

IX series

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



DISTINCTIVE FEATURES

Backlighted 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



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.

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GENERAL SPECIFICATIONS

- Panel thickness : 1.5 to 6 mm
- Total travel : 2 mm (.078) ± 0.3 mm
- Typical operating force : 7 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

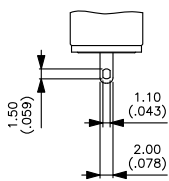
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

CONNECTIONS

WIRES TERMINALS

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

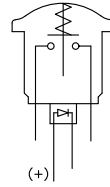
TERMINALS



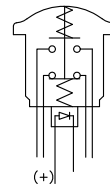
Solder lug S

ELECTRICAL FUNCTION

ILLUMINATED MODELS

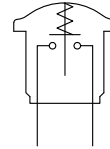


Function 3 (NO)

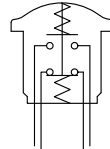


Function 5 (NC/NO)

NON-ILLUMINATED MODELS



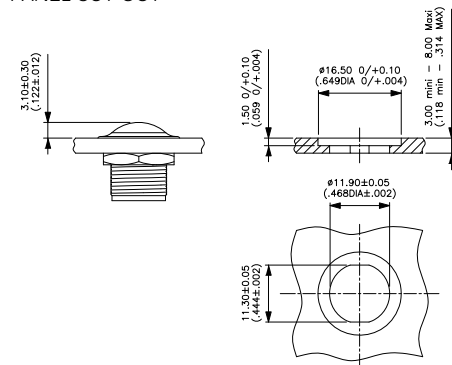
Function 3 (NO)



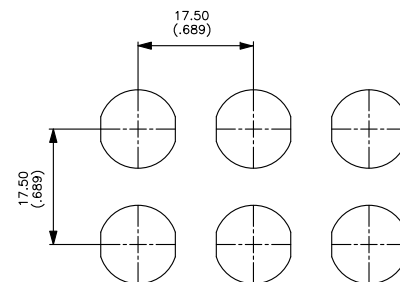
Function 5 (NC/NO)

