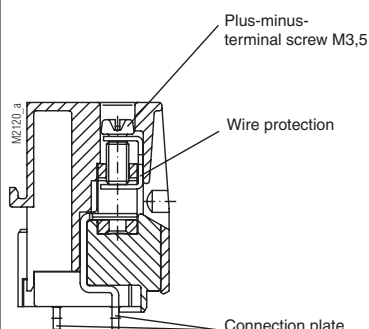


# Insulated Enclosure KO 4735

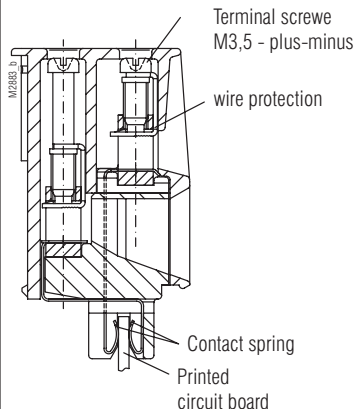
with 2 high current terminal blocks for solder connection  
and 2 twin-level terminal blocks for Plug-in technology



- Width 45 mm
- High current terminal block for soldering
  - Max. 6 box terminals with captive plus-minus terminal screw
  - Electrical connection of PCB to terminal via stranded ferruled
- twin-level terminal block for plug-in technology
  - Max. 14 box terminals with captive plus-minus terminal screw
  - Twin-level terminal
  - Removable terminal blocks for connection with PCB
  - Terminal blocks with choice of 3-; 4- or 7-terminals or as blanking block
  - Interchangeable plate
- Installation of SMD components on outer surface (soldering side) possible
- can be used for EExi complying with EN 50 020



High current terminal block for soldering



Twin-level box terminal for plug-in technology

## Approval and Marking



## Technical Data

Order reference:	beige	grey RAL 7035	blue RAL 5015	clear	black
Base, with one clip PC	KO 4731-	1.3			1.1
Base, with one clip PA (UL)	KO 4731-				1.6
Base, with one clip PBT (UL)	KO 4731-	1.7			
Frame PC (UL)	KO 4735-	2-2.1	2-2.3	2-2.4	
Plate without terminal block					
release slots PC (UL)	KO 4730-	2-2.11	2-2.113	2-2.114	2-2.115
Terminal block, 3 term. PC	KO 4733-	3.21	3.23	3.24	
Terminal block, 3 term. PA (UL)	KO 4733-				3.126
Terminal block, 3 term. PBT (UL)	KO 4733-		3.158		
Terminal block, 4 term. PC	KO 4733-	3.11	3.13	3.14	
Terminal block, 4 term. PA (UL)	KO 4733-				3.124
Terminal block, 4 term. PBT (UL)	KO 4733-		3.157		
Terminal block, 7 term. PC	KO 4733-	3.1	3.3	3.4	
Terminal block, 7 term. PA (UL)	KO 4733-				3.123
Terminal block, 7 term. PBT (UL)	KO 4733-		3.156		
Blanking block PC	KO 4735-	3.31	3.33	3.34	
High current terminal block, 3 terminals PC	KO 4734-	4.5			
High current terminal block, 3 terminals PA (UL)	KO 4734-				4.23
High current terminal block, 3 terminals PBT (UL)	KO 4734-		4.26		

### Outer dimensions:

45 x 84 x 118 mm

### Enclosure material:

PC-GF, Base black, front beige

Temperature stability:	PC	PA	PBT
complying with UL 746 B:	125 °C	120 °C	120 °C
complying with Vicat Meth. A:		212 °C	
ISO 306 Meth. B:	148 °C	212 °C	134 °C
compl. with ISO 75-2 Meth. A:	138 °C	230 °C	145 °C
Meth. B:	144 °C	210 °C	150 °C

### Max. permitted power dissipation:

15 W for stand-alone enclosure  
at normal climate 23/50-1

ISO 554

### Specific thermal resistance:

R<sub>th</sub> = 6.5 K / W for stand-alone enclosure

### Flame retardancy:

complying with UL 94:

PC: V-0; PC: plate clear = V-2; PA: V-0; PBT: V-0

complying with IEC 60 707:

BH 2-30

### Number of terminals:

high current terminal block	twin-level terminal block
6, < 6 on request	14, < 14 on request
Terminal material:	Cu-alloy tin-plated
Max. cross section for connection:	1 x 2.5 mm <sup>2</sup>
insulation 11 mm	stranded ferruled
	DIN 46 228-1/-2/-3/-4
1 x 6 mm <sup>2</sup> -12	1 x 4 mm <sup>2</sup> solid
stranded ferruled	2 x 1.5 mm <sup>2</sup>
DIN 46 228-1/-2/-3/-4	stranded ferruled
	DIN 46 228-1/-2/-3/-4

### Min. cross section for connection:

≥ 1 mm<sup>2</sup> solid

≥ 0.5 mm<sup>2</sup> strand.ferruled

### Insulation of wires length:

11 mm












### Max. current carrying capacity:

40 A

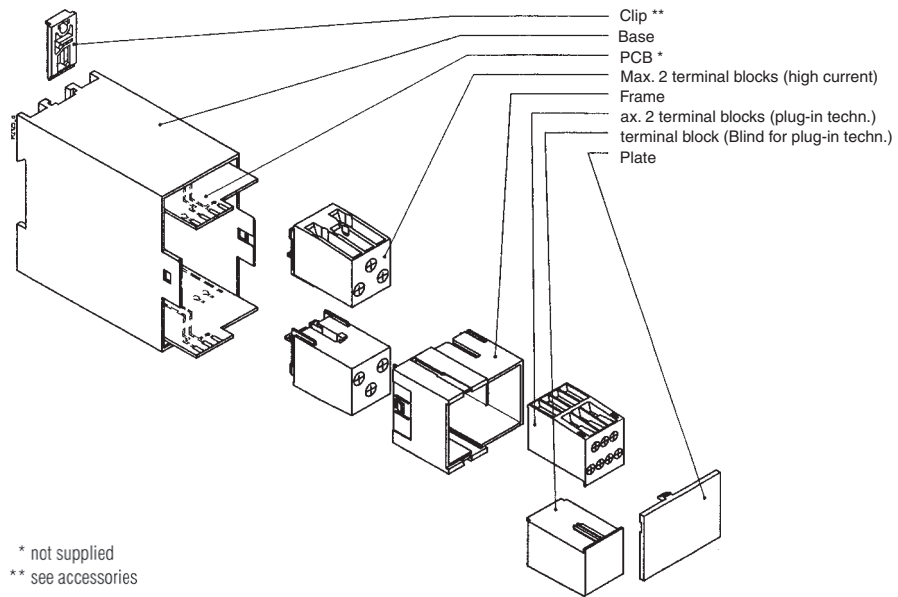
10 mm

see table

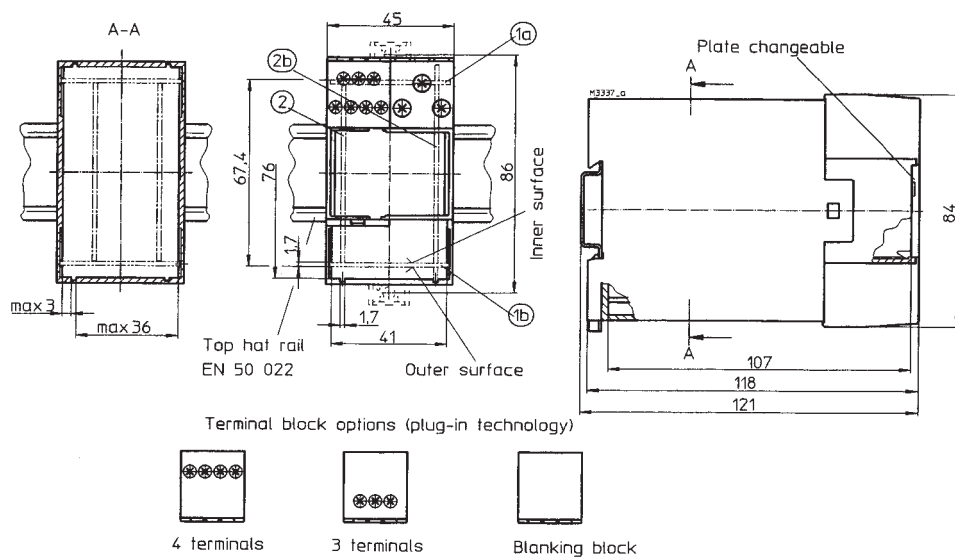
## Technical Data

Max. current carrying capacity of terminal blocks:	(UL)			(UL)		(UL)
	Ex. 1	Ex. 2	Ex. 3	Ex. 4	Ex. 5	Ex. 6
 $\Sigma$ I <sub>max.</sub> = 15 A	 5 5					
 $\Sigma$ I <sub>max.</sub> = 28 A	7 7 7 7	 6 7 7	8 6 8 6			
 $\Sigma$ I <sub>max.</sub> = 35 A	 5 5	 5 5 5	3 2 2	2 3 2	1 1 5	5 5 5
	5 5 5 5	8 4 4 4	 6 7 7	 7 7 7	8 6 8 6	3 7 7 3
 = max. value per terminal point,  = max. value per terminal row						
