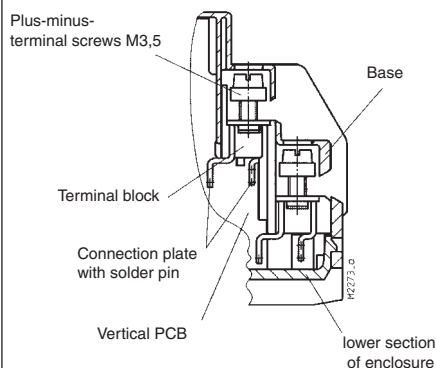


Insulated Enclosure KU 4090

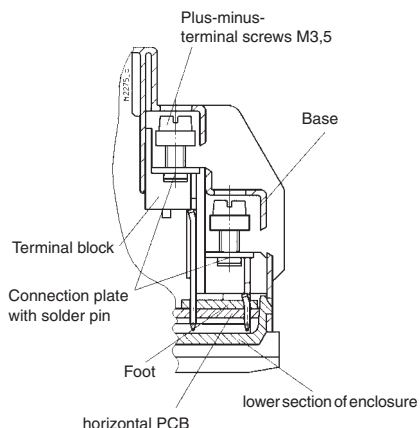
to DIN 43 880 for installation in distribution cabinets or surface mounting



- 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 PC
 KU 4090.0043580: with 24 terminals, soldering on vertical PC
 KU 4090.0047941: with 32 terminals, soldering on vertical PC
 KU 4090.0040861: with 48 terminals, soldering on vertical PC

KU 4090.0039668: with 16 terminals, soldering on horizontal PCB
 KU 4090.0043579: with 24 terminals, soldering on horizontal PCB
 KU 4090.0047924: with 32 terminals, soldering on horizontal PCB
 KU 4090.0040857: with 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: $R_{th} = 5 \text{ K} / \text{W}$ 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 mm² solid
 2 x 1.5 mm² stranded DIN 46228-1/-2/-3/-4
 min Ø 0.6 solid / 0.28 mm² / 22 AWG

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 $\hat{=}$ insulated material III a IEC 60664-1

Air gap and creepage distances IEC 60664-1

Vertical PCB: Air gap distance: $\geq 4.0 \text{ mm}$
 Creepage distance: $\geq 6.3 \text{ mm}$
 Horizontal PCB: $\geq 3.2 \text{ mm}$

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

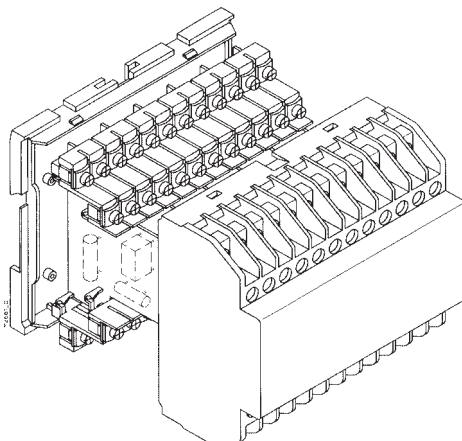
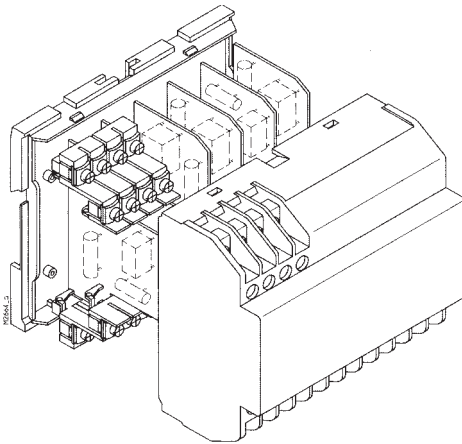
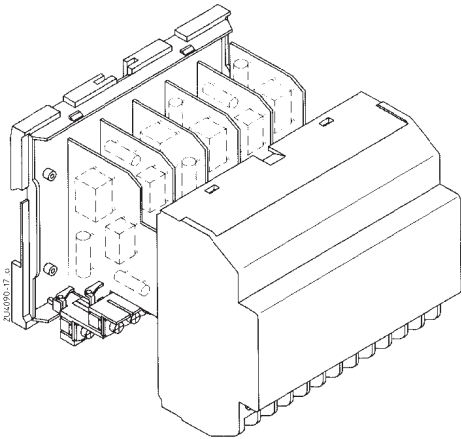
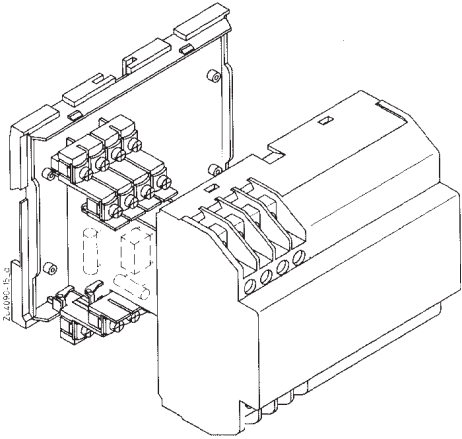
Printed circuit board holder: Guide ribs

