

KU4100 Enclosure Series



The versatile **KU4100 series** features a compact design with different terminal configuration options. They are available in six widths with double level terminal locations. Terminal configuration options include blank enclosures with no terminal openings, fixed PCB terminals and pluggable PCB terminals.

MATERIALS

Housing

Housing Shell: Polycarbonate, 10% Glass Filled

Base: Polycarbonate, 10% Glass Filled

Terminals

Housing: Polyamide

Terminal Pins: Tinned Brass

TEMPERATURE RATING:

115°C (239°F) UL94V0

Housing: Light Gray Cover with Black Base

PROTECTION

KU4100 enclosures have an IP30 rating, IP20 for terminal openings, (finger protected) and meet VBG4 and other European accident prevention requirements.

CONSTRUCTION

The KU4100 enclosure series housings are supplied as unassembled kits. Each kit consists of a flat base, a housing cover and terminal sets where applicable. The terminals are set on two levels to maximize space. The terminals are machine solderable. Integral printed circuit guides are molded into the cover for proper board insertion and containment. Multiple boards can be mounted in each enclosure, usually 2 PCBs are used with the terminals

and one additional PCB can be used for display or control elements in the enclosure front.

TERMINALS

There are 4 options available; no terminal openings, fixed PCB terminals, pluggable PCB terminals and high current terminals. The terminal blocks are all machine solderable.

The option of no terminal openings allows for custom openings to be made to accommodate alternate connector types.

Fixed PCB terminals are standard screw cage clamp style terminal blocks. Terminal covers are available for the fixed PCB terminal version to cover unused terminals. The terminal cover is a 12 poles strip that is breakable into individual poles. It snaps onto the enclosure covering the screw hole and wire entry areas.

Pluggable PCB terminals feature male pin headers and female screw cage clamp plugs that can be plugged/unplugged. **Power source must be disconnected before plugging/unplugging terminals.**

High current terminals feature rising clamps where the wire is clamped between the clamp and the terminal strip.

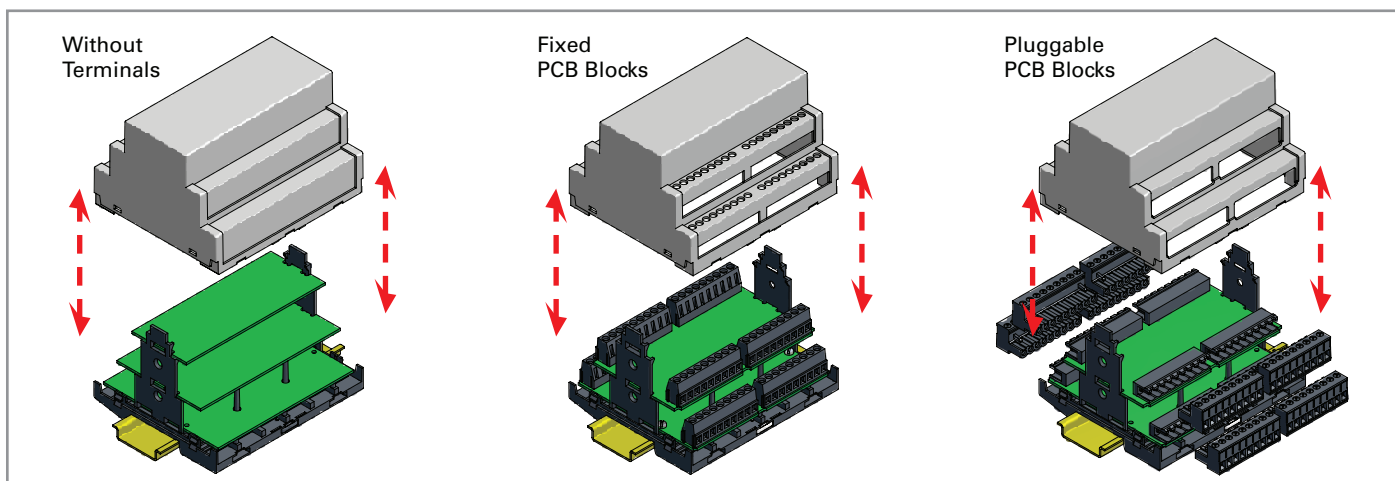
MOUNTING

The KU4100 series can easily be mounted on standard 35mm DIN rail by means of the integral mounting foot and DIN clip.

