

Selection guide - Section B1 ermec@ermec.com

«I» range

	<i>New!</i> 	<i>New!</i> 	<i>New!</i> 			<i>New!</i> 	<i>New!</i> 	<i>New!</i> 
Series	IC	IL	IM	IP mom. & latching	IB-IS	IHS hall effect	IHL hall effect	IQ momentary
Page	B1-2	B1-6	B1-11	B1-15	B1-25	B1-29	B1-32	B1-35
Poles	1	1	1	1	1	1 NPN	1	1
Maximum current	5A 28VDC	2A 24VDC	3A 28VDC	5A 28VDC 4A 12VDC	100mA 24VDC	5mA 24VDC	1,25mA 4,5VDC	4A 28VDC
Illuminated		X		X				X
Bushing dimension								
Ø12 (.472)	X	X	X	X	X	X	X	
Ø16 (.629)								X
Mounting options								
Panel	X	X	X	X	X	X	X	
Snap-in					X			X
Terminal options								
PCB	X	X	X	X	X			X
Solder lugs	X	X		X	X			X
Quick-connect	X		X	X	X			X
Screw								X
Flying leads	X	X		X		X	X	X
Sealing	IP67	IP67	IP67	IP67	IP54 or IP67	IP67	IP67	IP54

	<i>New!</i> 							
Series	IQ latching	IZ metal	IZ plastic	IR standard	IR microswitch	IR latching	IA	IF
Page	B1-42	B1-48	B1-58	B1-66	B1-73	B1-79	B1-85	B1-88
Poles	1	1	1	1	1	1	1	1
Maximum current	100mA 24VDC	4A 48VDC 100mA 24VDC	4A 48VDC 100mA 24VDC	4A 48VDC	5A 250VAC	100mA 24VDC	2A 24VDC	100mA 48VDC
Illuminated	X	X	X	X	X	X		
Bushing dimension								
Ø12 (.472)								
Ø16 (.629)	X	X	X	X	X	X	X	X
Mounting options								
Panel		X	X	X	X	X	X	X
Snap-in	X							X
Terminal options								
PCB	X	X	X	X		X		
Solder lugs	X	X	X	X		X		
Quick-connect	X	X	X	X	X	X		X
Screw		X	X	X				
Flying leads	X	X	X	X		X	X	
Sealing	IP54	IP67	IP67	IP67	IP67	IP67	IP67	IP67





- Snap-in and threaded bushing models
- Compact, light in weight
 - Behind-panel depth of 13 mm (.512) only
 - 50 % reduction in weight compared to metallic models
- Tactile feedback
- Sealed to IP67 (IS series) or IP54 (IB series)

ENVIRONMENTAL SPECIFICATIONS

- Front panel sealing according to IEC 60529 : IP67 (IS) or IP54 (IB)
- Shock resistance : 100 g according to IEC 512-4, test 6c
- Vibration resistance : 10-500 Hz - 10 g according to IEC 512-4, test 6d
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -40°C to +85°C

MATERIALS

- Case : thermoplastic UL94-V0
- Actuator : polyamide 6/6
- Bushing/bezel : polyamide 6/6
- Contacts : silver, gold plated
- Terminal seal : epoxy

ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
400mA 32VAC - 100mA 48VDC
- Initial contact resistance : 50 mΩ max.
- Insulation resistance : 1 GΩ min. at 500VDC
- Dielectric strength : 1.000 Vrms
- Electrical life at full load : 500.000 cycles

AGENCY APPROVAL



2A 125VAC/250VAC
File E83438

Availability : consult factory for details of approved models.

Marking : to order switches marked UL, complete appropriate box of ordering format.

GENERAL SPECIFICATIONS

- Panel thickness :
 - IB series : 0,8 mm (.031) min. - 1,8 mm (.071) max.
 - IS series : 1,5 mm (.059) min. - 4 mm (.157) max.
- Total travel : 1,7 mm (.066) +/- 0,3 mm
- Typical operating force : 4N +/- 3N
- Low level or mechanical life : 1.000.000 cycles
- Torque : 1,5 Nm max. applied to nut
- Soldering : 300°C max. for 3 seconds

*Example of custom switch:
see end of the series.*

Panel mounting : see next pages.



