

IX series

Pushbutton switches for harsh environments •
bushing Ø 12 mm • momentary NO & NC/NO



DISTINCTIVE FEATURES

- Backlighting marking in a compact case
- Strong tactile feedback
- NO or NC/NO
- High sealing level, no space between actuator and bushing (IP67/IP69K)



ENVIRONMENTAL SPECIFICATIONS

- Operating and storage temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Front panel sealing : IP67 according to IEC 60529, IP69K according to DIN 40050-9
- Shock resistance: 100 g according to IEC 512-4, test 6c
- Salt spray: IEC 512-6, test 11f
- UV-resistant membrane : ISO 4892-2 : 2013 ; method A, cycle 1 ; 750h



ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load:
 - Gold plated contact (0):
100 mA 28 VDC, 1,000,000 cycles
 - Silver contact (1):
2 A 28 VDC, 100,000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms
- Contact bounce : 10 ms

For W terminals, current has to be limited to 400 mA.



LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Red (R)	20 mA	1.9 V	2.5 V
Yellow (Y)	20 mA	2.3 V	2.8 V
Green (G)	20 mA	4 V	4.5 V
Blue (B)	20 mA	3.2 V	3.7 V
White (W)	20 mA	3.3 V	4 V
Red/green (F)	20 mA	Red: 2 V / green: 3.2 V	Red: 2.8 V / green: 3.7 V

A resistor must be series-connected by the user.
Resistor value = $\frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$

The company reserves the right to change specifications without notice.

IX series

Pushbutton switches for harsh environments •
bushing Ø 12 mm • momentary NO & NC/NO

GENERAL SPECIFICATIONS

- Panel thickness : 2 to 8 mm
- Total travel : 2 mm (.078) ± 0.3 mm
- Typical operating force :
Function 3 (NO): 7 N ± 2 N
Function 5 (NO/NC): 8 N ± 2 N
- Low level/mech. life : 1,000,000 cycles
- Torque : 0.55 Nm (0.6 Nm max.) applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.

MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : silicone
- Bushing : ABS UL94 HB
- Contacts :
0 : brass, gold plated
1 : silver
- Output wires : AWG24, section 0.23 mm² - 500 mm
- Terminal seal : epoxy

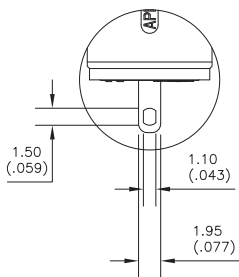
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

CONNECTIONS

WIRES TERMINALS

- Contact NO : black color / Contact NC : blue color
- LED : + : red color
- : white color

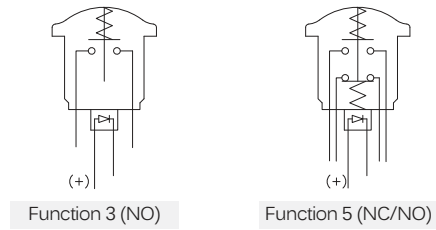
TERMINALS



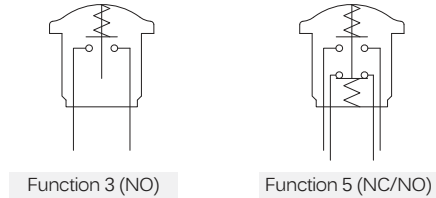
Solder lug S

ELECTRICAL FUNCTION

ILLUMINATED MODELS

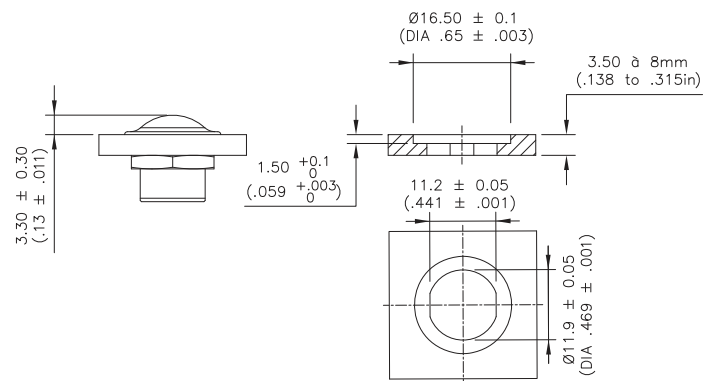


NON-ILLUMINATED MODELS



MOUNTING

RECOMMENDED PANEL CUT-OUT (IP69K)

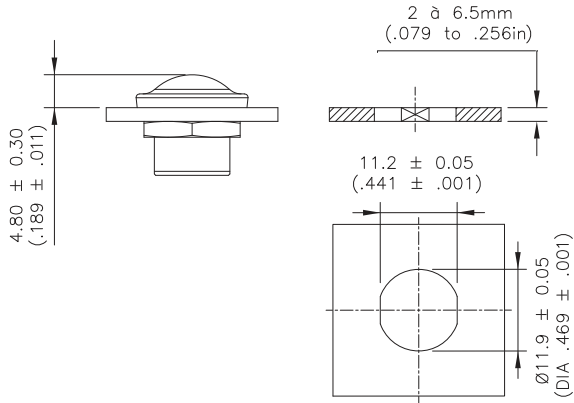


Pushbutton switches for harsh environments •
bushing \varnothing 12 mm • momentary NO & NC/NO

