

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

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

- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms
- Contact bounce : 10 ms



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.

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GENERAL SPECIFICATIONS

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



MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : silicone
- Bushing : thermoplastic
- 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.



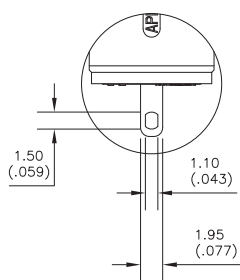
CONNECTIONS

WIRES TERMINALS

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



TERMINALS

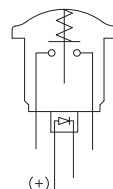


Solder lug S

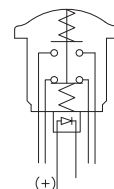


ELECTRICAL FUNCTION

ILLUMINATED MODELS

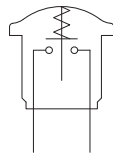


Function 3 (NO)

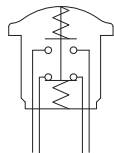


Function 5 (NC/NO)

NON-ILLUMINATED MODELS



Function 3 (NO)

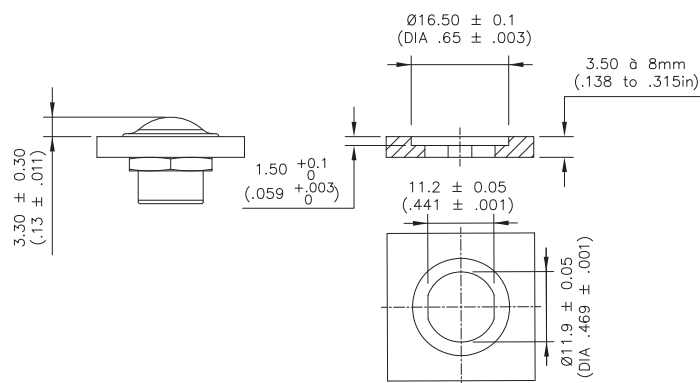


Function 5 (NC/NO)



MOUNTING

RECOMMENDED PANEL CUT-OUT (IP69K)

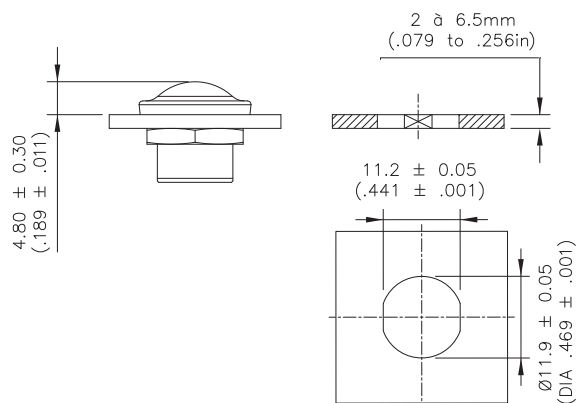


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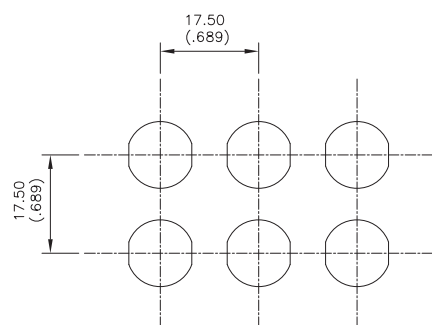


MOUNTING (CONTINUED)