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

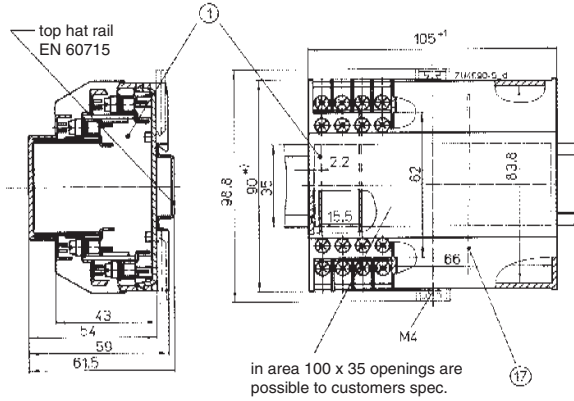
Exploded views



Dimensions Enclosure for vertical PCB

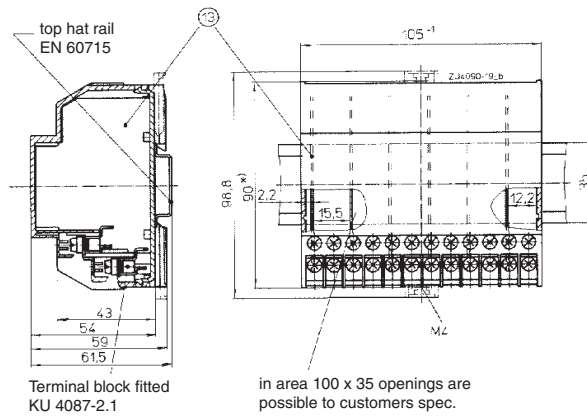
PCBs not included in deliveries

KU4090.0040873



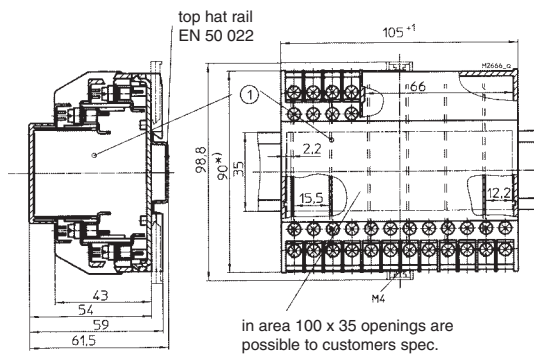
*) 100 mm for use with 2 clips KU 4089-0-29, on request

KU4090.0043580



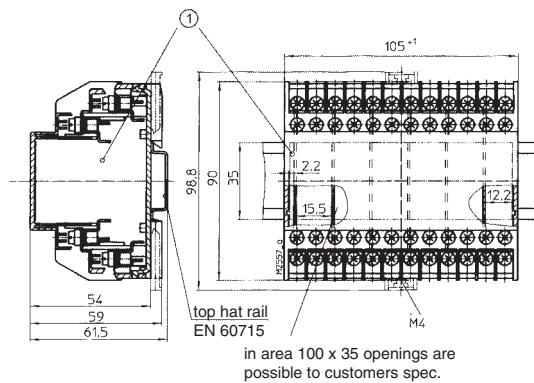
**) 100 mm for use with 2 clips KU 4089-0-29, on request

