

#### Main

Range of product	Harmony XB5
Product or component type	Head for illuminated selector switch
Product compatibility	Integral LED
Device short name	ZB5
Bezel material	Plastic
Mounting diameter	0.87 in (22 mm)
Head type	Standard
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Spring return to centre
Operator profile	Blue standard handle
Operator position information	3 positions +/- 45°

#### Complementary

CAD overall width	1.14 in (29 mm)
CAD overall height	1.14 in (29 mm)
CAD overall depth	1.69 in (43 mm)
Product weight	0.04 lb(US) (0.016 kg)
Mechanical durability	1000000 cycles
Station name	XALD 15 cut-outs XALK 25 cut-outs
Electrical composition code	M6 2 contacts using single blocks in front mounting with integral LED and transformer M10 2 contacts using single blocks in front mounting with integral LED M3 for 4 contacts using single blocks in front mounting with integral LED M4 for 4 contacts using single and double blocks in front mounting with integral LED MF1 2 contacts using single blocks in front mounting with integral LED MR1 2 contacts using single blocks in rear mounting with integral LED

#### Environment

Protective treatment	TH			
Ambient air temperature for storage	-40158 °F (-4070 °C)			
Ambient air temperature for operation	-40158 °F (-4070 °C)			
Overvoltage category Class II conforming to IEC 60536				
IP degree of protection	IP69 IP67 IP66 conforming to IEC 60529 IP69K			
NEMA degree of protection	NEMA 13 NEMA 4X			
Resistance to high pressure washer	1015.26 psi (7000000 Pa) at 131 °F (55 °C),distance: 0.1 m			
IK degree of protection	IK06 conforming to IEC 50102			

Standards	EN/IEC 60947-1
	EN/IEC 60947-5-1
	EN/IEC 60947-5-4
	EN/IEC 60947-5-5
	JIS C 4520
	UL 508
	CSA C22.2 No 14
Product certifications	BV
	CSA
	DNV
	GL
	LROS (Lloyds register of shipping)
	RINA
	UL listed
Vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 18 ms) half sine wave acceleration conforming to IEC 60068-2-27
	50 gn (duration = 11 ms) half sine wave acceleration conforming to IEC 60068-2-27

#### Ordering and shipping details

<u> </u>	
Category	22467 - PUSHBUTTONS,22MM(PLASTIC) NEW
Discount Schedule	CS2
GTIN	00785901387152
Nbr. of units in pkg.	1
Package weight(Lbs)	0.100000000000001
Returnability	N
Country of origin	FR

## Offer Sustainability

California proposition 65	WARNING: This product can expose you to chemicals including:
Substance 1	Nickel compounds, which is known to the State of California to cause cancer, and
Substance 2	Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm.
More information	For more information go to www.p65warnings.ca.gov

#### Contractual warranty

Warranty period	18 months

# Product data sheet Dimensions Drawings

## ZB5AK1563

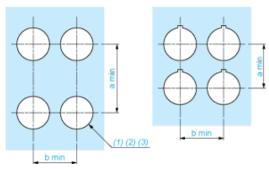
#### **Dimensions**





#### Panel Cut-out for Pushbuttons, Switches and Pilot Lights (Finished Holes, Ready for Installation)

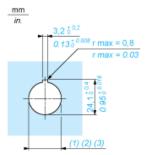
#### Connection by Screw Clamp Terminals or Plug-in Connectors or on Printed Circuit Board



- Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.  $\emptyset$ 22.5 mm recommended ( $\emptyset$ 22.3  $_0$   $^{+0.4}$ ) /  $\emptyset$ 0.89 in. recommended ( $\emptyset$ 0.88 in.  $_0$   $^{+0.016}$ )

Connections	a in mm	a in in.	b in mm	b in in.
By screw clamp terminals or plug-in connector	40	1.57	30	1.18
By Faston connectors	45	1.77	32	1.26
On printed circuit board	30	1.18	30	1.18

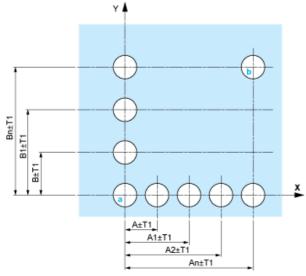
#### **Detail of Lug Recess**



- (1) Diameter on finished panel or support
- For selector switches and Emergency stop buttons, use of an anti-rotation plate type ZB5AZ902 is recommended.
- Ø22.5 mm recommended (Ø22.3  $_0$  <sup>+0.4</sup>) / Ø0.89 in. recommended (Ø0.88 in.  $_0$  <sup>+0.016</sup>)