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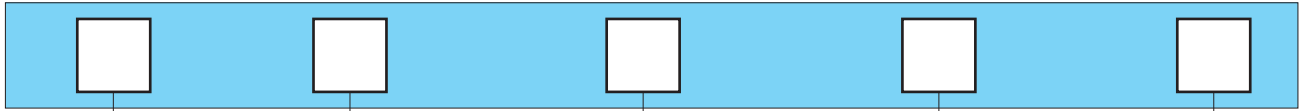
IB and IS series

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Sealed pushbutton switches - bushing Ø 12 mm - momentary

Overview

MODEL
STRUCTURE



SERIES

IB	Snap-in
IS	Threaded bushing

Actuator shapes

R	Round, curved
P	Round, flat

Electrical function

3	Normally open (NO)
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Terminals

S	Solder lug
Z1	Quick-connect 2,8 x 0,5 mm
P	Straight PC

Contacts

AD	Silver, gold plated
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OPTIONS

Actuator colours

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

Bezel finish

00	Black (std)
08	Bright chrome (IS only)
10	White
20	Satin chrome (IS only)

Option

104	High actuator
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Approval

UL	Consult factory for detail of approved models.
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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 bracketed numbers.



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. It is presented after the IA series and in section H.



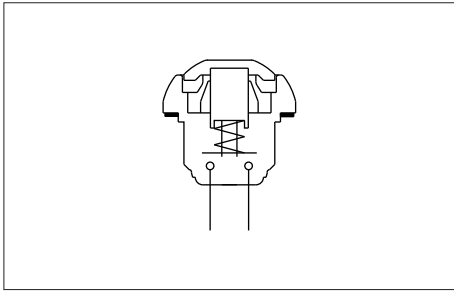
Mounting accessories : Standard hardware supplied : 1 flat seal (IB series)
1 hex nut 14 mm (.551) across flats and 1 flat seal (IS series). Hex nut part number U166.



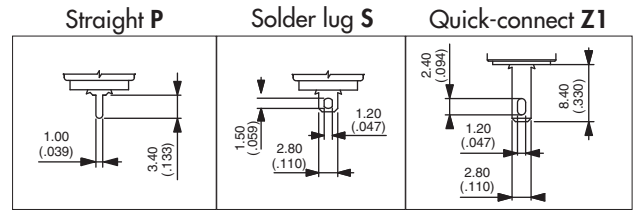
Packaging unit : 50 pieces



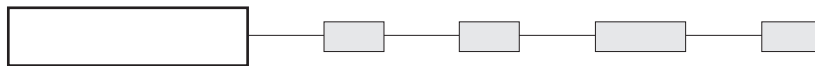
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- Ten actuator colours
- Curved or flat actuator
- Antirotation bushing



MODEL STRUCTURE



Actuator marking available on IBP and ISP models (symbol 10 mm max.). On request.

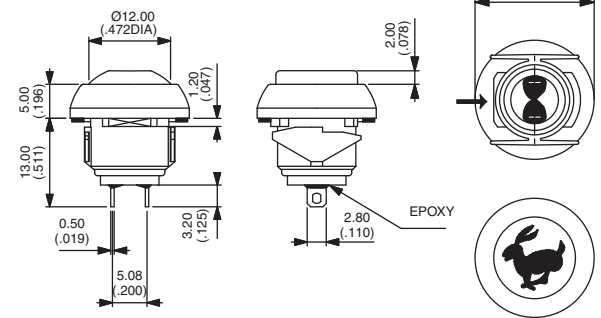
Snap-in mounting - solder lug terminals

→ Flat

Panel thickness : 0,8 mm to 1,8 mm



- Curved actuator
IBR3SAD Normally open
- Flat actuator
IBP3SAD Normally open



Also available with straight PC : **IB•3PAD** or quick-connect terminals : **IB•3Z1AD**

