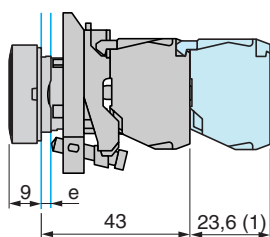


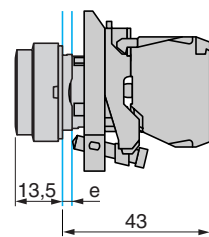
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Pushbuttons, spring return

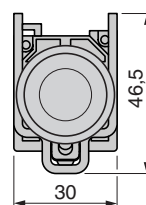
ZB4-BA● + ZB4-BZ●●● + ZBE-●●●



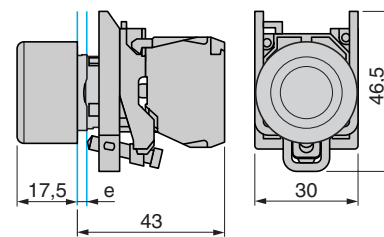
ZB4-BL● + ZB4-BZ●●●



Common face view

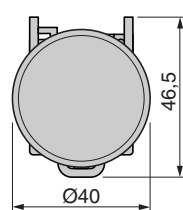
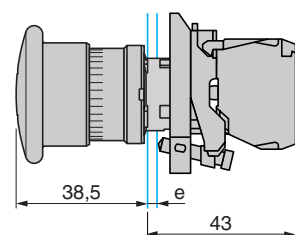


ZB4-BP● + ZB4-BZ●●●



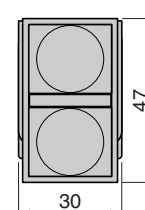
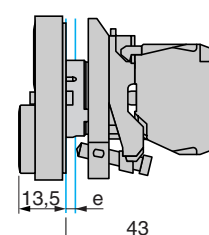
Mushroom head pushbuttons, spring return

ZB4-BC2 + ZB4-BZ●●●



Double-headed pushbuttons, spring return

ZB4-BL●●●● + ZB4-BZ●●●

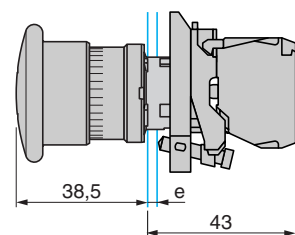


e: panel thickness 1 to 6 mm.

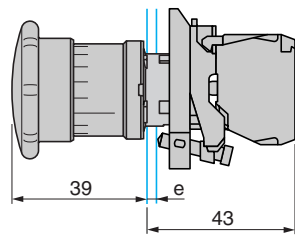
(1) Additional row of contacts or double contact.

Emergency stop and mushroom head pushbuttons

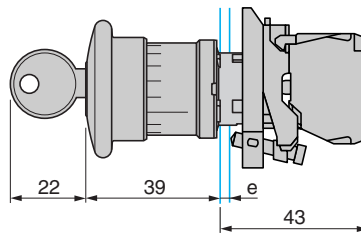
ZB4-BT4 + ZB4-BZ●●●,
ZB4-BT84 + ZB4-BZ●●●



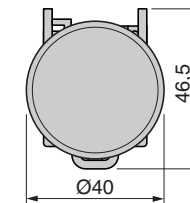
ZB4-BS54 + ZB4-BZ●●●,
ZB4-BS844 + ZB4-BZ●●●



ZB4-BS514 + ZB4-BZ●●●,
ZB4-BS944 + ZB4-BZ●●●



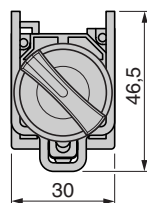
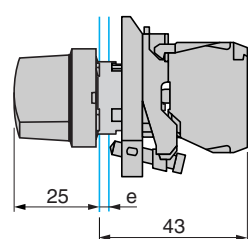
Common face view



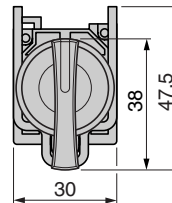
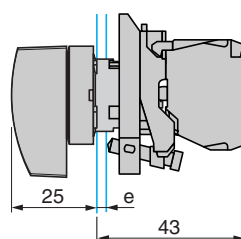
e: panel thickness 1 to 6 mm.