KU 4090.0047941

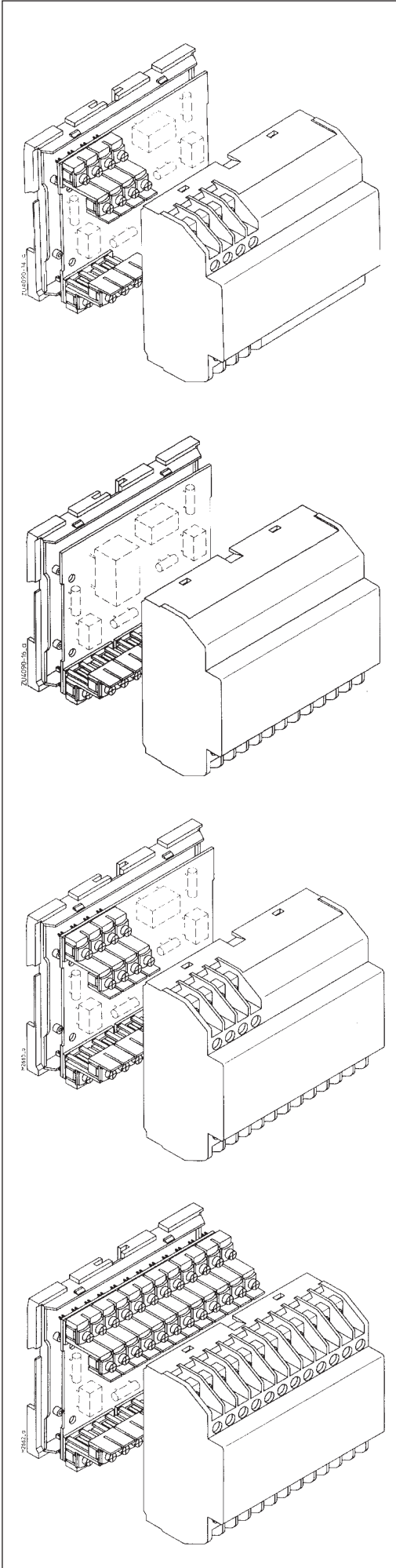


***) 100 mm for use with 2 clips KU 4089-0-29, on request

KU 4090.0040861



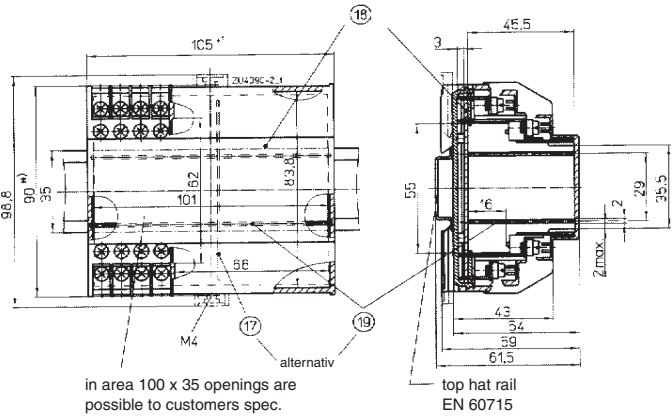
Exploded views



Dimensions Enclosure for horizontal PCB

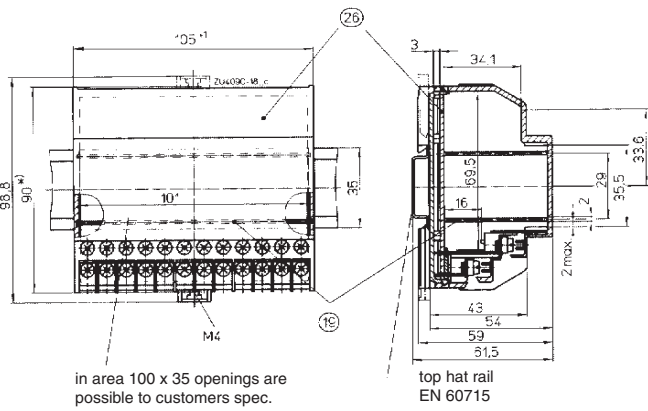
PCBs not included in deliveries

KU4090.0039668



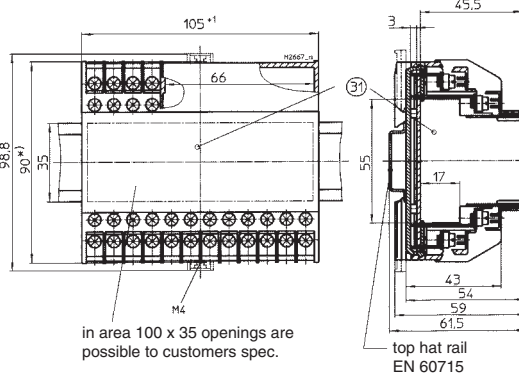
^{*)} 100 mm for use with 2 clips KU 4089-0-29, on request

KU4090.0043579



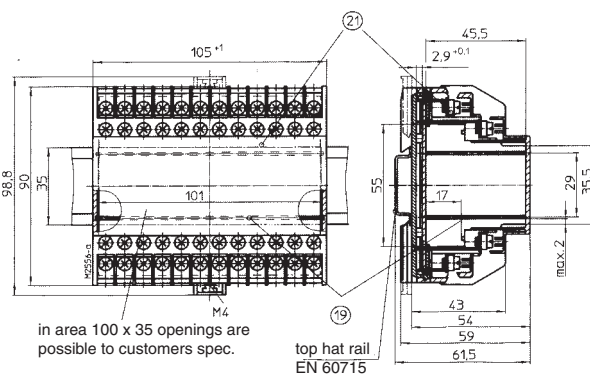
^{*)} 100 mm for use with 2 clips KU 4089-0-29, on request

KU 4090.0047924

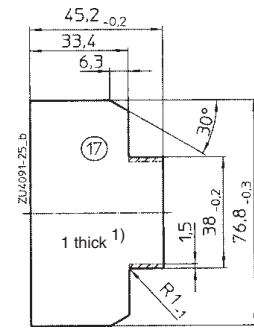
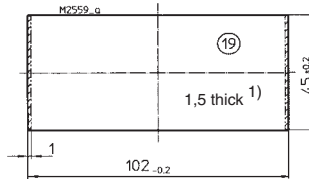
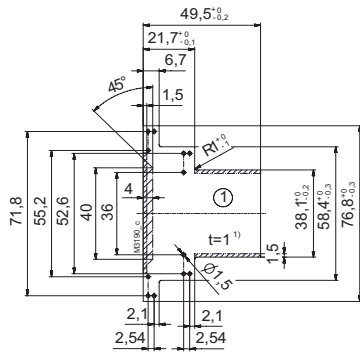


