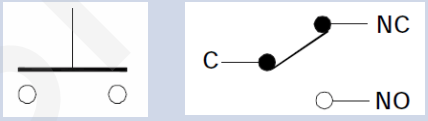
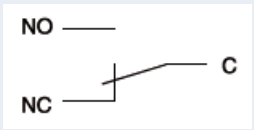
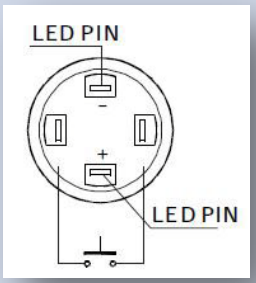
HBGQ16 Pushbuttons Switch Series mounting hole : Φ 16

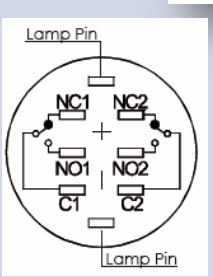
Order Code - Configurazione di un modello

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

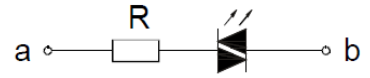
★	■	◆	■	▲	▲	●
Fronte Front Shape	Contatti Contact configuration	Led Lamp Type	Contatti Oper. Type	Colore Led color	Volt Led Led voltage	Materiale Material
Y : round **F : square** **J : rectangle** **M : mushroom head** **DF : big square** **DJ : big rectangle**	**10 : 1NO** **11 : 1NO 1NC** **22 : 2NO 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 - due Led configurati : uno





LampType	LED lamp(AC/DC)			Lamp Circuit Diagram
LEDColor	R G Y O B W			
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	



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.

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Shape and Dimensions

Esempio d' ordine

HBGQ16F-10EJR12S Pulsante 1NA 16mm tipo Flat, ring led rosso, terminale a saldare, corpo Stainless Steel
HBGQ16H-10EJR12S Pulsante 1NA 16mm tipo High Round, ring led rosso, terminale a saldare, corpo Stainless Steel

Nell'ordine, completare il codice con le seguenti informazioni :

◎ = **tipo di materiale** **NPB = Nickel Plated Brass** **S = Stainless Steel**
▲ ▲ = **colore led - tensione led** ■ ■ = **operazione - n. contatti**

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 dei valori ohmici riportato nella tabella seguente.

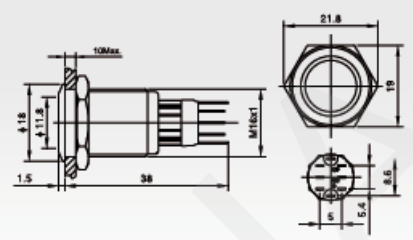
Current Limiting Resistor Configuration Table	Rated Voltage	6V	12V	24V	36V	Formula
	Current Limiting Resistor R Y O	210 Ω, 1/4W	510 Ω, 1/2W	1.2k Ω, 3/4W	2.2k Ω, 1W	$R=\frac{U-Ue}{Ie}$
	G B W	160 Ω, 1/4W	460 Ω, 1/2W	1.2k Ω, 3/4W	2.2k Ω, 1W	

Profili

HBS2GQF - H SERIES not – illuminated mounting hole : Φ 16

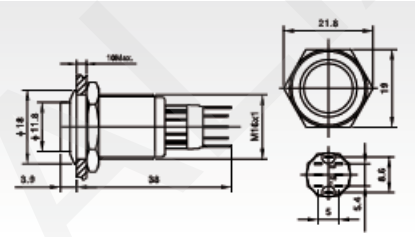
HBS2GQF ■ ■ ◎ Flat round

- Mounting hole size : 16mm
- Switch rating : 3A 250V AC
- Contact configuration : 1 x NONC 2 x NONC
- Front shape : Flat Round
- Operation type : Momentary - Latching
- Material : NPB or Stainless steel
- Protection degree : IP40/IP67/ IK09



HBS2GQH ■ ■ High round

- Mounting hole size : 16mm
- Switch rating : 2A 36VDC
- Contact configuration : 1 x NONC 2 x NONC
- Front shape : High round
- Operation type : Momentary - Latching
- Material : NPB or Stainless steel
- Protection degree : IP40/IP67/ IK08

