

# New!

# I<sup>Z</sup> series

## Rear mounted sealed pushbutton switches - bushing Ø 16 mm - metal - latching

*Distinctive features and specifications*



UG1006-A

- Rear mounting for easier installation
- Latching action metal models
- 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

### ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load : 100mA 24VDC - 200.000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.500 Vrms between terminals  
1.000 Vrms between terminals and frame

### LED COMPONENT SPECIFICATIONS

LED colour	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20mA	1,95V	1,95V
Yellow (LOY)	20mA	2V	2,05V
Green (LOG)	20mA	3,2V	3,70V
Blue (LOB)	20mA	3,2V	4V

A resistor must be series-connected by the user.

$$\text{Resistor value} = \frac{\text{supply voltage} - \text{LED forward voltage}}{\text{LED forward current}}$$

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

### GENERAL SPECIFICATIONS

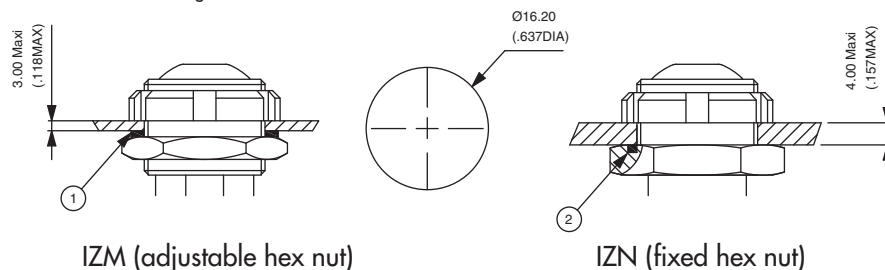
- Panel thickness :
  - IZM : 3 mm (.118) max.
  - IZN : 4 mm (.157) max.
- Total travel : 2,5 mm (.098) +/-0,3 mm
- Typical operating force : 5N +/- 2N
- Mechanical life : 200.000 cycles
- Torque : IZN : 1 Nm max.  
IZM : 0,7 Nm max. applied to nut
- Soldering : 320°C max. for 3 sec.

### MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : brass, nickel plated
- Contacts : silver, gold plated
- Multi-wire lead AWG20, section 0,6 mm<sup>2</sup>
- LED wire : AWG26, section 0,12 mm<sup>2</sup>
- Lens : polycarbonate
- Terminal seal : epoxy

### PANEL CUT-OUT

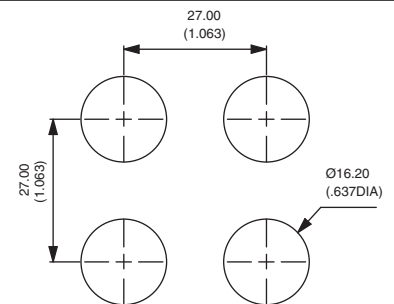
- ① Flat seal    ② O-ring



IZM (adjustable hex nut)

IZN (fixed hex nut)

