Illuminated Sub-Miniature Pushbutton Switches

FEATURES

- UL, RoHS and Lead-Free compliance
- IP67
- Wide variety of button and LED colors
- PCB through hole and snap-in mount
- Metal case available

RS PRO Illuminated Sub-Miniature Pushbutton Switches

RS Stock No.: 2099051, 2099055, 2099057, 2099058, 2099060, 2099062, 2099064, 2099065, 2099065, 2099071, 2099077, 2099081, 2099082, 2099083, 2099085, 2099087, 2099089, 2099091, 2099093, 2099097, 2099099, 2099101, 2099103, 2099105, 2099107, 2099109, 2099111, 2099113, 2099115, 2099117, 2099120, 2099122, 2099124, 2099127, 2099129, 2099132



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

Illuminated Sub-Miniature Pushbutton Switches

Similar Products

Stock No.	Brand	Switch Function	Terminal Type	Color & Cap Type	Bushing Type	LED
2099107	RS PRO	SP OFF-(ON)	Solder Lug	Red Flat Cap	Threaded Bushing (Die-Casting)	None
2099087	RS PRO	SP OFF-(ON)	Solder Lug	Red Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099089	RS PRO	SP OFF-(ON)	Solder Lug	Orange Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099117	RS PRO	SP OFF-(ON)	Solder Lug	Green Flat Cap	Threaded Bushing (Die-Casting)	None
2099093	RS PRO	SP OFF-(ON)	Solder Lug	Green Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099101	RS PRO	SP OFF-(ON)	Solder Lug	Black Flat Cap	Threaded Bushing (Die-Casting)	None
2099085	RS PRO	SP OFF-(ON)	Solder Lug	Black Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099124	RS PRO	SP OFF-(ON)	Solder Lug	Blue Flat Cap	Threaded Bushing (Die-Casting)	None
2099099	RS PRO	SP OFF-(ON)	Solder Lug	White Flat Cap	Threaded Bushing (Die-Casting)	None
2099097	RS PRO	SP OFF-(ON)	Solder Lug	Blue Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099083	RS PRO	SP OFF-(ON)	Solder Lug	White Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099113	RS PRO	SP OFF-(ON)	Solder Lug	Orange Flat Cap	Threaded Bushing (Die-Casting)	None
2099115	RS PRO	SP OFF-(ON)	Solder Lug	Yellow Flat Cap	Threaded Bushing (Die-Casting)	None
2099091	RS PRO	SP OFF-(ON)	Solder Lug	Yellow Flat Cap	Square Threaded Bushing (Die-Casting)	None
2099109	RS PRO	SP OFF-(ON)	Solder Lug	Red Flat Cap	Threaded Bushing (Die-Casting)	RED
2099103	RS PRO	SP OFF-(ON)	Solder Lug	Black Flat Cap	Threaded Bushing (Die-Casting)	RED
2099120	RS PRO	SP OFF-(ON)	Solder Lug	Green Flat Cap	Threaded Bushing (Die-Casting)	RED
2099111	RS PRO	SP OFF-(ON)	Solder Lug	Yellow Flat Cap	Threaded Bushing (Die-Casting)	GREEN
2099105	RS PRO	SP OFF-(ON)	Solder Lug	Black Flat Cap	Threaded Bushing (Die-Casting)	GREEN
2099122	RS PRO	SP OFF-(ON)	Solder Lug	Green Flat Cap	Threaded Bushing (Die-Casting)	GREEN
2099129	RS PRO	SP OFF-(ON)	Solder Lug	Red High Cap	Threaded Bushing (Die-Casting)	None
2099132	RS PRO	SP OFF-(ON)	Solder Lug	Green High Cap	Threaded Bushing (Die-Casting)	None
2099127	RS PRO	SP OFF-(ON)	Solder Lug	Black High Cap	Threaded Bushing (Die-Casting)	None
7346716	RS PRO	SP OFF-(ON)	Solder Lug	Red Flat Cap	Threaded Bushing	None
2099081	RS PRO	SP OFF-(ON)	Solder Lug	Green Flat Cap	Threaded Bushing	None
7346704	RS PRO	SP OFF-(ON)	Solder Lug	Black Flat Cap	Threaded Bushing	None
2099071	RS PRO	SP OFF-(ON)	Solder Lug	White Flat Cap	Threaded Bushing	None
1444358	RS PRO	SP OFF-(ON)	Solder Lug	Yellow Flat Cap	Threaded Bushing	None
2099077	RS PRO	SP OFF-(ON)	Solder Lug	Orange Flat Cap	Threaded Bushing	None
2099082	RS PRO	SP OFF-(ON)	Solder Lug	Blue Flat Cap	Threaded Bushing	None
2099060	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Red Flat Cap	Threaded Bushing	None
2099065	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Green Flat Cap	Threaded Bushing	None
2099055	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Black Flat Cap	Threaded Bushing	None

