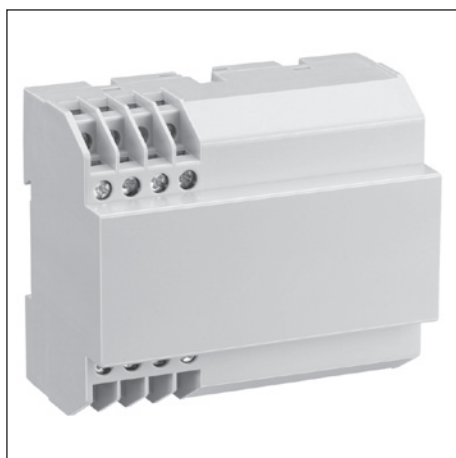
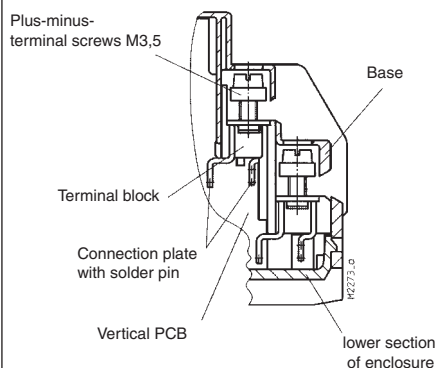


# Insulated Enclosure KU 4090

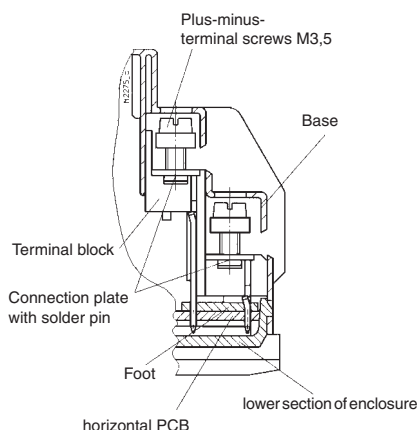
to DIN 43 880 for installation in distribution cabinets or surface mounting



- Width 105 mm
- Up to 48 plus-minus-terminal screws with self raising terminal washers. Part insertion possible, available with blanking plugs
- Secure termination of max. 2 connection wires of differing cross section
- Machine solderable connection pins, additional wire connection possible
- Housing supplied as single parts, terminals prefitted in terminal blocks



Flat terminal for vertical PCB



Flat terminals for horizontal PCB

## Technical Data

### Order references:

KU 4090.0040873: with 16 terminals, soldering on vertical PCB  
 KU 4090.0043580: with 24 terminals, soldering on vertical PCB  
 KU 4090.0047941: with 32 terminals, soldering on vertical PCB  
 KU 4090.0040861: with 48 terminals, soldering on vertical PCB

KU 4090.0039668: mit 16 terminals, soldering on horizontal PCB  
 KU 4090.0043579: mit 24 terminals, soldering on horizontal PCB  
 KU 4090.0047924: mit 32 terminals, soldering on horizontal PCB  
 KU 4090.0040857: mit 48 terminals, soldering on horizontal PCB

Versions with removable front plate, on request

**Outer dimensions:** 105 x 90 x 59 mm

Enclosure material: PC - GF, light grey RAL 7035

Temperature stability:  
 complying with UL 746 B: 125 °C

complying with Vicat  
 ISO 306 Meth. B: 148 °C

compl. with ISO 75-2 Meth. A: 138 °C  
 Meth. B: 144 °C

Max. permitted power dissipation: 20 W for stand alone enclosure at normal climate 23/50-1 ISO 554

Specific thermal resistance:  $R_{th} = 5 \text{ K / W}$  for stand-alone enclosure

Flame retardancy  
 complying with UL 94: V-0  
 complying with IEC 60707: BH 2-30

**Number of terminals:** max. 48, part insertion on request

Terminal material: Steel strip, tin-plated

Max. cross section for connection: 2 x 2.5 mm<sup>2</sup> solid  
 2 x 1.5 mm<sup>2</sup> stranded DIN 46228-1/-2/-3/-4  
 smallest diameter Ø 0,1 mm

Insulation of wires length: 9 - 10 mm

Max. contact resistance  
 to printed circuit board: 20 mΩ

Max. current carrying capacity: 16 A; 50 A on request

Wire fastening: Captive plus-minus-terminal screws M3.5 with self raising terminal washer. Function complying with IEC 60 999-1

Torque: max. 0.8 Nm

Inner connection: Machine solderable connection pin for PCB and soldering lug for stranded

**Enclosure fastener:**  
 1) Snap-on fastener on top hat rail EN 60715  
 2) Screw fixing M4, grid 90 mm with additional clip as accessory

Creepage current resistance: CTI 175 ≙ insulated material III a IEC 60664-1

**Air gap and creepage distances** IEC 60664-1

Vertical PCB: Air gap distance: ≥ 4.0 mm  
 Creepage distance: ≥ 6.3 mm  
 Horizontal PCB: ≥ 3.2 mm

