

# IZ series

Rear mounted sealed pushbutton switches •  
bushing Ø 16 mm • metal • latching



## DISTINCTIVE FEATURES

- Rear mounting for easier installation
- Fixed or variable panel thickness
- Sealed to IP67
- Illuminated or non-illuminated
- Flat actuator for optional marking



## ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing : IP67 according to IEC 60529
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500Hz - 10 g according to IEC 512-4, test 6d
- Salt spray : IEC 512-6, test 11f
- Robustness (non-illuminated) : IK06 according to EN 50102 (1 joule)
- Operating temperature : -40 °C to +85 °C (-40 °F to +185 °F)



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :  
100 mA 48 VDC - 200,000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500 VDC
- Dielectric strength : 1,500 Vrms between terminals  
1,000 Vrms between terminals and frame



### LED COMPONENT SPECIFICATIONS

LED color	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20 mA	1.95 V	1.95 V
Yellow (LOY)	20 mA	2 V	2.05 V
Green (LOG)	20 mA	2.1 V	2.5 V
Blue (LOB)	20 mA	3.2 V	4 V

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

On flying lead versions, the LED resistor can be integrated by APEM on request.

The company reserves the right to change specifications without notice.

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## GENERAL SPECIFICATIONS

- Panel thickness :
  - IZM : 3 mm (.118) max.
  - IZN : 4 mm (.157) max.
- Total travel : 2.5 mm (.098) ± 0.3 mm
- Typical operating force : 5 N ± 2 N
- Low level or mechanical life : 200,000 cycles
- Torque : IZN : 1 Nm max.  
IZM : 0.7 Nm max. applied to nut
- Soldering : 320 °C (608 °F) max. for 3 sec.

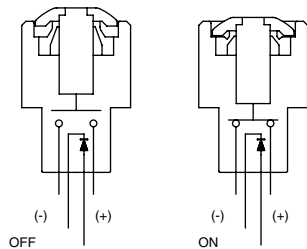
## MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : brass, nickel plated
- Contacts : silver, gold plated
- Multi-wire leads AWG20, section 0.6 mm<sup>2</sup>
- LED wire : AWG26, section 0.12 mm<sup>2</sup>
- Lens : polycarbonate
- Terminal seal : epoxy

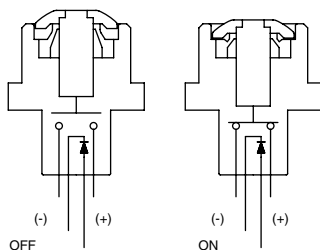
APEM products may be recycled at end-of-life for the re-claiming of valuable metal components.

## ELECTRICAL FUNCTIONS

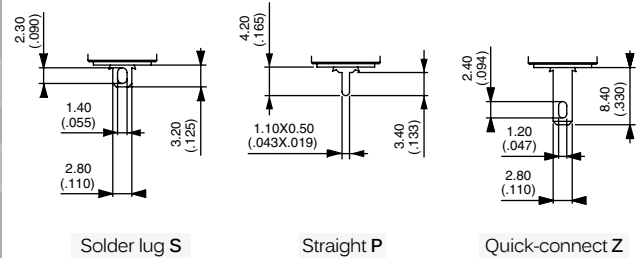
MODELS FOR VARIABLE PANEL THICKNESS (IZM)



MODELS FOR FIXED PANEL THICKNESS (IZN)

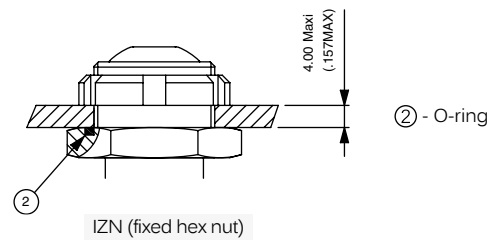
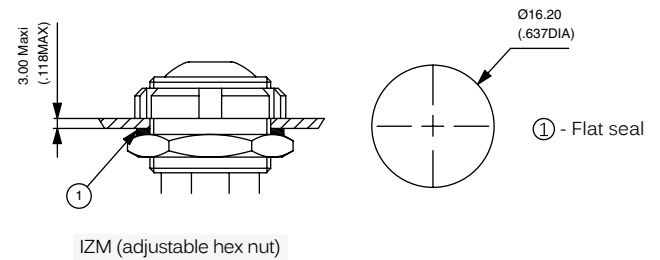