CUSTOMIZATION

We can supply the KU4100 series enclosures with many custom options including:

- Partial terminal loading
- Enclosure bus connections
- Ventilation Slots
- Machining of custom holes



KU4100 Enclosure Series

12 Terminal

Pluggable PCB
Plugs / Headers



TECHNICAL INFORMATION

Electrical: 12A, 250V, 28-14 AWG	Terminal Type: Screw / Rising Clamp
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Temperature Range: Up to 115°C (239°F)	Recommended Torque: 0.4Nm
Flammability Rating: UL94 V-O	PCB Locations: (1) Vertical, Perpendicular
Color: Light Gray Cover, Black Base and Terminals	Mounting: 35mm DIN Rail

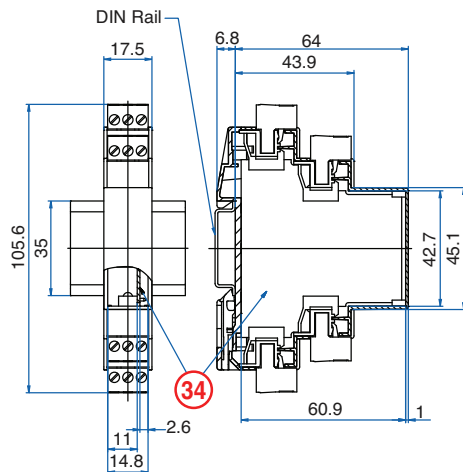
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.802	KU4187P	Pluggable PCB Terminals	Machine Solder

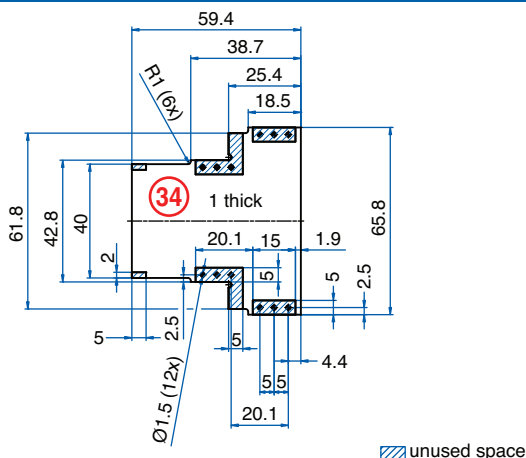
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	251120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



8 Terminal

High Current PCB Blocks



TECHNICAL INFORMATION

Electrical: 40A, 250V, 20-8 AWG	Terminal Type: Screw / Rising Clamp
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M3.5
Temperature Range: Up to 115°C (239°F)	Recommended Torque: 1.2Nm
Flammability Rating: UL94 V-O	PCB Locations: (1) Vertical, Perpendicular
Color: Light Gray Cover, Black Base	Mounting: 35mm DIN Rail

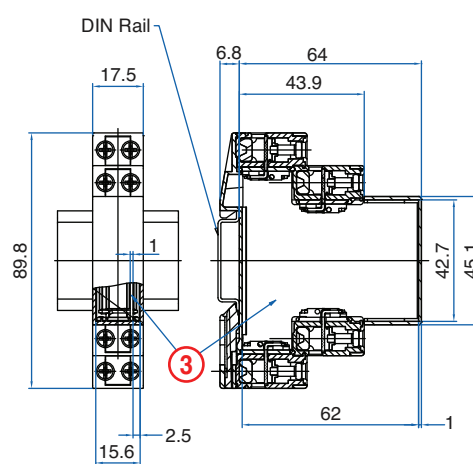
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.803	KU4187HC	High Current Terminals	Machine Solder