Type of protection:  
 Enclosure: not fixed: IP 30 IEC 60529  
 fixed on DIN-rail or Screw fixing: IP 40

Terminals: IP 20 IEC 60529  
 Contact protection complies with VBG 4

Print area: 103 x 42 mm

**Printed circuit board:** See printed circuit board design

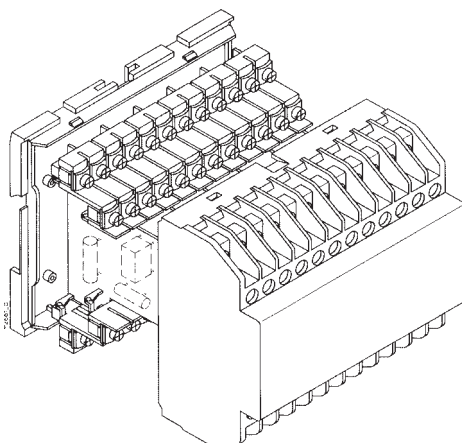
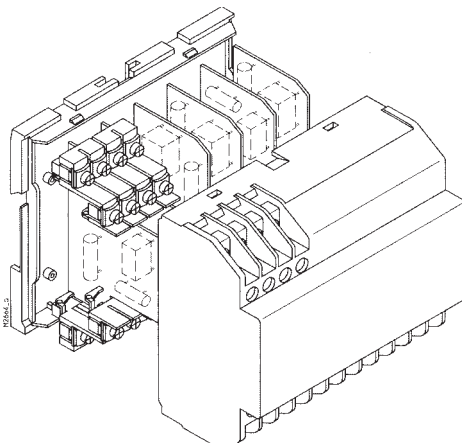
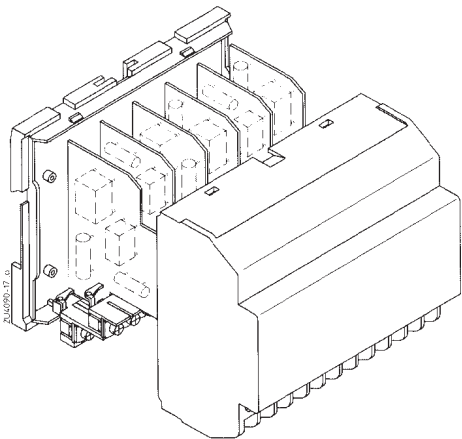
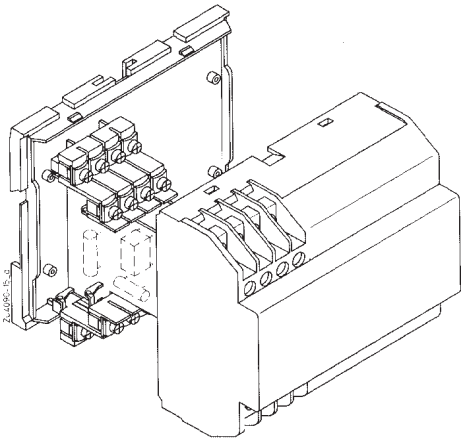
Printed circuit board holder: Guide ribs

Net weight: 234 g

### Accessories:

ET 4086-0-2: Second clip for screw fixing  
 KU 4089-3-4: Blanking plug for terminal block  
 KU 4087-0-2: Blanking plug for Enclosure base  
 KU 4087-2-1: Dummy terminal block for vertical PCB  
 KU 4089-3-1: Dummy terminal block for horizontal PCB  
 KU 4089-3-3: Double foot, for KU 4089-3-1 necessary, 2 pieces KU 4089-3-1 mounted on double foot  
 Foot, for KU 4089-3-1 necessary, 1 piece KU 4089-3-1 mounted on foot