Selector switches

Standard handle operator
ZB4-BD●● + ZB4-BZ●●●

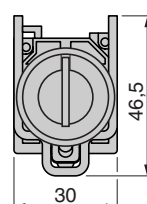
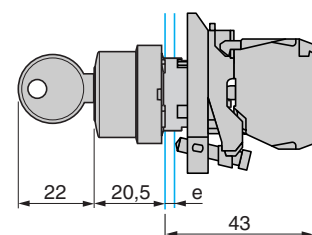


Long handle operator
ZB4-BJ●● + ZB4-BZ●●●



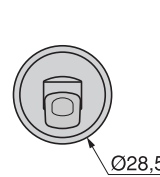
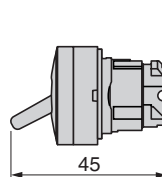
Key switches

ZB4-BG●● + ZB4-BZ●●●



Heads for toggle switches

ZB4-BD●8



e: panel thickness 1 to 6 mm.

Control and signalling units Ø 22

Harmony® style 4

Pushbuttons, switches and pilot lights, with chromium plated metal bezel

Completed units with light functions with and without contacts

Pilot lights

Integral LED

ZB4-BVB●/BVG●/BVM● + ZB4-BV0●●

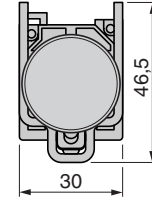
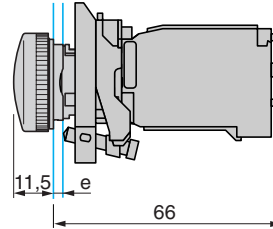
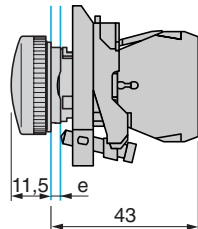
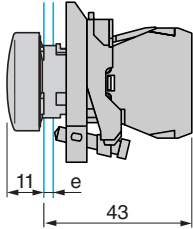
Direct supply

ZB4-BV6 + ZB4-BV0●

Via integral transformer

ZB4-BV3, 4 + ZB4-BV0●

Common face view



e: panel thickness 1 to 6 mm.

Illuminated pushbuttons

Integral LED

ZB4-BW0●● + ZB4-BW3●●
+ ZBE-●●●

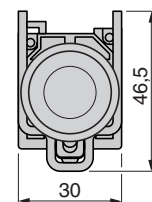
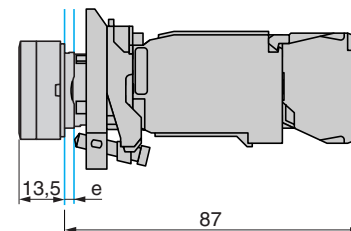
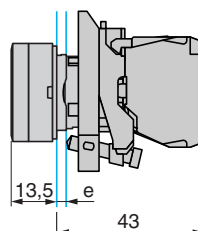
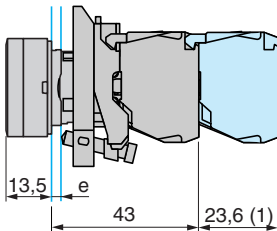
Direct supply

ZB4-BW0●● + ZB4-BW3●

Via integral transformer

ZB4-BW0●● + ZB4-BW3●

Common face view



Double-headed pushbuttons with pilot light

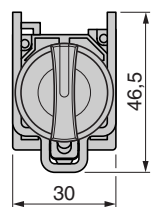
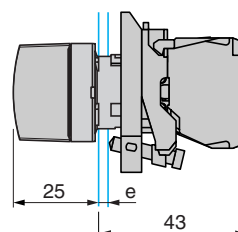
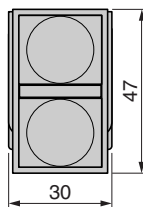
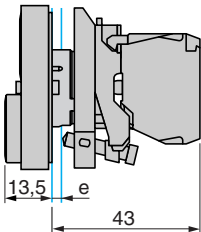
Integral LED

ZB4-BW0●●● + ZB4-BW8●●●●●

Illuminated selector switches

Integral LED

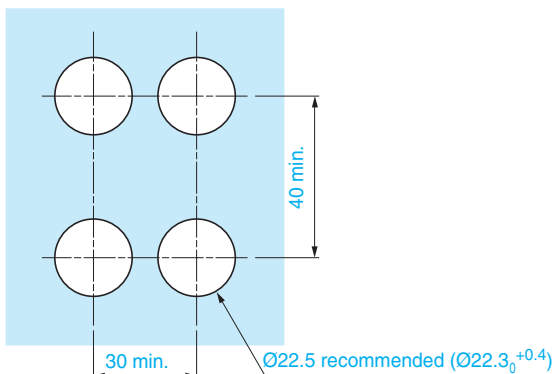
ZB4-BK1●●● + ZB4-BW0●●●



e: panel thickness 1 to 6 mm.

