# K70 Enclosure Series



The K70 series enclosures are small to medium in size and offer cost effective solutions for many applications.

They can accommodate 8 to 32 terminals for field wire connections. Pressure plate terminals are standard with both the fixed and pluggable versions.

#### **MATERIALS**

Housing

Housing Shell: ABS

Housing Cover: Polycarbonate, 10% Glass Filled

**Terminals** 

Pressure Plate: Chromated Steel Terminal Screw: Chromated Steel Connector Contact: Tin Plated Bronze

Temperature Range: 60°C (140°F) UL94VO

Standard Color: Light Gray

#### **PROTECTION**

K7O enclosures have an IP10 rating (hand protected). By using optional terminal covers the protection rating can be increased to IP20 (finger protected). VBG4 and other European accident prevention requirements are met.

#### **CONSTRUCTION**

The K70 enclosures are supplied as unassembled kits. Each kit consists of a housing shell and a snap-on cover, complete with integral terminals and terminal-to-board connection provisions. Integral printed circuit board guides are molded into the housing shell to save time when inserting boards, to prevent misconnections and to keep the boards in place. Integral tabs on the bottom of the shell further help to hold the boards in place and eliminate lateral movement and warpage.

Printed circuit boards can be mounted in three ways:

- Vertically
- Horizontally
- Behind the Front Cover

Boards can be placed vertically (perpendicular to the DIN rail) and/or horizontally (parallel with the DIN rail). Enclosures with plug-in covers can accept an additional board mounted directly behind the front cover. This board is ideal for mounting indicating devices such as LEDs, LCDs for monitoring, switches and potentiometers for setting and adjusting purposes. The housing cover snaps onto the housing shell. Two tabs lock the cover firmly in place. Removal of the cover is possible for service and repair. Potting is possible.



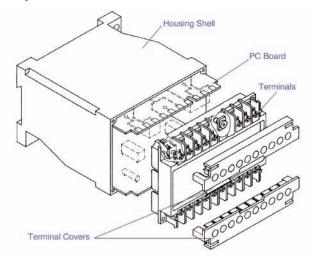
The K70 housing covers have external and internal barriers between terminals to increase creepage distance and to help prevent accidental touching of live potentials that may be present. Optional terminal covers that decrease the size of the opening are available as accessories.



#### **TERMINALS**

Pressure Plate terminals with either fixed or pluggable terminal-to-board connections are offered in the K70 enclosures. The pressure plate, which is captive to the terminal screw, automatically rises when the screw is loosened. One or two wires of equal or different sizes up to 2.5mm² (14 AWG) can be terminated in each terminal. The grooved corners of the pressure plate ensure positive wire retention. The flat bottom of the terminal extends to the inside of the enclosure and provides the terminal-to-board connection. The terminal screws can be turned by a flat tip or a #2 Phillips screwdriver.

Upon request, terminals can be loaded in selected positions only.



#### **TERMINAL-TO-BOARD CONNECTIONS**

The K70 series offers fixed and pluggable terminal-to-board connection possibilities.

#### **Fixed Connections**

Fixed terminal-to-board connections can be made by Wire Jumper, Fast On tabs or Machine Solderable Pins (K7022.5C only).

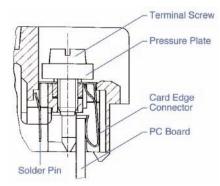
**Fast On** tabs, (2.8 x 0.8 mm) accept industry standard Fast On connectors crimped onto wire jumpers.

**Wire Jumper** connections can also be made by soldering a wire jumper between the center holes of the Fast On tab and the printed circuit board(s).

**Machine Solderable Pins** (offered only with type K7022.5C) can be removed from the enclosure and machine soldered to the board in the same step as other components, saving assembly time.

#### **Pluggable Connections**

Pluggable terminal-to-board connections are made by using *Card Edge* connectors. They are an integral part of the covers of K7075P, K70100P and K70150P and plug directly onto the board(s). *Solder Pins* are also provided in these enclosures for terminal-to-board connections when mounting an additional board directly behind the front cover. A *Wire Jumper* can be soldered to these pins as well.



