



SERIES WSA48
- PUSHBUTTON SWITCHES

Series WSA48

KEY FEATURES

- Size: 12mm
- 5A@28VDC
- Solder /PC Terminal & wireleads
- Snap Action: Momentary / Maintained
- Operation temperature: -40 ~ 85°C
- SPDT: 1 NO / 1 NC
- IP67 water proof
- UL 61058 Certify

APPLICATIONS

- Office equipment
- Medical equipment
- Industrial machinery
- Mass transportation
- Food processing equipment
- Outdoor Controls
- Joystick Control

ORDERING INFORMATION

WSA48 - [] - [] - [] - [] - [] - [] - []

Switch Function / Termination:	
1	Momentary / Solder
A	Momentary / NO Wireleads
C	Momentary / NC Wireleads
E	Momentary / NO+NC Wireleads
2	Maintained / Solder
B	Maintained / NO Wireleads
D	Maintained / NC Wireleads
F	Maintained / NO+NC Wireleads

Bezel Type:	
RB	Round, Black
SB	Square, Black

LED Color:	
N	None
R	Red
G	Green
Y	Yellow
B	Blue
W	White

Button Color:	
RD	Red
GR	Green
BK	Black
BL	Blue
YL	Yellow
OR	Orange
WH	White
PK	Standby Symbol
High Button Color:	
HRD	Red
HGR	Green
HBK	Black
HBL	Blue
HYL	Yellow
HOR	Orange
HWH	White

Mounting Type:	
B	Bushing
F	Snap-Fit

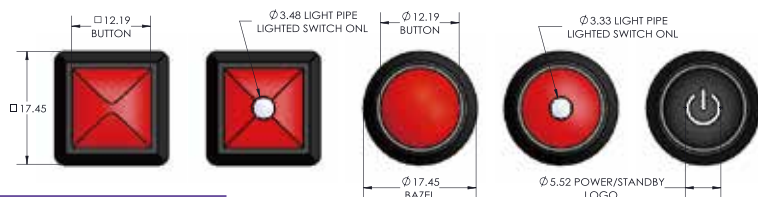
Voltage Resistor:	
If Blank: Note*	
05	5V Forward
12	12V Forward**
24	24V Forward**

Special Request:	
If Blank: N/A	
xxx	As Customer Special Request

Note:

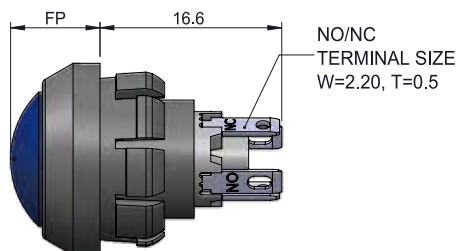
* Current limiting resistor is required to limit LED forward current to 20mA.(not included)
**12 and 24V resistors are available with wirelead versions only.

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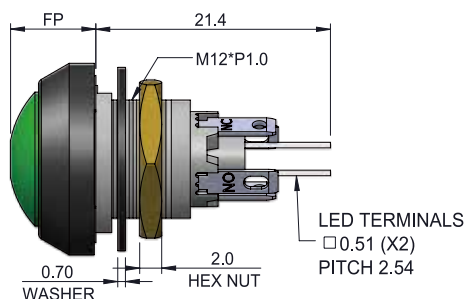


MOMENTARY TYPE

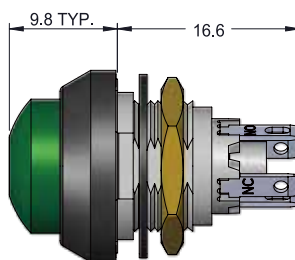
BUTTON TYPE	FP (mm)
Illumination	7.8±0.5
Non-Illumination	8.1±0.5



