






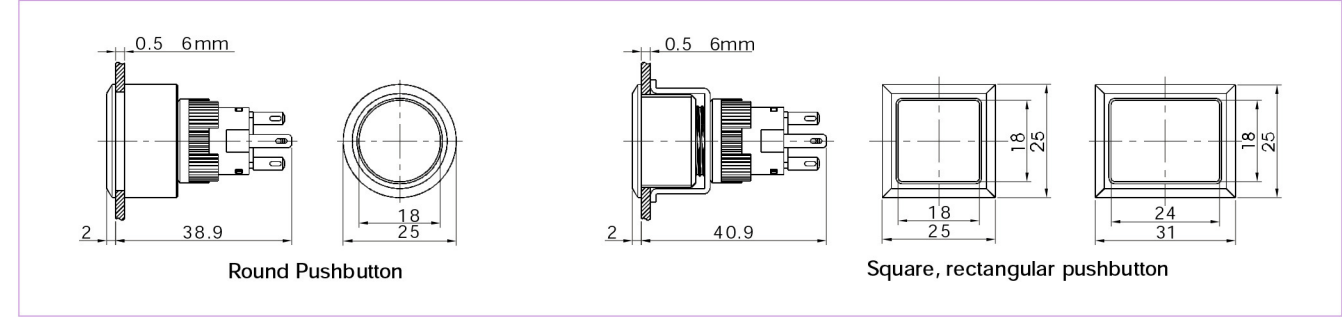
# HBDS1Series A type Φ22 Pushbutton Switch

## HBDS1 Series A Type Φ22 pushbutton, illuminated pushbutton

### Product Cutline

Shape	Contact	Operation type	Model Type	Mark
<div>Round(can be illuminated)</div> <div></div> <div>Silvery Frame</div>	——	Pilot lamp	HBDS1-AWY-DT/△/▲/◎	<div></div> <div>◎ The black cover can not be used for illuminated pushbutton.</div> <div>◎ Protective Degree: IP40 and IP65 can be chosen.</div>
		Momentary	HBDS1-AWY-11T/△/▲/◎	
	1NO1NC	Alternate	HBDS1-AWY-11ZT/△/▲/◎	
		Momentary	HBDS1-AWY-22T/△/▲/◎	
	2NO2NC	Alternate	HBDS1-AWY-22ZT/△/▲/◎	
<div>Round(can be illuminated)</div> <div></div> <div>Silvery Frame</div>	——	Pilot lamp	HBDS1-AWY-D/△/▲/◎	
		Momentary	HBDS1-AWY-11/△/▲/◎	
	1NO1NC	Alternate	HBDS1-AWY-11Z/△/▲/◎	
		Momentary	HBDS1-AWY-22/△/▲/◎	
	2NO2NC	Alternate	HBDS1-AWY-22Z/△/▲/◎	
<div>Square(can be illuminated)</div> <div></div> <div>Silvery Frame</div>	——	Pilot lamp	HBDS1-AWF-D/△/▲/◎	
		Momentary	HBDS1-AWF-11/△/▲/◎	
	1NO1NC	Alternate	HBDS1-AWF-11Z/△/▲/◎	
		Momentary	HBDS1-AWF-22/△/▲/◎	
	2NO2NC	Alternate	HBDS1-AWF-22Z/△/▲/◎	
<div>Rectangular(can be illuminated)</div> <div></div> <div>Silvery Frame</div>	——	Pilot lamp	HBDS1-AWJ-DT/△/▲/◎	
		Momentary	HBDS1-AWJ-11T/△/▲/◎	
	1NO1NC	Alternate	HBDS1-AWJ-11ZT/△/▲/◎	
		Momentary	HBDS1-AWJ-22T/△/▲/◎	
	2NO2NC	Alternate	HBDS1-AWJ-22ZT/△/▲/◎	

### Product overall dimension



# HBDS1 Series A Type Φ22 Pushbutton Switch

## Switch Ratings

Rated Insulation Voltage Ui			250V			
Thermal Current Ith			5A			
Rated Voltage			12V	24V	110V	220V
Rated Current	Alternating Current 50/60Hz	Resistive load	—	—	1A	0.5A
		inductive load	—	—	0.7A	0.5A
	Direct Current	resistive load	1A	1A	0.2A	—
		inductive load	0.7A	0.7A	0.1A	—
Contact Material			Silver Alloy			