OTHER PANEL CUT-OUT



MATRIX MOUNTING

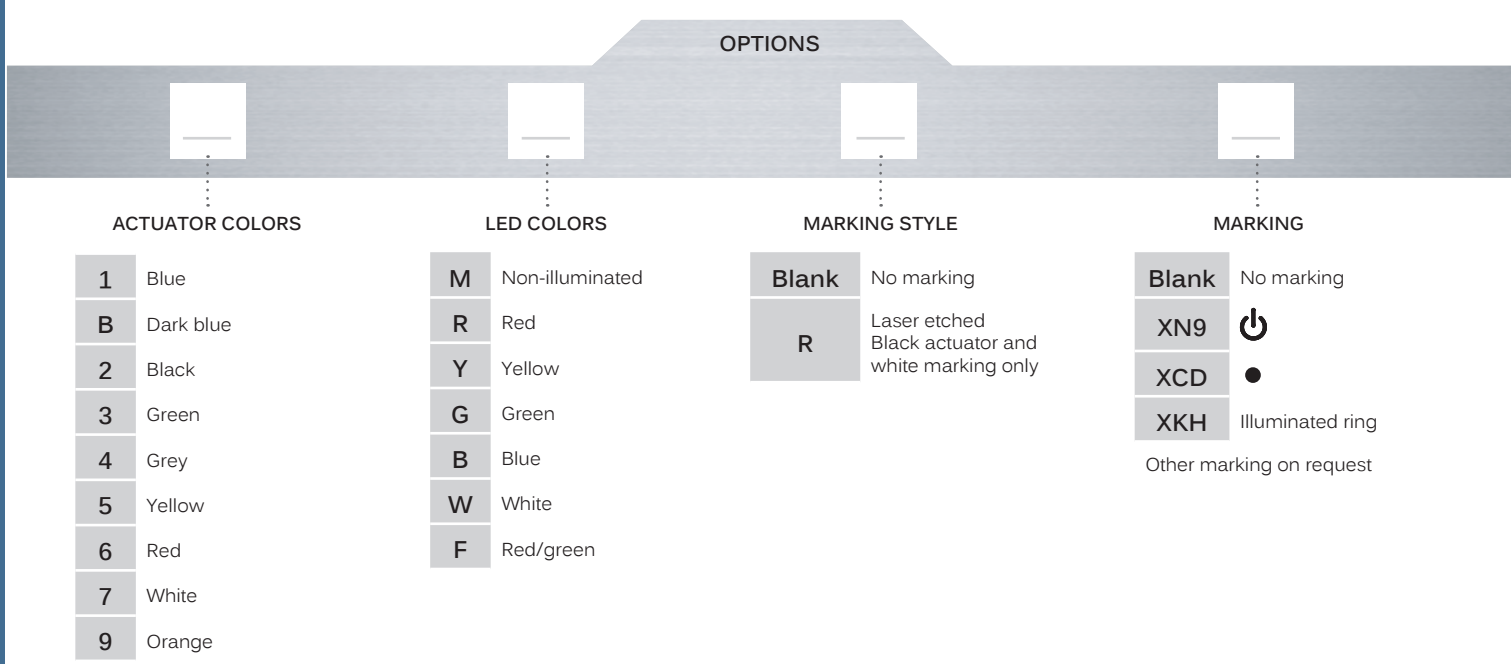
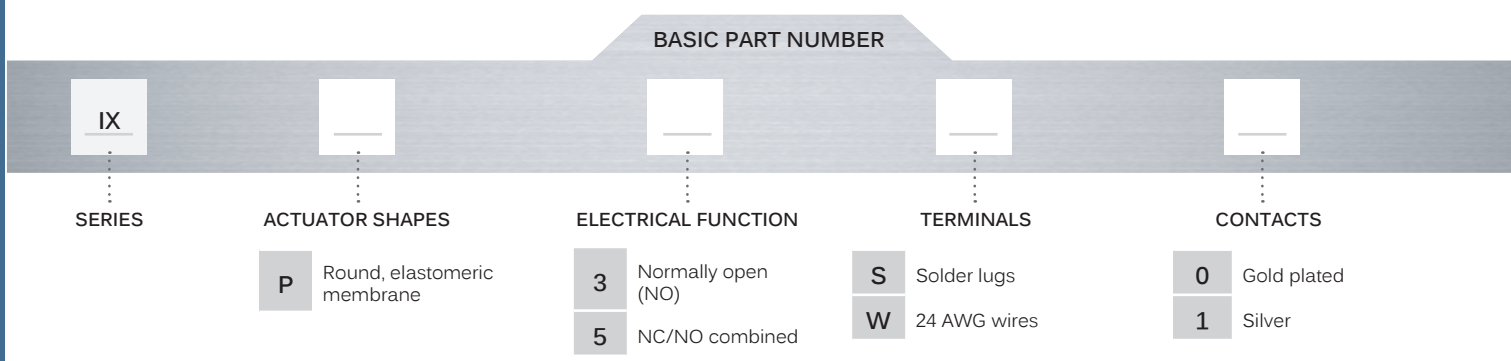