### MATRIX MOUNTING

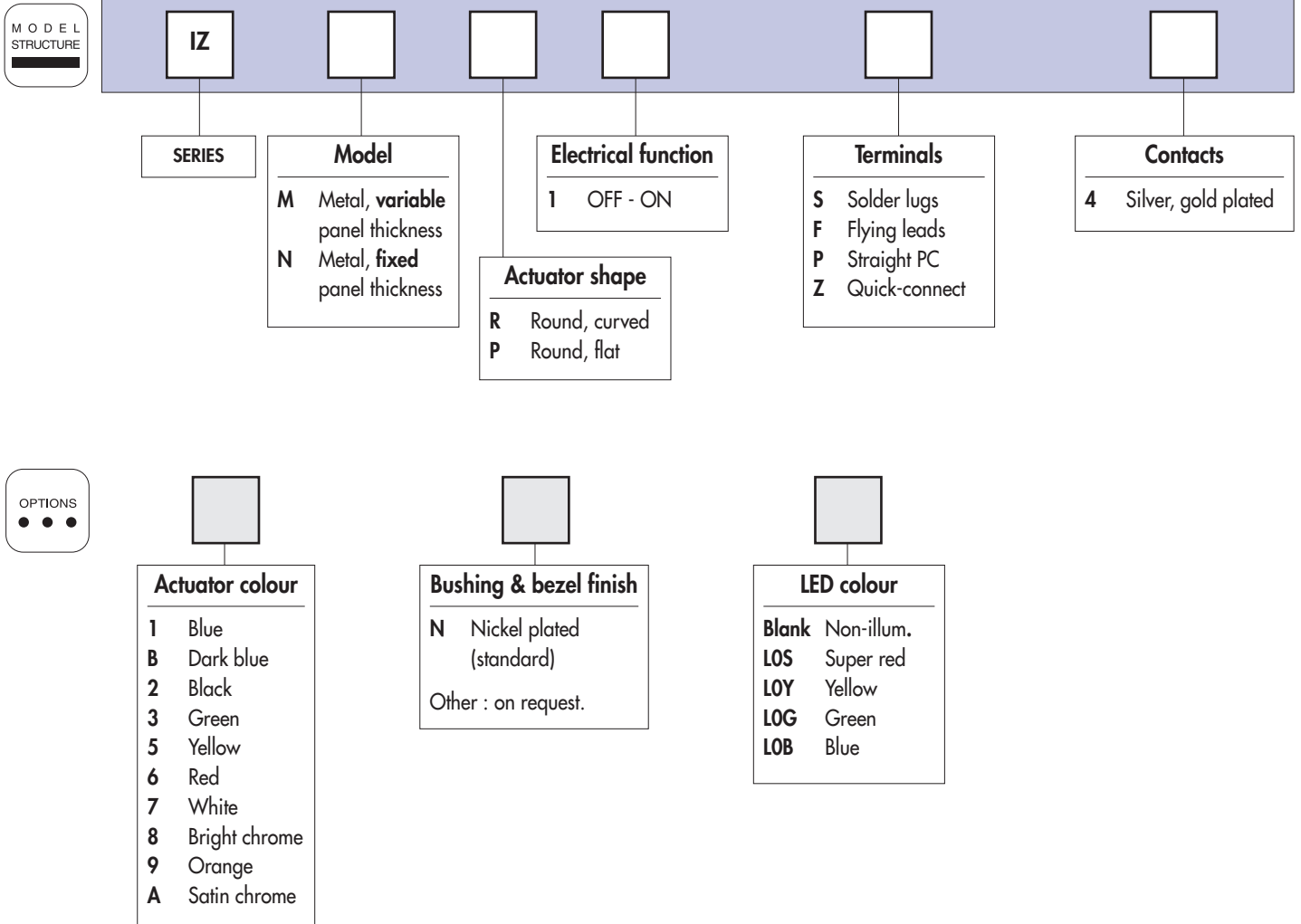


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Rear mounted sealed pushbutton switches - bushing Ø 16 mm - metal - latching

Overview



## ABOUT THIS SERIES

On the following pages, you will find successively :  
model structure of switches and options in the same order as in above chart

**Dimensions** : first dimensions are in mm while inches are shown as bracketted numbers.



**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 :

- IZN : 1 castellated nickel plated brass nut U6915 + 1 O-ring

- IZM : 1 castellated nickel plated brass nut U6915 + 1 silicone flat seal + 1 hex nut 19 mm (.748) across flats U4116.



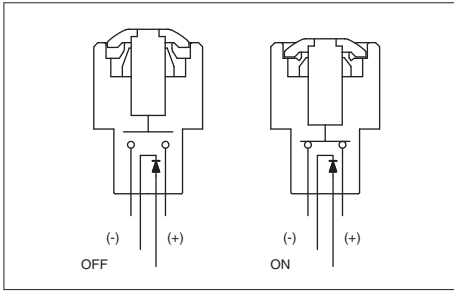
**Packaging unit** : 25 pieces for flying lead models - 40 pieces for other models

**New!**

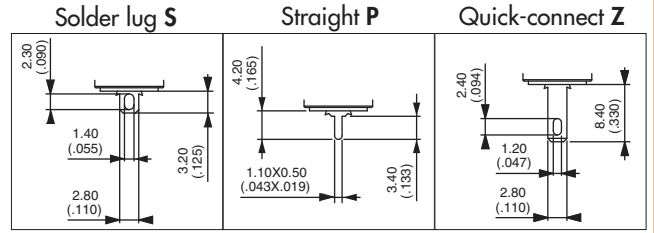
# IZ series

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

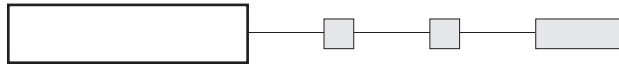
For variable panel thickness : IZM



- Four LED colours
- Tin plated LED terminals
- Gold plated contacts



**MODEL STRUCTURE**



Plunger marking available on IZMP models (symbol 10 mm max.). On request.