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2099051	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	White Flat Cap	Threaded Bushing	None
2099062	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Orange Flat Cap	Threaded Bushing	None
2099064	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Yellow Flat Cap	Threaded Bushing	None
2099065	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Blue Flat Cap	Threaded Bushing	None
2099057	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Black Flat Cap	Threaded Bushing	RED
2099058	RS PRO	SP OFF-(ON)	Molded back with AWG20 Black WIRE UL approved	Black Flat Cap	Threaded Bushing	GREEN

Product Description

PA series pushbutton switches is our lowest cost, momentary, sealed, pushbutton switches that is panel mounted with options to illuminate. This slick design offers threaded or snap-in/press fit panel mounting and the operating temperature range between -30℃ and 85℃.

Multiple actuator colors and discrete LED illumination options can help the switch stand out or fade into the background.
All of this aesthetic versatility along with IP67 level of seal allows the PA series to be used across a wide variety of applications and operating conditions.

APPLICATIONS:
Telecommunications, Networking equipment, Computers/servers, Performance audio and Instrumentation.

Specifications

Illuminated Sub-Miniature Pushbutton Switches

SPECIFICATION:

MAX. CURRENT/VOLTAGE RATING WITH RESISTIVE LOAD:
400mA 32VAC-100mA 50VDC-125mA 125VAC
500mA 48VAC - 200 mA 50VDC - 200mA 250VAC for metal material.
INITIAL CONTACT RESISTANCE: 50mΩmax.
INSULATION RESISTANCE: 1GΩmin.at 500VDC.
DIELECTRIC STRENGTH: 1,000 VAC rms.
1,500 VAC rms. for metal material.
ELECTRICAL LIFE AT FULL LOAD: 500,000 cycles.
OPERATING TEMPERATURE: -30°C to 85°C.
PANEL THICKNESS:
B1 series : 0.8 mm (.031) min. -1.8 mm (.071) max.
B2 series : 1.5 mm (.059) min. -4 mm (.157) max.
B3 series : 2.85 +0.05/-0.10 mm (.112)
TOTAL TRAVEL: 1.5 mm(.059)
OPERATING FORCE: 2N~5N
CONTACT BOUNCE: 10 ms.
MECHANICAL LIFE: 1,000,000 cycles.
TORQUE: 0.5 Nm max.applied to nut,
1.5 Nm max. for metal material.
SOLDERING: 350°C max.for 5 seconds.

MATERIALS
CASE: Diallyl phthalate (DAP)(UL94v-0).
CAP: Polyamide 6/6.
BUSHING: Polyamide 6/6.

Options

Cap Color

* Please kindly note our standard is with flat cap.
* Only flat cap available with LED.
* Square threaded bushing applicable to flat cap only.

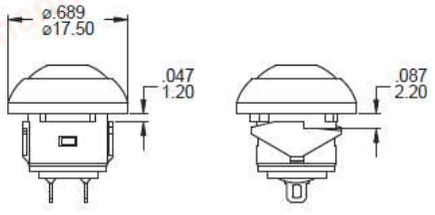
CAP COLOR	ITEM NO.		
	Flat(std.)	Round	High
White	1	A1	G1
Black (Std)	2	A2	G2
Red (Std)	3	A3	G3
Orange	4	A4	G4
Yellow	5	A5	G5
Green	6	A6	G6
Blue	7	A7	G7

* Besides standard color, other colors need to check stocks available.