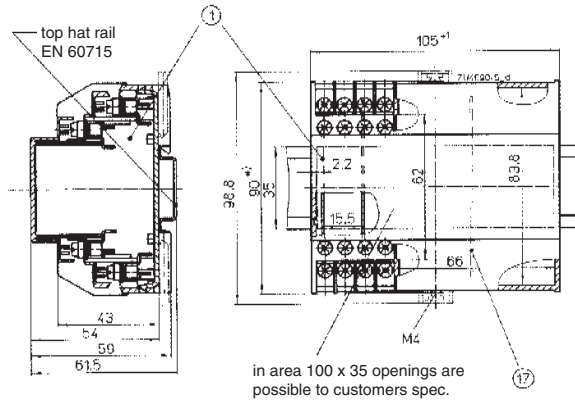
## Exploded views



## Dimensions Enclosure for vertical PCB

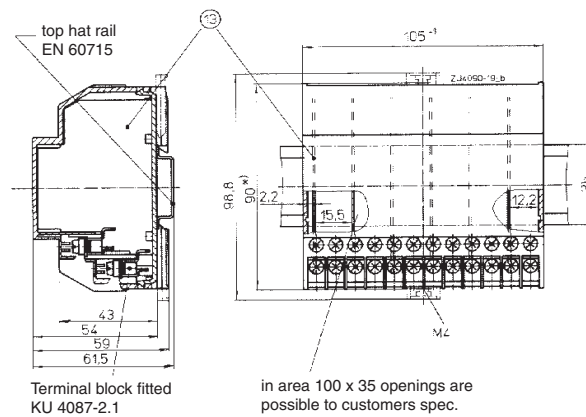
PCBs not included in deliveries

KU4090.0040873



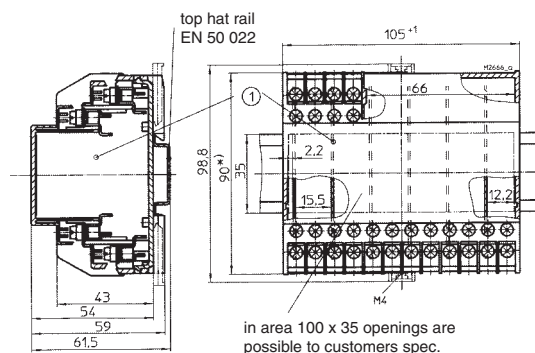
\*) 100 mm for use with 2 clips KU 4089-0-29, on request

KU4090.0043580



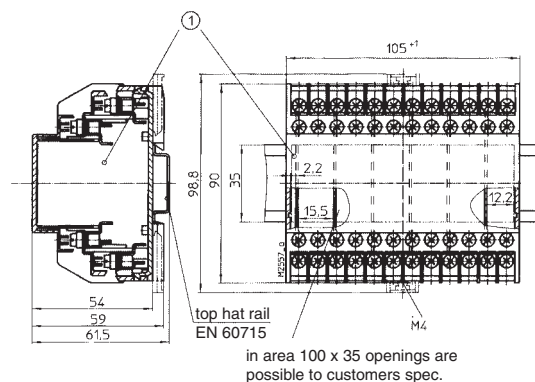
\*\*) 100 mm for use with 2 clips KU 4089-0-29, on request

KU 4090.0047941



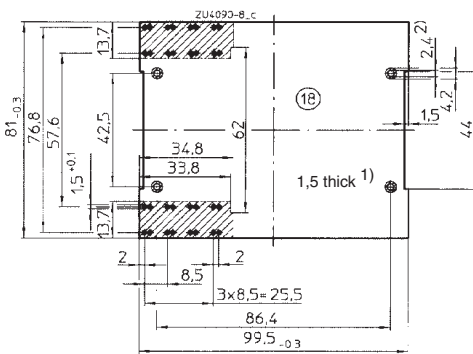
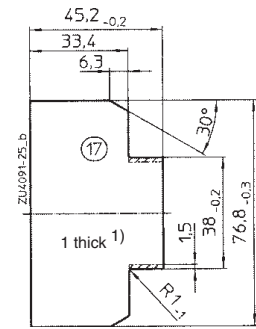
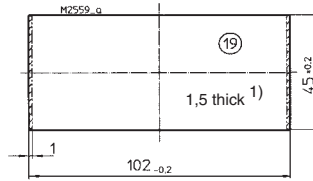
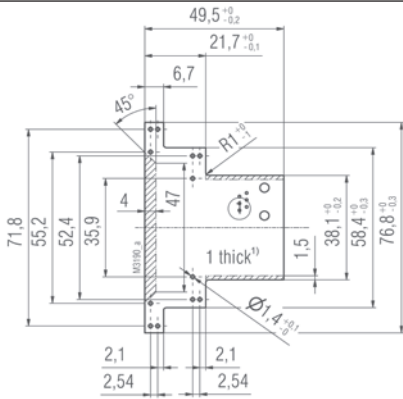
\*\*\*) 100 mm for use with 2 clips KU 4089-0-29, on request

