



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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

ENVIRONMENTAL AND GENERAL SPECIFICATIONS

- Degree of protection : IP67
- Temperature range : -40°C to +85°C
- Total travel : 2,5 mm (.098)
- Mechanical life : 200.000 cycles

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.

MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : brass, nickel plated
- Contacts : silver, gold plated
- Multi-wire lead AWG20, section 0,6 mm²
- LED wire : AWG26, section 0,12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy

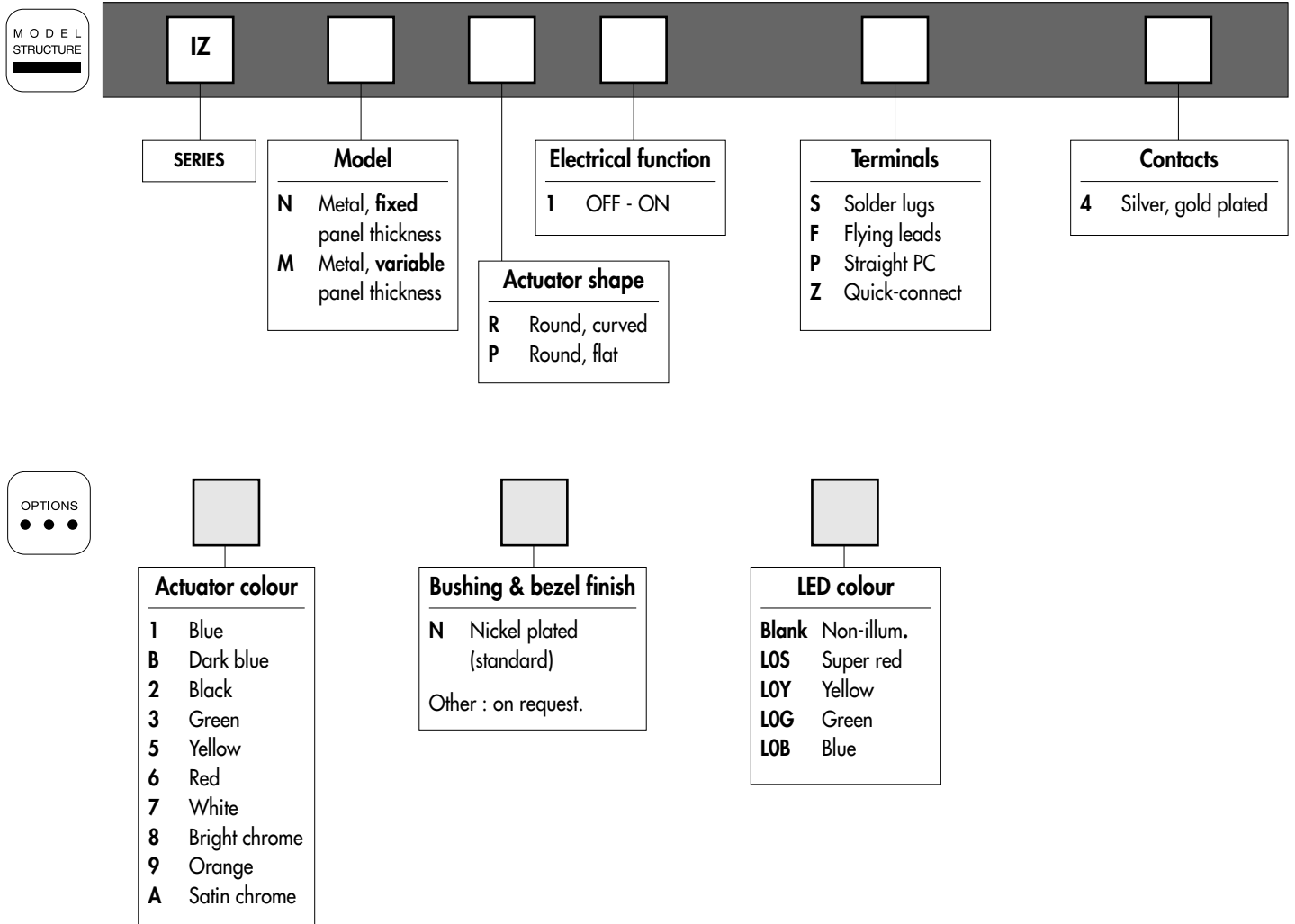
Dimensions : First dimensions are in mm while inches are shown as bracketed numbers.

Tolerance : The general tolerance for dimensions in this brochure is ± 0,3 (.012).

Overall dimension tolerance is ± 0,5 (.020).

Dimensions, specifications and data shown in this catalogue are subject to change without notice.

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.