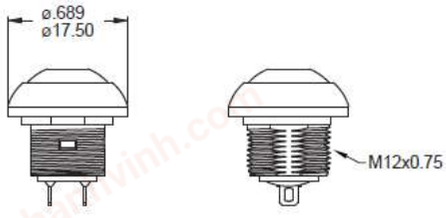
Illuminated Sub-Miniature Pushbutton Switches

BUSHING TYPE

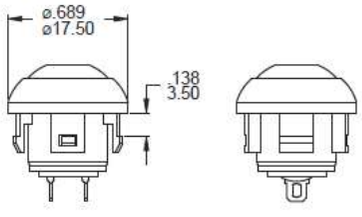
B1



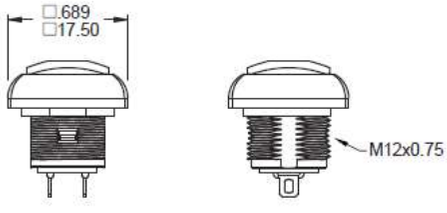
B2 / D2



B3



D1 / B6



BUSHING PLATING

□□□

BUSHING
D1
D2

PLATING
A Chromium
C Stain-chromium
D Stain-nickel



Chromium



Stain-chromium



Stain-nickel

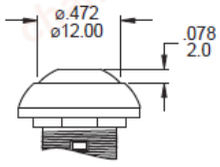
WITH LED ELECTRO-OPTICAL DATA:

Model No.	Lens Appearance	Color		Electro-potical Data (AT 20mA) Vf (V) Typ.	Vf (V) Max.	Iv (mcd) Typ.	Iv (mcd) Min.	Peak Wavelength	Viewing Angle 2θ 1/2 (deg)
PAS6 & PAS7	Water Clear	Super White		2.8	3.3	200	100	X / Y=0.27	35°
		Super Red		2.0	2.5	700	200	645	
		Yellow		2.1	2.6	100	55	589	
		Green		2.2	2.7	130	70	565	
		Super Blue		3.1	3.6	580	250	460	
		Super Yellow (Super Green)	Y	2	2.6	475	210	590	
			G	2	2.6	210	140	570	
		Super Yellow (Super Blue)	Y	2.1	2.6	200	94	590	
			B	3.2	3.6	200	94	460	
		Super Yellow (Super Red)	Y	2.1	2.6	100	63	590	
			R	2	2.6	90	42	630	
		Super Red (Super Green)	R	2	2.6	90	42	630	
			G	2.0	2.6	90	42	570	
		Super Red (Super Blue)	R	2	2.6	90	42	630	
			B	3.2	3.6	200	94	460	
		Super Green (Super Blue)	G	2.0	2.6	100	42	570	
			B	3.2	3.6	200	94	460	

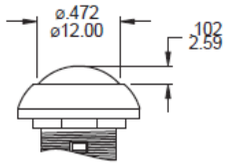
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CAP OPTIONS

FLAT STD

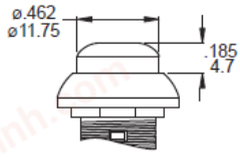


ROUND Non-LED



＊Only for B1,B2,B3,D2 bushing type

HIGH Non-LED



＊Only for B2,D2 bushing and PAS6 model type

Resistance Humidity	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made： □Temperature：40±2℃. □Relative Humidity：90~95%. □Time：96 hours.
The Salt Testing	Following the test set forth below the sample shall be left in normal temperature and humidity conditions for an hour before the measurements are made： □Temperature：35±2℃. □The ratio of salt-water：5%. □The spray amount of salt- water：1~2 ml/h. □Time：48 hours.
Test of IP 67	Upper side： Protected against the effects of temporary immersion in water. (1m below the surface of the water for a duration of 30 min)
Wave Soldering	■ Wave Soldering： □Soldering Temperature:260±5℃. □Duration of Solder Immersion: 5 ±1 seconds. □PCB is 1.6mm in thickness.
Soldering Temperature	■ Manual Soldering： Soldering Temperature：350℃max. Duration of Solder Heated： Max 5 seconds. ■ Precautions in Handling Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch. Except for washable type do not wash the switch. Please make sure that there is no flux rose over the surface of the PCB.