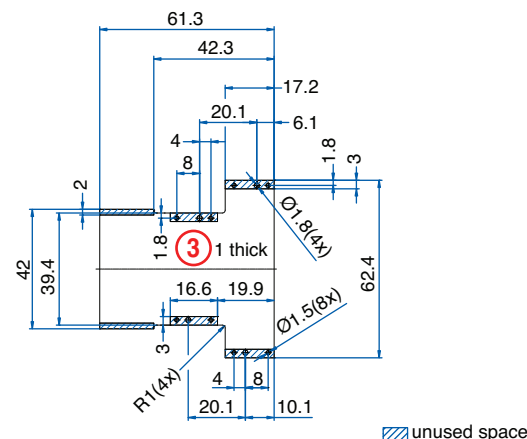
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	251120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



35mm Enclosure

Without Terminals



TECHNICAL INFORMATION

Electrical:	Terminal Type:
—	—
Housing Material:	Terminal Screw Size:
Glass-filled Polycarbonate	—
Temperature Range:	Recommended Torque:
Up to 115°C (239°F)	—
Flammability Rating:	PCB Locations:
UL94 V-O	(3) Vertical, Parallel
Color:	Mounting:
Light Gray Cover, Black Base	35mm DIN Rail

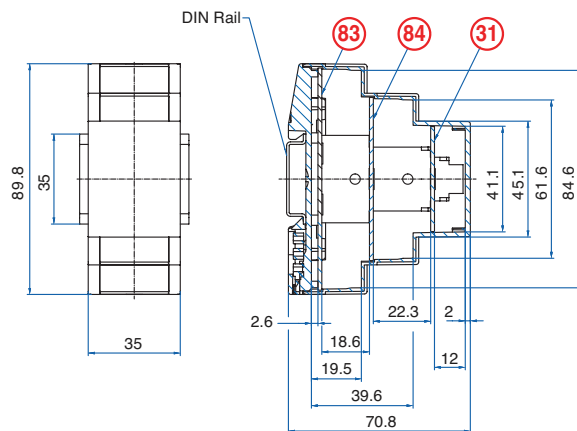
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.810	KU4188B	Without Terminals	None

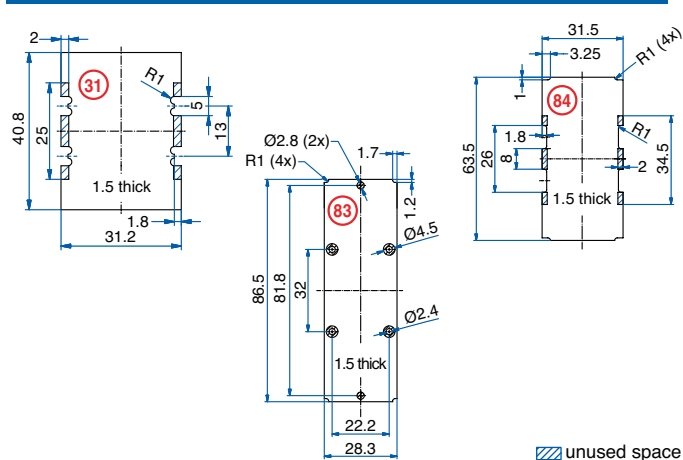
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



20 Terminal

Fixed PCB Blocks



TECHNICAL INFORMATION

Electrical:	Terminal Type:
12A, 250V, 24-12 AWG	Screw / Rising Clamp
Housing Material:	Terminal Screw Size:
Glass-filled Polycarbonate	M2.5
Temperature Range:	Recommended Torque:
Up to 115°C (239°F)	0.4Nm
Flammability Rating:	PCB Locations:
UL94 V-O	(2) Vertical, Parallel
Color:	Mounting:
Light Gray Cover, Black Base and Terminals	35mm DIN Rail

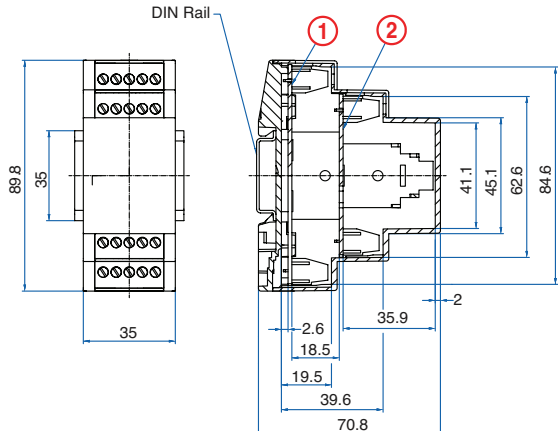
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.811	KU4188F	Fixed PCB Terminal	Machine Solder