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BUILD YOUR PART NUMBER



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 14 mm (.551) across flats.

IX series

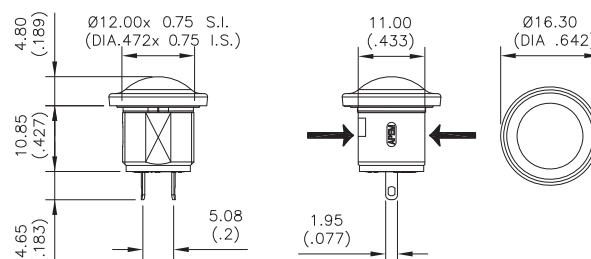
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SOLDER LUG TERMINALS
NON-ILLUMINATED - NO



IXP3S••M

→ Flat

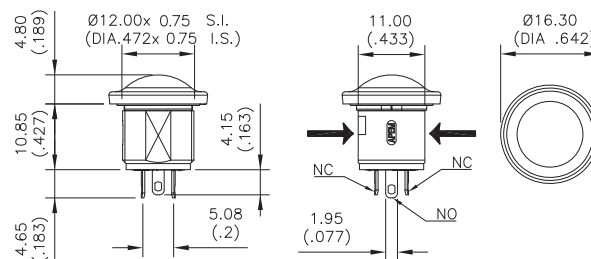


SOLDER LUG TERMINALS
NON-ILLUMINATED - NC/NO



IXP5S••M

→ Flat

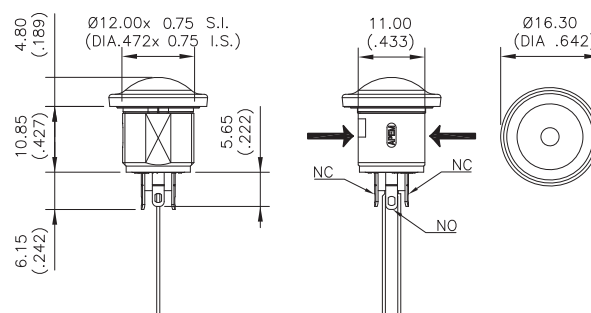


SOLDER LUG TERMINALS
ILLUMINATED - NC/NO



IXP5S

→ Flat

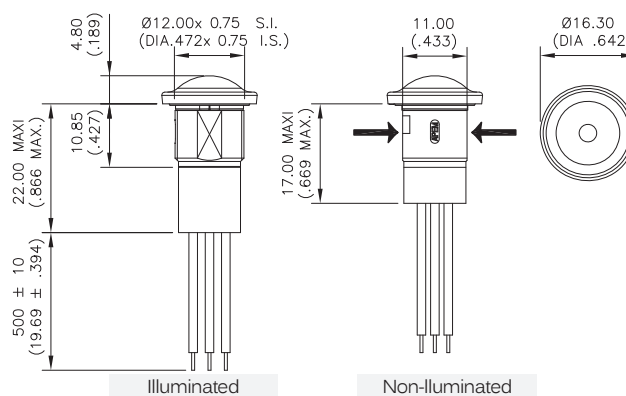


FLYING LEAD TERMINALS
ILLUMINATED - NC/NO



IXP5W

→ Flat



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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