KU 4090.0040861

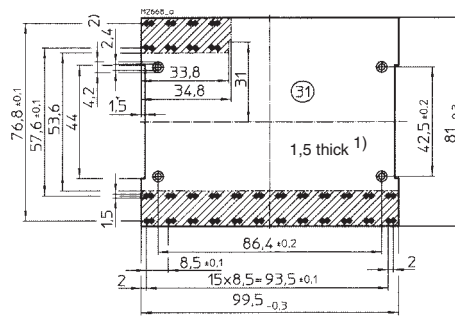




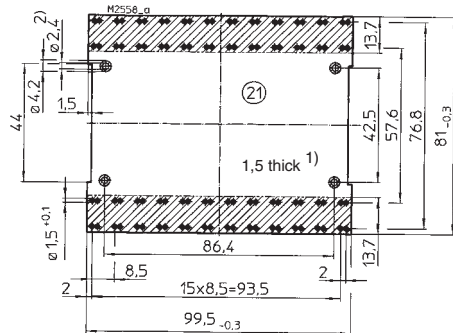
## Printed circuit board designs



View from component side



View from component side

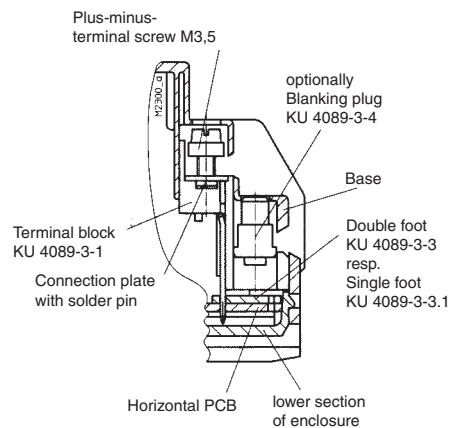
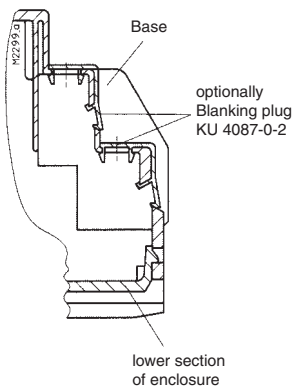


Inhibited surface

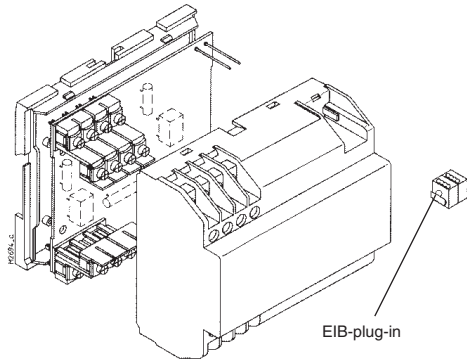
1) Tolerance complying with IEC/EN 60249-2-4

2) Hole  $\varnothing 2,4$  on request for cylindrical screws  
ISO 1207 - M2 x 3 not included in deliveries

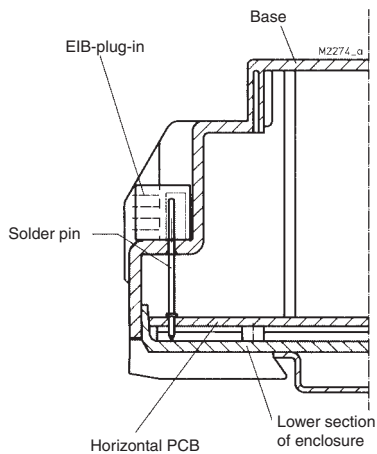
## Accessories



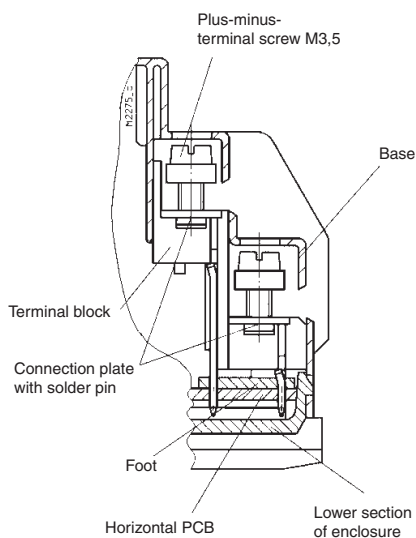
## for EIB-plug-in (16-pole)



- Width 105 mm
- Useable for Sensor and Aktor modules in EIB-system
- For standard EIB-plug-in, 2-pole
- 16 plus-minus-terminal screws with self raising terminal washers
- Part insertion possible, available with blanking plugs
- Fitting EIB-bus connector, see data sheet ET 5540



