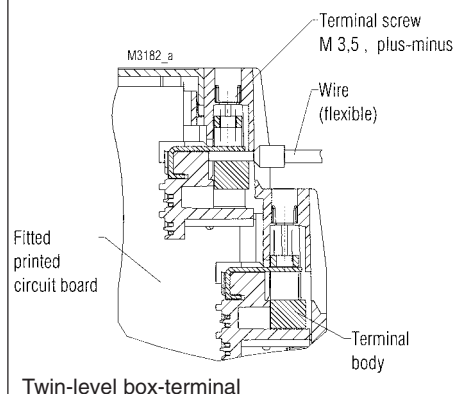


Insulated Enclosure KO 4300S

with twin-level box terminal
for machine soldering technology



- Width 22,5 / 45 / 67,5 / 90 mm
- Max. 16 / 32 / 48 / 64 box terminals
- Large, variable front plate surface
- Large cross section of connections possible (e.g. 2 x 1,5 mm² with stranded ferruled)
- Max. current carrying capacity
- machine soldered terminal block, use of heat-resistant plastic means no cover for the terminal block facing the soldering bath is required
- Large plus-minus screws enable high tightening torques
- high-voltage test complying with IEC 60 439-1
- Printed circuit board density t = 1,5 mm and 1 mm possible
- More option possible, see "Other options"



Technical Data

Order reference (parted frontplates):	width	depth = 118 mm	depth = 97 mm
	22,5 mm	KO 4303S.0054998	KO 4323S.0054999
	45 mm	KO 4304S.0055738	KO 4324S.0055681
	67,5 mm	KO 4305S.0055671	KO 4325S.0055682
	90 mm	KO 4306S.0055672	KO 4326S.0055683

Enclosure material:	PC-GF, light gray RAL 7035 (housing parts) polyamide (PA GF), natural (terminal block)	
Temperature stability:	PC	PA
complying with UL 746 B:	125 °C	
complying with Vicat ISO 306	Meth. B: 148 °C	
complying with ISO 75-2	Meth. A: 138 °C	> 290 °C
	Meth. B: 144 °C	> 290 °C

Max. permitted power dissipation: see diagrams

Specific thermal resistance:
 KO 4303S; KO 4304S; KO 4305S: R_{th} = 6,5 K/W; 5,5 K/W; 4,2 K/W
 KO 4324S; KO 4324S; KO 4325S: R_{th} = 9,0 K/W; 6,5 K/W; 5,4 K/W

Flame retardancy
 complying with UL 94: V-0 V-0
 complying with IEC 60 707: BH 2-30

Number of terminals:
 KO 4303S, KO 4323S: 16
 KO 4304S, KO 4324S: 32
 KO 4305S, KO 4325S: 48
 KO 4306S; KO 4326S: 64
 } less, on request

Terminal material: steel strip, tin-plated
 Max. cross section for connection: each 1 x 2,5 mm² stranded ferruled DIN 46 228-1/-2/-3/-4
 each 1 x 4 mm² solid
 each 2 x 1,5 mm² stranded ferruled DIN 46 228-1/-2/-3
 each 2 x 2,5 mm² solid
 Min. cross section for connection: each 1 x 0,5 mm² solid or
 stranded ferruled DIN 46 228-1/-2/-3/-4

Insulation of wires or sleeve length: 8 mm
 Max. contact resistance to printed circuit board: 10 m Ω
 Max. current carrying capacity: 16 A

Wire fastening: Captive plus-minus-terminal screws M3,5 with self raising terminal box

Inner connection: Terminal block can be machine soldered;
use of heat-resistant plastic means no cover for the terminal block facing the soldering bath is required

Enclosure fastener: Snap-on fastener on top hat rail IEC/EN 60 715

Creepage resistance: Enclosure: CTI 175 ≙ insulating material III a IEC 60 664-1
 Terminal block: CTI 250 - 400 ≙ insulating material III a IEC 60 664-1

Air gap and creepage distance: outside: ≥ 6,3 mm IEC 60 664-1
 inside: ≥ 4,0 mm IEC 60 664-1

Type of protection
 Enclosure: IP 40 IEC 60 529
 Terminal strip: IP 20 IEC 60 529
 contact protection complies with VBG 4

Print area:
 KO 4303S, KO 4323S: 20,5 x 43,6 mm
 KO 4304S, KO 4324S: 2 x 20,5 x 43,6 mm with two-parted front or
 43 x 43,6 mm with one-parted front
 KO 4305S, KO 4325S: 3 x 20,5 x 43,6 mm with three-parted front or
 65 x 43,6 mm with one-parted front
 KO 4306S, KO 4326S: 4 x 20,5 x 43,6 mm with four-parted front
 2 x 43 x 43,6 mm with two-parted front or
 88 x 43,6 mm with one-parted front