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Additional Information

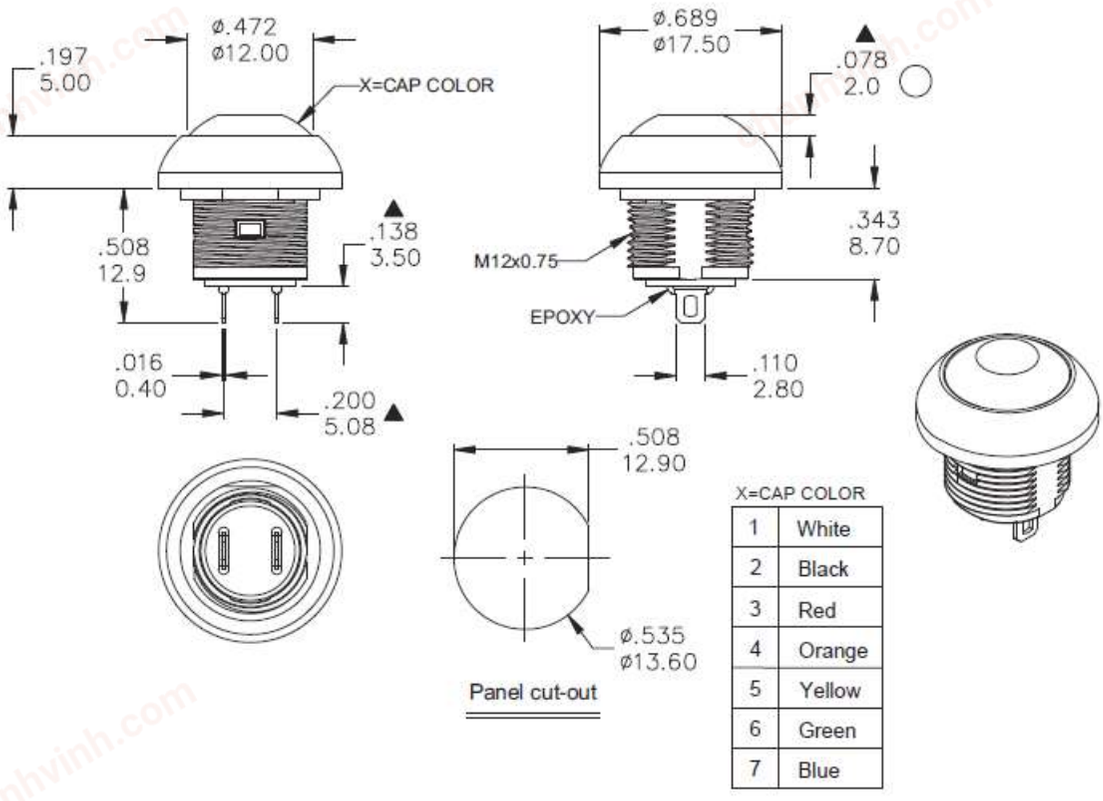
Custom Tariff Number	8536500000

Approvals

Hazardous Area Certification	RoHS 2011/65/EU & 2015/863
Standards Met	IP 67

Stock No. PAS6D2M1CESX-5

Drawing:



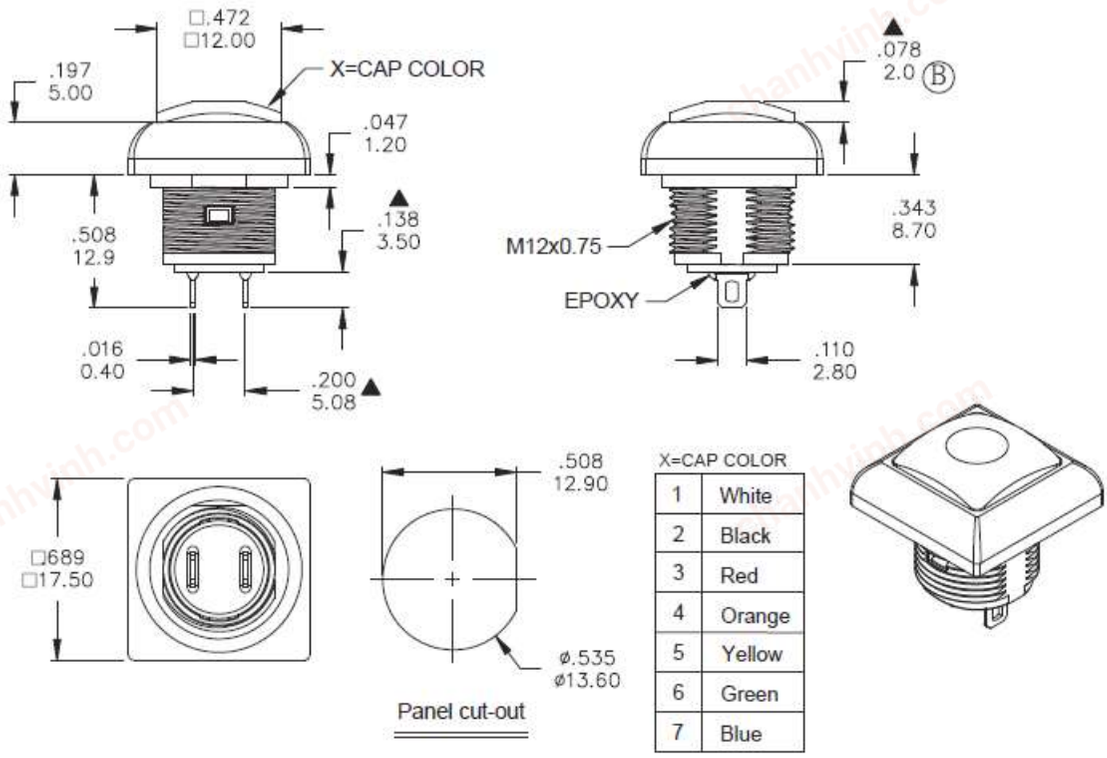
X=CAP COLOR

1	White
2	Black
3	Red
4	Orange
5	Yellow
6	Green
7	Blue

Illuminated Sub-Miniature Pushbutton Switches

Stock No. PAS6D1M1CESX-5

Drawing:

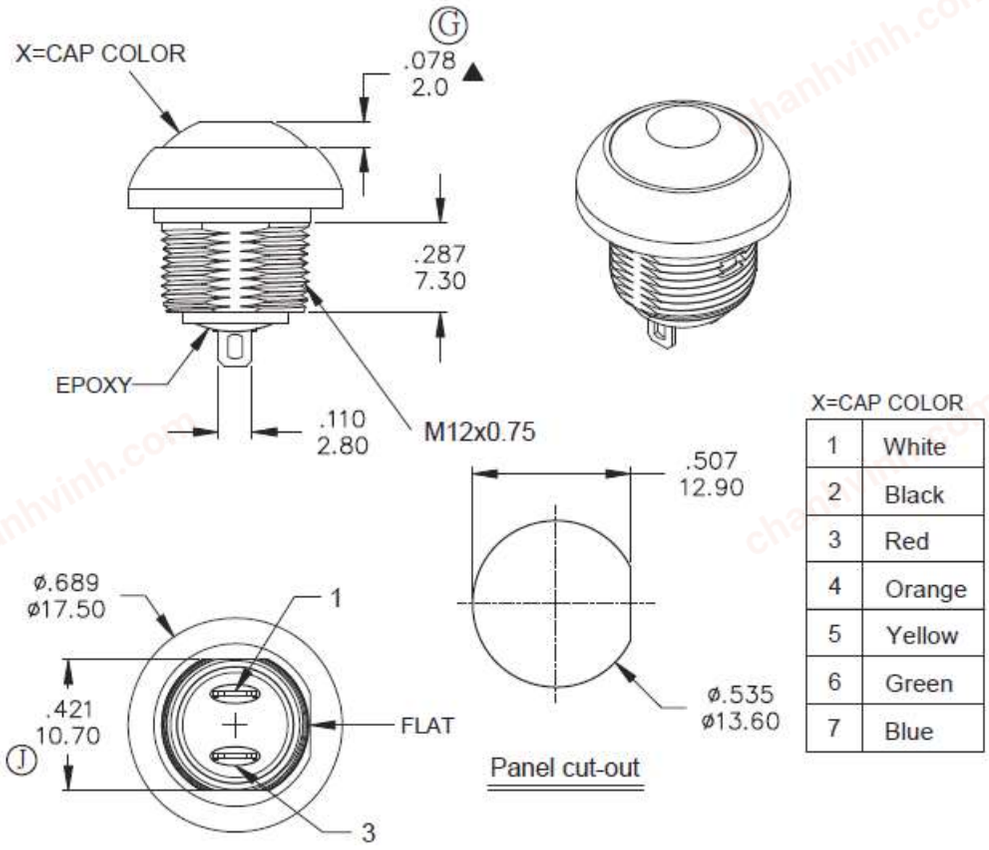


X=CAP COLOR	
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Illuminated Sub-Miniature Pushbutton Switches

Stock No. PAS6B2M1CESX-5

Drawing:

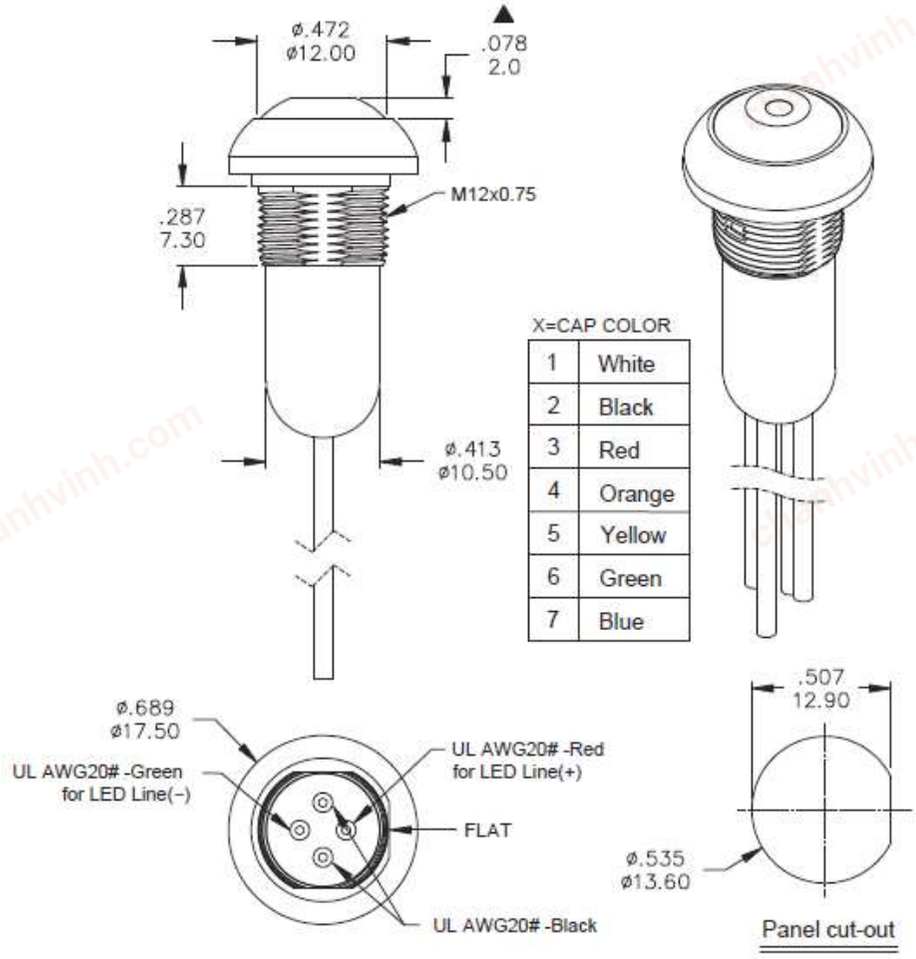


X=CAP COLOR	
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7	Blue

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Stock No. PAS6B2D1CESX-5

Drawing:



Accessories / Illustrations