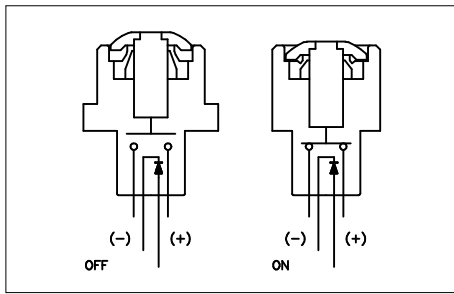


Mounting accessories : Standard hardware supplied :

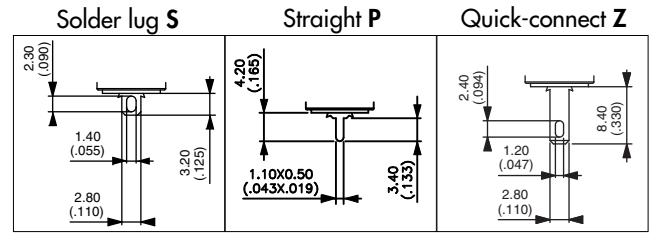
- IZN : 1 castellated nickel plated brass nut U6911 + 1 O-ring
- IZM : 1 castellated nickel plated brass nut U6911 + 1 silicone flat seal + 1 hex nut 19 mm (.748) across flats U4116.



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



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

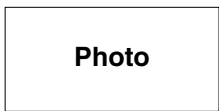


MODEL STRUCTURE

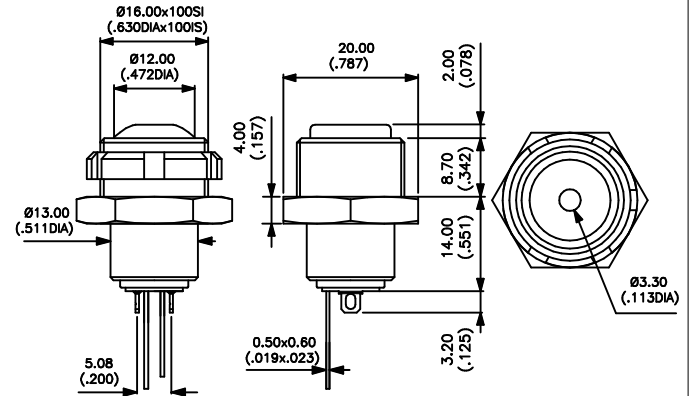


Plunger marking available on IZ•P models (symbol 10 mm max.). On request.

Fixed panel thickness - solder lug terminals



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

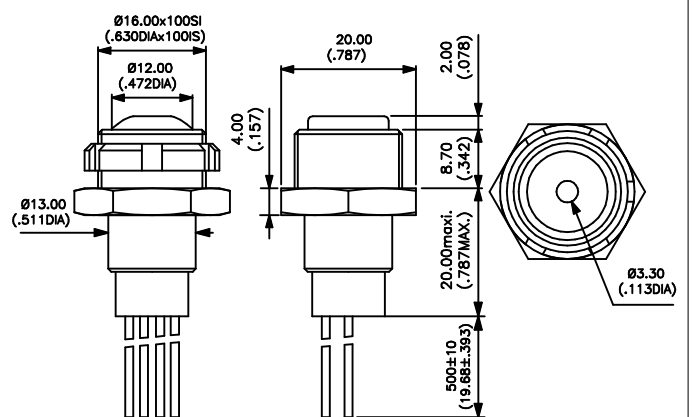


Also available with straight PC terminals : **IZN•1P4** & quick-connect terminals : **IZN•1Z4**.

Fixed panel thickness - flying lead terminals



- Curved actuator **IZNR1F4** OFF - ON
- Flat actuator **IZNP1F4** OFF - ON

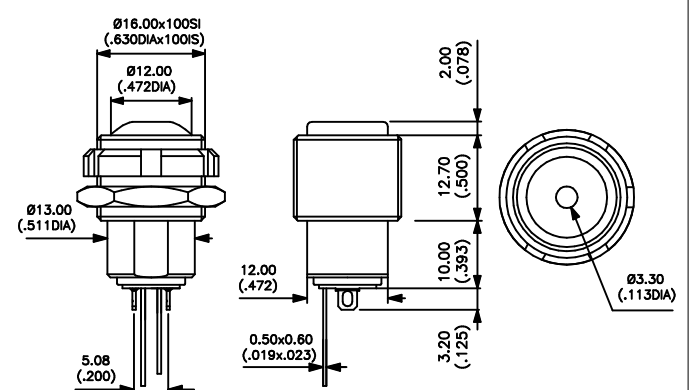


Wire colours : black : contact,
red : LED anode(+), blue : LED cathode (-)

Variable panel thickness - 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**.

IZ series

Preliminary

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

Illuminated

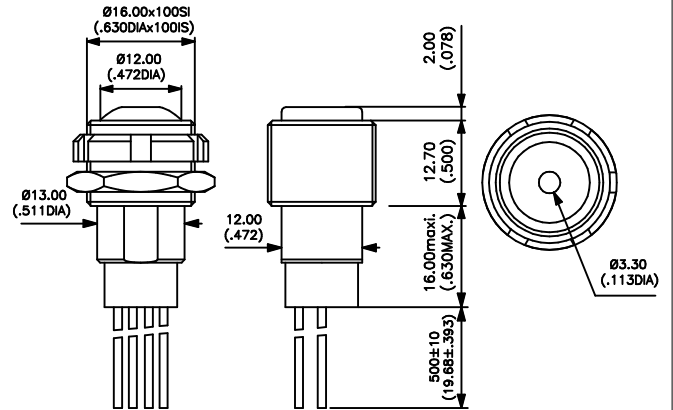
Variable panel thickness - flying lead terminals



