

# 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



### 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 : 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 : gold plated  
1 : silver
- Output wires : AWG24, section 0.23 mm<sup>2</sup> - 500 mm
- Terminal seal : epoxy

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



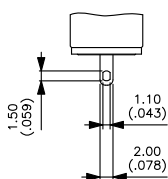
## CONNECTIONS

### WIRES TERMINALS

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



## TERMINALS

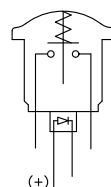


Solder lug S

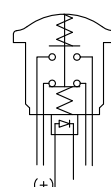


## ELECTRICAL FUNCTION

### ILLUMINATED MODELS

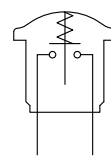


Function 3 (NO)

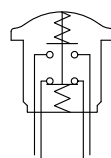


Function 5 (NC/NO)

### NON-ILLUMINATED MODELS



Function 3 (NO)

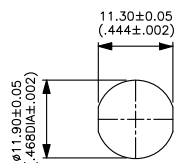


Function 5 (NC/NO)

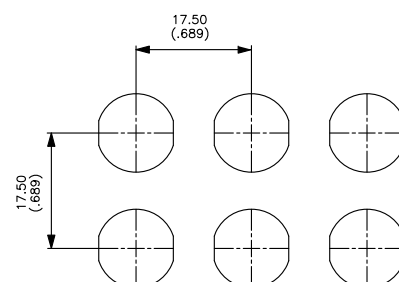


## MOUNTING

### PANEL CUT-OUT



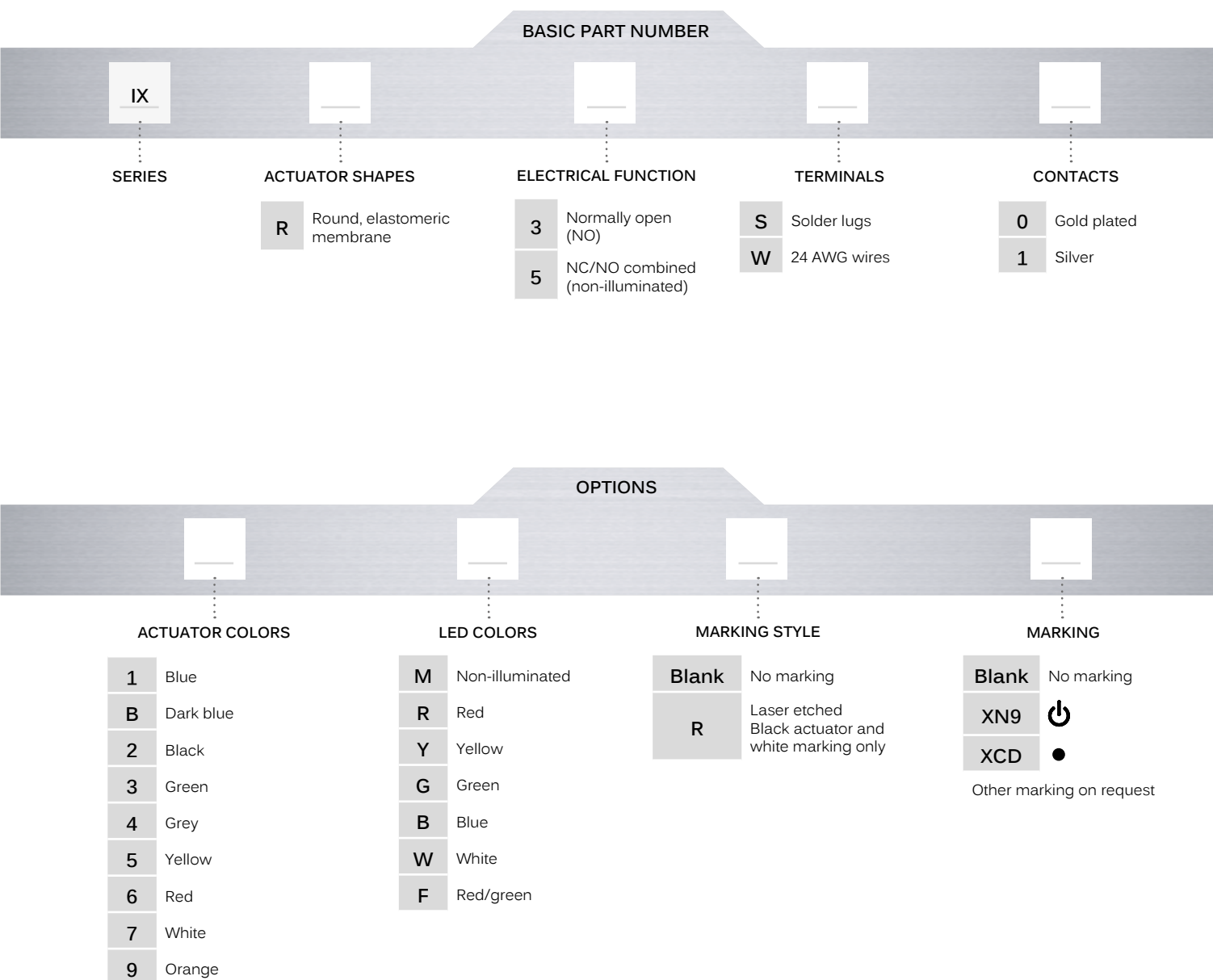
### MATRIX MOUNTING



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 and 1 O-Ring.

# IX series

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

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



IXR3S••M

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



IXR5S••M

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



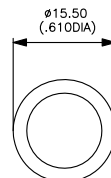
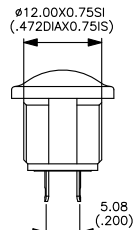
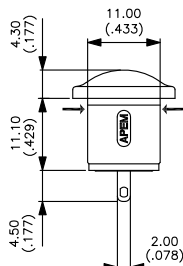
IXR5S

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

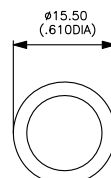
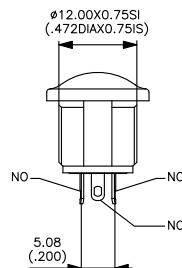
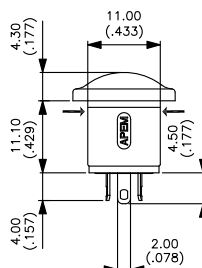


IXR5W

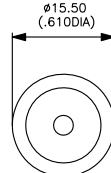
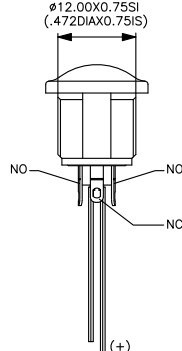
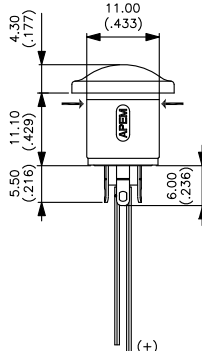
→ FLAT



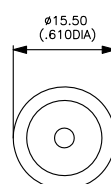
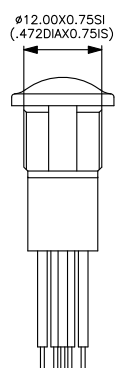
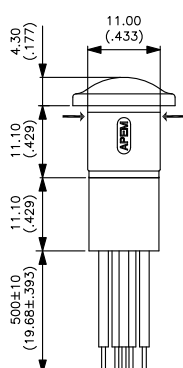
→ FLAT



→ FLAT



→ FLAT



# 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"   |

Other marking on request



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.