^{*)} 100 mm for use with 2 clips KU 4089-0-29, on request

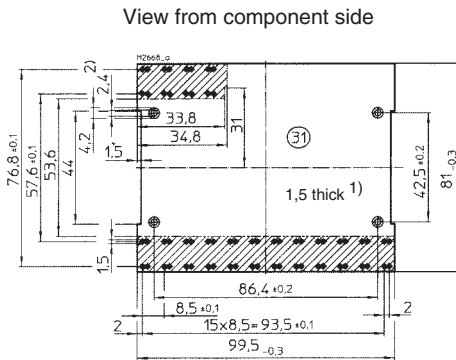
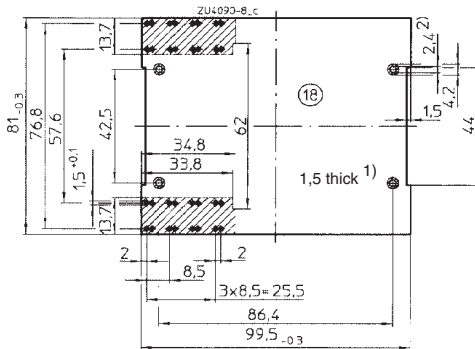
KU 4090.0040857



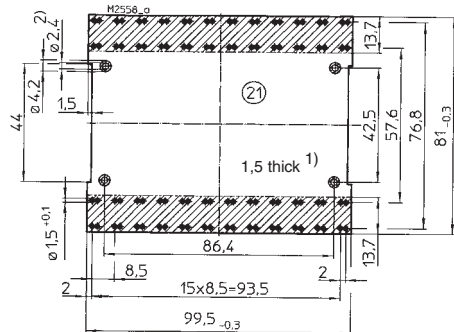
Printed circuit board designs



- inhibited surface component side
- inhibited surface solder side, component height max. 1mm
- 1) Tolerance to IPC-4101/21
- General tolerance: PER FAG 2 E

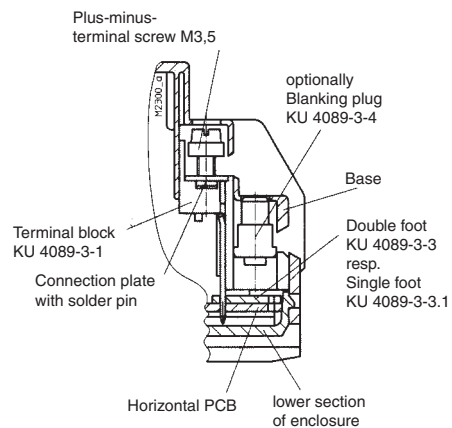
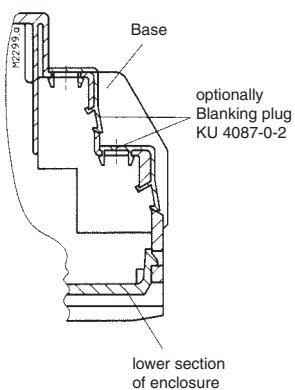


View from component side

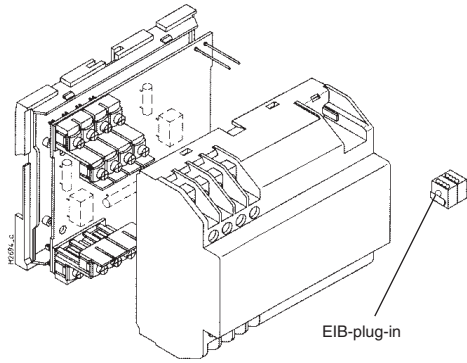


- Inhibited surface
- 1) Tolerance complying with IEC/EN 60249-2-4
- 2) Hole \varnothing 2,4 on request for cylindrical screws ISO 1207 - M2 x 3 not included in deliveries

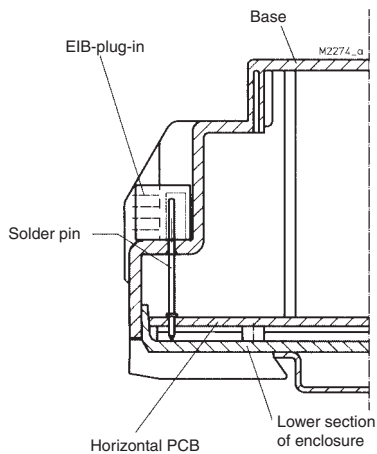
Accessories



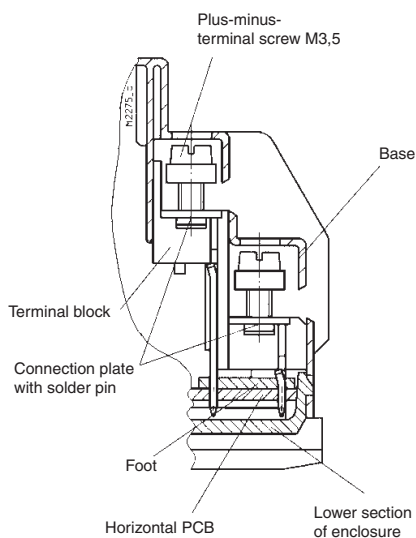
for EIB-plug-in (16-pole)