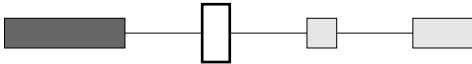
Curved actuator
IZMR1F4 OFF - ON

Flat actuator
IZMP1F4 OFF - ON

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

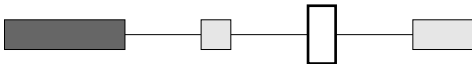


ACTUATOR COLOUR



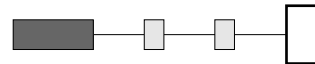
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 8 : bright chrome - 9 : orange
A : satin chrome

BUSHING AND BEZEL COLOUR

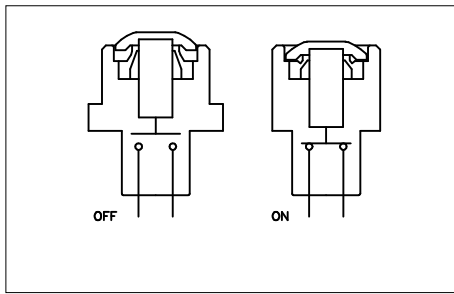


N : nickel plated (standard)
Other : on request.

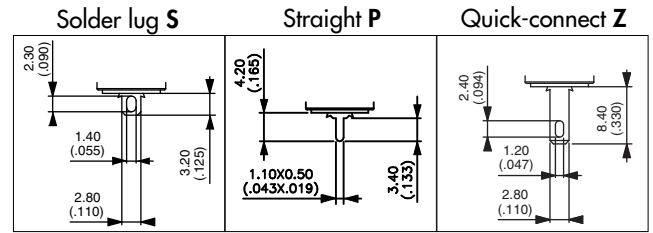
LED COLOUR



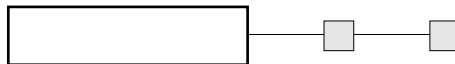
LOS : super red - LOY : yellow - LOG : green
LOB : blue



- Gold plated contacts



MODEL STRUCTURE



Plunger marking available on IZ•P models (symbol 10 mm max.). On request.

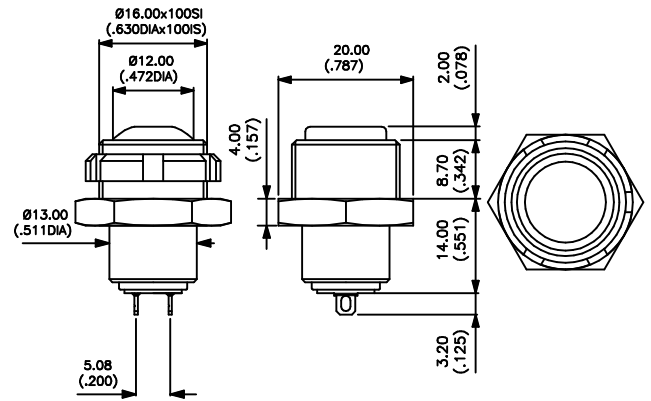
Fixed panel thickness - solder lug terminals



Curved actuator
IZNR1S4 OFF - ON

Flat actuator
IZNP1S4 OFF - ON

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



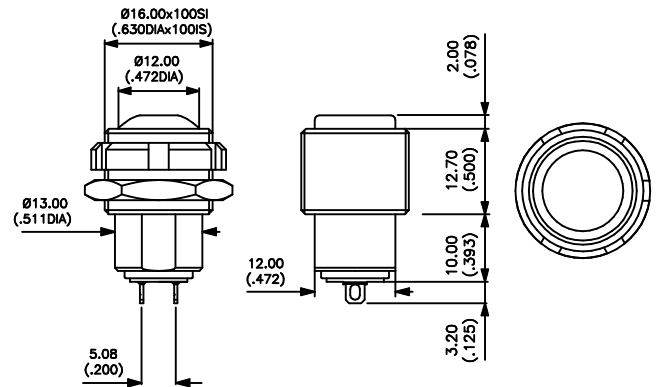
Variable panel thickness - solder lug terminals



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 previous pages (illuminated models). Non-illuminated have 2 wires only.

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.

I^Z series

Preliminary

Rear mounted sealed pushbutton switches - bushing Ø 16 - momentary

Distinctive features and specifications



- Rear mounting for easier installation
- Momentary models
- Illuminated or non-illuminated
- Flat actuator for optional marking
- Sealed to IP67
- Screw version available up to 4A

ENVIRONMENTAL AND GENERAL SPECIFICATIONS

- Degree of protection : IP67
- Temperature range : -40°C to +85°C
- Total travel : 1,7 mm (.067)
- Mechanical life : 1.000.000 cycles

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
 - Gold plated silver contacts (code 4) :
200mA 48VDC - 200mA 250VAC
 - Silver contacts (code 2) - screw terminals : 2A 250VAC - 4A 48VDC
- Electrical life at full load : 500.000 cycles
- Initial contact resistance : 100 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.000 Vrms 50 Hz