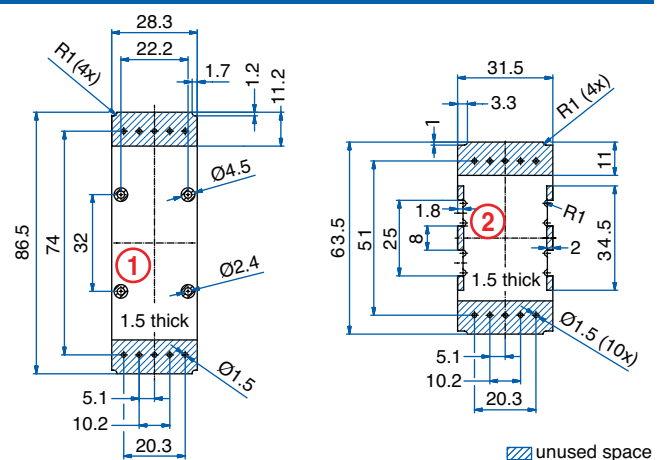
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover (12 pole)	91.801.1	TCS/12

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



48 Terminal

Fixed PCB Blocks



TECHNICAL INFORMATION

Electrical:

12A, 250V, 24-12 AWG

Housing Material:

Glass-filled Polycarbonate

Temperature Range:

Up to 115°C (239°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray Cover, Black Base and Terminals

Terminal Type:

Screw / Rising Clamp

Terminal Screw Size:

M2.5

Recommended Torque:

0.4Nm

PCB Locations:

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

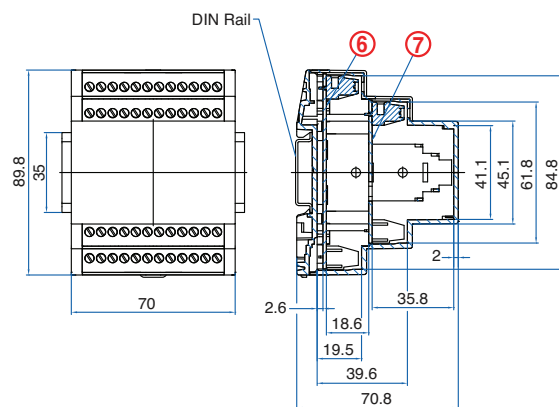
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.831	KU4189F	Fixed PCB Terminals	Machine Solder

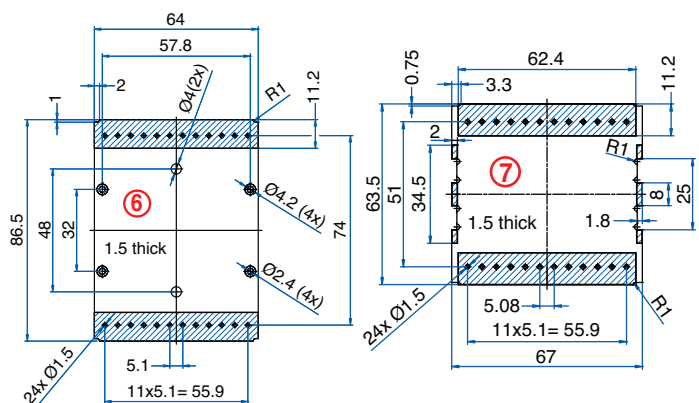
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover (12 pole)	91.801.1	TCS/12

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



unused space

48 Terminal

Pluggable PCB Plugs / Headers



TECHNICAL INFORMATION

Electrical:

12A, 250V, 28-14 AWG

Housing Material:

Glass-filled Polycarbonate

Temperature Range:

Up to 115°C (239°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray Cover, Black Base and Terminals

Terminal Type:

Screw / Rising Clamp

Terminal Screw Size:

M2.5

Recommended Torque:

0.4Nm

PCB Locations:

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

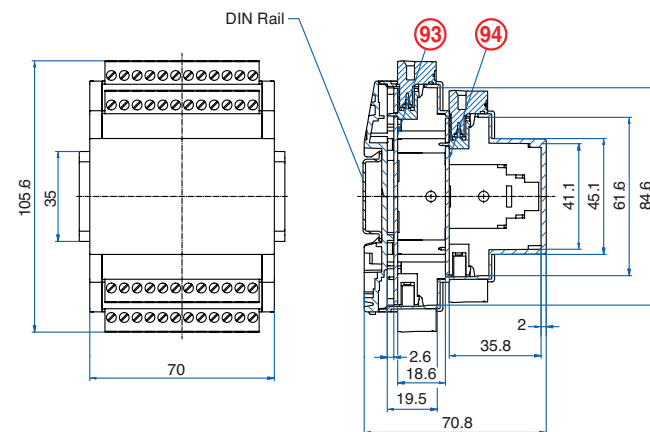
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.832	KU4189P	Pluggable PCB Terminals	Machine Solder

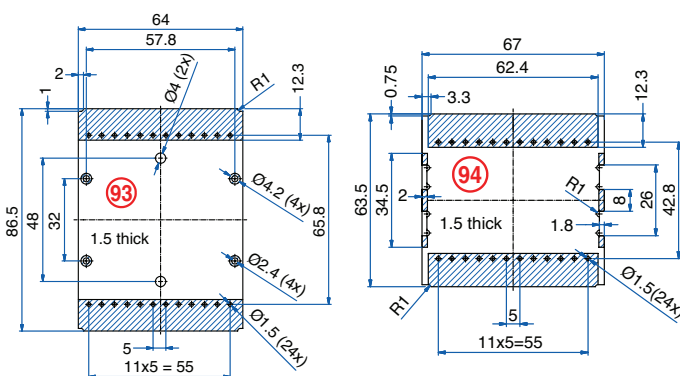
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



unused space

Electrical: —	Terminal Type: —
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: —
Temperature Range: Up to 115°C (239°F)	Recommended Torque: —
Flammability Rating: UL94 V-O	PCB Locations: (3) Vertical, Parallel
Color: Light Gray Cover, Black Base	Mounting: 35mm DIN Rail

Part Number	Type	Description	PCB Connection
91.840	KU4190B	Without Terminals	None

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

Technical drawing of the DIN Rail Mounting Bracket, showing front and side views with dimensions.

Front View Dimensions:

- Overall Height: 89.8
- Top Flange Height: 35
- Overall Width: 105

Side View Dimensions:

- Overall Depth: 84.6
- Top Flange Depth: 45.1
- Internal Channel Depth: 41.1
- Bottom Flange Depth: 11.96
- Bracket Thickness: 2.55
- Internal Channel Width: 22.3
- Mounting Hole Diameter: 18.55
- Mounting Hole Spacing: 19.45
- Mounting Hole to Bottom Flange Distance: 39.55
- Overall Mounting Hole Spacing: 70.8

Callouts:

- DIN Rail:** Points to the mounting rail on the side view.
- 95:** Points to the top flange on the side view.
- 96:** Points to the internal channel on the side view.
- 21:** Points to the bottom flange on the side view.

The figure contains four detailed drawings of corner panels:

- Panel 21:** A rectangular panel with overall dimensions 40 mm by 102 mm. It has a central square hole with side length 18 mm and rounded corners with radius R1. The panel is 1.5 mm thick. Dimensions include 2 mm top flange, 2.55 mm inner offset, 1.5 mm bottom flange, 3.5 mm left margin, and 1.8 mm right margin.
- Panel 96:** A rectangular panel with overall dimensions 63.5 mm by 102.5 mm. It has a central square hole with side length 26 mm and rounded corners with radius R1. The panel is 1.5 mm thick. Dimensions include 2 mm top flange, 34.5 mm inner offset, 3.25 mm bottom flange, 1.8 mm right margin, and 35.6 mm bottom margin.
- Panel 95:** A square panel with overall dimensions 86.5 mm by 81.8 mm. It has a central square hole with side length 32 mm and rounded corners with radius R1. The panel is 1.5 mm thick. Dimensions include 6 mm top flange, 35.6 mm inner offset, 1.8 mm right margin, and 71.2 mm bottom margin. There are also diagonal dimensions: 2-A(4x), O4.2(4x), O2.8(6x), and O4(4x).
- Panel 94:** A square panel with overall dimensions 93.4 mm by 99.5 mm. It has a central square hole with side length 48 mm and rounded corners with radius R1. The panel is 1.5 mm thick. Dimensions include 6 mm top flange, 35.6 mm inner offset, 1.8 mm right margin, and 71.2 mm bottom margin. There are also diagonal dimensions: 2-A(4x), O4.2(4x), O2.8(6x), and O4(4x).