#### Pushbuttons, Switches and Pilot Lights for Printed Circuit Board Connection

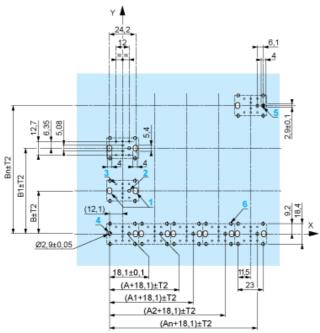
#### Panel Cut-outs (Viewed from Installer's Side)



A: 30 mm min. / 1.18 in. min. B: 40 mm min. / 1.57 in. min.

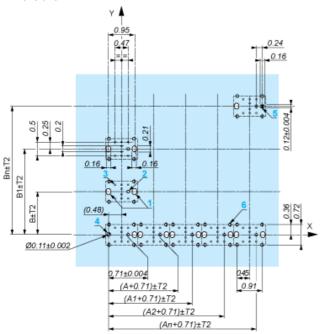
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



A: 30 mm min. B: 40 mm min.

#### Dimensions in in.



A: 1.18 in. min. B: 1.57 in. min.

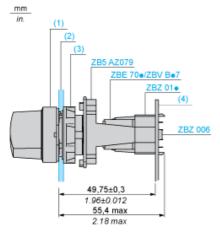
#### General Tolerances of the Panel and Printed Circuit Board

The cumulative tolerance must not exceed 0.3 mm / 0.012 in.: T1 + T2 = 0.3 mm max.

#### **Installation Precautions**

- Minimum thickness of circuit board: 1.6 mm / 0.06 in.
- Cut-out diameter: 22.4 mm ± 0.1 / 0.88 in. ± 0.004
- Orientation of body/fixing collar ZB5AZ009: ± 2°30' (excluding cut-outs marked a and b).
- Tightening torque of screws ZBZ006: 0.6 N.m (5.3 lbf.in) max.
- Allow for one ZB5AZ079 fixing collar/pillar and its fixing screws:
  - o every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - o with each selector switch head (ZB5AD•, ZB5AJ•, ZB5AG•).

The fixing centers marked a and b are diagonally opposed and must align with those marked 4 and 5.



- (1) Head ZB5AD•
- (2) Panel
- (2) Nut
- (4) Printed circuit board

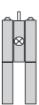
#### Mounting of Adapter (Socket) ZBZ01•

- 1 2 elongated holes for ZBZ006 screw access
- 2 1 hole Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 for centring adapter ZBZ01•
- 3 8 × Ø 1.2 mm / 0.05 in. holes
- 4 1 hole Ø 2.9 mm ± 0.05 / 0.11 in. ± 0.002, for aligning the printed circuit board (with cut-out marked a)
- 5 1 elongated hole for aligning the printed circuit board (with cut-out marked b)
- 6 4 holes Ø 2.4 mm / 0.09 in. for clipping in adapter ZBZ01•

Dimensions An + 18.1 relate to the Ø 2.4 mm  $\pm$  0.05 / 0.09 in.  $\pm$  0.002 holes for centring adapter ZBZ01•.

## ZB5AK1563

Electrical Composition Corresponding to Code M3



Electrical Composition Corresponding to Code M4



Electrical Composition Corresponding to Codes M6 and P2



Electrical Composition Corresponding to Codes M5, M10, MF1, MR1 and MF2



Legend

Single contact



Double contact



Light block



Possible location



## Sequence of Contacts Fitted to 3-position Selector Switch Body

### Position 315°



Push	Position	Тор		$\otimes$	
Bottom					
Location		Left	Right		
State		1	0		
Contacts	N/O		closed	open	
N/C		open	closed		

## Position 0°



Push	Position	Тор			
				$\otimes$	
Bottom	$\triangle$	$\triangle$			
Location		Left	Right		
State		0	0		
Contacts	N/O		open	open	
N/C		closed	closed		

#### Position 45°



Push	Position	Тор		8	
Bottom					
Location		Left	Right		
State		0	1		
Contacts	N/O		open	closed	
N/C		closed	open		

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Schneider Electric: ZB5AK1563