

# THE FL. SERIES RANGE, THE FIRST 12MM / 13MM PUSH BUTTON IN THE WORLD WITH A FULLY ILLUMINATED LENS.

Available in 12 mm and 13.5 mm standard mounting hole sizes, a unique high brightness full face illuminated switch and a non-illuminated version as a plug-in replacement for competitor products.

Designed and manufactured in France with IP67 sealing and rugged PA6.6 polyamide construction the FL.series has superb tactile feedback and vibrant single or bi-colour multi-LED illumination.

## MECHANICAL

 $\begin{array}{lll} \text{Travel} & 2 \text{ mm} \pm 0.3 \text{mm} \\ \text{Operating force} & 5 \text{ N} \pm 30\% \\ \text{Panel thickness} & 1 - 6 \text{ mm (max)} \\ \end{array}$ 

Terminal type Plug-in terminal 2.8 x 0.5 mm

Switching action Momentary
Torque 0.3 Nm

Mechanical Life (CEI 60542-5 9b) 1,000,000 cycles (max)

## ELECTRICAL

Dielectric strength 2500 VAC Insulation resistance (CEI 60512-2 3a)  $1G\Omega$ 

Contact resistance (CEI 60512-2 2a)  $< 50 m\Omega$  (max) Travel contact 1.2 mm  $\pm 0.3 mm$ Electrical Life (CEI 60542-5 9a) 500,000 cycles

Current rating (typical) (CEI 60542-5 10a) 400mA at 32 VAC resistive

100mA at 50 VDC resistive 125mA at 125 VAC resistive

Weld at the soldering iron: 300°C (max), 3 seconds (max).

#### LIGHTING

Voltage 5V

Current LED 65 mA (max)

## ENVIRONMENTAL

Ingress protection (DIN EN IEC60529) IP67 (front face)
Operating temperature range (CEI 60512-6) -40°C to +85°C

## Part numbers

| Non-illuminated |         |        |
|-----------------|---------|--------|
| Ø13.5           | Ø12     | Сар    |
| FL13NN          | FL12NN  | Black  |
| FL13NB          | FL12NB  | Blue   |
| FL13NG          | FL12NG  | Green  |
| FL13NO          | FL12NO  | Orange |
| FL13NR          | FL12NR  | Red    |
| FL13NW          | FL12NW  | White  |
| FI 13NY         | FI 12NY | Yellow |

| ILLUMINATED |         |        |  |  |  |
|-------------|---------|--------|--|--|--|
| Ø13.5       | Ø12     | Cap    |  |  |  |
| FL13LB5     | FL12LB5 | Blue   |  |  |  |
| FL13LG5     | FL12LG5 | Green  |  |  |  |
| FL13LO5     | FL12LO5 | Orange |  |  |  |
| FL13LR5     | FL12LR5 | Red    |  |  |  |
| FL13LW5     | FL12LW5 | White  |  |  |  |

FL12LY5

#### **DUAL-COLOR ILLUMINATED**

FL13LY5

| Ø13.5    | Ø12      | Cap         | Illumination color |
|----------|----------|-------------|--------------------|
| FL13DGB5 | FL12DGB5 | Milky white | Blue or Green*     |
| FL13DRB5 | FL12DRB5 | Milky white | Blue or Red*       |
| FL13DRG5 | FL12DRG5 | Milky white | Green or Red*      |

\*INVERTED POLARITY

## **M**ATERIALS

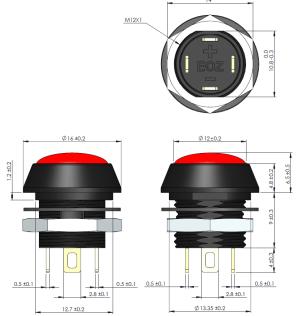
| Body   | PA 6.6 |
|--------|--------|
| Button | PC     |

Contacts Gold plated nickel
Contacts terminals Gold plated nickel
LED terminals Silver plated nickel

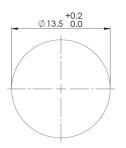


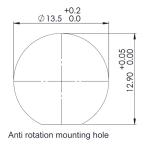


# Ø13.5mm PRODUCT DRAWINGS

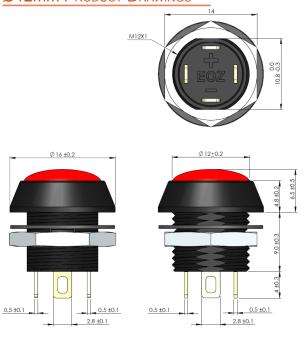


# PANEL CUT OUT

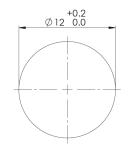


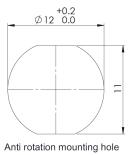


# **Ø12mm** PRODUCT DRAWINGS

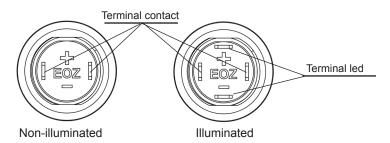


# PANEL CUT OUT

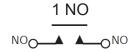




Terminal version:



DIAGRAM



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