(1) Additional row of contacts or double contact.

Support panel cut-out for pushbuttons, switches and pilot lights (1)



(1) Fixing centres for pushbuttons, switches and pilot lights fitted with Faston connector terminals: 32 x 45 mm.

Control and signalling units Ø 22

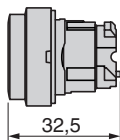
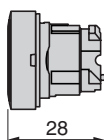
Harmony® style 4

Pushbuttons, switches and pilot lights, with chromium plated metal bezel

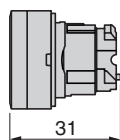
Sub-assemblies, ZB4-B: contact functions

1

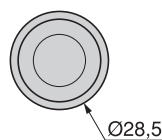
Heads for pushbuttons, spring return
ZB4-BA●, BA●●, ZB4-BL●, BL●●●



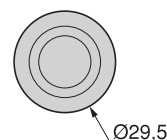
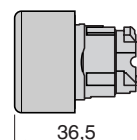
ZB4-BA●4
ZB4-BA●6



Common
face view

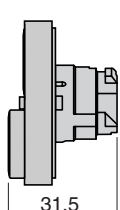
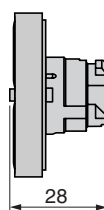


ZB4-BP●●
ZB4-BP●S

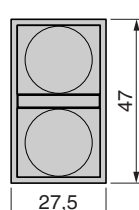


ZB4-	a
BP●●	36,5
BP●S	33

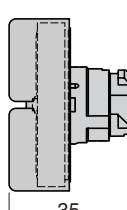
Heads for double-headed pushbuttons, spring return
ZB4-BA81●●, ZB4-BA82●●, ZB4-BL83●●, ZB4-BL84●●



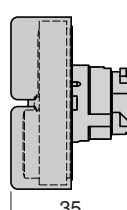
Common
face view



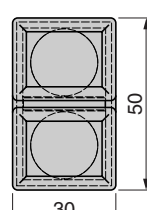
ZB4-BA91●●,
ZB4-BA92●●



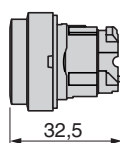
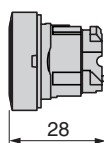
ZB4-BL93●●,
ZB4-BL94●●



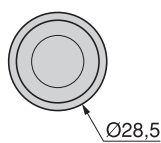
Common
face view



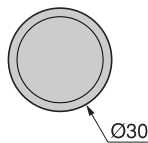
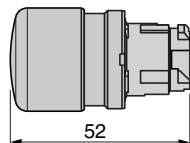
Heads for pushbuttons
"Push-push to release"
ZB4-BH0●, ZB4-BH●



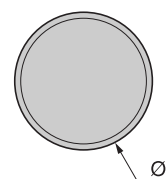
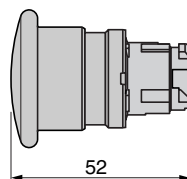
Common
face view



Mushroom head
ZB4-BC●4

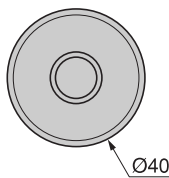
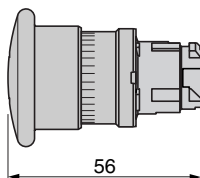


ZB4-BC●, BR●

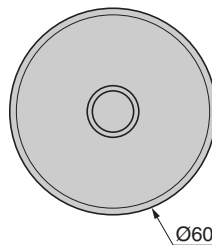
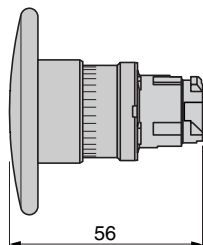