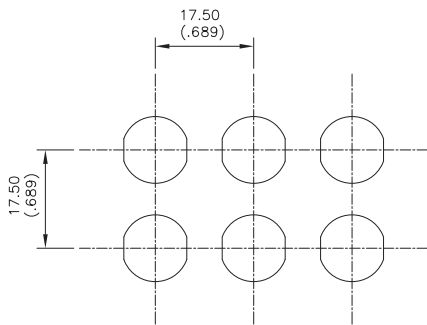


MOUNTING (CONTINUED)

OTHER PANEL CUT-OUT



MATRIX MOUNTING

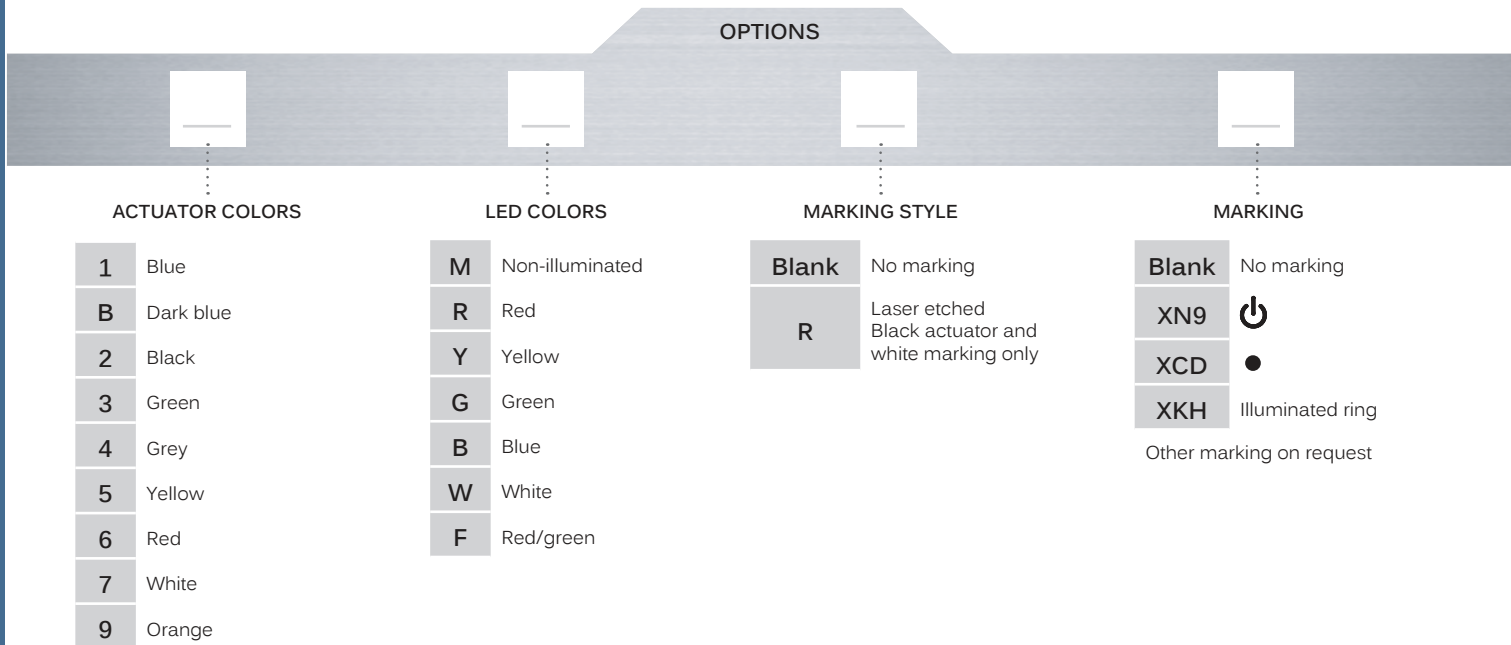
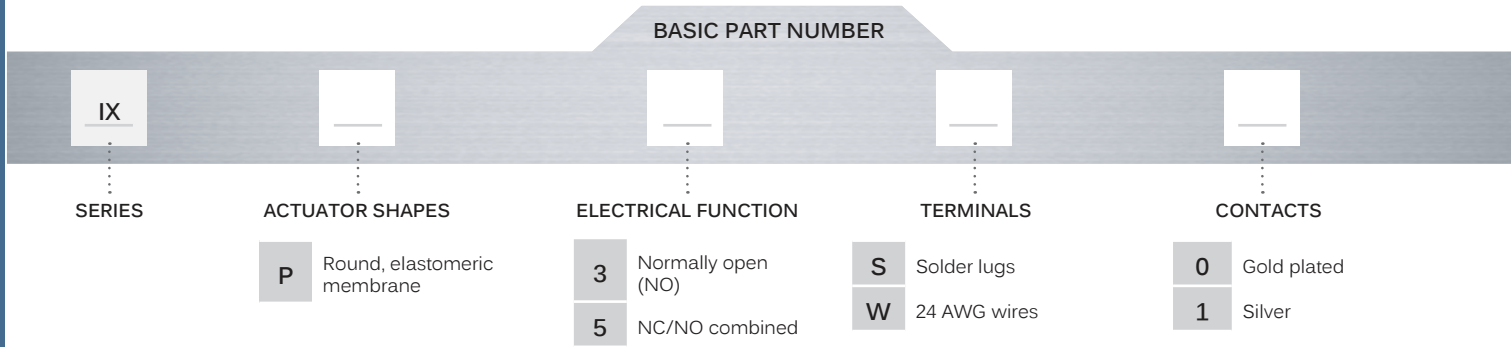