Wire fastening:	captive plus-minus-terminal screws M4		captive plus-minus-terminal screws M3,5			
Torque:	1.2 Nm		0.8 Nm			
Inner connection:	solder connection		direct connection of PCB			
<b>Enclosure fastener:</b>	1) Snap-on fastener on top hat rail				EN 50 022	
	2) Screw fixing M4, grid 90 mm with additional clip as accessories					
Creepage current resistance:	PC: CTI 175 $\hat{=}$ insulating material III a IEC 60 664-1 PA: CTI 600 $\hat{=}$ insulating material I IEC 60 664-1 PBT: CTI 225 $\hat{=}$ insulating material III IEC 60 664-1					
<b>Air gap and creepage distance:</b>	$\geq$ 5.5 mm complying with IEC 60 664-1		$\geq$ 3.3 mm complying with IEC 60 664-1 with plugged-in PCB			
Type of protection	IP 40 IEC 60 529					
Enclosure:	with terminal screws: IP 20 IEC 60 529					
Terminals:	contact protection complies with VBG 4					
Printed area:	45 x 33 mm					
<b>Printed circuit board:</b>	see printed circuit design					
Printed circuit board holder:	guide ribs					
Net weight:	200 g					
<b>Accessories:</b>		grey RAL 7035	blue RAL 5015	black		
Legend plate for twin-level terminal block	KO 4730-	3-1.3	3-1.4	3-1.5		
2 clips for screw fastener	ET 4086-0-2					

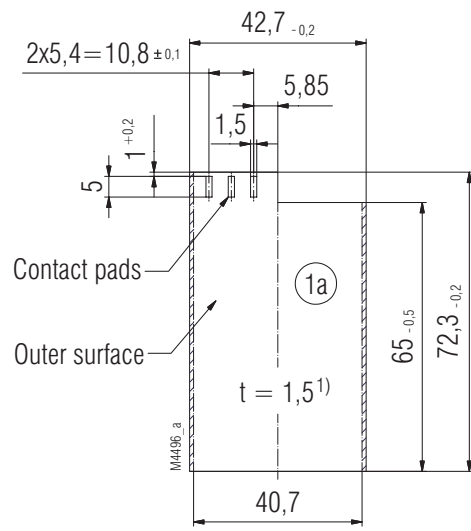
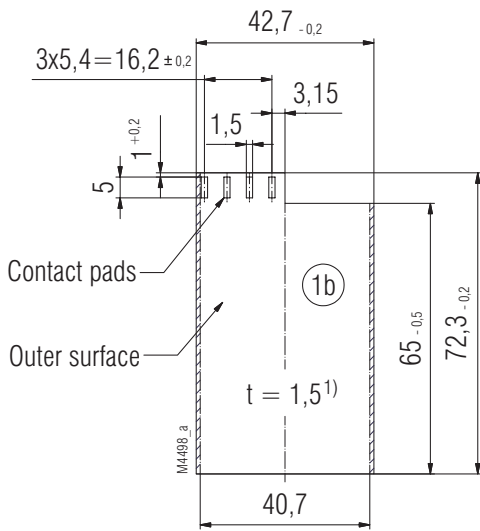
## Exploded view