For better retention, the plua-in type covers have captive screws at the corners that insert into brass bushings, molded into the housing shell. The pluggable versions are ideal whenever quick connections and replacement are important. They also reduce the danger of misconnected wires and downtime.

#### **MOUNTING**

The K70 Enclosures mount easily by snapping onto standard 35mm DIN Rail. Many can also be panel mounted using corner mounting holes which accept two M4 or M5 (#6 or #10) screws. These mounting holes are molded into two corners of the housing shell base and do not increase the height or width of the enclosure, thus insuring a compact, high density arrangement when multiple enclosures are installed adjacent to each other. Enclosure types K7022.5A, K7022.5B and K7022.5C have two integral pull-out tabs on the base of the enclosure for panel mounting. (Refer to Enclosure Mounting Procedures on page 19.)

#### **MARKING**

The K70 enclosures have an area on the front of the cover for marking and mounting of components such as switches, potentiometers, LEDs or LCD indicators. Custom imprinted plates can be inserted as well, allowing imprinting of plates separate from the enclosure, reducing cost and delays.

#### **ACCESSORIES**

- 35 x 7.5 mm DIN Rail
- Terminal Covers
- Pull-Out Panel Mounting Tabs.





#### **CUSTOMIZATION**

Enclosures can be customized with cutouts and holes for potentiometers, switches, LEDs, LCDs and other devices. Using state of the art machining, we can punch, drill or cut to your most exacting specifications. Custom colors and special markings are also available. Please let us know what your requirements are.



#### **TECHNICAL INFORMATION**

**Electrical:** 

25A, 300V, 24-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Pressure Plate

**Terminal Screw Size:** 

M2.5

Recommended Torque:

0.8Nm

**PCB Locations:** 

(2) Vertical

Mounting:

35mm DIN Rail or

panel mount

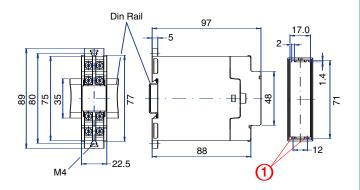
ORDERING INFORMATION
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<b>Part Number</b>	Type	Description	PCB Connection
90.001	K7022.5A	Double Level	Wire Jumper/
		Terminals	Fast On

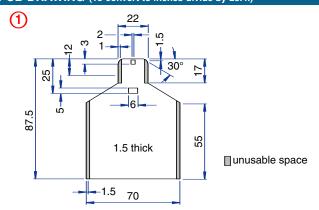
#### **ACCESSORIES**

Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Covers*	90.001.1/90.001.2	K7022.5A/TC1.TC2

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



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



\* Note: Need one of each Terminal Cover.

### 10 Terminal Solder/Tab Connection



#### **TECHNICAL INFORMATION**

Electrical:

25A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(10) Vertical

Mounting:

35mm DIN Rail or

panel mount

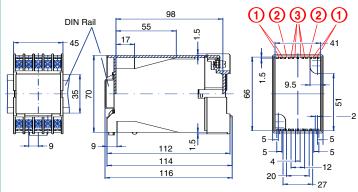
#### **ORDERING INFORMATION**

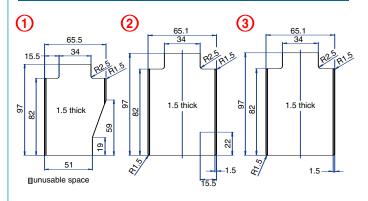
Part Number	Type	Description	<b>PCB Connection</b>
90.010	K7045C	Single Level	Wire Jumper/
		Terminals	Fast On

#### **ACCESSORIES**

Accessories	Part Number	Туре
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover**	90.010.1	K7045C/TC1

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





<sup>\*\*</sup> Note: One piece Teminal Cover covers both sides.