LED COMPONENT SPECIFICATIONS

LED colour	Forward current	Typ. forward voltage	Max. forward voltage
Super red (LOS)	20mA	2,1V	2,3V
Yellow (LOY)	20mA	2,1V	2,3V
Green (LOG)	20mA	2,1V	2,3V
Blue (LOB)	20mA	3,2V	3,8V
White (LOW)	20mA	3,35V	4,25V

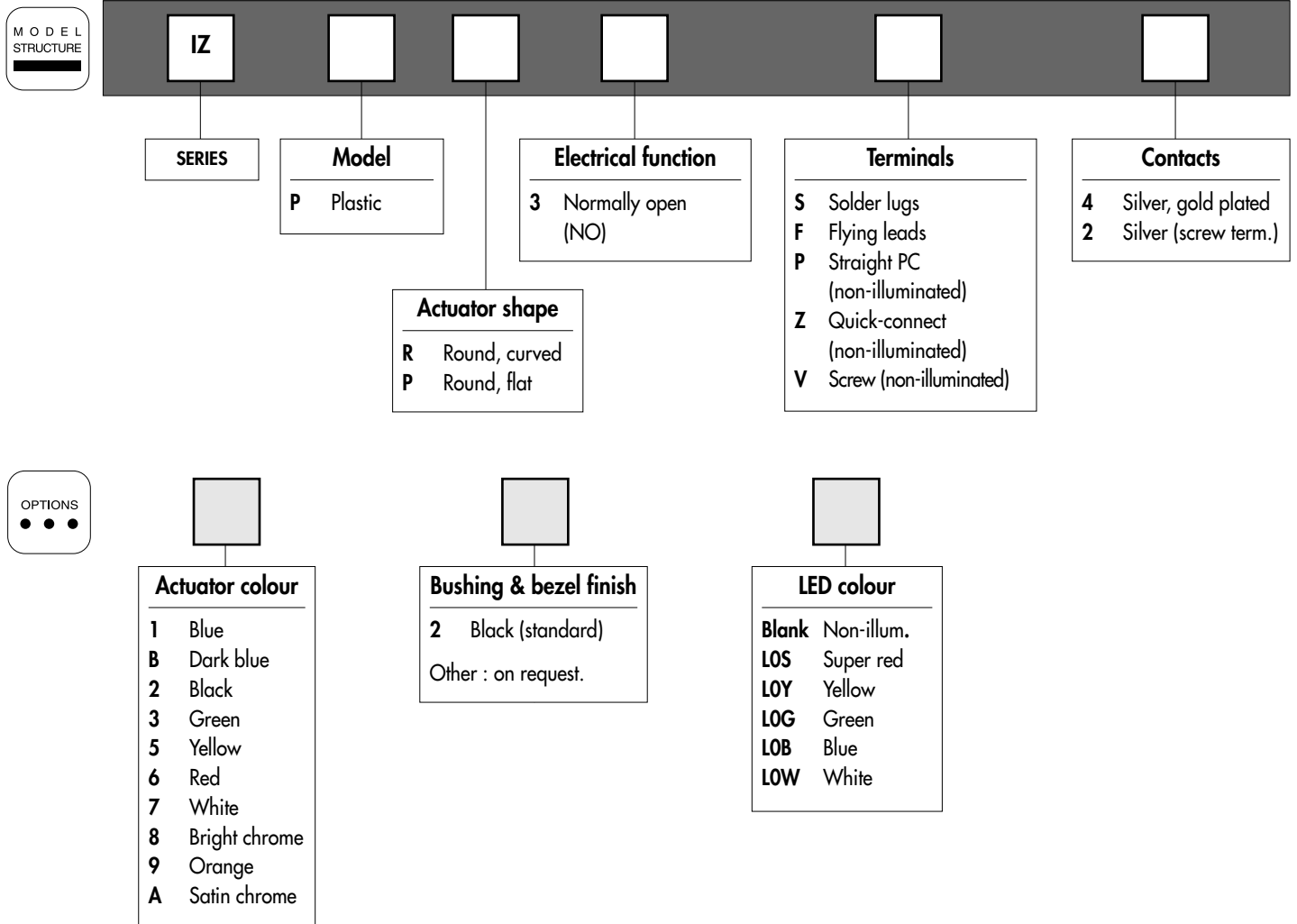
A resistor must be series-connected by the user.

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.

MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts :
 - 4 : silver, gold plated
 - 2 : silver (screw terminals)
- Multi-wire lead AWG20, section 0,6 mm²
- LED wire : AWG26, section 0,12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy



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 : 1 castellated black plastic nut U4249 and 1 silicone flat seal.



