



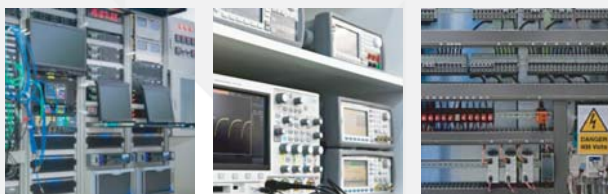
Shanpu

Pushbutton Switches Series ZSPEH / ZSPEP



Feature

- Single LED with Push button switches.
- Momentary and Alternate available.
- Combination of PCB mounting.
- Choice of colored caps.
- Laser or Print marking service.



Application

- Industrial equipment
- Public building
- Machine tool
- Medical equipment
- Power managment equipment

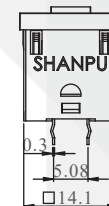
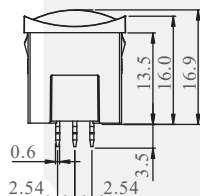
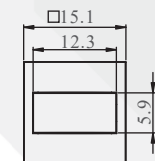
General Specifications

Switch circuit	: DPDT
Switch contact rating	: 100mA @ 30V DC max
LED rating	: Limited forward current(IF) at 20mA max
Contact Resistance	: 50 m Ohm Max(initial)
Insulation Resistance	: 100 M Ohm Min
Operating Force	: 250gf ± 100gf(Lock) 150gf ± 100gf(Momentary)
Total Travel	: 1.5mm ± 0.5mm(Full stroke) 1.0mm ± 0.5mm(Lock stroke)
Mechanical Life	: 10,000 Cycles Min.
Operating Temperature	: -10 °C ~ +70 °C
Function	: Momentary or Alternate

Material	
Cap	: Acrylonitrile Butadine Styrene (ABS)
Terminal	: Phosphor bronze (PBS) with silver plating
contact	: Phosphor bronze (PBS)
Spring	: Piano wire
Housing	: Acrylonitrile Butadine Styrene (ABS)
Base	: Polyamide(PA)

Dimension ZSPEH

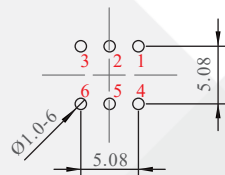
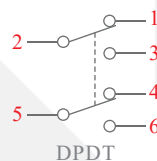
/ EX: Without LED



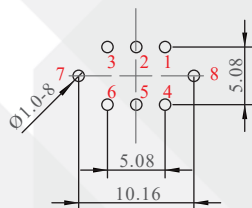
Pushbutton Switches Series **ZSPEH / ZSPEP**

Circuit Diagram & PCB Layout for ZSPEH-

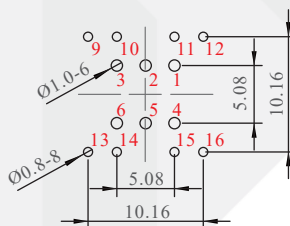
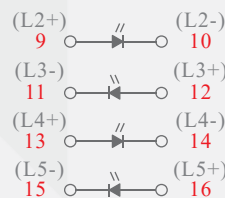
/ Without LED



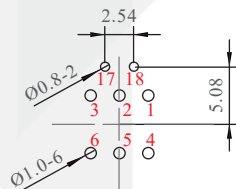
/ L1 Single LED



/ L2,L3,L4,L5 Single LED

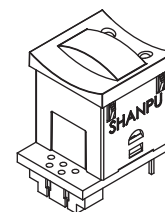
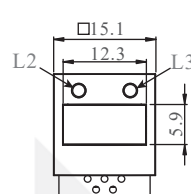


/ L6 Single LED



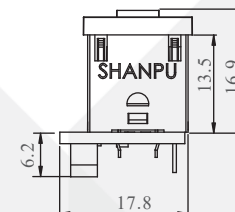
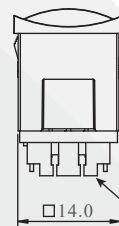
- Dimension for ZSPEP

/ ZSPEPMC5-0130000-0A9

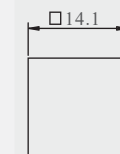
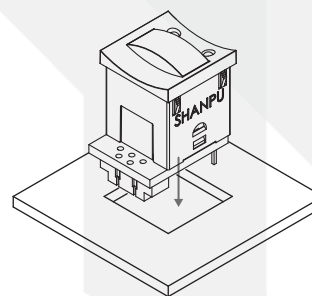


Recommend add resistor to limited
each LED forward current at 20mA

Pin	Function
1	LED (+), 5V~24V
2	LED (-)
3	SW N.O.
4	SW COM.
5	SW N.C

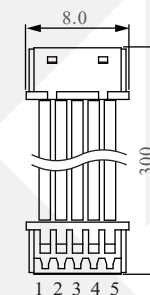


- Panel cutting for ZSPEP



Panel thickness
1.0~1.2mm

 Option



Cable: YCW030-A

Cable:UL1571#28AWG
Conductor pitch : 1.25mm
Conductor width : □0.3mm



Shan Pu

Pushbutton Switches Series **ZSPEH**

How to order



ZSPEHMA9-0000000-0A5

Momentary / Grey Housing
Without LED / Black Cap



ZSPEHMA5-700000-0A01-L01

Momentary / Black Housing
(L1) Blue LED / Paint Black Cap with Laser (START)



ZSPEHAE9-0000010-KA5

Alternate / Grey Housing
(L6) Red LED / Black Cap



ZSPEHAB5-0700000-0A2

Alternate / Black Housing
(L2) Blue LED / Yellow Cap



ZSPEHMC5-0130000-0A1-P01

Momentary / Black Housing
(L2) Red LED, (L3) Green LED / Red Cap with Marking (START)



ZSPEHMC9-0130000-0A5

Momentary / Grey Housing
(L2) Red LED, (L3) Green LED / Black Cap



ZSPEHMD5-0223300-0A1

Momentary / Black Housing
(L2,L3) Yellow LED, (L4,L5) Green LED / Red Cap



ZSPEPMC5-0130000-0A9

Momentary / Black Housing
(L2) Red LED, (L3) Green LED / Grey Cap