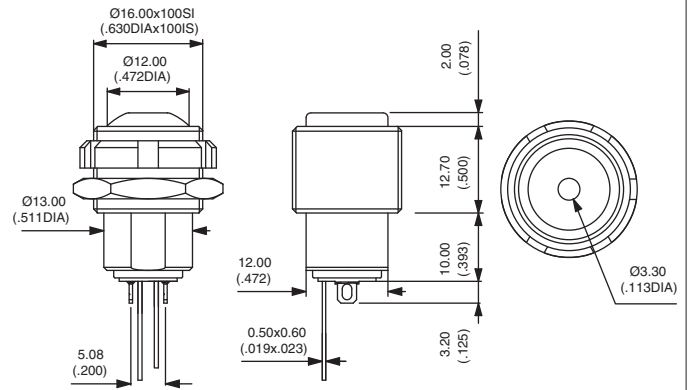
**Illuminated - solder lug terminals**



Curved actuator  
**IZMR1S4** OFF - ON

Flat actuator  
**IZMP1S4** OFF - ON

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



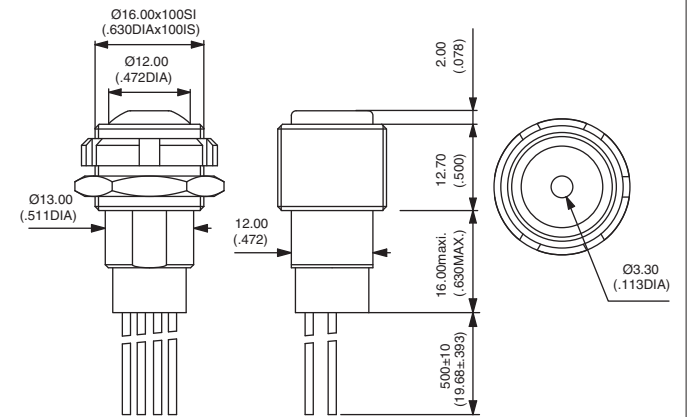
**Illuminated - flying lead terminals**



Curved actuator  
**IZMR1F4** OFF - ON

Flat actuator  
**IZMP1F4** OFF - ON

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



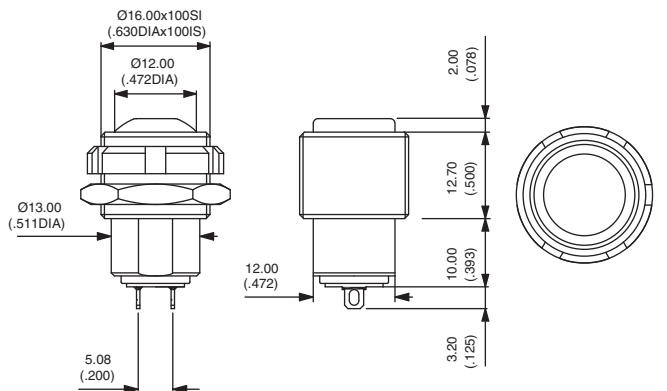
**Non-illuminated - solder lug terminals**



Curved actuator  
**IZMR1S4** OFF - ON

Flat actuator  
**IZMP1S4** OFF - ON

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



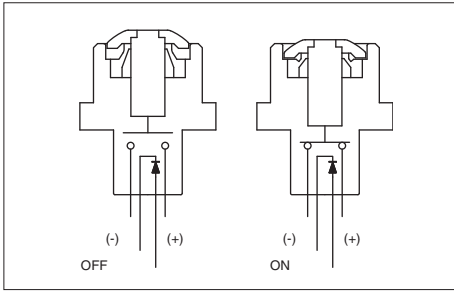
For FLYING LEAD versions, refer to illuminated models above. Non-illuminated have 2 wires only.

# IZ series

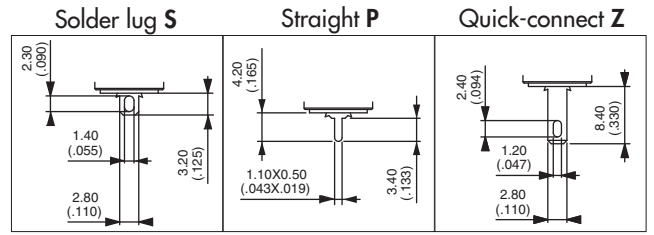
**New!**

## Rear mounted sealed pushbutton switches - bushing Ø 16 mm - metal - latching

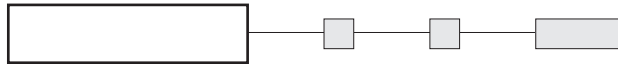
For fixed panel thickness : IZN



- Four LED colours
- Tin plated LED terminals
- Gold plated contacts



### MODEL STRUCTURE



Plunger marking available on IZNP models (symbol 10 mm max.). On request.