IX series

Pushbutton switches for harsh environments •
bushing Ø 12 mm • momentary NO & NC/NO



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 14 mm (551) across flats.

IX series

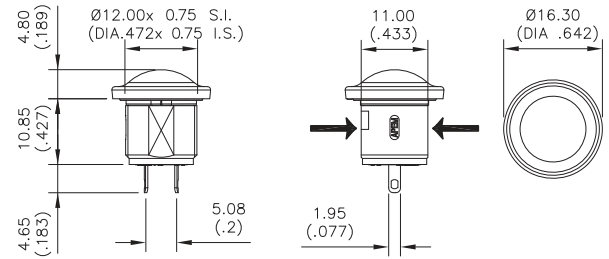
Pushbutton switches for harsh environments •
bushing Ø 12 mm • momentary NO & NC/NO

SOLDER LUG TERMINALS
NON-ILLUMINATED - NO



IXP3S••M

→ Flat

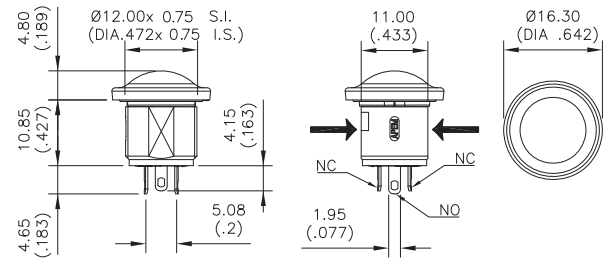


SOLDER LUG TERMINALS
NON-ILLUMINATED - NC/NO



IXP5S••M

→ Flat

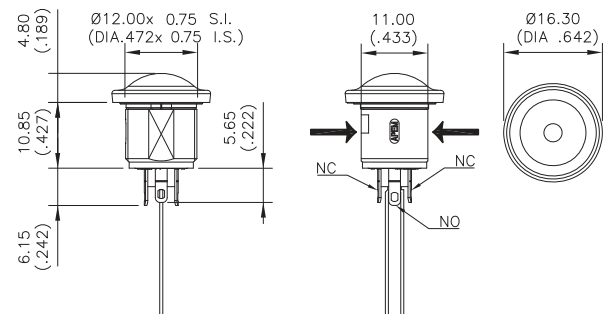


SOLDER LUG TERMINALS
ILLUMINATED - NC/NO



IXP5S

→ Flat

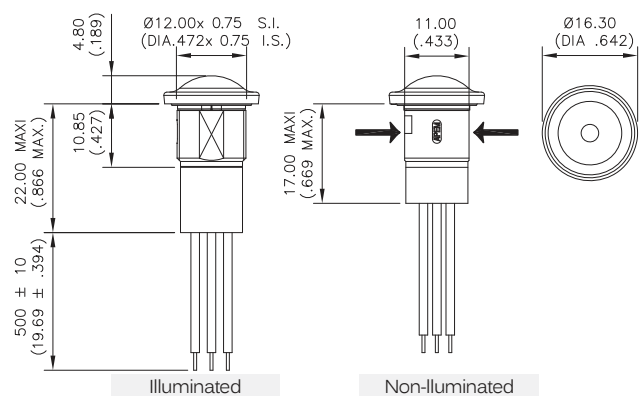


FLYING LEAD TERMINALS
ILLUMINATED - NC/NO



IXP5W

→ Flat



IX series

Pushbutton switches for harsh environments •
bushing Ø 12 mm • momentary NO & NC/NO

ACTUATOR COLORS



- | | | | |
|---|-----------|---|--------|
| 1 | Blue | 5 | Yellow |
| B | Dark blue | 6 | Red |
| 2 | Black | 7 | White |
| 3 | Green | 9 | Orange |
| 4 | Grey | | |

LED COLORS



- | | |
|---|-----------------|
| M | Non-illuminated |
| R | Red |
| Y | Yellow |
| G | Green |
| B | Blue |
| W | White |
| F | Red/green |

MARKING STYLE



- | | |
|-------|--|
| Blank | No marking |
| R | Laser etched - Black actuator and white marking only |

MARKING



- | | |
|-------|--|
| Blank | No Marking |
| XN9 |  - Symbol "power" |
| XCD |  - Symbol "dot" |
| XKH |  - Illuminated ring |

Other marking on request

Example of IX switch with marking.
Please note that the anti-rotation flats are pointed with the arrows.

→ Flat