Printed circuit board: See printed circuit board design
 Printed circuit board holder: Guide ribs in base

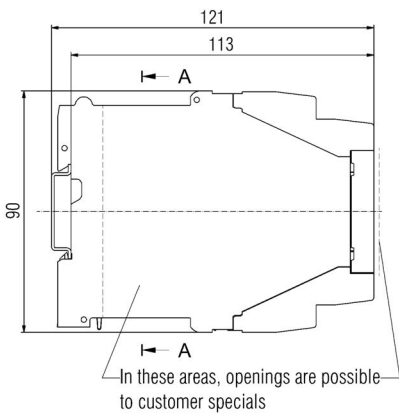
Other options:

More information see brochure G23

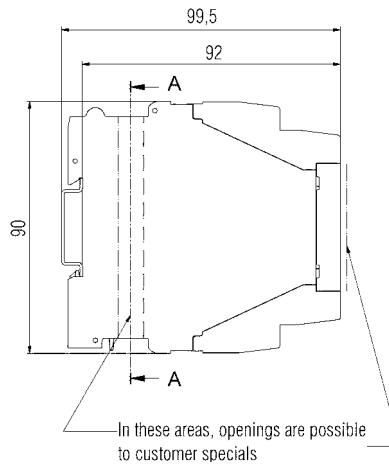
- Variable equipping level
- With ground terminal to top hat rail
- Side openings, e. g. for bus connection or ventilation slots
- Openings in base, e. g. for bus connection to top hat rail
- Variable front plate, optionally with:
 - * flap cover
 - * openings, depending on customer specification
 - * Combination of 22,5 and 45 mm (width) upper sections are possible

Dimensions

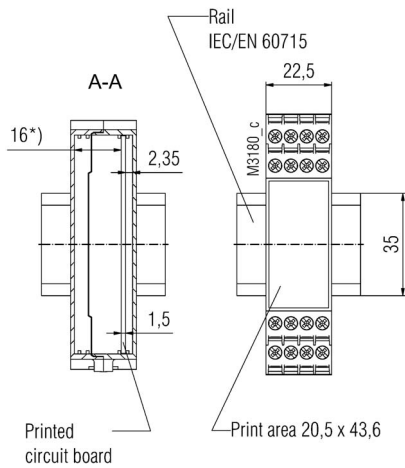
KO 430_



KO 432_

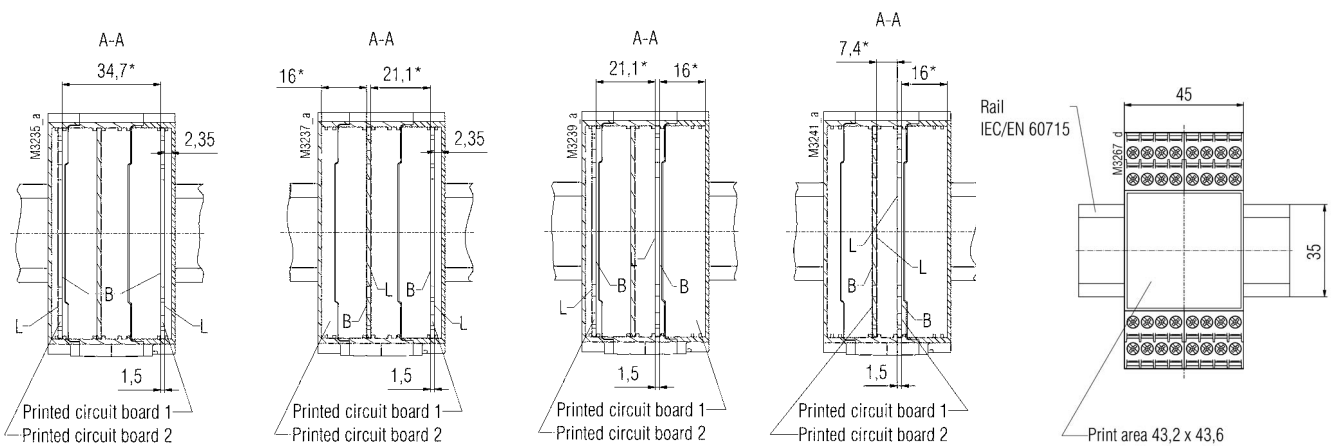


Printed circuit board configuration KO 4303S / KO 4323S



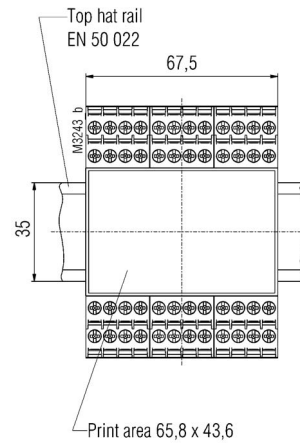
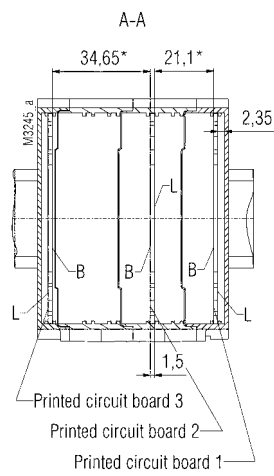
* 16,5 with printed circuit board thickness $t = 1$ mm

