## Product data sheet Characteristics

## ZB5AT2 black Ø40 mushroom pushbutton head Ø22 latching push-pull



Product availability: Non-Stock - Not normally stocked in distribution facility



Main	
Range of product	Harmony XB5
Product or component type	Head for non-illuminated push-button
Device short name	ZB5
Bezel material	Dark grey 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	Latching
Reset	Push-pull
Operator profile	Black mushroom Ø 40 mm unmarked

#### Complementary

CAD overall width	1.57 in (40 mm)			
CAD overall height	1.57 in (40 mm)			
CAD overall depth	2.2 in (56 mm)			
Product weight	0.11 lb(US) (0.049 kg)			
Mechanical durability	500000 cycles			
Station name	XALD 1 cut-out XALK 1 cut-out			
Electrical composition code	C15 1 contacts using single blocks in front mounting C11 3 contacts using single blocks in front mounting SF1 3 contacts using single blocks in front mounting C7 4 contacts using single blocks in front mounting C8 4 contacts using single and double blocks in front mounting C10 4 contacts using single and double blocks in front mounting SR1 3 contacts using single blocks in rear mounting			

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	IK03 conforming to IEC 50102
Standards	JIS C 4520 CSA C22.2 No 14 EN/IEC 60947-1 EN/IEC 60947-5-4 UL 508 EN/IEC 60947-5-1



Product certifications	GL				
	RINA BV LROS (Lloyds register of shipping)				
	DNV				
	UL listed				
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				
Vibration resistance	5 gn (f = 2500 Hz) conforming to IEC 60068-2-6				

## Ordering and shipping details

Category	22467 - PUSHBUTTONS,22MM(PLASTIC) NEW
Discount Schedule	CS2
GTIN	00785901387671
Nbr. of units in pkg.	1
Package weight(Lbs)	0.10000000000001
Returnability	Ν
Country of origin	CZ

## Offer Sustainability

Sustainable offer status	Green Premium product			
RoHS (date code: YYWW)	Compliant - since 0627 - Schneider Electric declaration of conformity			
REACh	Reference not containing SVHC above the threshold			
Product environmental profile	Available			
Product end of life instructions	Available			
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			

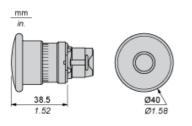
## Contractual warranty

Warranty period

18 months

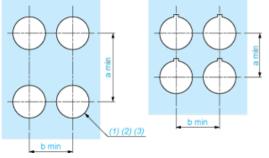
Product data sheet Dimensions Drawings

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



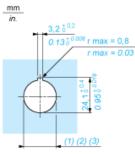
Diameter on finished panel or support (1)

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.  $_0^{+0.016}$ ) (2)

(3)

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. (2)

(3) Ø22.5 mm recommended (Ø22.3  $_{0}^{+0.4}$ ) / Ø0.89 in. recommended (Ø0.88 in.  $_{0}^{+0.016}$ )

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)





- A: 30 mm min.
- B: 40 mm 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:
  - every 90 mm / 3.54 in. horizontally (X), and 120 mm / 4.72 in. vertically (Y).
  - 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.

#### Electrical Composition Corresponding to Code C7



#### Electrical Compositions Corresponding to Code C8



Electrical Compositions Corresponding to Code C10



Electrical Composition Corresponding to Codes C9, C11, SF1 and SR1



Electrical Composition Corresponding to Code C15

1 N/O



1 N/C



1 N/O + N/C or 1 N/O + N/O or 1 N/C + N/C



#### Legend

#### Single contact



#### Double contact



#### Light block



#### Possible location

# **Mouser Electronics**

Authorized Distributor

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Schneider Electric: ZB5AT2