- 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



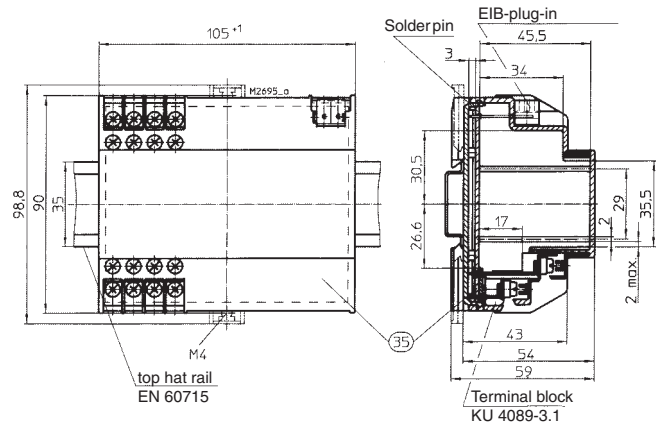
EIB-plug-in



Flat terminals for horizontal PCB

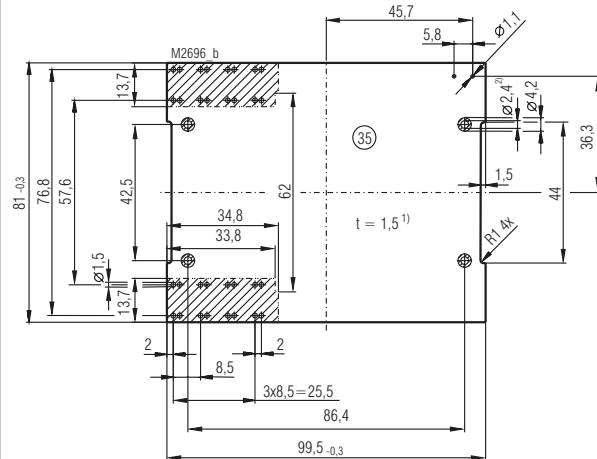
Dimension

KU 4090.0050602



Printed circuit board design

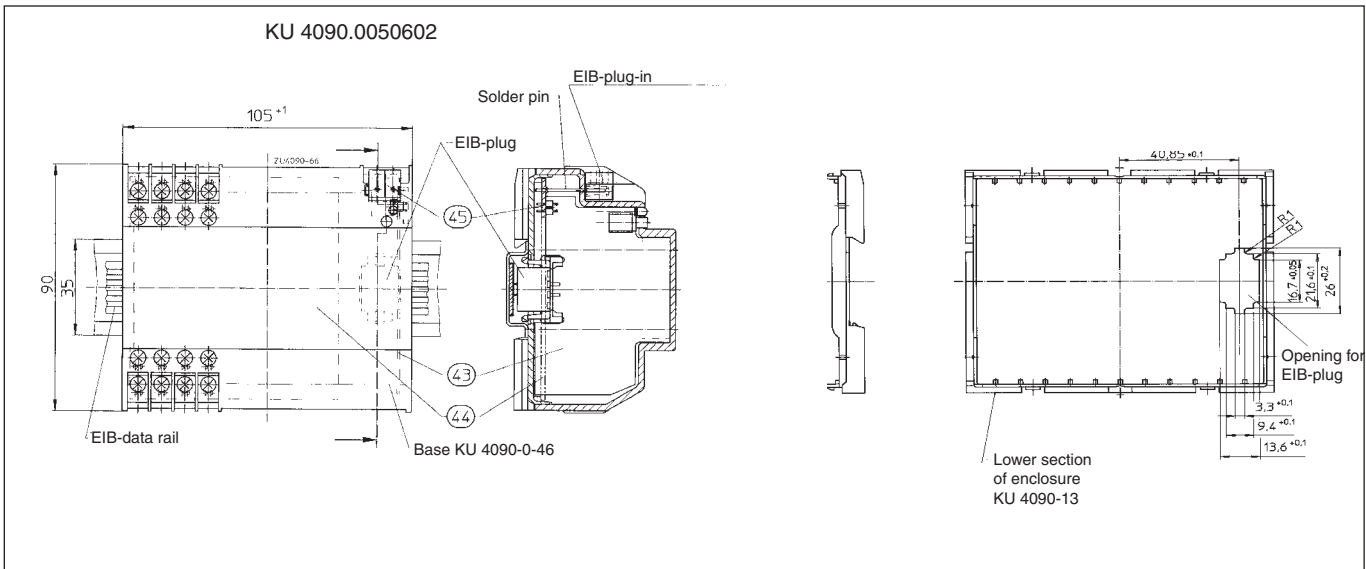
View from component side



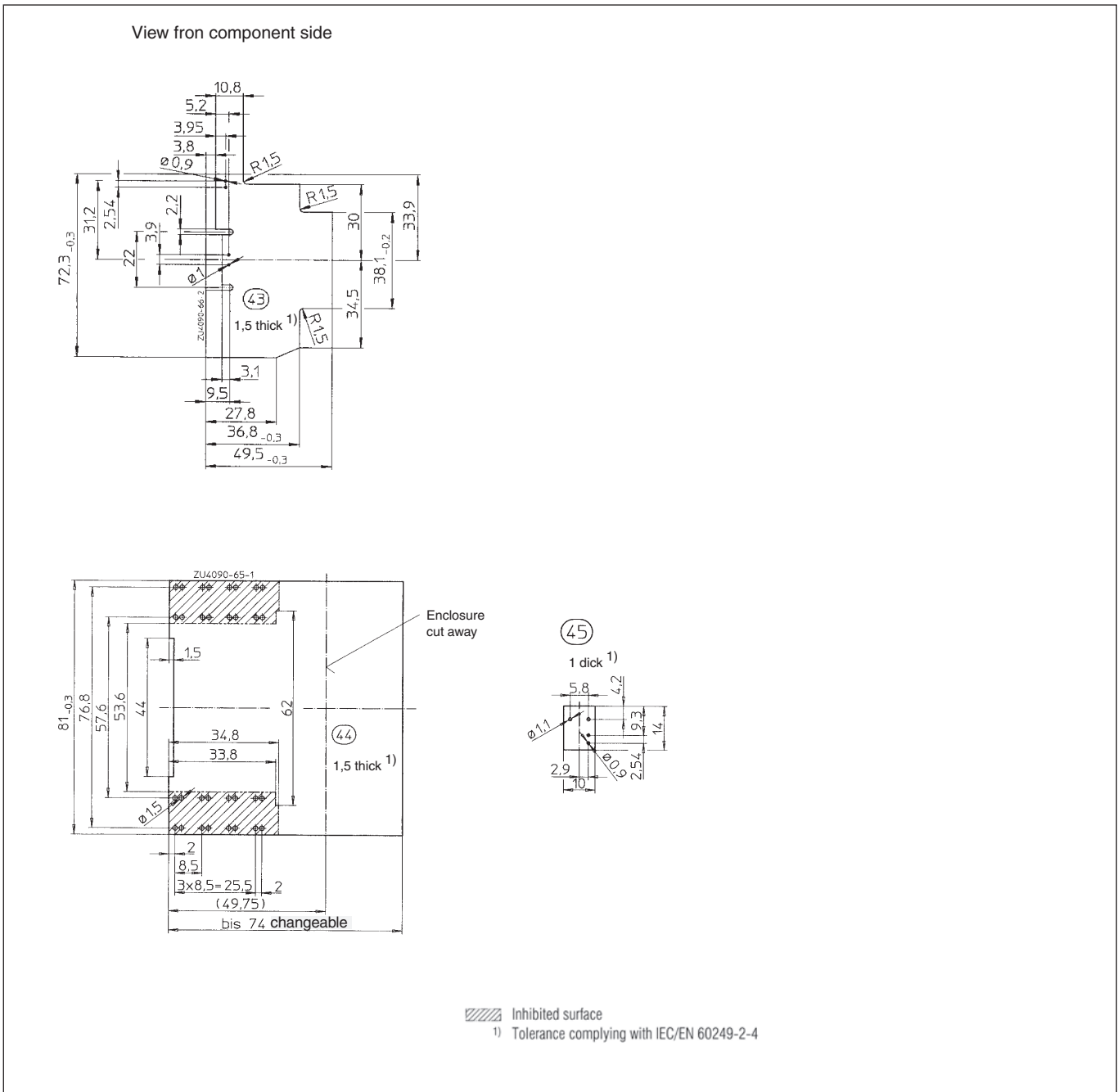