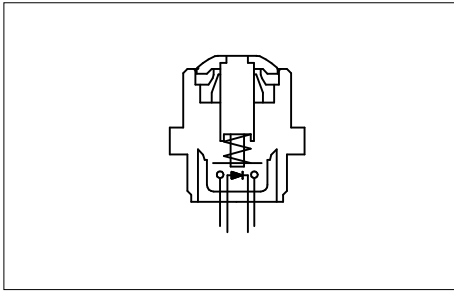
Packaging unit : 25 pieces for flying lead models - 40 pieces for other models

IZ series

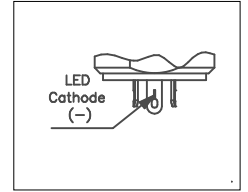
Preliminary

Rear mounted sealed pushbutton switches - bushing Ø 16 - momentary

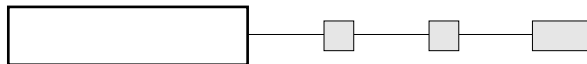
Illuminated



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



MODEL STRUCTURE



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

Solder lug terminals

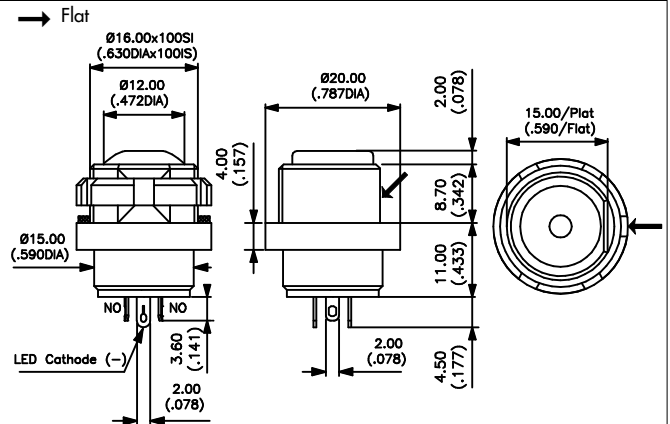


Curved actuator
IZPR3S4

Normally Open

Flat actuator
IZPP3S4

Normally Open



Flying lead terminals - momentary



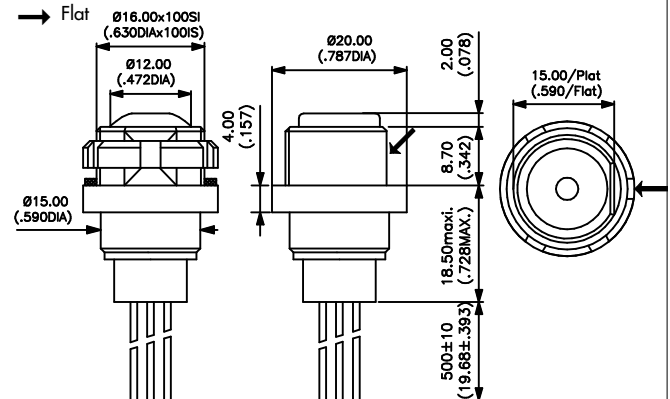
Curved actuator
IZPR3F4

Normally Open

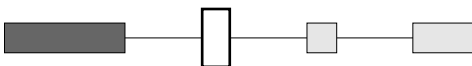
Flat actuator
IZPP3F4

Normally Open

Wire colours : black : NO contact,
red : LED anode(+), blue : LED cathode (-)

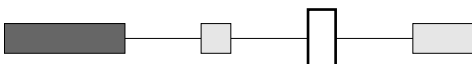


ACTUATOR COLOUR



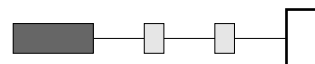
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 8 : bright chrome - 9 : orange
A : satin chrome

BUSHING AND BEZEL COLOUR

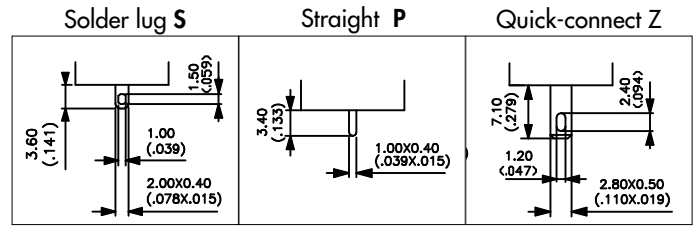
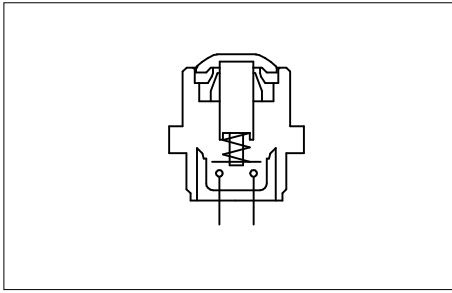


2 : black (standard)
Other : on request.

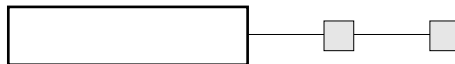
LED COLOUR



LOS : super red - LOY : yellow - LOG : green
LOB : blue - LOW : white



MODEL STRUCTURE

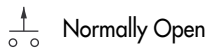


Plunger marking available on IZPP models (symbol 12 mm max.). On request.