ZB4-	Ø
BC●	40
BR●	60

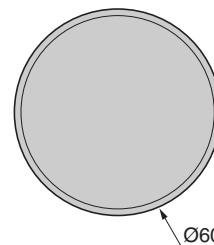
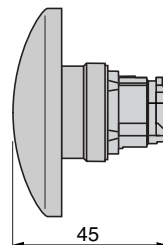
Mushroom heads for pushbuttons, latching
Push-pull
ZB4-BT●, BT●4



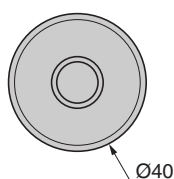
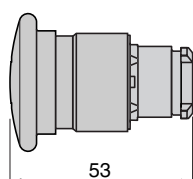
ZB4-BX2, BX4



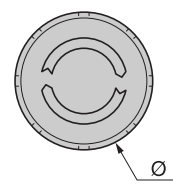
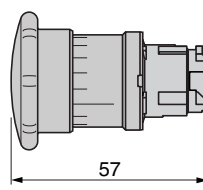
ZB4-BR●16



Turn to release
ZB4-BS4●, BS834



ZB4-BS5●, BS844, BS6●



ZB4-	Ø
BS5●, BS844	40
BS6●	60

Control and signalling units Ø 22

Harmony® style 4

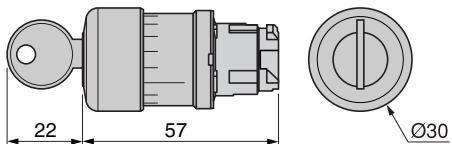
Pushbuttons, switches and pilot lights, with chromium plated metal bezel

Sub-assemblies, ZB4-B: contact functions

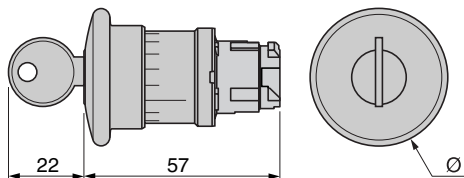
Mushroom heads for pushbuttons, latching (continued)

Key release

ZB4-BS7●, BS934



ZB4-BS1●, BS2●, BS944, BS964



ZB4-	Ø
BS1●, BS944	40
BS2●, BS964	60

Heads for selector switches

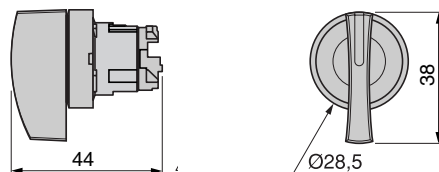
Standard handle

ZB4-BD●, BD0●M



Long handle

ZB4-BJ●, BD0●M



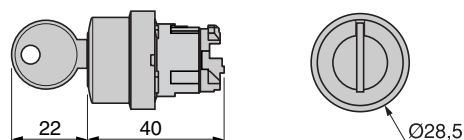
Knurled knob

ZB4-BD●9



Key switches

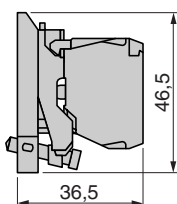
ZB4-BG●, BG0●, BG0●M



Bodies for pushbuttons and switches

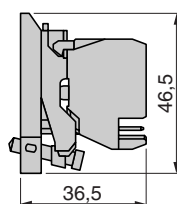
Screw clamp terminal connections

ZB4-BZ10●, BZ141



Plug-in connector

ZB4-BZ10●4, BZ1414



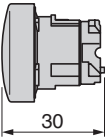
Control and signalling units Ø 22

Harmony® style 4
Pushbuttons, switches and pilot lights, with chromium plated metal bezel
Sub-assemblies, ZB4-B: light functions with and without contacts