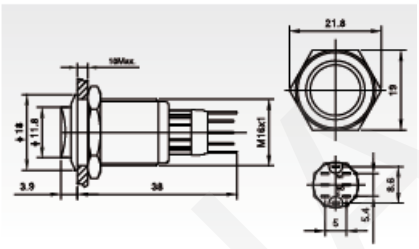


■ ■ ◎ = Contact/Operation/Material	HBS2GQF ■ ■ ◎	HBS2GQH ■ ■ ◎
Terminal Type	Pin Terminal (2.8 x 0.4mm)	Pin Terminal (2.8 x 0.4mm)
Switch type	Single breakpoint snap action changeover contacts	Single breakpoint snap action changeover contacts
Switch specifications	Ith: 3A / Ui: 250VAC	Ith: 3A / Ui: 250VAC
Contact Resistance (mΩ)	≤ 50	≤ 50
Insulation Resistance (MΩ)	≥ 1000	≥ 1000
Dielectric Strength (VAC)	2000	2000
Operating Temperature	-20°C ~ +55°C	-20°C ~ +55°C
Mechanical Life (times)	> 1.000.000	> 1.000.000
Electrical Life (times)	> 50.000	> 50.000
Panel Thickness (mm)	1 ~ 10	1 ~ 6
Torque (Nm)	5 ~ 14	5 ~ 14
Operating Pressure (N)	about 2,5 - 4	about 2,5 - 4
Operating Stroke (mm)	about 2,8	about 2,8
Protection Degree	IP40/67, IK09	IP40/67, IK08
Contact	Silver Alloy	Silver Alloy
Button	Stainless Steel	Stainless Steel
Case	Stainless Steel/NPB	Stainless Steel/NPB
Base	PBT	PBT

HBS2GQF - H SERIES not – illuminated mounting hole : Φ 16

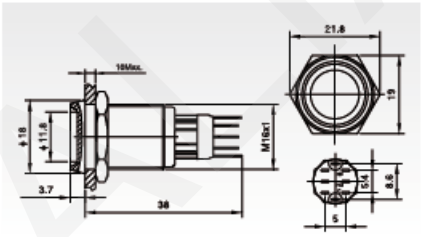
HBS2GQG ■ ■ ◎ Flat round

- Mounting hole size : 16mm
- Switch rating : 3A 250V AC
- Contact configuration : 1 x NONC 2xNONC
- Front shape : High concave Round
- Operation type : Momentary - Latching
- Material : NPB or Stainless steel
- Protection degree : IP40/IP67/ IK09



HBS2GQC ■■ Concave round

- Mounting hole size : 16mm
- Switch rating : 2A 36VDC
- Contact configuration : 1 x NONC 2xNONC
- Front shape : Concave round
- Operation type : Momentary - Latching
- Material : NPB or Stainless steel
- Protection degree : IP40/IP67/ IK09



■ ■ ◎ = Contact/Operation/Material	HBS2GQG ■ ■ ◎	HBS2GQC- ■ ■ ◎
Terminal Type	Pin Terminal (2.0 x 0.5mm)	Pin Terminal (2.0 x 0.5mm)
Switch type	Two terminal breakpoints slow moving contract	Two terminal breakpoints moving contract
Switch specifications	Ith: 3A / Ui: 250VAC	Ith: 3A / Ui: 250VAC
Contact Resistance (mΩ)	≤ 50	≤ 50
Insulation Resistance (MΩ)	≥ 1000	≥ 1000
Dielectric Strength (VAC)	2000	2000
Operating Temperature	-20°C ~ +55°C	-20°C ~ +55°C
Mechanical Life (times)	> 1.000.000	> 1.000.000
Electrical Life (times)	> 50.000	> 50.000
Panel Thickness (mm)	1 ~ 10	1 ~ 6
Torque (Nm)	5 ~ 14	5 ~ 14
Operating Pressure (N)	about 2,5 - 4	about 2,5 - 4
Operating Stroke (mm)	about 2,8	about 2,8
Protection Degree	IP40/67, IK09	IP40/67, IK08
Contact	Silver Alloy	Silver Alloy
Button	Stainless Steel	Stainless Steel
Case	Stainless Steel/NPB	Stainless Steel/NPB
Base	PBT	PBT