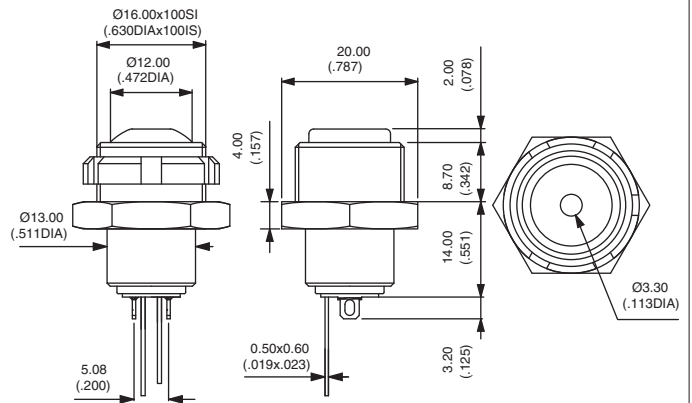
### Illuminated - solder lug terminals



Curved actuator  
**IZNR1S4** OFF - ON

Flat actuator  
**IZNP1S4** OFF - ON

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



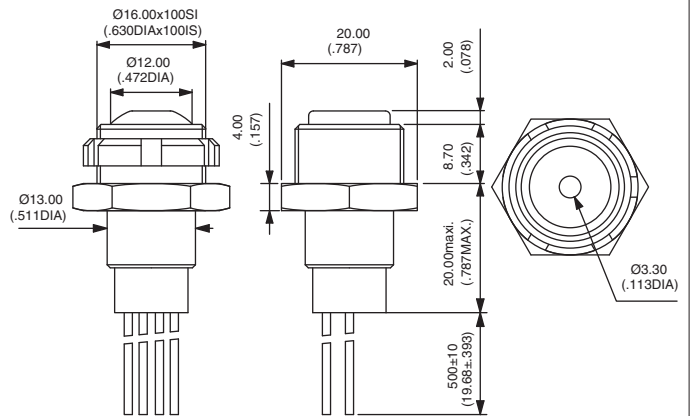
### Illuminated - flying lead terminals



Curved actuator  
**IZNR1F4** OFF - ON

Flat actuator  
**IZNP1F4** OFF - ON

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



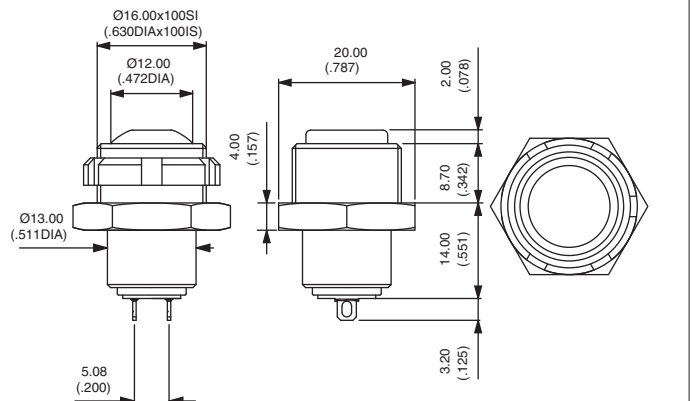
### Non-illuminated - solder lug terminals



Curved actuator  
**IZNR1S4** OFF - ON

Flat actuator  
**IZNP1S4** OFF - ON

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



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

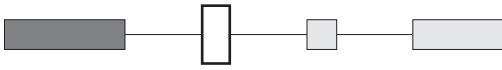
**New!**

# **IZ series**

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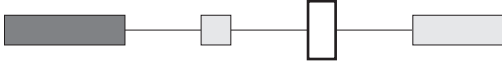
*Options*

## **ACTUATOR COLOUR**



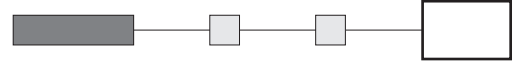
**1** : blue - **B** : dark blue - **2** : black - **3** : green - **5** : yellow - **6** : red - **7** : white - **8** : bright chrome - **9** : orange  
**A** : satin chrome

## **BUSHING AND BEZEL COLOUR**



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

## **LED COLOUR**



**Blank** : non-illuminated  
**LOS** : super red - **LOY** : yellow - **LOG** : green  
**LOB** : blue

**B**