Solder lug terminals - gold plated contacts



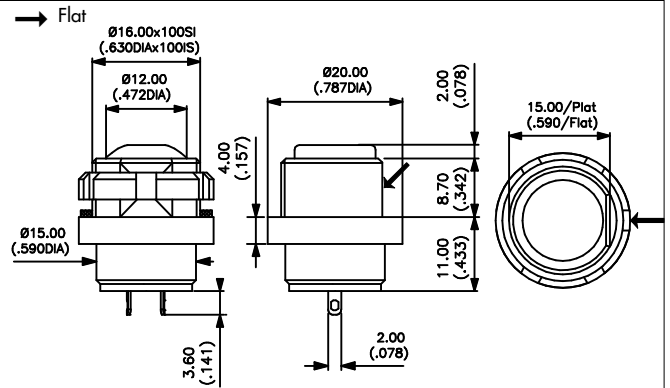
Curved actuator
IZPR3S4



Flat actuator
IZPP3S4



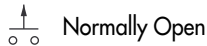
Also available with straight PC terminals : **IZP•3P4** and quick-connect terminals : **IZP•3Z4**.



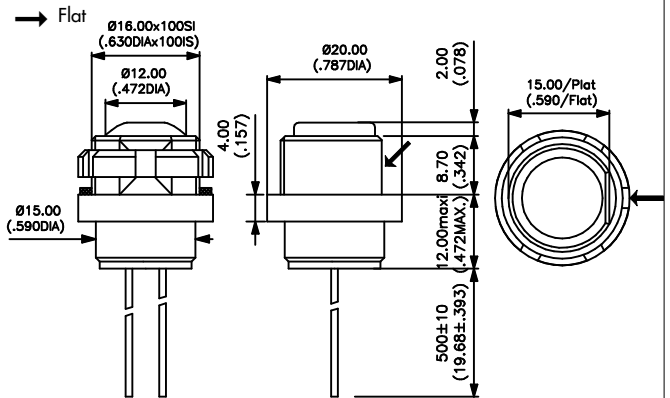
Sealed flying lead terminals - gold plated contacts



Curved actuator
IZPR3F4



Flat actuator
IZPP3F4



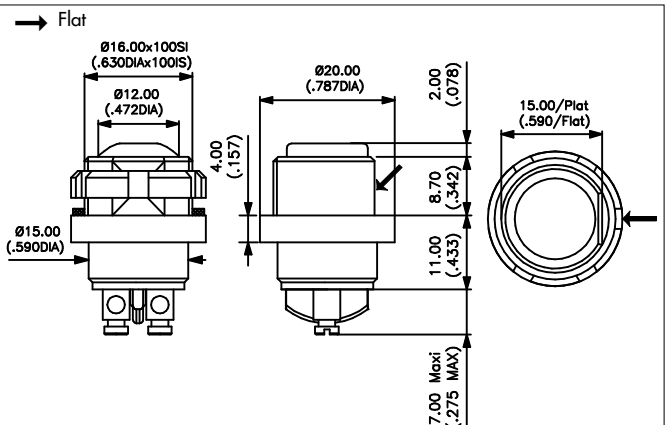
Screw terminals - silver contacts



Curved actuator
IZPR3V2



Flat actuator
IZPP3V2



Actuator colour and bushing/bezel colour : select the desired codes on previous page.

I^Z series

Preliminary

Rear mounted sealed pushbutton switches - bushing Ø 16 - latching action

Distinctive features and specifications



- Rear mounting for easier installation
- Latching action models
- Illuminated or non-illuminated
- Flat actuator for optional marking
- Sealed to IP67

ENVIRONMENTAL AND GENERAL SPECIFICATIONS

- Degree of protection : IP67
- Temperature range : -40°C to +85°C
- Total travel : 2,5 mm (.098)
- Mechanical life : 200.000 cycles