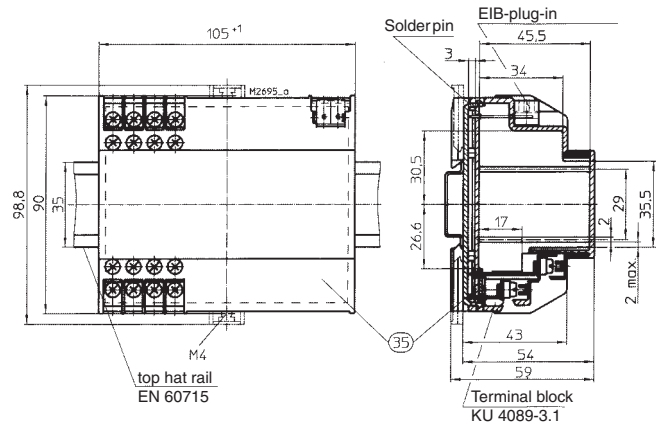
EIB-plug-in



Flat terminals for horizontal PCB

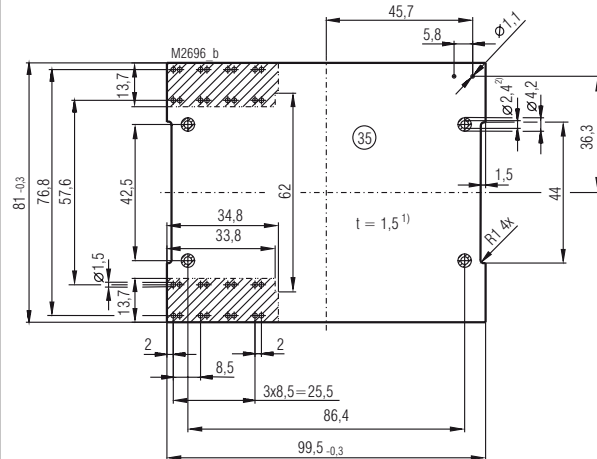
## Dimension

KU 4090.0050602



## Printed circuit board design

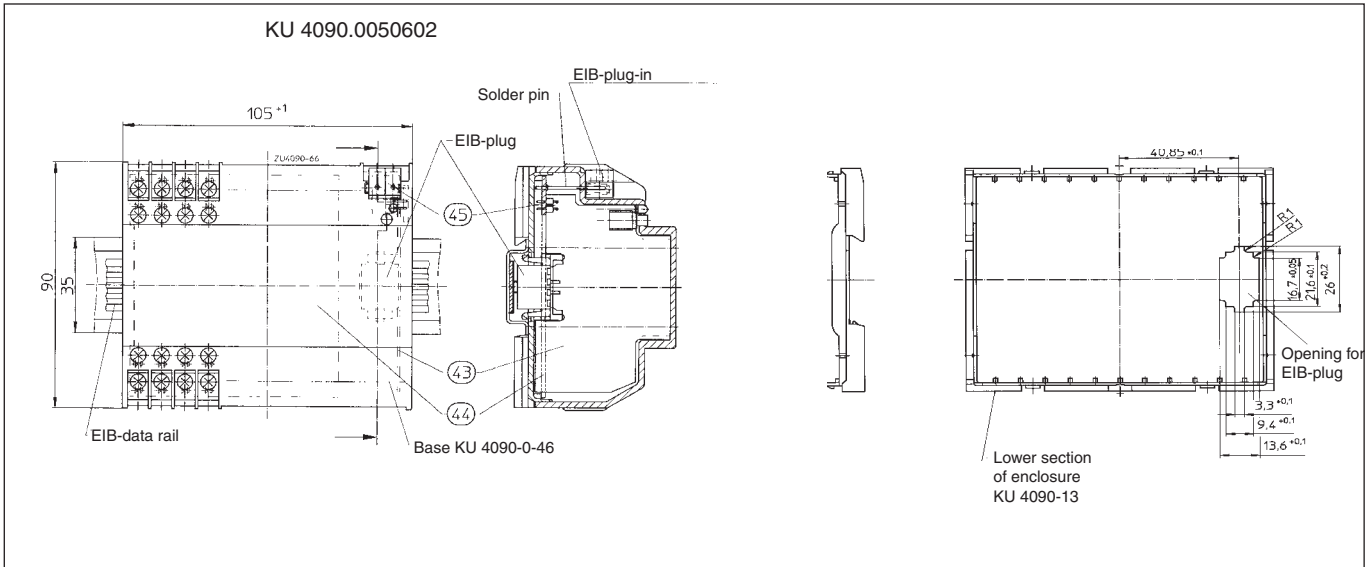
View from component side



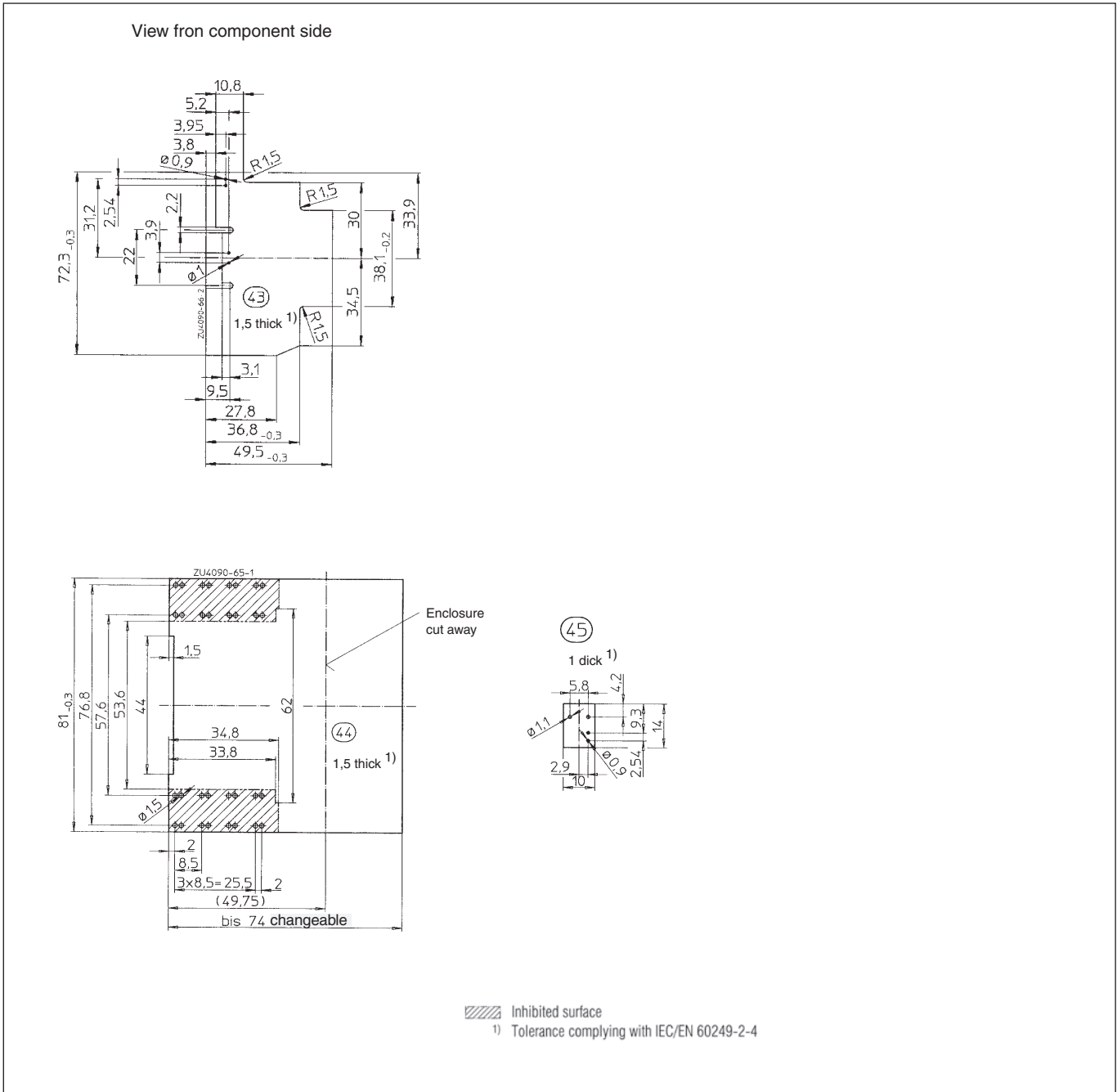
Inhibited surface

- 1) Tolerance complying with IEC/EN 60249-2-4
- 2) Hole  $\varnothing$  2,4 on request for cylindrical screws ISO 1207 - M2 x 3 not included in deliveries