▨ Inhibited surface

- 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

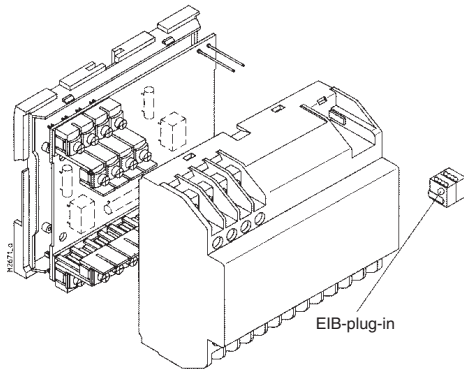
Dimensions for EIB-connection to EIB-Data rail (16-pole)



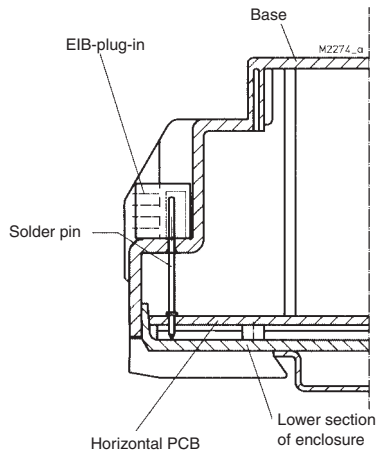
Printed circuit board design



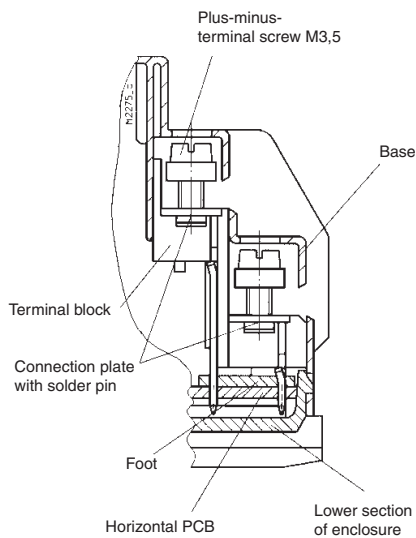
for EIB-plug-in (32-pole)