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

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

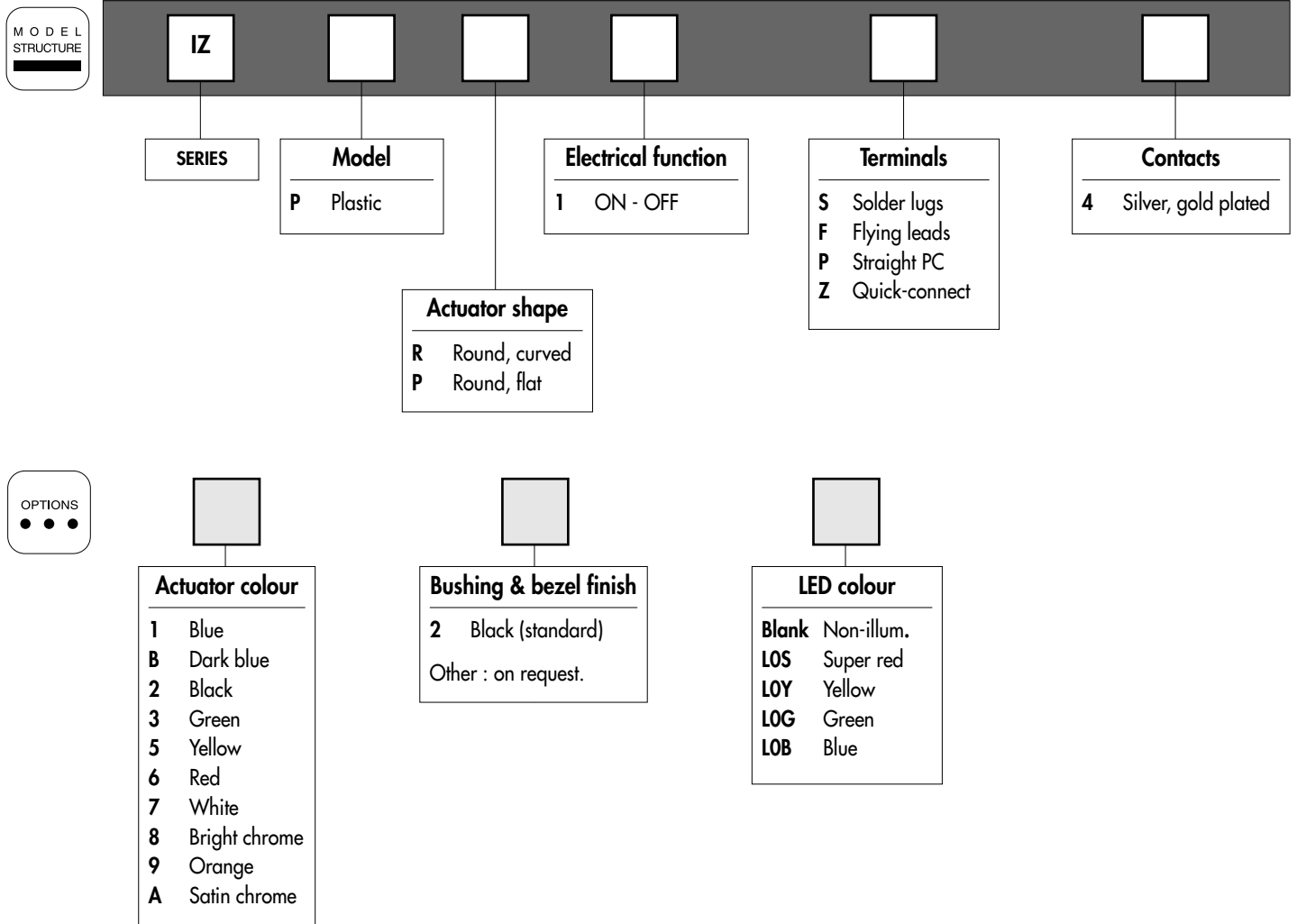
A resistor must be series-connected by the user.

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.

MATERIALS

- Case : thermoplastic UL94-V0
- Plunger : polyamide
- Bushing/bezel : polyamide
- Contacts : silver, gold plated
- Multi-wire lead AWG20, section 0,6 mm²
- LED wire : AWG26, section 0,12 mm²
- Lens : polycarbonate
- Terminal seal : epoxy



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 : 1 castellated black plastic nut U4249 and 1 silicone flat seal.



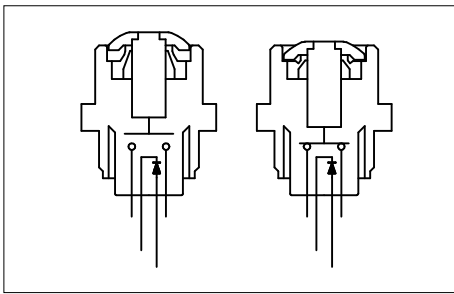
Packaging unit : 25 pieces for flying lead models - 40 pieces for other models