A legend at the bottom right indicates that hatched areas represent "unused space".

Electrical: 12A, 250V, 24-12 AWG	Terminal Type: Screw / Rising Clamp
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Temperature Range: Up to 115°C (239°F)	Recommended Torque: 0.4Nm
Flammability Rating: UL94 V-O	PCB Locations: (2) Vertical, Parallel
Color: Light Gray Cover, Black Base and Terminals	Mounting: 35mm DIN Rail

Part Number	Type	Description	PCB Connection
91.841	KU4190F	Fixed PCB Terminals	Machine Solder

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover (12 pole)	91.801.1	TCS/12

Technical drawing of the 1000 Series terminal block, showing front and side views with dimensions in millimeters.

Front View Dimensions:

- Overall Height: 89.8
- Terminal Row Spacing: 35
- Overall Width: 105

Side View Dimensions:

- Overall Depth: 84.6
- Terminal Depth: 45.1
- Internal Depth: 41.1
- Mounting Flange Thickness: 2
- Mounting Flange Width: 35.8
- Terminal Width: 18.6
- Terminal Spacing: 19.5
- Terminal Depth: 39.6
- Terminal Width: 70.8
- Terminal Depth: 2.6

Labels:

- DIN Rail:** Points to the mounting rail on the side view.
- 51:** Points to the terminal block body.
- 52:** Points to the terminal block body.

Figure 10 consists of two technical drawings of a rectangular plate. The left drawing shows a plate with a central square hole and four circular holes. The right drawing shows a similar plate with a central square hole and four circular holes, but with different dimensions. Both drawings include dimensions for hole diameters, hole positions, and plate thickness. A legend at the bottom indicates that hatched areas represent 'unused space'.

Left Drawing Dimensions:

- Overall width: 99.5
- Overall height: 74
- Central square hole side: 10.16
- Central square hole area: $8 \times 5.1 = 40.6$
- Four circular holes: $\varnothing 4.1(4 \times)$
- Plate thickness: 1.5 thick
- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$
- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$

Right Drawing Dimensions:

- Overall width: 102.5
- Overall height: 63.5
- Central square hole side: 10.2
- Central square hole area: $8 \times 5.1 = 40.6$
- Four circular holes: $\varnothing 4.1(4 \times)$
- Plate thickness: 1.5 thick
- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$
- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$

Legend:

- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$
- Unused space (hatched): $\varnothing 1.5(36 \times)$
- Unused space (hatched): $\varnothing 4.1(4 \times)$

72 Terminal

Pluggable PCB
Plugs / Headers



TECHNICAL INFORMATION

Electrical:

12A, 250V, 28-14 AWG

Housing Material:

Glass-filled Polycarbonate

Temperature Range:

Up to 115°C (239°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray Cover, Black Base
and Terminals

Terminal Type:

Screw / Rising Clamp

Terminal Screw Size:

M2.5

Recommended Torque:

0.4Nm

PCB Locations:

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

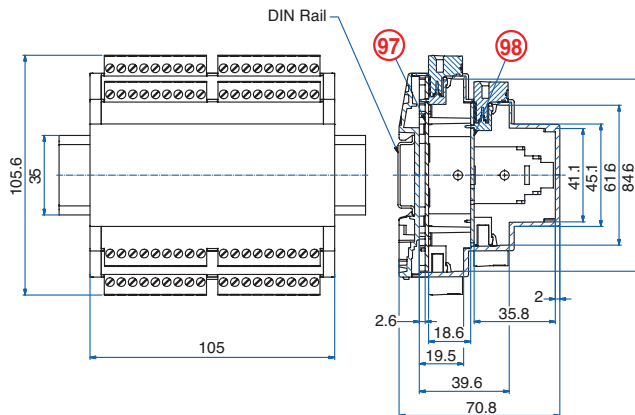
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.842	KU4190P	Pluggable PCB Terminals	Machine Solder