## Dimensions for EIB-connection to EIB-Data rail (16-pole)

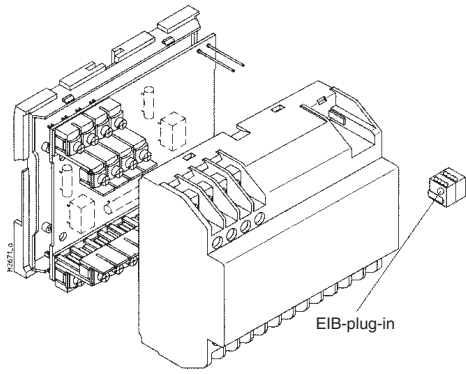


## Printed circuit board design

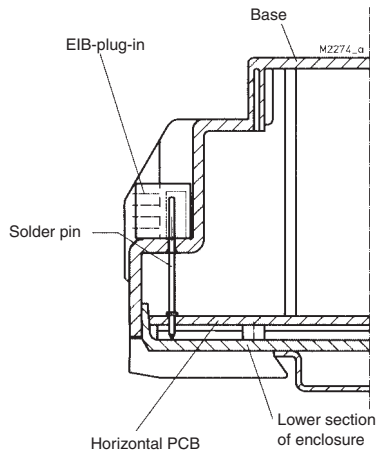




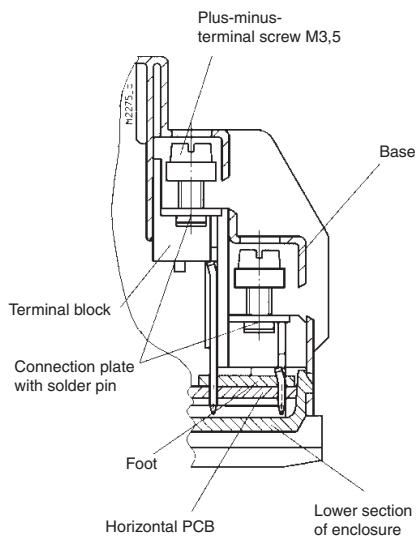
## for EIB-plug-in (32-pole)



- Width 105 mm
- Useable for Sensor and Aktor modules in EIB-system
- 32 plus-minus-terminal screws with self raising terminal washers
- Part insertion possible, available with blanking plugs
- Fitting EIB-bus connector, see data sheet ET 5540

