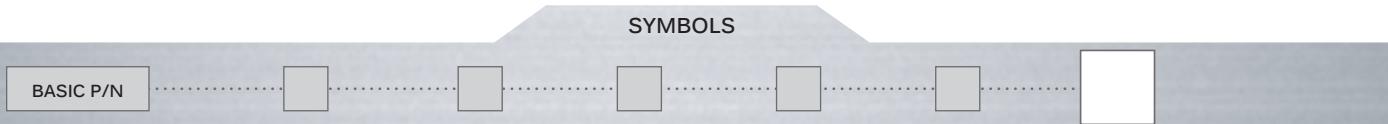
2 Black



F Red/green



0 No resistor supplied  
1 12 VDC resistor  
2 24 VDC resistor  
4 30 VDC resistor  
5 15 VDC resistor



E START (green) / STOP (red) with ring  
F ON (green) / OFF (red) with ring  
G I (green) / O (red) with ring

— FLAT



E



F



G