

HBGQ16 Pushbuttons Switch Series mounting hole : $\Phi 16$

Order Code - Configurazione di un modello

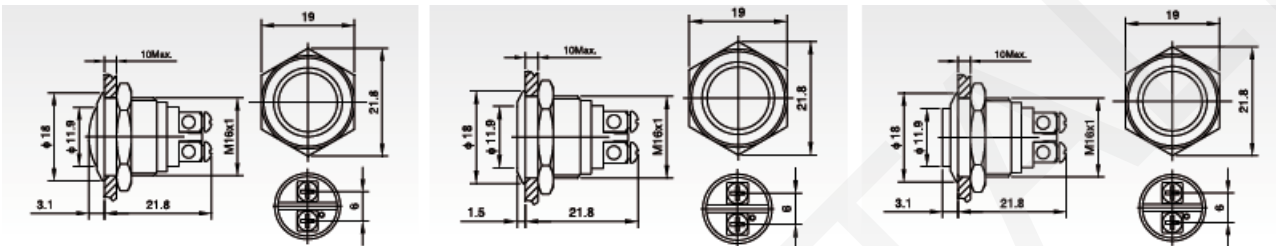
Configura un pulsante o un interruttore facendo uso della seguente simbologia :

Fronte Front Shape	Contatti Contact configuration	Led Lamp Type	Contatti Oper. Type	Colore Led color	Volt Led Led voltage	Materiale Material
Y : round F : square J : rectangle M : mushroom head DF : big square DJ : big rectangle	10 : 1NO 11 : 1NO 1NC 22 : 2NO 2NC	D : indicator light Z : self-lock button X : select button Y : key button TS : push lock Pin button No letter: meaning self restoring	Z : latching X : selector Y : key-lock M : buzzer SM : flash buz. No letter : Pushbuttons Pulsante	R Red G Green Y Yellow O Orange B Blue W White	6 12 24 36 110 220	N = Nickel plated brass S = Stainless S. A = Zn-Al Alloy

Description - Descrizione	Figura	
Diagramm each single contact Schema elettrico (singolo contatto)		
Symbol Simbolo* The contact can to be NO (normally open) or NC (normally closed) Il contatto può essere NA (normalmente aperto) NC (Normalmente chiuso)		
Nota : Diagramm is referred for one single contact and one Led Riferito ad ogni singolo contatto	Contatti configurati : uno Led configurati : uno	

LampType	LED lamp(AC/DC)			Lamp Circuit Diagram	 Using AC/DC led lamp. Terminals have no difference of anode and cathode. Non c'è differenza di polarità ai terminali del led. Collegando una resistenza esterna si può adattare il funzionamento del led ad una tensione superiore : ad esempio il led interno è di 5V. Con una resistenza esterna da 1K il led può funzionare a 12V.
LEDColor					
Life	40000hours(Reference)				
RatedVoltage	AC/DC6V	AC/DC12V	AC/DC110V		
	AC/DC24V	AC/DC36V	AC/DC220V		
RatedCurrent	About15mA		About3mA		
Dropping Way	Innerresistance		Outerresistance when using6Vlamp		

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Shape and Dimensions

Esempio d' ordine

- HBGQ16B-10N Pulsante 1NA 16 mm tipo Domed, connettore a vite, corpo Nickel-Plated Brass
- HBGQ16B-10S Pulsante 1NA 16 mm tipo Domed, connettore a vite, corpo Stainless Steel
- HBGQ16F-10N Pulsante 1NA 16 mm tipo Flat, connettore a vite, corpo Nickel-Plated Brass
- HBGQ16H-10S Pulsante 1NA 16mm tipo High Round, connettore a vite, corpo Stainless Steel
- HBGQ16F-10EJR12S Pulsante 1NA 16mm tipo Flat, ring led rosso, terminale a saldare, corpo Stainless Still
- HBGQ16H-10EJR12S Pulsante 1NA 16mm tipo High Round, ring led rosso, terminale a saldare, corpo Stainless Still

Valori resistenze inseriti all'interno dei pulsanti luminosi a led.