- 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

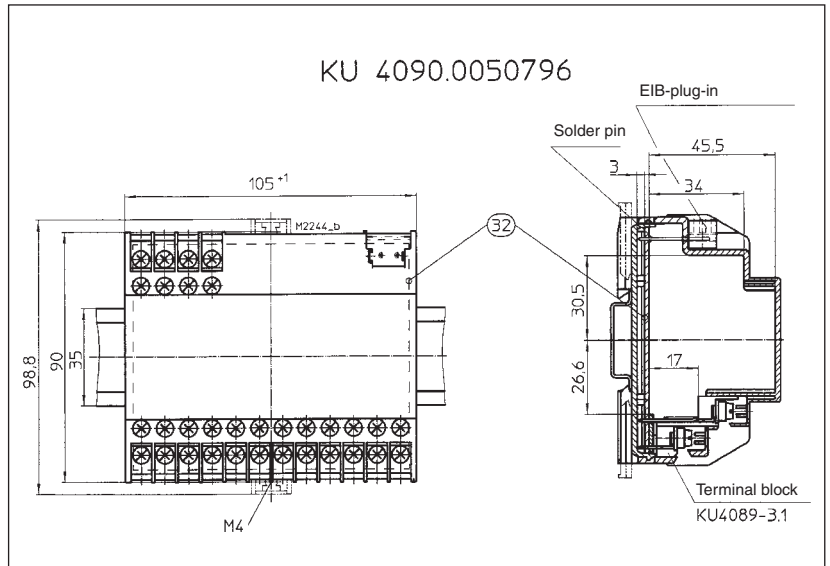


EIB-plug-in

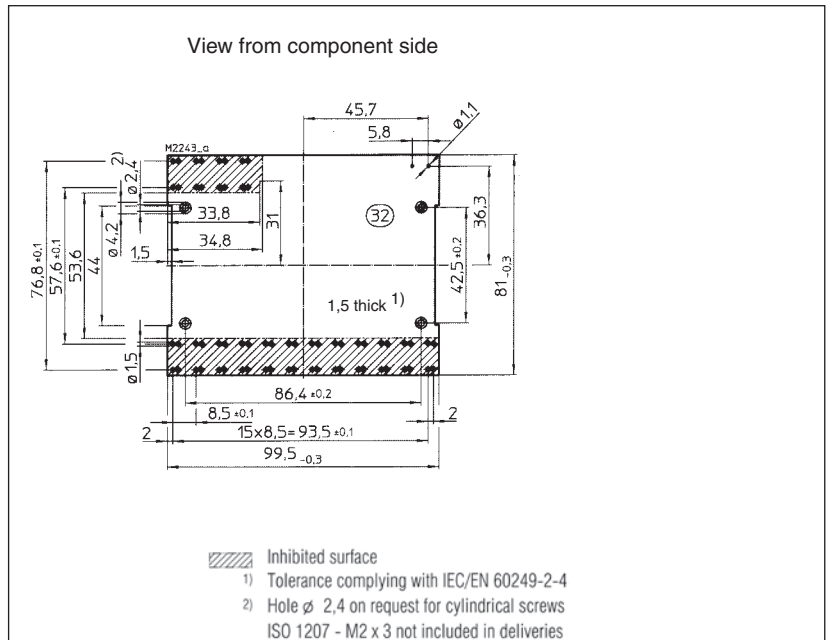


Flat terminals for horizontal PCB

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

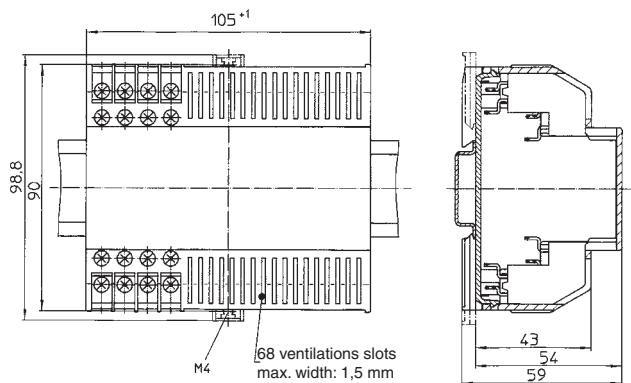
Type of protection

Enclosure: IP 30 IEC 60 529

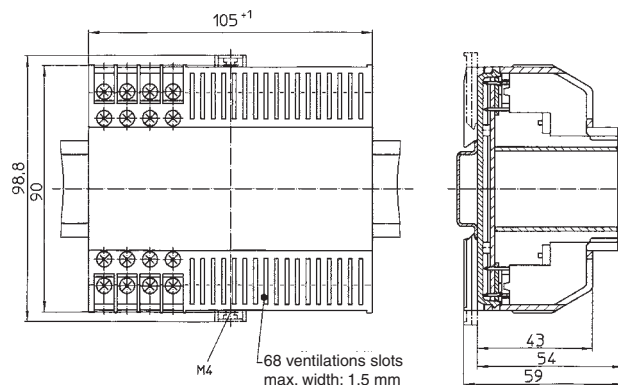
Further technical Data see standard enclosure KU 4090