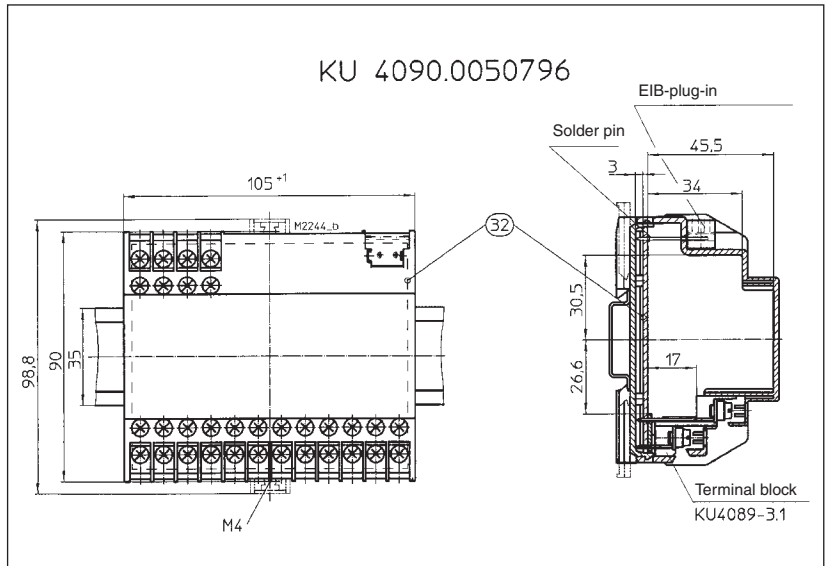


### EIB-plug-in

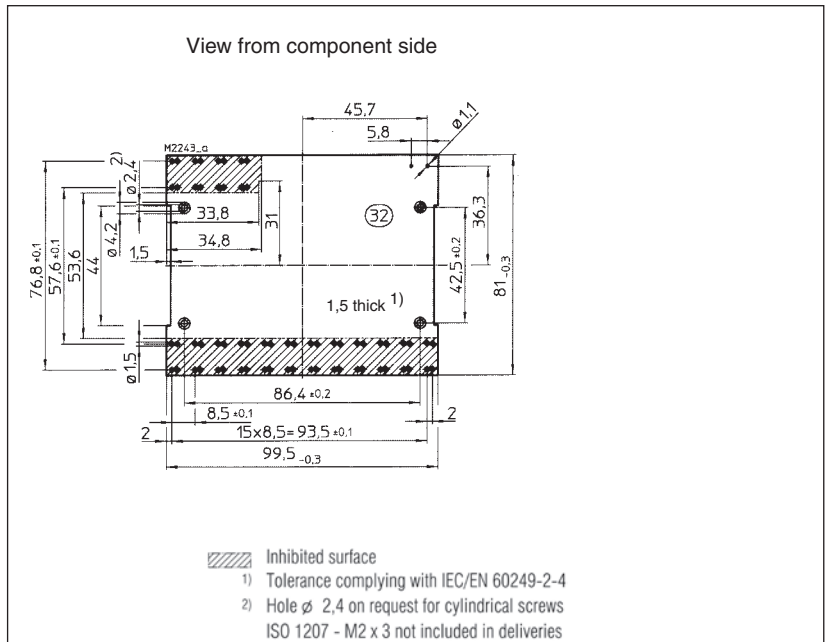


### Flat terminals for horizontal PCB

## Dimension



## Printed circuit board design



Inhibited surface

- 1) Tolerance complying with IEC/EN 60249-2-4
- 2) Hole  $\varnothing$  2,4 on request for cylindrical screws ISO 1207 - M2 x 3 not included in deliveries

## Cover with ventilation slots

### Technical Data:

Max. permitted power dissipation: 26 W

Specific thermal resistance:  $R_{th} = 3,7 \text{ K/W}$  for stand alone enclosure

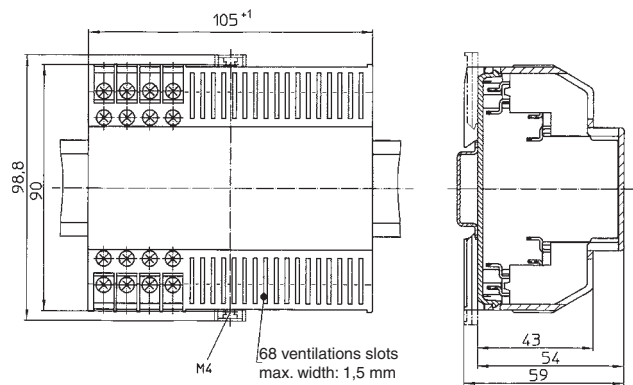
Type of protection

Enclosure: IP 30 IEC 60 529

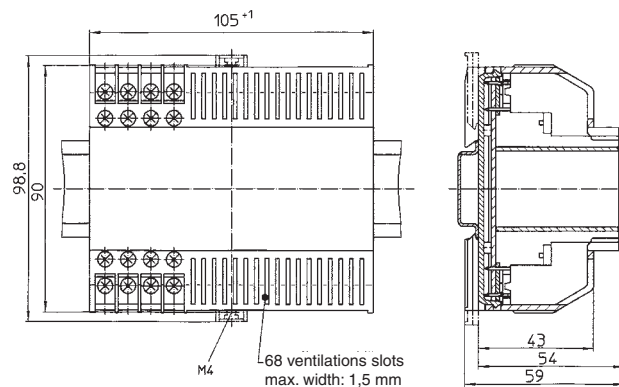
Further technical Data see standard enclosure KU 4090