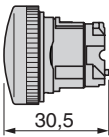
1

Heads for pilot lights, with light source

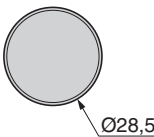
Integral LED
ZB4-BV0●3, BV0●3S



Incandescent, neon or LED
ZB4-BV0●, BV0●S

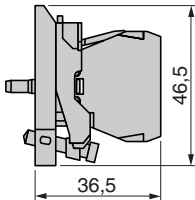


Common face view

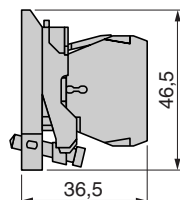


Bodies for pilot lights, screw clamp terminal connections

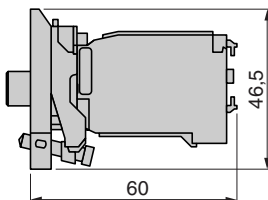
Integral LED
ZB4-BV●●



Direct supply, for BA 9s bulb
ZB4-BV6

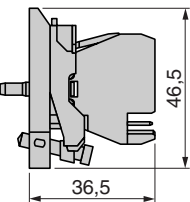


Via integral transformer, for BA 9s bulb
ZB4-BV●, BV●D●



Bodies for pilot lights, plug-in connector

Integral LED
ZB4-BV●●4



Control and signalling units Ø 22

Harmony[®] style 4

Pushbuttons, switches and pilot lights, with chromium plated metal bezel

Sub-assemblies, ZB4-B: light functions with and without contacts

1

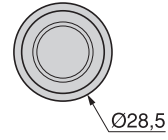
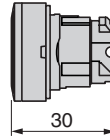
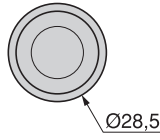
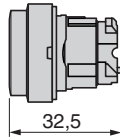
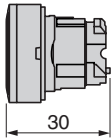
Heads for illuminated pushbuttons, spring return, for LED light sources

ZB4-BW3●3, BW3●3S
ZB4-BW5●3, BA●8

ZB4-BW1●3
ZB4-BL●8

Common
face view

ZB4-BW9●3

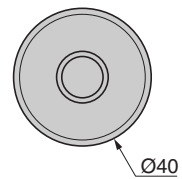
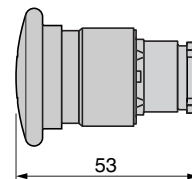
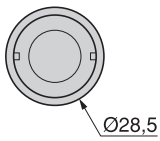
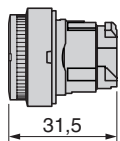
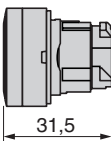


Incandescent or neon ZB4-BW3●, BW3●S

ZB4-BW1●

Common
face view

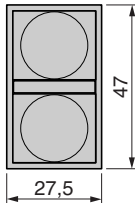
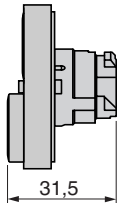
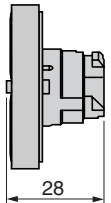
Heads for Ø 40 mushroom head illuminated pushbuttons with integral LED ZB4-BW4●3, BW6●3



Heads for double-headed pushbuttons with pilot light ZB4-BW81●●3, ZB4-BW82●●3

ZB4-BW83●●3,
ZB4-BW84●●3

Common face view

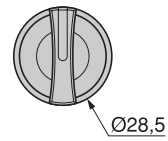
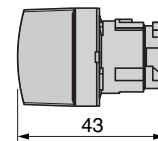
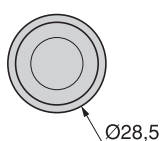
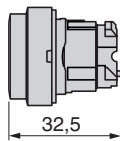
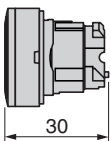


Heads for "push-push to release" illuminated pushbuttons ZB4-BH0●3

ZB4-BH●3

Common face view

Heads for illuminated selector switches, standard handle ZB4-BK1●●3



Bodies for illuminated pushbuttons and selector switches

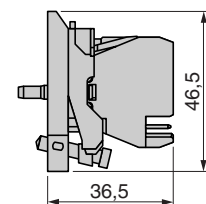
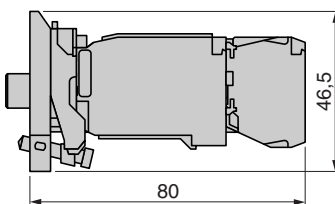
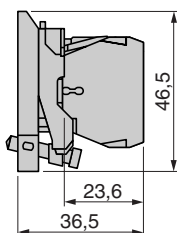
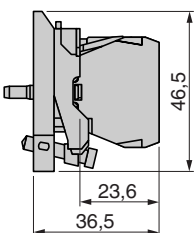
Screw clamp terminal connections