## TERMINALS

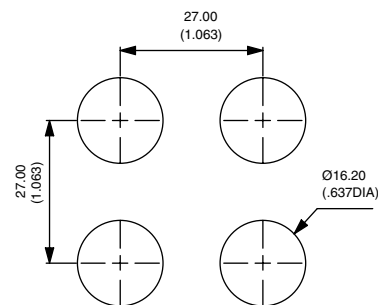


## MOUNTING

PANEL CUT-OUT



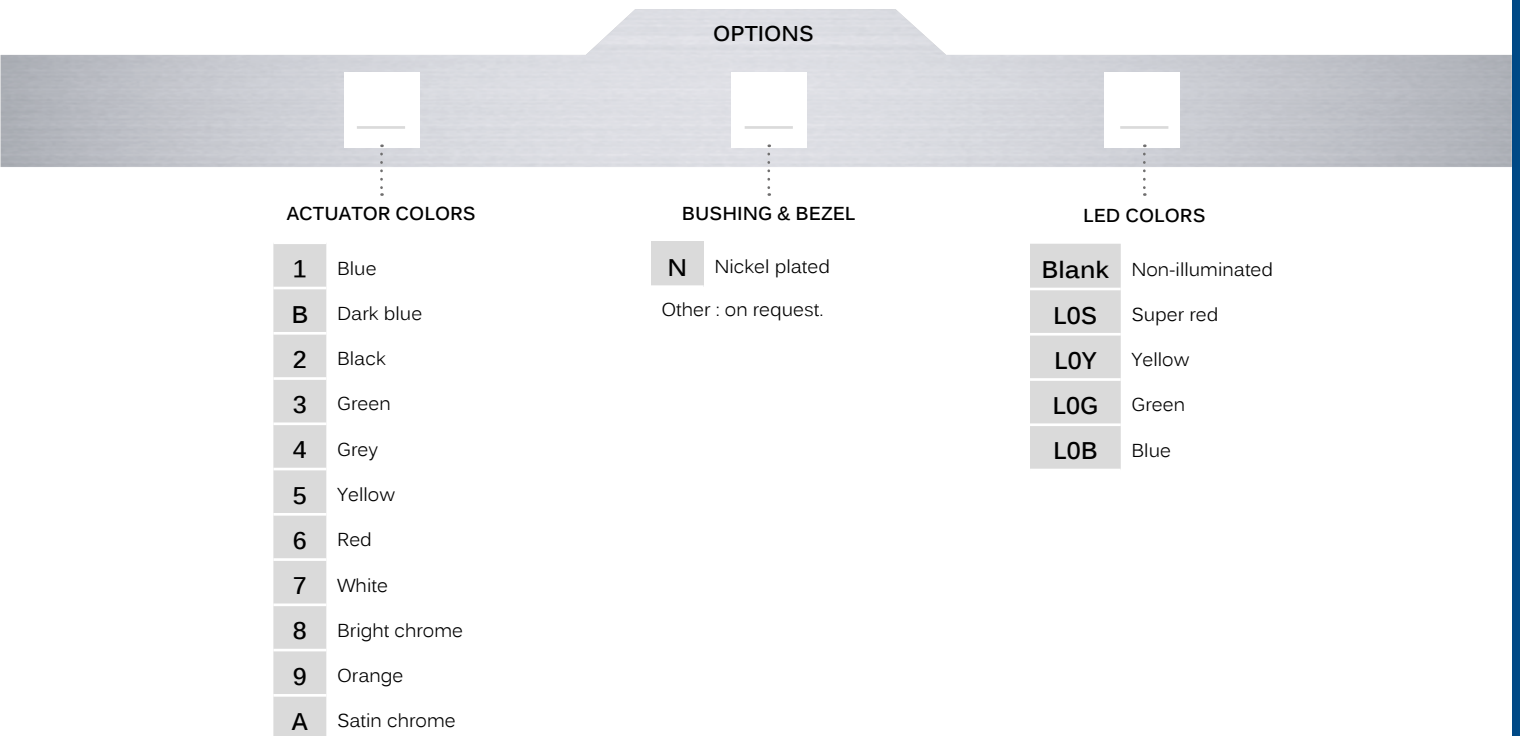
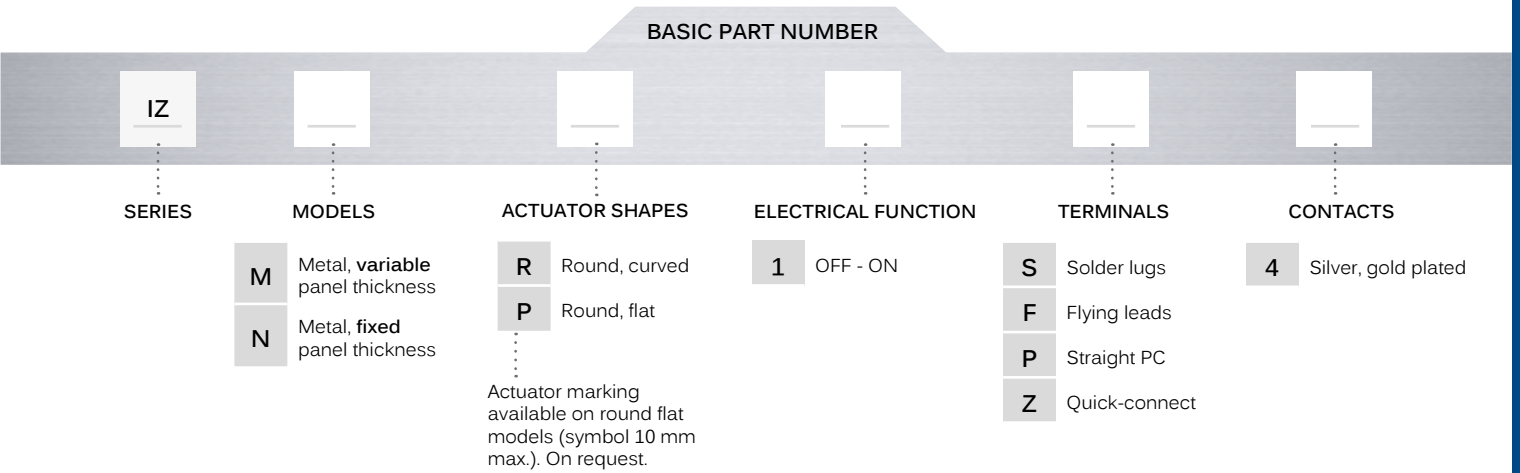
MATRIX MOUNTING