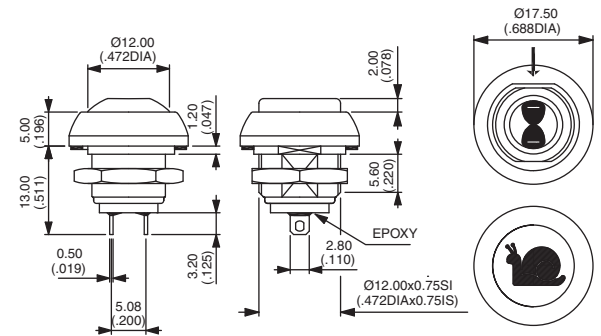
Mounting by threaded bushing - solder lug terminals

→ Flat

Panel thickness : 1,5 mm to 4 mm



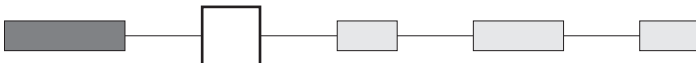
- Curved actuator
ISR3SAD Normally open
- Flat actuator
ISP3SAD Normally open



Also available with straight PC : **IS•3PAD** or quick-connect terminals : **IS•3Z1AD**

ACTUATOR COLOURS

Actuator marking available on IBP and ISP models (symbol 10 mm max.). On request.



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

BUSHING AND BEZEL FINISH



- 00 : Black (standard)
08 : Bright chrome (IS series only)
10 : White
20 : Satin chrome (IS series only)



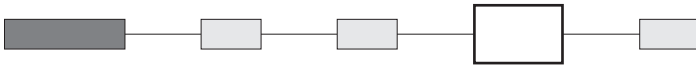
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IB and IS series

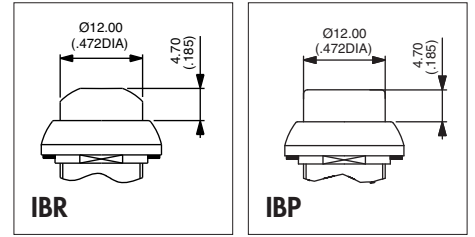
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Sealed pushbutton switches - bushing Ø 12 mm - momentary

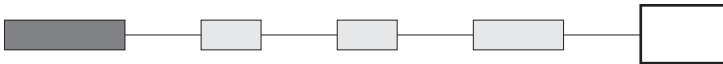
ACTUATOR OPTION



104 : High actuator



APPROVAL



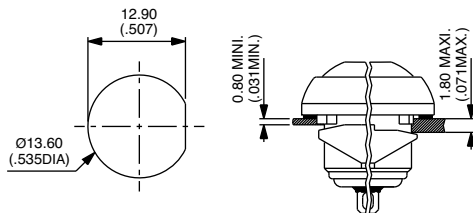
UL

Availability : consult factory for details of approved models.

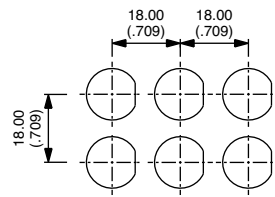
Marking : to order switches marked UL, complete above box with "UL".

IB SERIES MOUNTING

Panel cut-out

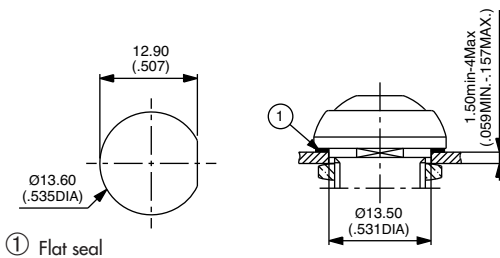


Matrix mounting

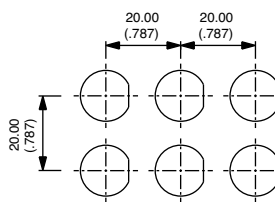


IS SERIES MOUNTING

Panel cut-out



Matrix mounting



Example of custom switch



ISR3FADB22X1248-01

- Painted bushing and actuator, soft feel
- Flying leads (55 mm) + connector
- Overmolded rear part



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