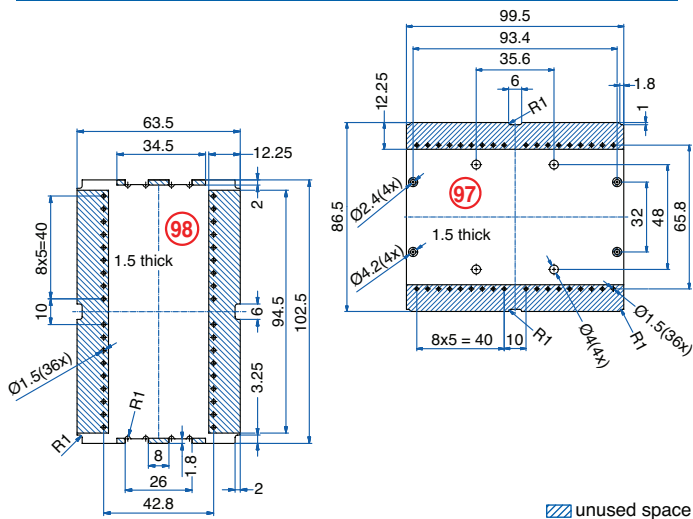
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



140mm Enclosure

Without Terminals



TECHNICAL INFORMATION

Electrical:

—

Housing Material:

Glass-filled Polycarbonate

Temperature Range:

Up to 115°C (239°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray Cover, Black Base

Terminal Type:

—

Terminal Screw Size:

—

Recommended Torque:

—

PCB Locations:

(3) Vertical, Parallel

Mounting:

35mm DIN Rail

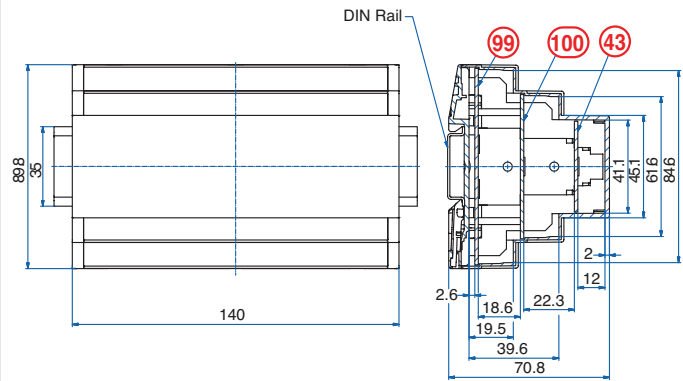
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.850	KU4191B	Without Terminals	None

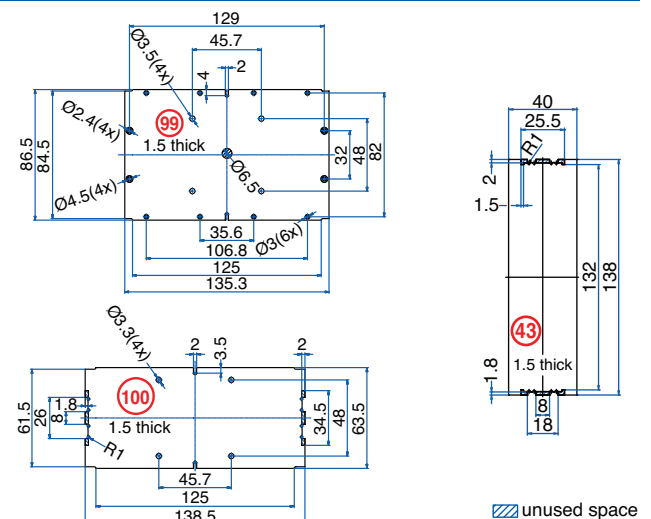
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