MOUNTING

PANEL CUT-OUT



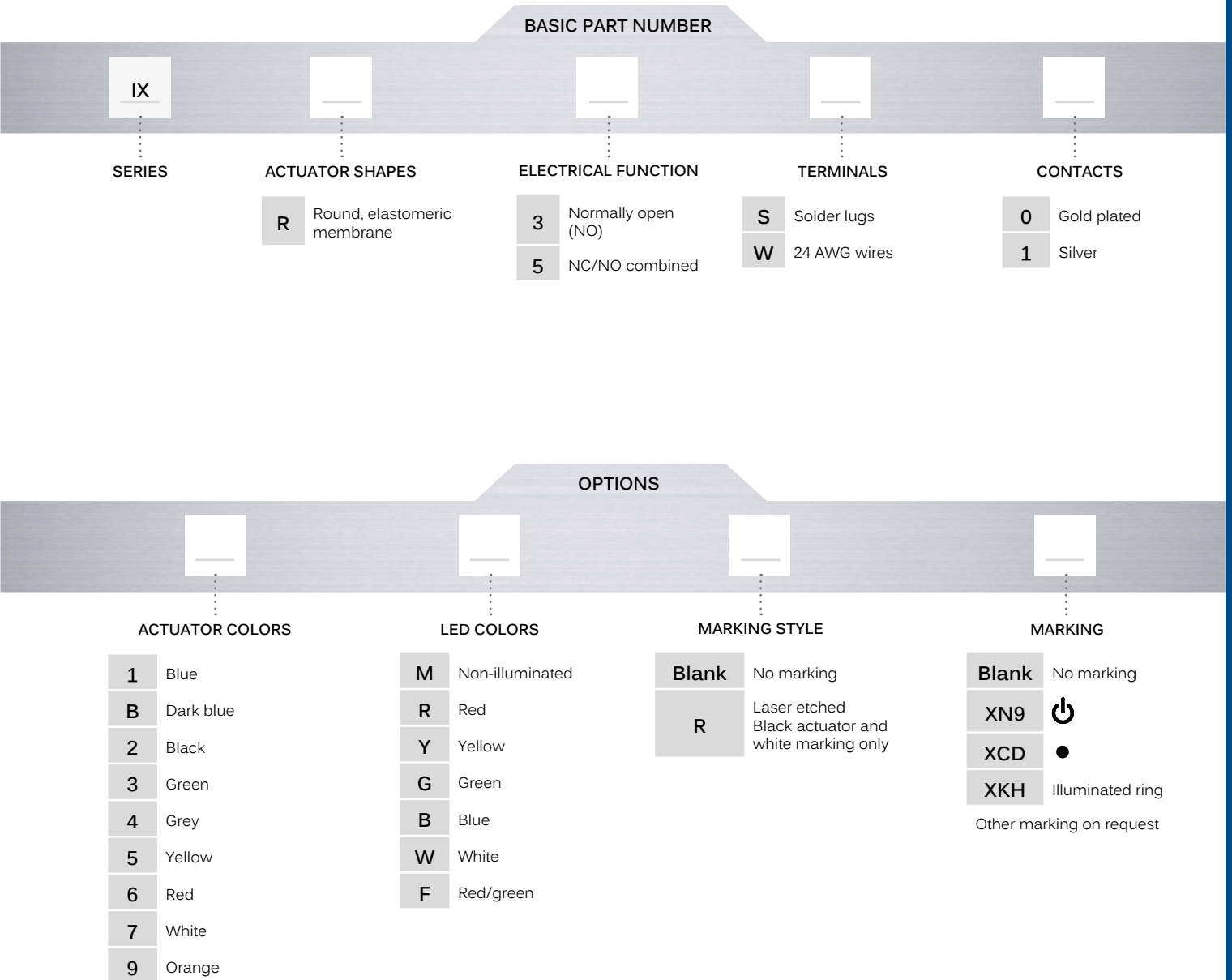
MATRIX MOUNTING



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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 and 1 O-Ring.

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**SOLDER LUG TERMINALS
NON-ILLUMINATED - NO**



IXR3S••M

**SOLDER LUG TERMINALS
NON-ILLUMINATED - NC/NO**



IXR5S••M

**SOLDER LUG TERMINALS
ILLUMINATED - NC/NO**



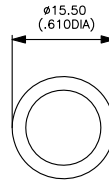
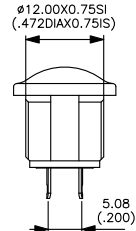
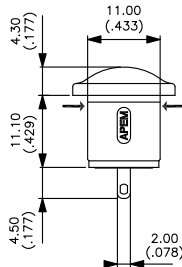
IXR5S

**FLYING LEAD TERMINALS
ILLUMINATED - NC/NO**

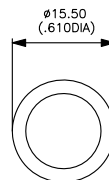
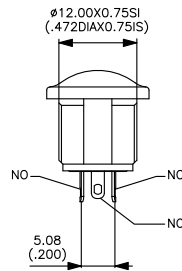
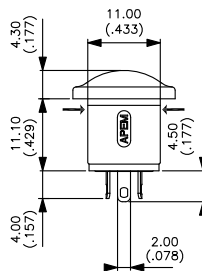


IXR5W

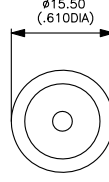
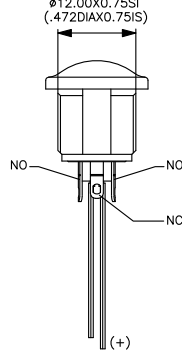
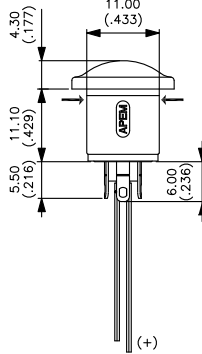
→ FLAT



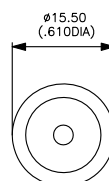
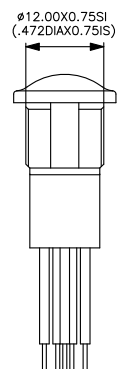
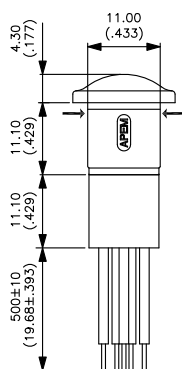
→ FLAT



→ FLAT



→ 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" |
| XXH |  - Illuminated ring |

Other marking on request