# ZB5AK1883C0

Harmony XB5, Illuminated selector switch head, plastic, yellow, Ø22, integral LED, 3 positions, spring return from right to center, grey bezel



#### 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 colour plated grey
Mounting diameter	22 mm
Sale per indivisible quantity	1
Shape of signaling unit head	Round
Type of operator	Right to centre spring return
Operator profile	Yellow standard handle
Operator position information	3 positions +/- 45°

#### Complementary

Device presentation	Basic element
	MF1 for <2 contacts using single blocks in front mounting with integral LED MR1 for <2 contacts using single blocks in rear mounting with integral LED M4 for <4 contacts using single and double blocks in front mounting with integral LED
Electrical composition code	M3 for <4 contacts using single blocks in front mounting with integral LED M6 for <2 contacts using single blocks in front mounting with integral LED and transformer M10 for <2 contacts using single blocks in front mounting with integral LED
Station name	XALD 15 cut-outs XALK 25 cut-outs
Mechanical durability	1000000 cycles
Net weight	0.016 kg
CAD overall depth	43 mm
CAD overall height	29 mm
CAD overall width	29 mm

#### Environment

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

Standards	JIS C8201-5-1
	EN/IEC 60947-5-4
	EN/IEC 60947-5-5
	UL 508
	CSA C22.2 No 14
	EN/IEC 60947-1
	EN/IEC 60947-5-1
	JIS C8201-1
Product certifications	GL
	LROS (Lloyds register of shipping)
	UL listed
	DNV
	CSA
	BV
	RINA
Vibration resistance	5 gn (f= 2500 Hz) conforming to IEC 60068-2-6
Shock resistance	30 gn (duration = 18 ms) for half sine wave acceleration conforming to IEC 60068-2-27
	50 gn (duration = 11 ms) for half sine wave acceleration conforming to IEC 60068-2-27

# Packing Units

Package 1 Weight	16.000 g	
Package 1 Height	4.200 cm	
Package 1 width	3.300 cm	
Package 1 Length	5.200 cm	

#### Offer Sustainability

<b> </b>			
REACh Regulation	REACh Declaration		
REACh free of SVHC	Yes		
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS  Declaration		
Toxic heavy metal free	Yes		
Mercury free	Yes		
RoHS exemption information	₫Yes		
China RoHS Regulation	☐ China RoHS Declaration		

# Product data sheet Dimensions Drawings

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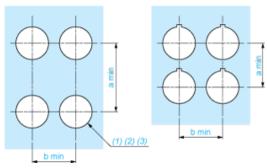
#### **Dimensions**





#### 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.

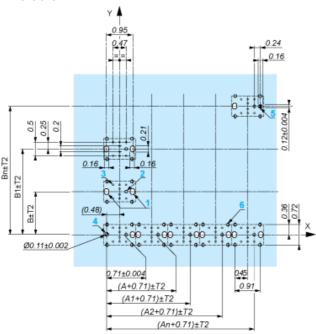
#### Printed Circuit Board Cut-outs (Viewed from Electrical Block Side)

#### Dimensions in mm



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

#### Dimensions in in.



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

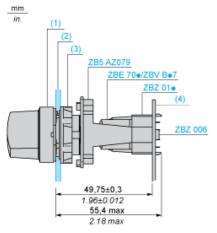
#### General Tolerances of the Panel and Printed Circuit Board

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•.

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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		8	
Bottom		Δ			
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		$\otimes$	
Bottom					
Location		Left	Right		
State		0	1		
Contacts	N/O		open	closed	
N/C		closed	open		-