Integral LED
ZB4-BW0●●●

Direct supply,
for BA 9s bulb
ZB4-BW06●

Via integral transformer,
for BA 9s bulb
ZB4-BW0●●, BW0●D●●

Plug-in connector
Integral LED
ZB4-BW0●●●4



Control and signalling units Ø 22

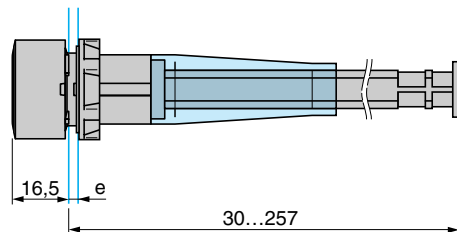
Harmony[®] style 4

Pushbuttons, switches and pilot lights, with chromium plated metal bezel

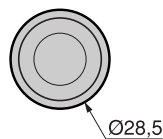
Specific functions

1

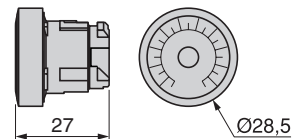
Manual overload reset buttons
XB4-BA9●●



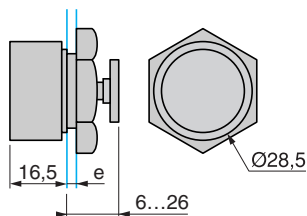
Common
face view



Head + mounting base for potentiometer
ZB4-BD9●2



XB4-BA8●●

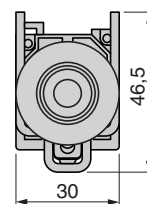
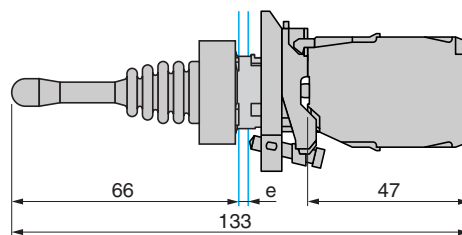
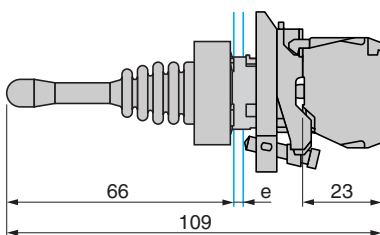


e: panel thickness 1 to 6 mm.

Joystick controllers
XD4-PA●2

XD4-PA●4

Common face view

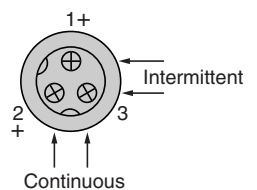
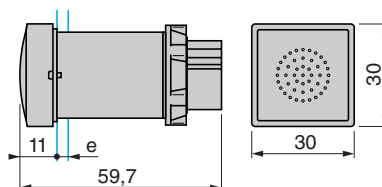
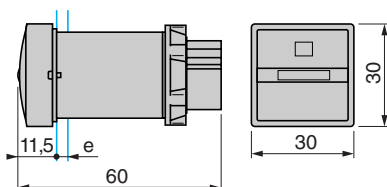


e: panel thickness 1 to 6 mm.

Hour counters
XB5-DS●

Annunciators
XB5-KS●

Connection diagram
XB5-KS●



e: panel thickness 1 to 6 mm.