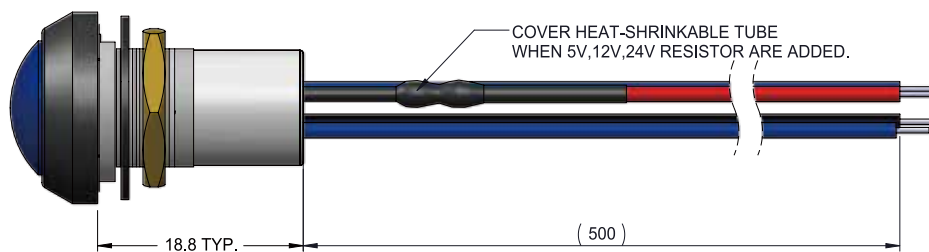
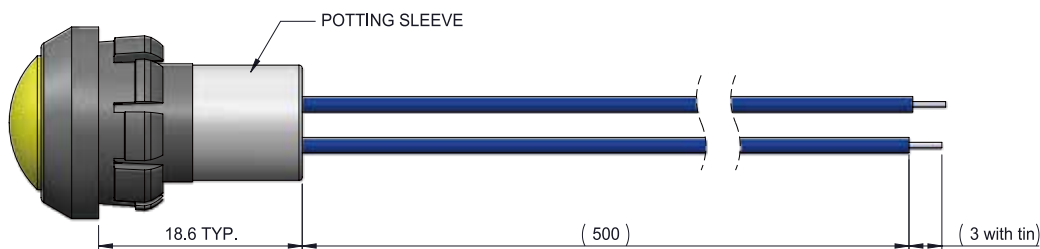
NON-ILLUMINATION & SNAP FIT TYPE



ILLUMINATION & BUSHING TYPE



NON-ILLUMINATION & HIGH BUTTON TYPE



	BUSHING MOUNT TYPE	SNAP-IN MOUNT TYPE
RECOMMENDED PANEL CUT-OUT		
PANEL THICKNESS	0.020~0.118" [0.5~3.0 mm]	0.051~0.118" [1.5~3.0 mm]
NUT TORQUE FORCE	Max. 5.2 lb-in [6 kgf-cm]	

MECHANICAL CHARACTERISTICS

- Switch Circuitry: SPDT-DB (Form X)
- Pretravel (Nominal): 0.050 inches [1.27mm]
- Overtravel (Nominal): 0.010 inches [0.25mm]
- Total Travel (Nominal): 0.060 inches [1.52mm]
- Operating Force (Nominal): 5.15N [525g]
- Release Force (Nominal): 3.45N [340g]
- Contacts Material: Silver
- Panel Thickness:
 - Bushing Mount: 0.020" - 0.118" [0.5 - 3.0mm]
 - Snap-In Mount: 0.051" - 0.118" [1.5 - 3.0mm]
- Nut Torque Force: Max 5.2 lb-in [6 kgf-cm]
- Current Ratings (Nominal):
 - 5A@ 28 VDC ,25k Cycles
 - 5A@ 125/250 VAC, 25k Cycles

ENVIROMENTAL SPECIFICATIONS

- Operating Temperature: -40°F to +185°F (-40°C to +85°C)
- Water Proof: IP67 (Front Panel)

ELECTRICAL SPECIFICATIONS

- Dielectric Strength: 1,000VAC
- Insulation Resistance: 1G Ω
- Contacts Resistance:
 - 50 mΩ max. (Non-Wirelead)
 - 250 mΩ max. (Wirelead)

MECHANICAL CHARACTERISTICS

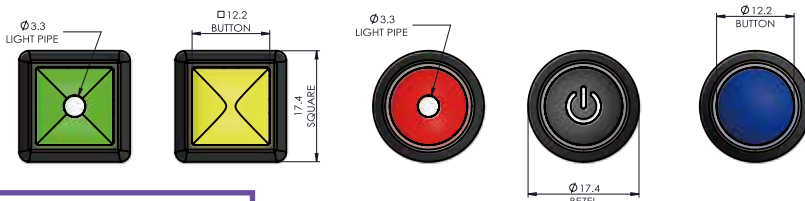
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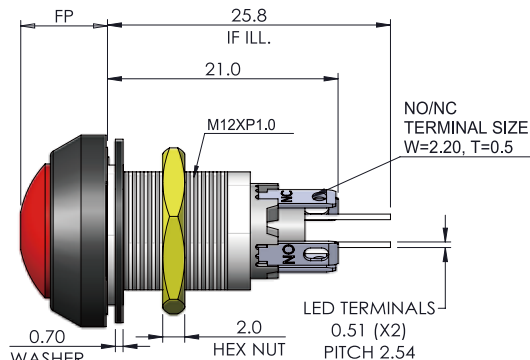
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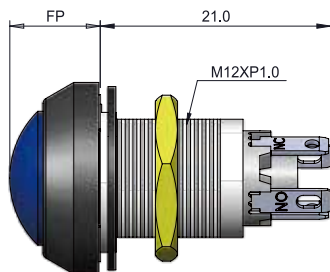