Volendo adattare i led a valori di tensione diversi da quelli ordinati, si applica una resistenza esterna ad uno dei terminali led . Ad esempio, si desidera collegare un pulsante led con valore di tensione 12V ad una tensione di 24V : impiegare una resistenza esterna da 680 - 720 Ohm, ricavando il dato dalla differenza di valore ohmico riportato nella tabella seguente.

Current Limiting Resistor Configuration Table	Current Limiting Resistor	Rated Voltage				Formula
		6V	12V	24V	36V	
	R Y O	210 Ω , 1/4W	510 Ω , 1/2W	1.2k Ω , 3/4W	2.2k Ω , 1W	$R = \frac{U-U_e}{I_e}$
	G B W	160 Ω , 1/4W	460 Ω , 1/2W	1.2k Ω , 3/4W	2.2k Ω , 1W	

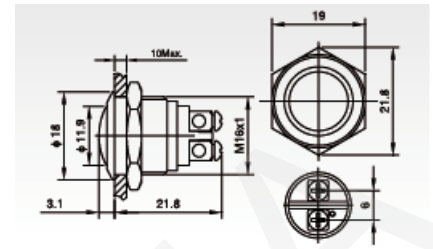


Metal Pushbuttons

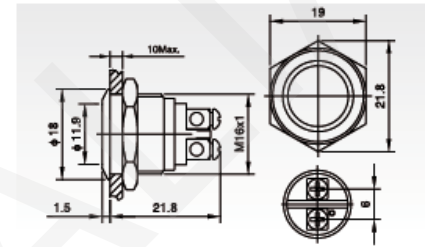
HBGQ SERIES mounting hole : Φ 16



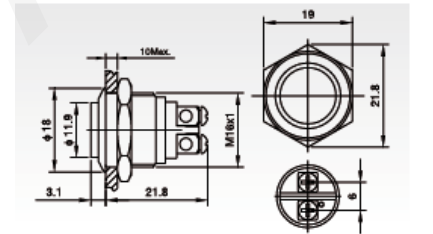
- Mounting hole size : 16mm
- Switch rating : 2A 36VDC
- Contact configuration : 1 x NO
- Operation type : Momentary
- The crust material : NPB or Stainless steel
- Protection degree : IP65 IK08



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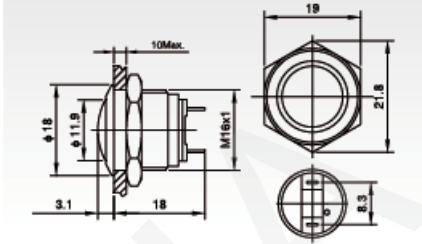
\odot = materiale
 NPB = Nickel Plated Brass
 S = Stainless Steel

	HBGQ16 B10 \odot	HBGQ16 F10 \odot	HBGQ16 H10 \odot
Terminal Type	Screw terminal	Screw terminal	Screw terminal
Switch type	Two Terminal breakpoints slow moving contact	Two Terminal breakpoints slow moving contact	Two Terminal breakpoints slow moving contact
Switch specifications	2A / 36VDC	2A / 36VDC	2A / 36VDC
Contact Resistance (m Ω)	≤ 50	≤ 50	≤ 50
Insulation Resistance (M Ω)	≥ 1000	≥ 1000	≥ 1000
Dielectric Strength (VAC)	2000	2000	2000
Operating Temperature	-20°C ~ +55°C	-20°C ~ +55°C	
Mechanical Life (times)	> 1.000.000	> 1.000.000	> 1.000.000
Electrical Life (times)	> 200.000	> 200.000	> 200.000
Panel Thickness (mm)	1 ~ 6	1 ~ 6	1 ~ 6
Torque (Nm)	5 ~ 14	5 ~ 14	5 ~ 14
Operating Pressure (N)	about 4	about 4	about 4
Operating Stroke (mm)	about 1.5	about 1.5	about 1.5
Protection Degree	IP65, IK08	IP65, IK08	IP65, IK08
Contact	Silver Alloy	Silver Alloy	Silver Alloy
Button	Stainless Steel	Stainless Steel	Stainless Steel
Case	Stainless Steel/NPB	Stainless Steel/NPB	Stainless Steel/NPB
Base	PBT	PBT	