General:
pages 1/2 to 1/7

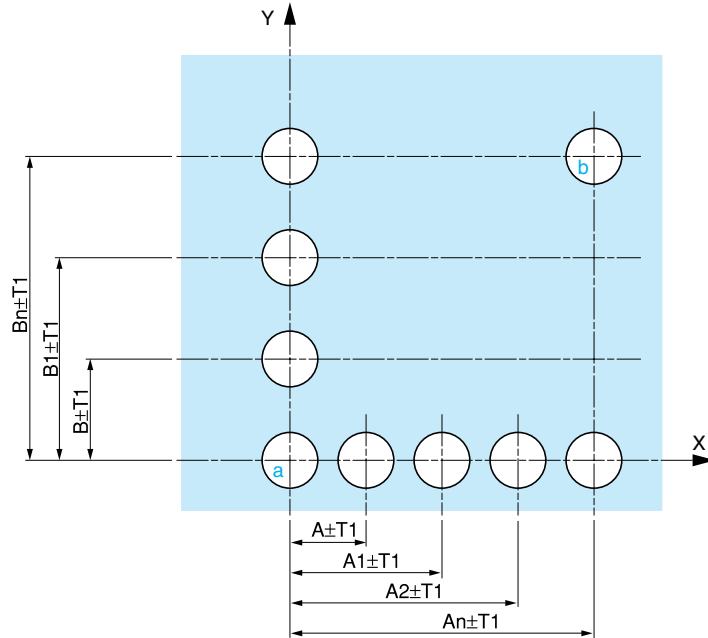
Characteristics:
pages 1/8 to 1/11

References:
pages 1/12 to 1/47

Connecting control units to printed circuit board

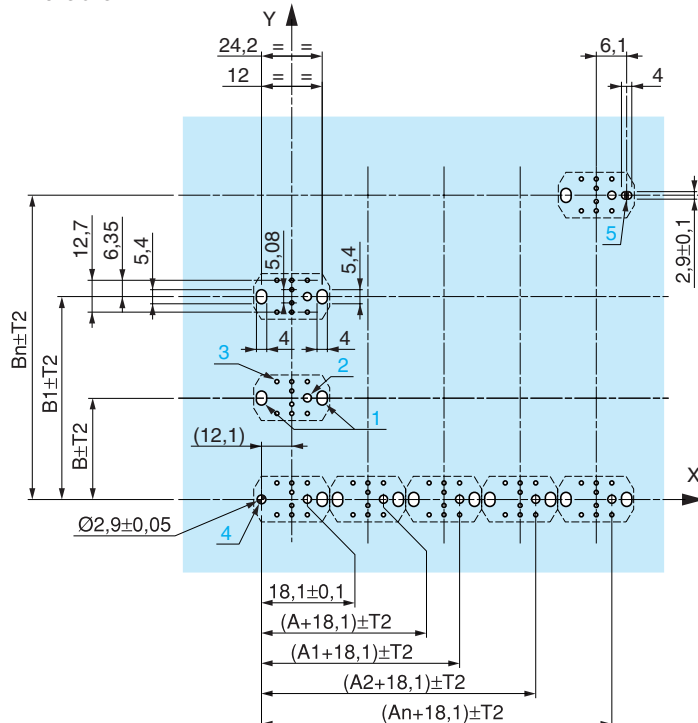
Panel cut-out (viewed from installer's side)

Dimensions in mm



Printed circuit board drillings (viewed from electrical block side)

Dimensions in mm



A: 30 min.

B: 40 min.

General tolerances of the panel and printed circuit board

The cumulative tolerance must not exceed 0.3 mm: $T1 + T2 = 0.3$ mm maximum.

Installation precautions:

Minimum thickness of circuit board: 1.6 mm

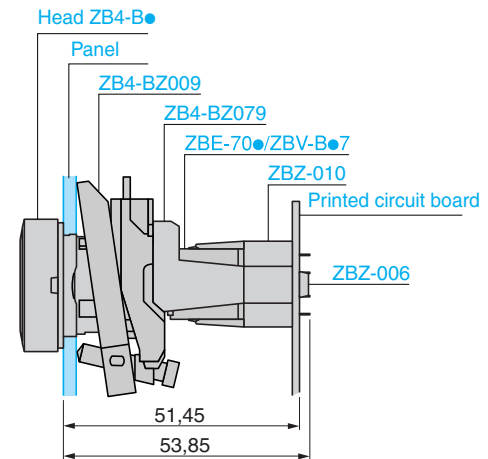
Cut-out diameter: 22.5 mm recommended ($22.3^{+0.4}_0$)

Orientation of body/fixing collar ZB4-BZ009: $\pm 2^\circ 30'$ (excluding cut-outs marked **a** and **b**).

Fixing screw ZBZ-006 tightening torque: 0.6 N.m

Allow for pillar ZB4-BZ079 and fixing screws every 90 mm horizontally (X), and 120 mm vertically (Y) (for cut-outs on 30 x 40 mm fixing centres).

The fixing centres marked **a** and **b** are diagonally opposed and must align with those on the printed circuit board marked **4** and **5**.



Mounting with adaptor (socket) ZBZ-010:

- 1 2 elongated holes for ZBZ-006 screw access
- 2 1 hole Ø 2.4 mm (± 0.05) for centering adaptor ZBZ-010
- 3 8 holes Ø 1.2 mm
- 4 1 hole Ø 2.9 mm (± 0.05) for centering printed circuit board (with cut-out marked **a**)
- 5 1 elongated hole for orientating the printed circuit board (with cut-out marked **b**)

Dimensions $An + 18.1$ are those to the Ø 2.4 mm (± 0.05) holes for centering the adaptor ZBZ-010.