## Dimensions

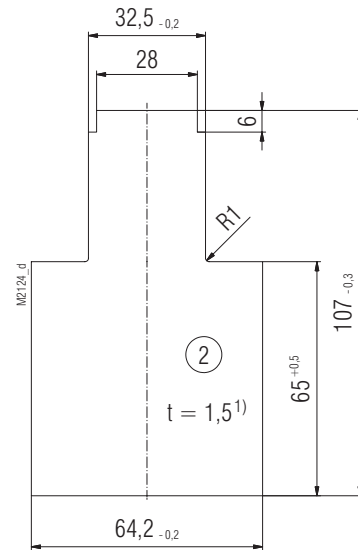
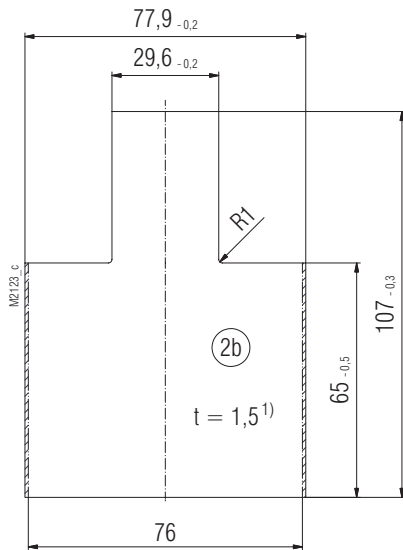
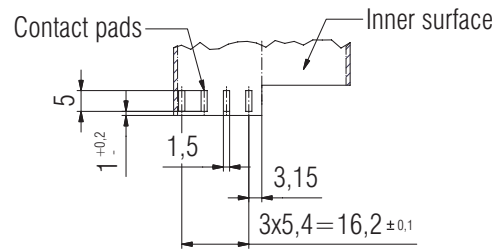
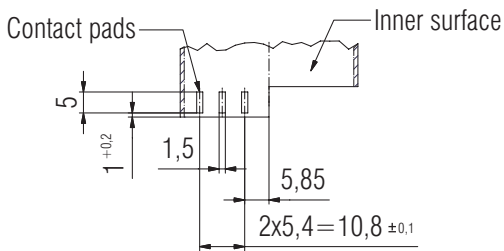