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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.
- A sealing boot** is available to protect the switches against frost and sand. See "Sealing Boots" section of website.
- Mounting accessories** : Standard hardware supplied :
  - IZM : 1 castellated nickel plated brass nut U6915 + 1 silicone flat seal + 1 hex nut 19 mm (.748) across flats 10-621.
  - IZN : 1 castellated nickel plated brass nut U6915 + 1 O-ring
 Wrench tool available under P/N U4028. Order separately.

# IZ series

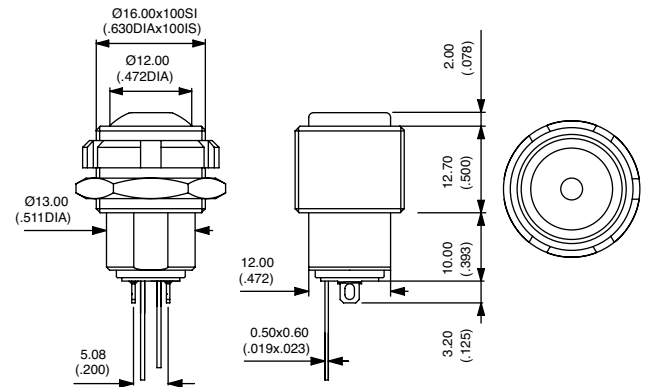
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## VARIABLE PANEL THICKNESS ILLUMINATED - SOLDER LUG TERMINALS



- Curved actuator  
**IZMR1S4**      OFF - ON
- Flat actuator  
**IZMP1S4**      OFF - ON

Also available with straight PC terminals : **IZM•1P4**  
& quick-connect terminals : **IZM•1Z4**.

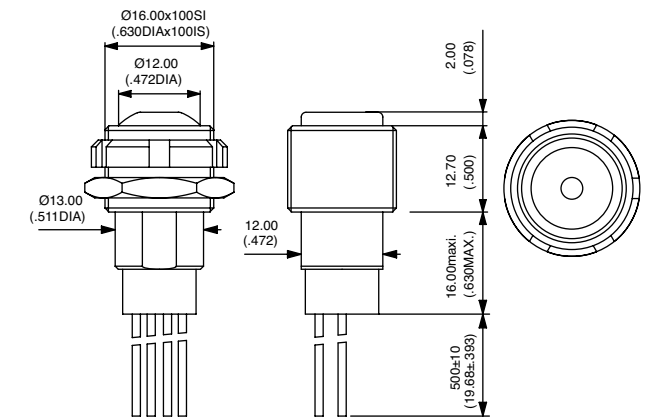


## VARIABLE PANEL THICKNESS ILLUMINATED - FLYING LEAD TERMINALS



- Curved actuator  
**IZMR1F4**      OFF - ON
- Flat actuator  
**IZMP1F4**      OFF - ON

Wire colors : black : contact, red : LED anode (+), blue : LED cathode (-)

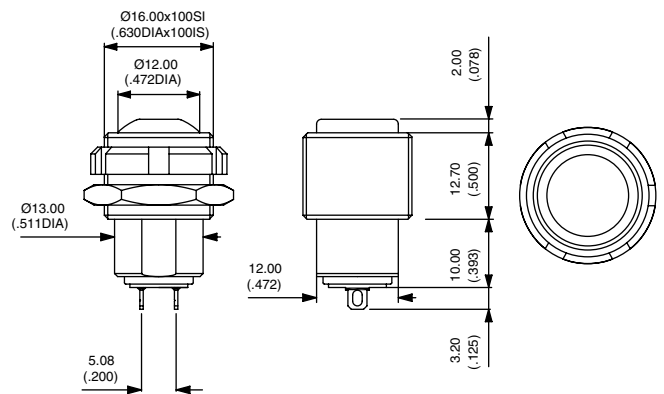


## VARIABLE PANEL THICKNESS NON-ILLUMINATED - SOLDER LUG TERMINALS



- Curved actuator  
**IZMR1S4**      OFF - ON
- Flat actuator  
**IZMP1S4**      OFF - ON

Also available with straight PC terminals : **IZM•1P4**  
and quick-connect terminals : **IZM•1Z4**.

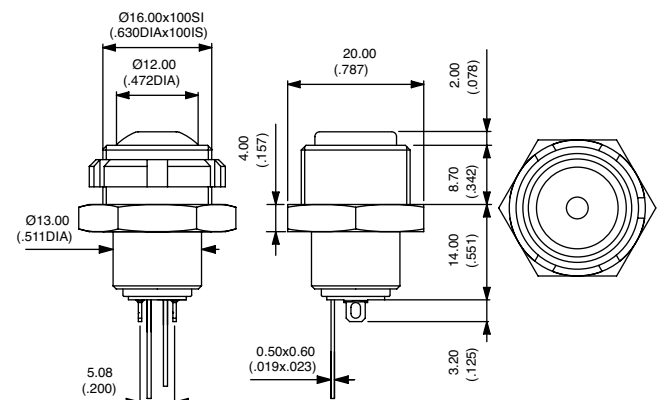


## FIXED PANEL THICKNESS ILLUMINATED - SOLDER LUG TERMINALS



- Curved actuator  
**IZNR1S4**      OFF - ON
- Flat actuator  
**IZNP1S4**      OFF - ON

Also available with straight PC terminals : **IZN•1P4**  
& quick-connect terminals : **IZN•1Z4**.