Printed circuit board configuration KO 4304S / KO 4324S

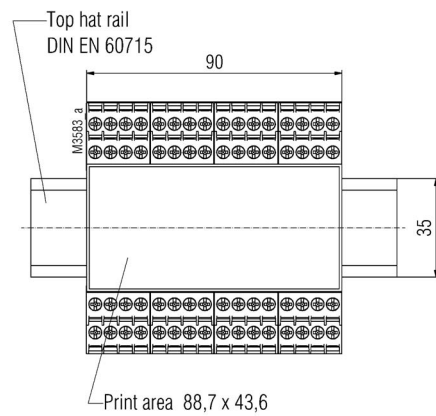
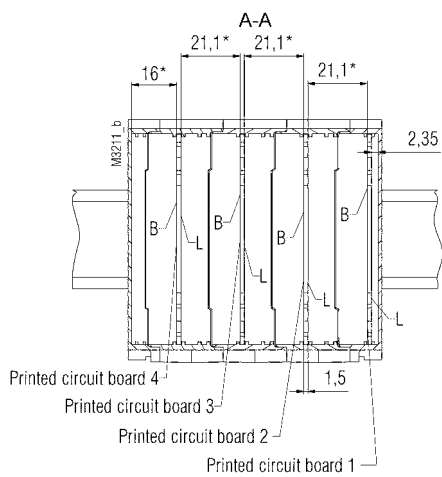


Dimensions

Printed circuit board configuration KO 4305S / KO 4325S



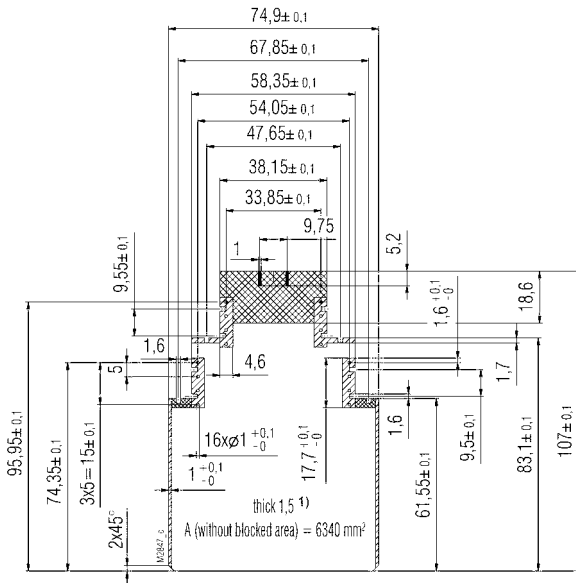
Printed circuit board configuration KO 4306S / KO 4326S



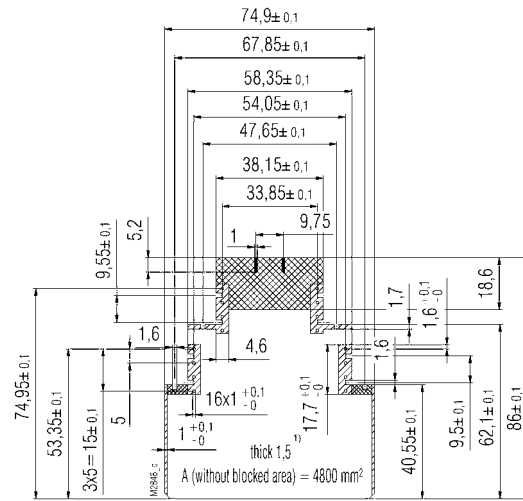
B = Component side
 L = Solder side
 * = max. component height
 Printed circuit board configuration are possible