Printed circuit board designs

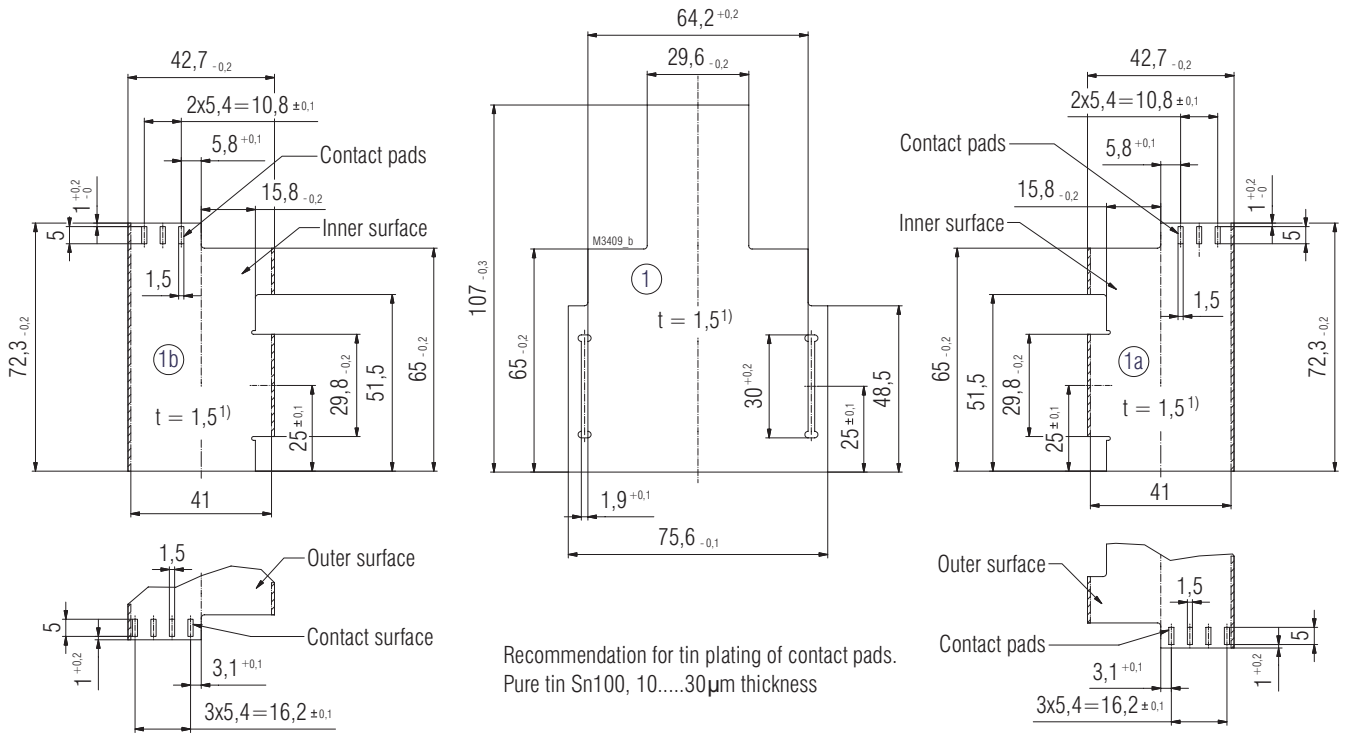


Recommendation for tin plating of contact pads.  
Pure tin Sn100, 10.....30µm thickness


Recommendation for tin plating of contact pads.  
Pure tin Sn100, 10.....30µm thickness



# Possible pcb configurations



Recommendation for tin plating of contact pads.  
Pure tin Sn100, 10.....30µm thickness

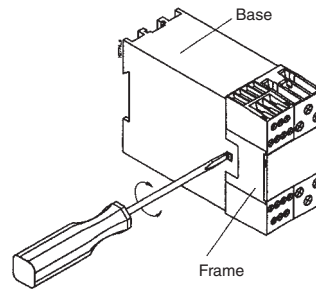
 Inhibited surface  
max. inner radius R1

<sup>1)</sup> Tolerance complying with DIN EN 60249-2-4  
General tolerance : PERFAG 2 E

## Notes on Housing Opening

### 1. Tool

- for all functions use 0.8 x 4.0 or 0.8 x 4.5 screwdriver



### 2. Removing of terminal blocks and frame

- Insert a screwdriver in the side recesses of the base (underneath)
- With light pressure, turn the screwdriver to the left or right.
- The snap-in lug of the frame disengages.
- Repeat disengaging process on opposite side.
- Terminal blocks with frame can be removed.

### 3. Removing the plate

- Insert a screwdriver in the side recess of the plate
- Turn the screwdriver to the right or left
- The plate disengages and can be removed