Minimum load:3V AC/DC 5mA(reference) (range of use depend on operation environment and load type)

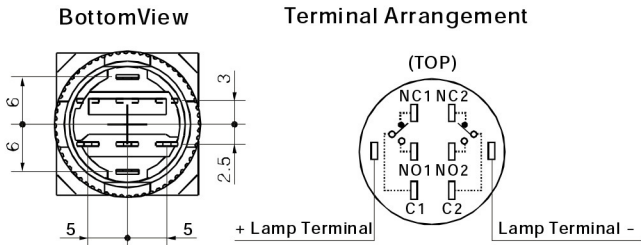
## Specification

Operating Temperature			-25℃ ~ +55℃(no freezing) keep the air flowing around illuminated pushbutton
Operating Humidity			45 ~ 85%RH(no condensation)
Contact Resistance			≤50m Ω
Insulation Resistance			≥100M Ω
Dielectric strength	Between contact and lamp terminals		2000V,A C 50Hz,1 min
	Between terminal of the same pole:		1000V,AC 50Hz,1 min
	Between terminal of different pole:		2000V,A C 50Hz,1 min
Vibration Resistance			50Hz,Amplitude 1.2mmp – p
Shock Resistance			≥10g
Life	Mechanical	Momentary Type	1,000,000times
		Alternate and Selector Type	500,000 times
		Key – lock and Emergency Type	200,000 times
	Electrical		≥50,000times
Terminal			Diameter of welded wire:2 × 0.8mm Area of copper wire: 0.75mm <sup>2</sup> max Connecting link:2.8 × 0.5mm
Solder Heat Resistance			230℃( no more than 3 second)
Operating Travel			(Pushbuttons) about 3mm

## Lamp Ratings

Lamp Type	AC LED Lamp (Standard)			Neon Lamp	
Rated Voltage	AC/DC6V	AC/DC12V	AC/DC24V	AC110V	AC220V
	AC/DC110V		AC/DC220V		
Cover Color	<div><div>R</div><div>G</div><div>Y</div><div>O</div><div>B</div><div>W</div></div>			<div><div>R</div><div>G</div></div>	
Life	About 40000 hours			About 20000 hours	

Note:the lamp contains a current - limiting resistor inside and doesn't need external connection.  
DC LED lamp, dual - color LED lamp and other voltages can be customized.



## Selector and key lock switch contact operation

Position	Contact	Operating Position & Contact Operation		
		Left	Center	Right
90° 2 Position	1NO1NC			
	2NO2NC			
45° 3 Position	2NO2NC			

# HBDS1 Series A Type Φ 22 Pushbutton Switch

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### Characteristic

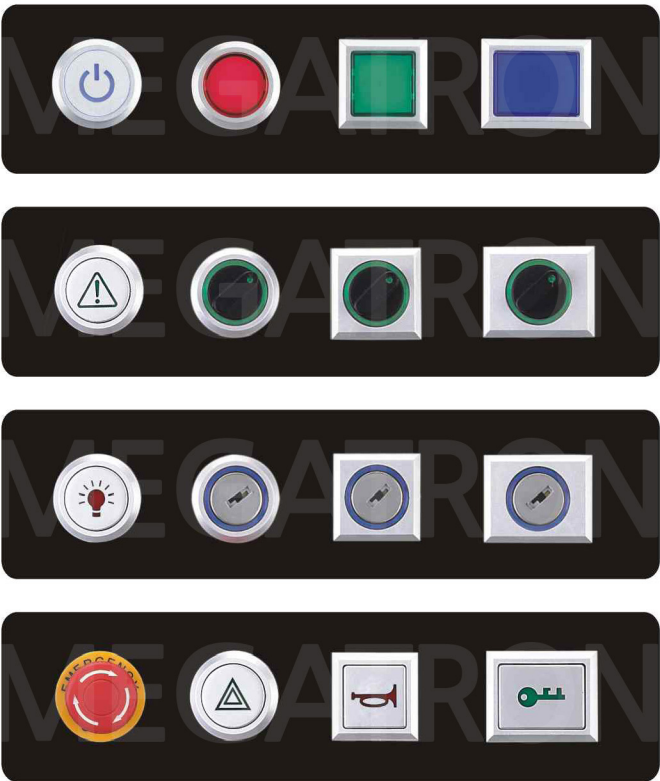
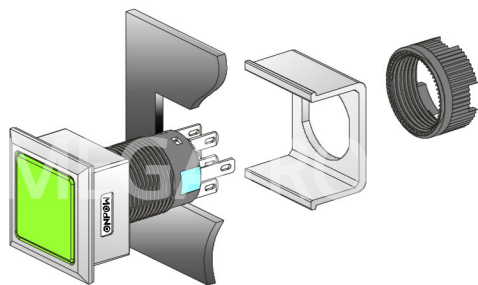
**Specs** It includes pilot lamp, pushbutton, illuminated pushbutton, selector switch, key - lock switch and emergency switch; the head shape could be round (Φ25mm), square (25 × 25mm) and rectangular (25 × 31mm).