Printed circuit board design

KO 430_S

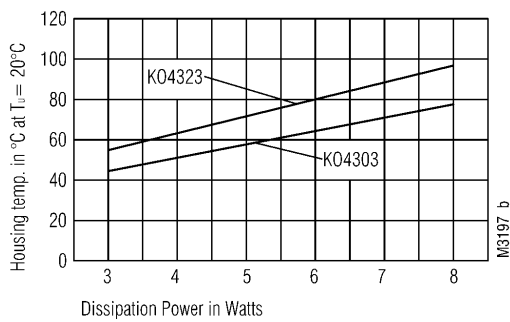


KO 432_S

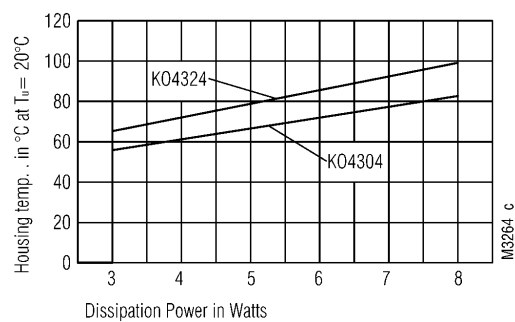


- Land for soldering $\varnothing 2$
- Blocked area, free of components and conducting material
- Bocked area
- Reduced component height (with pcb thickness = 1,5):
 - soldering side max. 1,65
 - component side max. 15,35
- Reduced component height (with pcb thickness = 1,5):
 - soldering side max. 0,5
 - component side max. 14,1
- Tolerance to IEC 60249-2-4

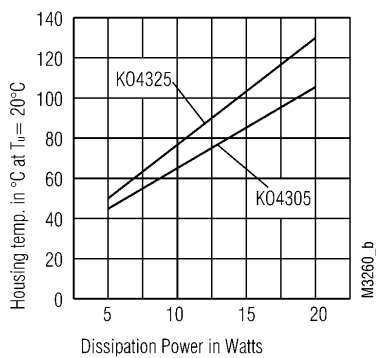
Diagrams (Thermal Resistance)



KO 4303S, KO 4323S



KO 4304S, KO 4324S

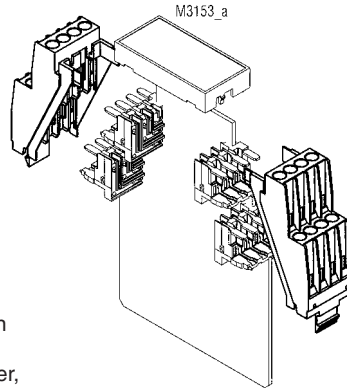
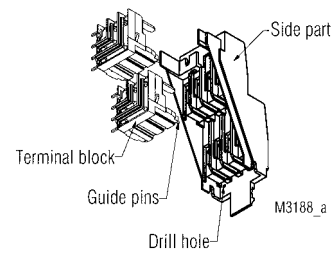


KO 4305S, KO 4325S

Notes on Housing Installation

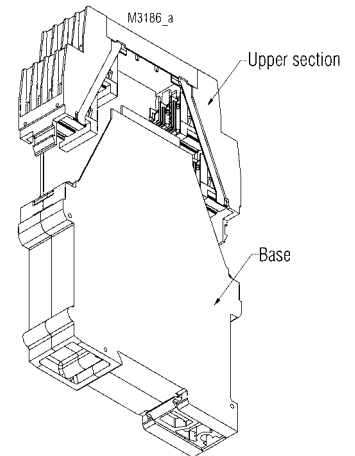
1. Installation of upper section

- Place all assemblies on a level surface.
- Push the side parts over the terminal blocks of the equipped printed circuit board; in doing so, the guide pins of the terminal blocks must slide into the drilled holes in the side parts
- Snap the front plate onto the premounted side parts



2. Installation of housing

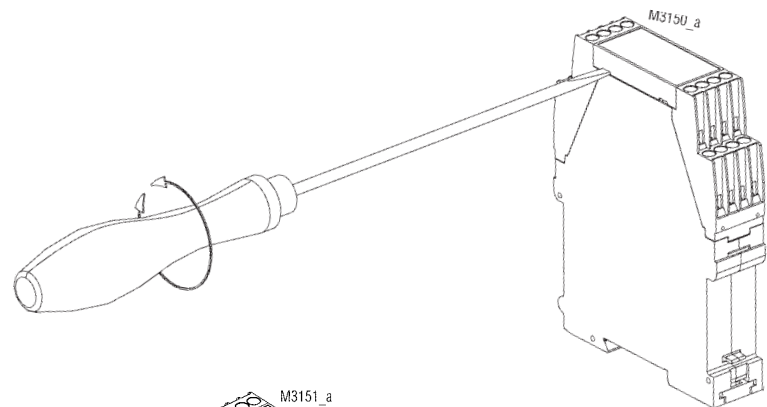
- Place all assemblies on a level surface.
- Slide the printed circuit board of the upper section into the guide grooves of the base.
- When placing the hood and upper section together, ensure that the wall areas overlap correctly. The guide element of the base must slide into the guide recess of the upper section.



Notes on Housing Deinstallation

1. Removing the front plate

- Insert a screwdriver in the side recess of the front plate.
- Turn the screwdriver to the right and left.



2. Removing the upper section

- Insert a screwdriver in the snap fastener of the base as far as it will go.
- With a tilting movement, release the snap fastening.
- Pull the upper section with the printed circuit board out of the base.