IZ series

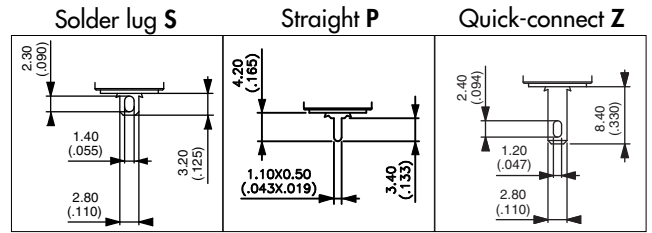
Preliminary

Rear mounted sealed pushbutton switches - bushing Ø 16 - latching action

Illuminated



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



MODEL STRUCTURE



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

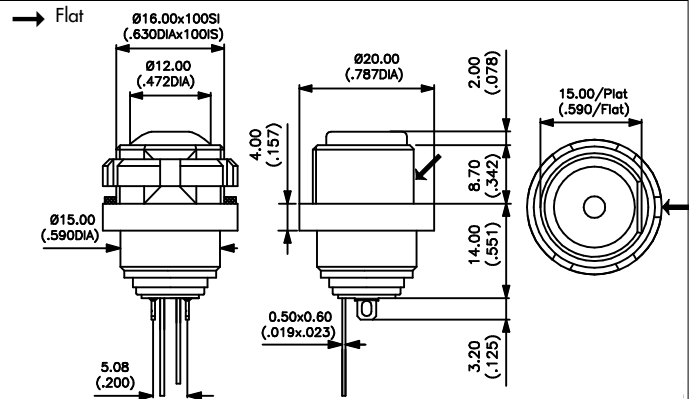
Solder lug terminals



Curved actuator
IZPR1S4 ON - OFF

Flat actuator
IZPP1S4 ON - OFF

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



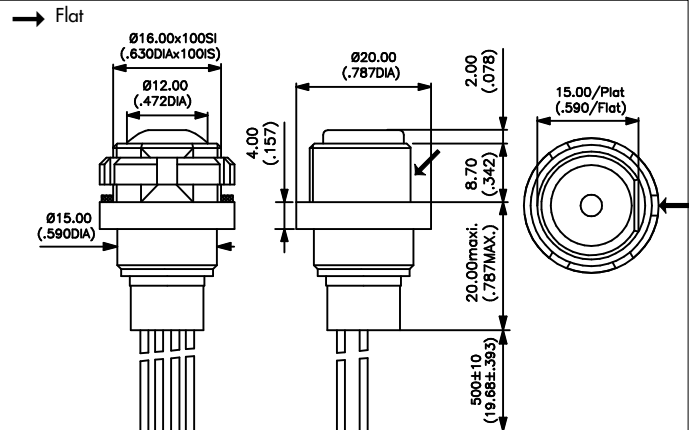
Sealed flying lead terminals



Curved actuator
IZPR1F4 ON - OFF

Flat actuator
IZPP1F4 ON - OFF

Wire colours : black : NO contact,
red : LED anode(+), blue : LED cathode (-)

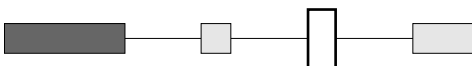


ACTUATOR COLOUR



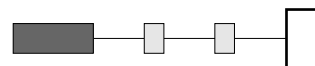
1 : blue - B : dark blue - 2 : black - 3 : green - 5 : yellow - 6 : red - 7 : white - 8 : bright chrome - 9 : orange
A : satin chrome

BUSHING AND BEZEL COLOUR

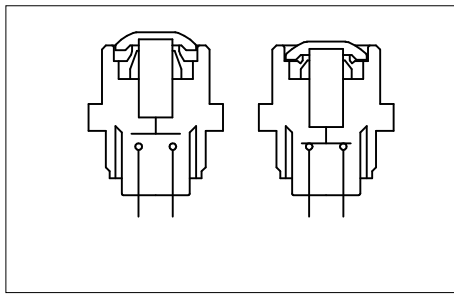


2 : black (standard)
Other : on request.

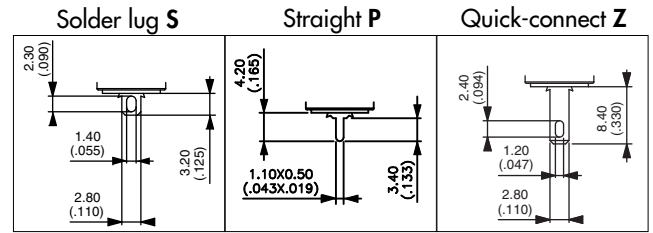
LED COLOUR



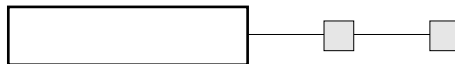
LOS : super red - LOY : yellow - LOG : green
LOB : blue



- Gold plated contacts



MODEL STRUCTURE



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

Solder lug terminals



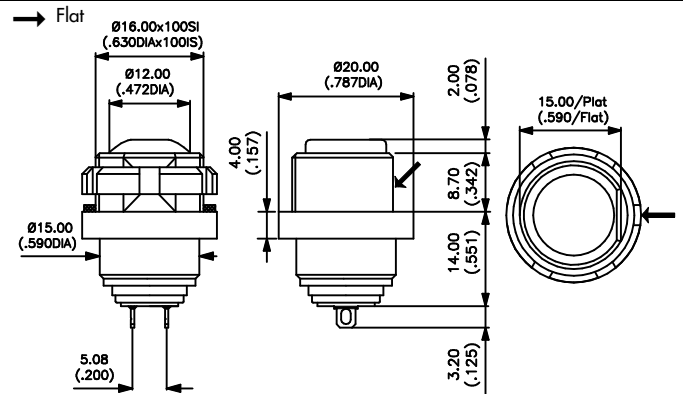
Curved actuator
IZPR1S4

ON - OFF

Flat actuator
IZPP1S4

ON - OFF

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



Sealed flying lead terminals

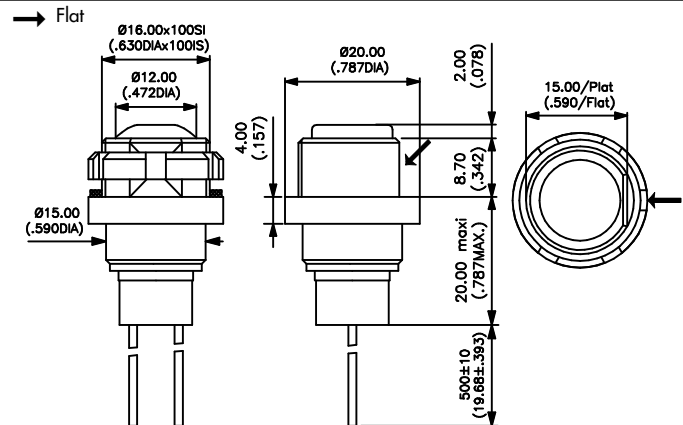


Curved actuator
IZPR1F4

ON - OFF

Flat actuator
IZPP1F4

ON - OFF

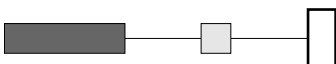


ACTUATOR COLOUR



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



2 : black (standard)
Other : on request.