Dimensions

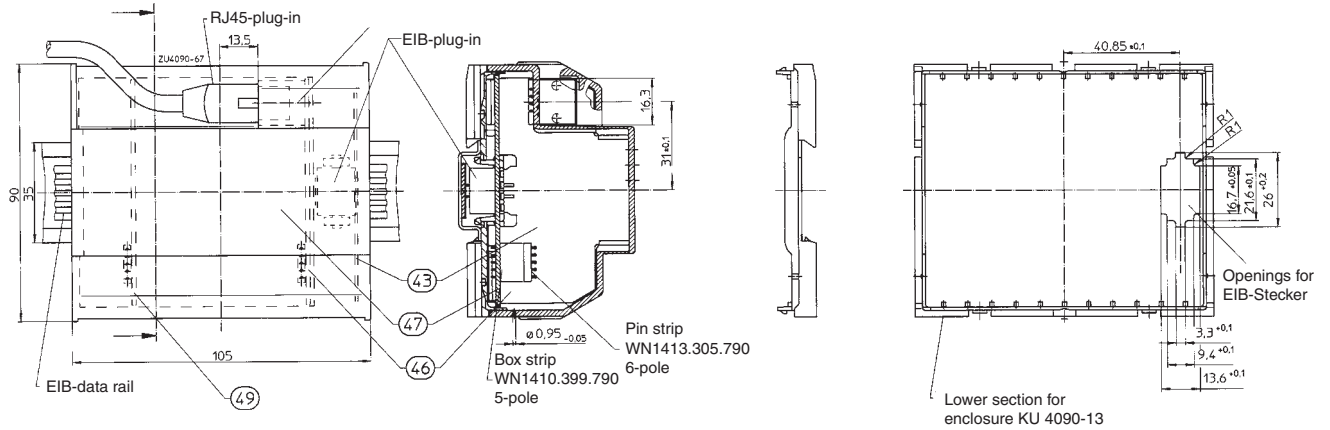
KU 4090.0047673
for vertical PCB



KU 4090.0047423
for horizontal PCB



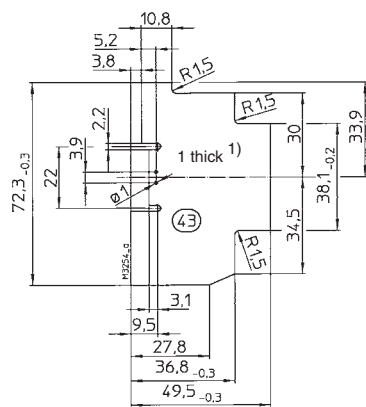
Dimensions for special version for EIB and RJ45 plug-in connection



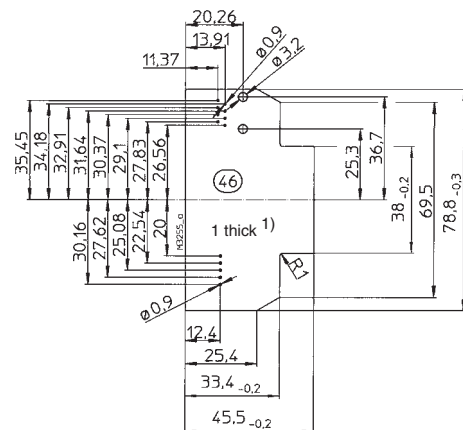
EIB-plug-in, EIB-data rail, EIB-plug, RJ45-plug-in and printed circuit board designs 43, 46, 47 and 49 are not included in deliveries

Printed circuit board design

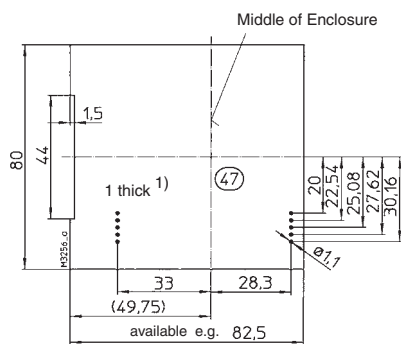
View from component side



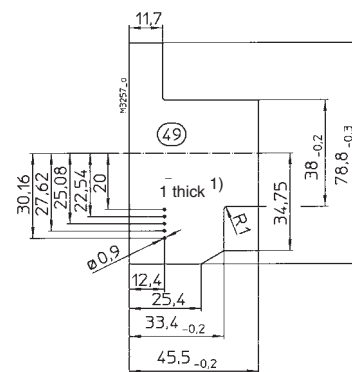
View from component side



Component side



View from component side



Inhibited surface

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