KU4100 Enclosure Series

96 Terminal Fixed PCB Blocks



TECHNICAL INFORMATION

Electrical: 12A, 250V, 24-12 AWG	Terminal Type: Screw / Rising Clamp
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Temperature Range: Up to 115°C (239°F)	Recommended Torque: 0.4Nm
Flammability Rating: UL94 V-O	PCB Locations: (2) Vertical, Parallel
Color: Light Gray Cover, Black Base and Terminals	Mounting: 35mm DIN Rail

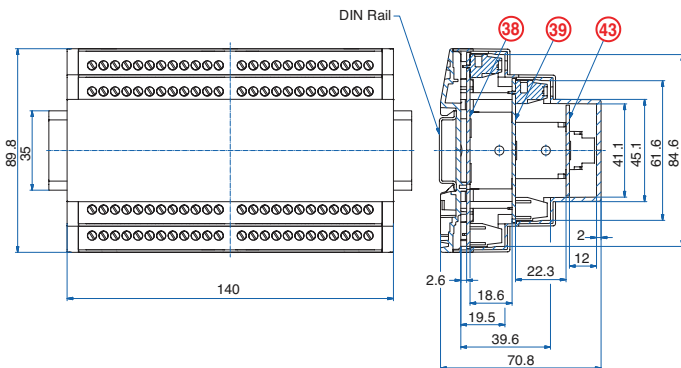
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.851	KU4191F	Fixed PCB Terminals	Machine Solder

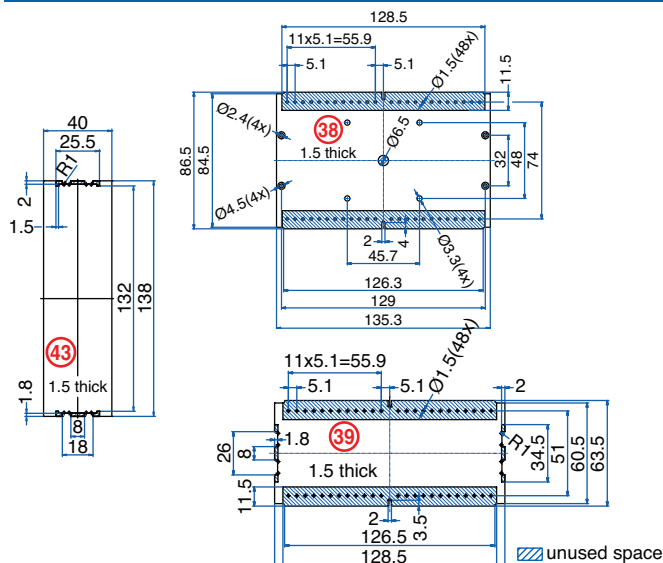
ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover (12 pole)	91.801.1	TCS/12

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)



96 Terminal Pluggable PCB Plugs / Headers



TECHNICAL INFORMATION

Electrical: 12A, 250V, 28-14 AWG	Terminal Type: Screw / Rising Clamp
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Temperature Range: Up to 115°C (239°F)	Recommended Torque: 0.4Nm
Flammability Rating: UL94 V-O	PCB Locations: (2) Vertical, Parallel
Color: Light Gray Cover, Black Base and Terminals	Mounting: 35mm DIN Rail

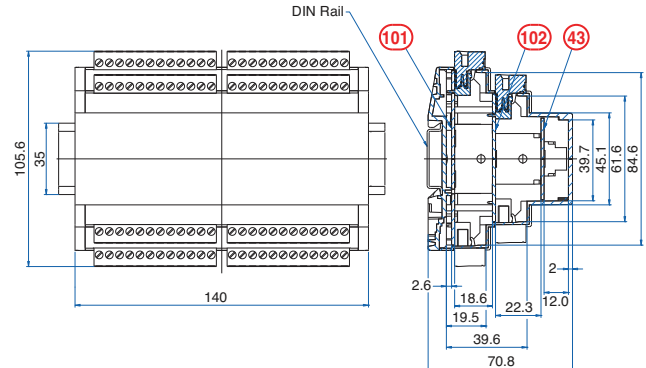
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.852	KU4191P	Pluggable PCB Terminals	Machine Solder

ACCESSORIES

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



PCB DRAWING (To convert to inches divide by 25.4.)