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## FIXED PANEL THICKNESS ILLUMINATED - FLYING LEAD TERMINALS



Curved actuator	<b>IZNR1F4</b>	OFF - ON
Flat actuator	<b>IZNP1F4</b>	OFF - ON

Wire colors : black : contact, red : LED anode (+), blue : LED cathode (-)

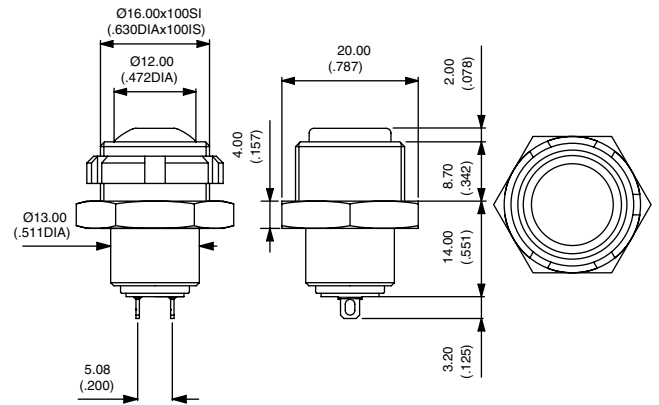
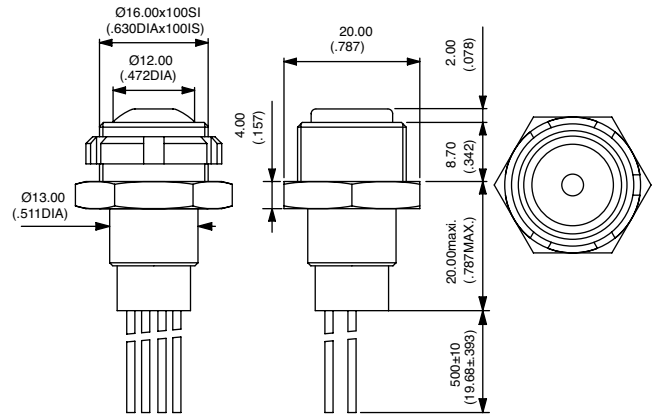
## FIXED PANEL THICKNESS NON-ILLUMINATED - SOLDER LUG TERMINALS



Curved actuator	<b>IZNR1S4</b>	OFF - ON
Flat actuator	<b>IZNP1S4</b>	OFF - ON

Also available with straight PC terminals : **IZN•1P4**  
and quick-connect terminals : **IZN•314**.

For non-illuminated FLYING LEAD versions, refer to illuminated models  
Non-illuminated have 2 wires only.

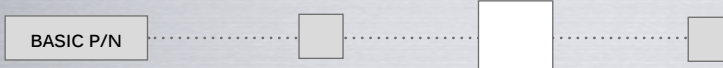


### ACTUATOR COLORS



- 1 Blue
- B Dark blue
- 2 Black
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7 White
- 8 Bright chrome
- 9 Orange
- A Satin chrome

### BUSHING AND BEZEL

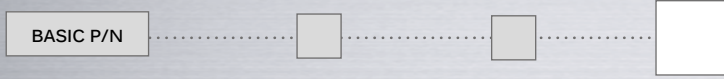


**N** Nickel plated (standard)  
Other : on request.

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## LED COLORS



<b>Blank</b>	Non-illuminated
<b>LOS</b>	Super Red
<b>LOY</b>	Yellow
<b>LOG</b>	Green
<b>LOB</b>	Blue