**Functions** With stable property, low contact resistance, strong insulation resistance, anti - vibration and anti - impact feature, products meet the standards of IEC60947 - 5 - 1,GB14048.5, etc.

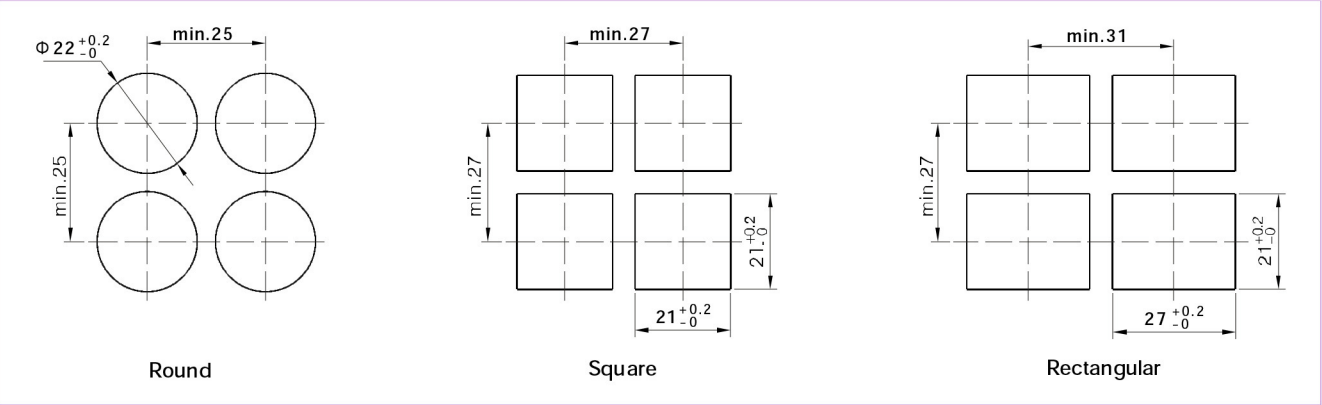
**Structure** The switch elements are of fast-break structure, and every elements consist of 1NO1NC. One pushbutton can collocate not more than 2 elements.

**Feature** Using veneering installation, the front frame of the product is only 2mm higher over the panel. The top face could be customized of various patterns.

**Protective Degree** IP40 or IP65.



### Mounting hole dimension



### Model Number Description

HBDS1-A ☆ ★ - □ ■ ○ / ◇ ◆ ● / △ / ▲ / ◎										
Code of series	Code of variety: P black frame W silvery frame	The front shape: Y round F square J rectangular	Contact Structure: 11 1NO1NC 22 2NO2NC	Code name of derivative products: D pilot lamp Z alternate type X selector type Y key-lock type TS emergency No letter means momentary	Type of illuminated symbol: T power sign No letter means normal type. Note:T type is special for round silvery frame. Other symbol can be made to order.	◇:operating position of selector and key switch: 2 two position 3 three position ◆:operation type: 1 maintain 2 right return 3 return 4 left return ●key-lock maintain position	Color: R red G green Y yellow O orange B blue Wwhite N black	Lamp voltage (Please see the chart of lamp rating)	Protective degree: P IP65 No letter means IP40	

Note: Pls check other specification, lamp ratings, structure and terminal explanation from HBDS1 series A type in ONPOWplastic products catalogue.