## Dimensions

KU 4090.0047673  
for vertical PCB

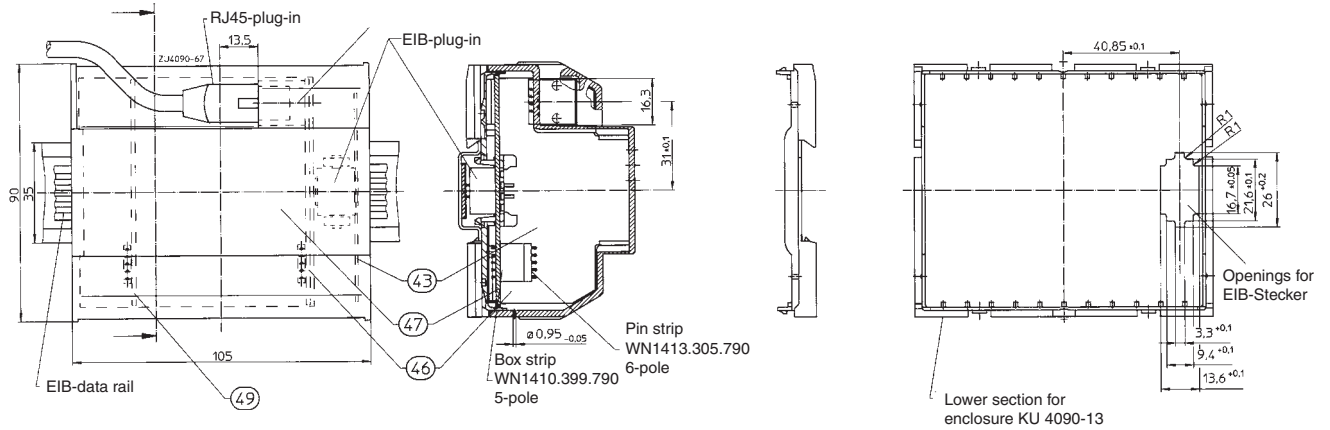


KU 4090.0047423  
for horizontal PCB





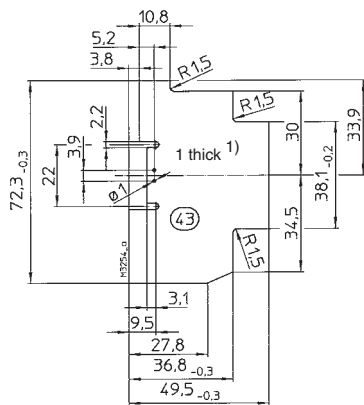
## Dimensions for special version for EIB and RJ45 plug-in connection



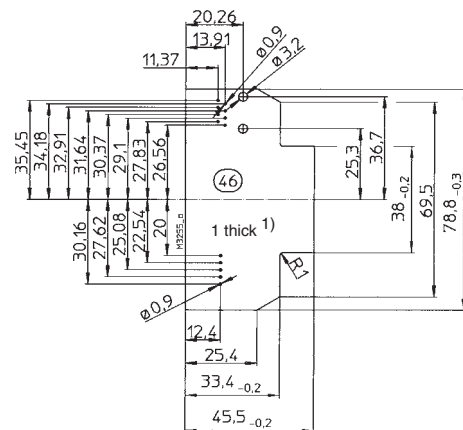
EIB-plug-in, EIB-data rail, EIB-plug, RJ45-plug-in and printed circuit board designs 43, 46, 47 and 49 are not included in deliveries

## Printed circuit board design

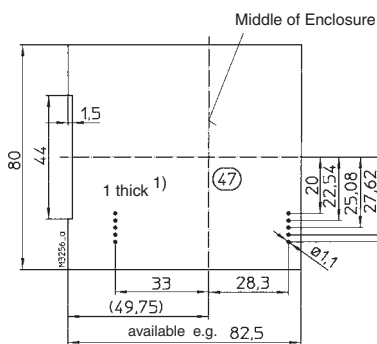
View from component side



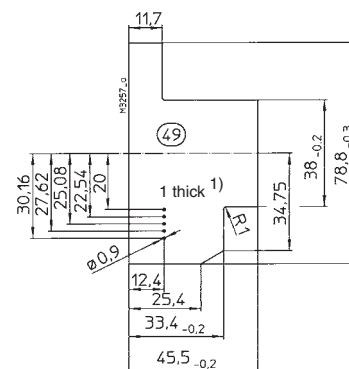
View from component side



Component side



View from component side



Inhibited surface

1) Tolerance complying with IEC/EN 60249-2-4