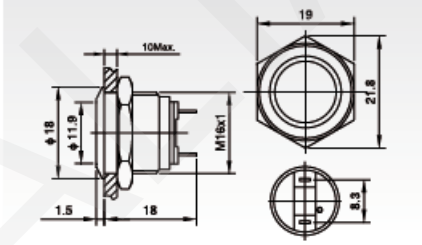
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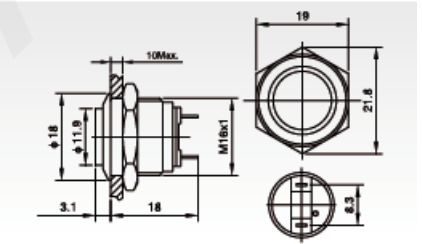
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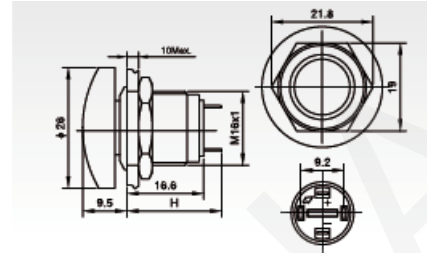
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 S = Stainless Steel

	HBGQ16 B10J \odot	HBGQ16 F10J \odot	HBGQ16 H10J \odot
Terminal Type	Pin terminal	Pin terminal	Pin terminal
Switch type	Two Terminal breakpoints slow moving contact	Two Terminal breakpoints slow moving contact	Two Terminal breakpoints slow moving contact
Switch specifications	2A / 36VDC	2A / 36VDC	2A / 36VDC
Contact Resistance (m Ω)	≤ 50	≤ 50	≤ 50
Insulation Resistance (M Ω)	≥ 1000	≥ 1000	≥ 1000
Dielectric Strength (VAC)	2000	2000	2000
Operating Temperature	-20°C ~ +55°C	-20°C ~ +55°C	
Mechanical Life (times)	> 1.000.000	> 1.000.000	> 1.000.000
Electrical Life (times)	> 200.000	> 200.000	> 200.000
Panel Thickness (mm)	1 ~ 6	1 ~ 6	1 ~ 6
Torque (Nm)	5 ~ 14	5 ~ 14	5 ~ 14
Operating Pressure (N)	about 4	about 4	about 4
Operating Stroke (mm)	about 1.5	about 1.5	about 1.5
Protection Degree	IP65, IK08	IP65, IK08	IP65, IK08
Contact	Silver Alloy	Silver Alloy	Silver Alloy
Button	Stainless Steel	Stainless Steel	Stainless Steel
Case	Stainless Steel/NPB	Stainless Steel/NPB	Stainless Steel/NPB
Base	PBT	PBT	

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- Switch rating : 2A 36VDC
- Contact configuration : 1 x NO
- Operation type : Momentary
- The crust material : Zn-Al Alloy
- Protection degree : IP65 IK08



	HBGQ16M-10JTA		
Terminal Type	Pin terminal		
Switch type	Two Terminal breakpoints slow moving contact		
Switch specifications	2A / 36VDC		
Contact Resistance (m Ω)	≤ 50		
Insulation Resistance (M Ω)	≥ 1000		
Dielectric Strength (VAC)	2000		
Operating Temperature	-20°C ~ +55°C		
Mechanical Life (times)	> 1.000.000		
Electrical Life (times)	> 200.000		
Panel Thickness (mm)	1 ~ 10		
Torque (Nm)	5 ~ 14		
Operating Pressure (N)	about 4		
Operating Stroke (mm)	about 1.5		
Protection Degree	IP65, IK08		
Contact	Silver Alloy		
Button	Zn-Al Alloy Colorful Head		
Case	Zn- Al Alloy Silver white		
Base	PBT		
Rated Voltage			
Color			