MAINTAINED TYPE

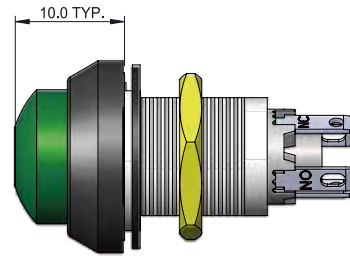
BUTTON TYPE	FP(mm)
Illumination	7.9±0.5
Non-Illumination	8.2±0.5



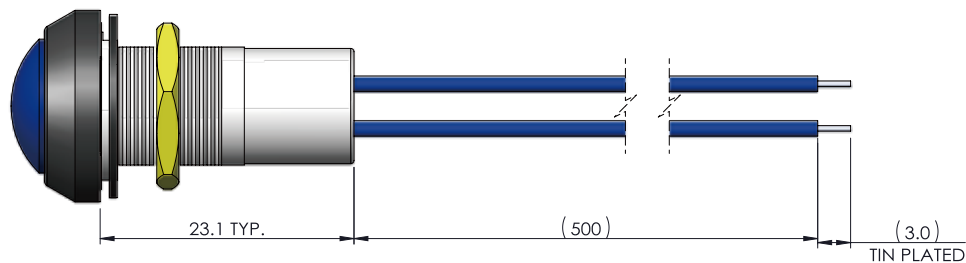
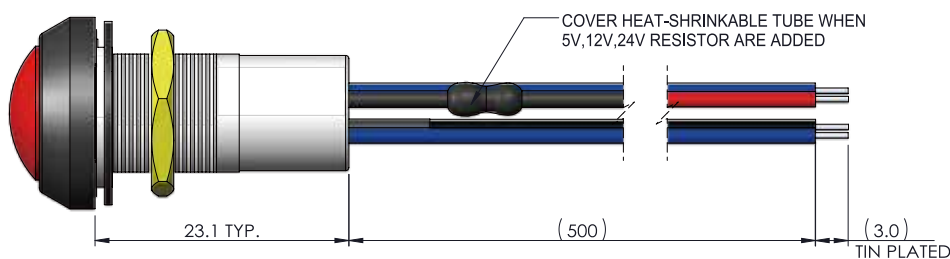
ILLUMINATION & BUSHING TYPE



NON-ILLUMINATION & BUSHING TYPE




NON-ILLUMINATION & HIGH BUTTON TYPE



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NUT TORQUE FORCE	Max. 5.2 lb-in [6 kgf-cm]

LED SPECIFICATION

LED CODE	LED COLOR	CIRCUITRY	Vf (VDC)	If (mA)
R	RED		1.8~2.5	20
B	BLUE		2.8~3.5	20
G	GREEN		2.8~3.5	20
Y	YELLOW		1.8~2.5	20
W	WHITE		2.8~3.5	20

Notes:

1. Lead Soldering Temperature (4mm above from body) : 280°C for 5 seconds
2. Hand Soldering Temperature (4mm above from body) : 320°C for 3 seconds

WIRELEADS TYPE	SW TERMINAL		LED	
	NO	NC	+	-
ILLUMINATION	BLUE AWG24 UL1007	YELLOW AWG24 UL1007	RED AWG26 UL1007	BLACK AWG26 UL1007
NON-ILLUMINATION	BLUE AWG24 UL1007	YELLOW AWG24 UL1007	-	-

NOTE:

Contact us for any special requirement, like bi-color illumination, harness, icon...