#### **TECHNICAL INFORMATION**

**Electrical:** 

20A, 300V, 24-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Pressure Plate

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical

Mounting:

35mm DIN Rail or

panel mount

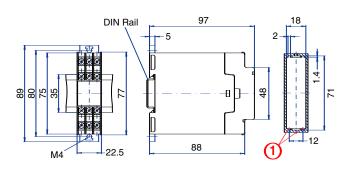
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Part Number	Type	Description	PCB Connection
90.020	K7022.5B	Double Level	Wire Jumper/
		Terminals	Fast On

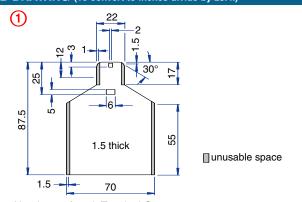
#### **ACCESSORIES**

Accessories	Part Number	Туре
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Covers*	90.020.1/90.020.2	K7022.5BTC1/TC2

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



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



\* Note: Need one of each Terminal Cover.

#### 12 Terminal **Solder Connection**



#### **TECHNICAL INFORMATION**

Electrical:

20A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical

Mounting:

35mm DIN Rail or panel mount

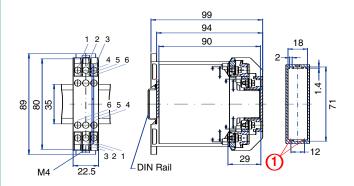
#### **ORDERING INFORMATION**

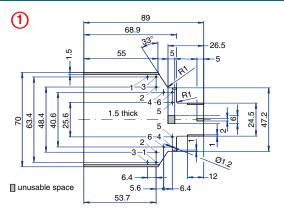
Part Number	Type	Description	PCB Connection
90.030	K7022.5C	Shrouded Double	Wire Jumper/
		Level Terminals	Machine Solderable Pins

#### **ACCESSORIES**

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

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







#### **TECHNICAL INFORMATION**

**Electrical:** 

25A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### **PCB Locations:**

(5) Vertical

(1) Behind Cover

Mounting:

35mm DIN Rail

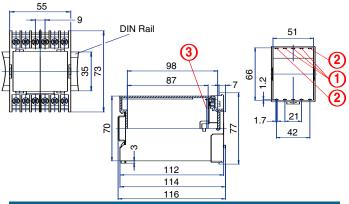
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
90.040	K7055	Single Level	Wire Jumper/
		Terminals	Fast On

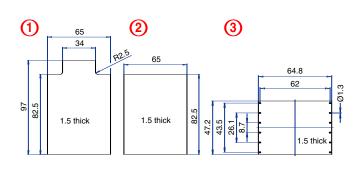
#### **ACCESSORIES**

Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Covers*	90.040.1	K7055/TC1

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



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



\* Note: Need two Terminal Covers.

### **16 Terminal**Pluggable Connection



#### TECHNICAL INFORMATION

Electrical:

10A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Pressure Plate

**Terminal Screw Size:** 

M3.5

#### **Recommended Torque:**

0.8Nm

#### **PCB Locations:**

(7) Vertical (6) Horizontal

(1) Behind Cover

#### Mounting:

35mm DIN Rail or panel mount

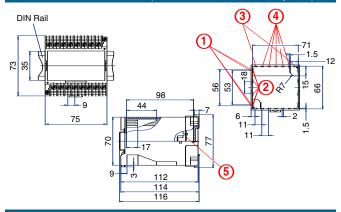
#### ORDERING INFORMATION

Part Number	Type	Description	<b>PCB Connection</b>
90.050	K7075P	Single Level	Wire Jumper/
		Terminals	Solder Pin/ Card Edge

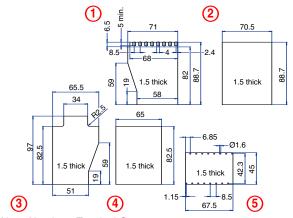
#### **ACCESSORIES**

Accessories	Part Number	Туре
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover*	90.050.1	K7075P/TC1

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



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



\* Note: Need two Terminal Covers.



## 16 Terminal Pluggable Connection (DIN Rail Mount Only)



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

**ORDERING INFORMATION** 

K7075P

75

2

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

90.050.5

Part Number Type

**ACCESSORIES** 

Accessories

DIN Rail

Terminal Covers\*

73

**DIN Rail** 

#### Terminal Type:

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(7) Vertical (6) Horizontal

**PCB Connection** 

Wire Jumper/

Solder Tab/ Card Edge

Type

TS35x7.5/1M

K7075P/TC1

(1) Behind Cover

53

(5)

Mounting:

Description

Single Level

Terminals

**Part Number** 

2511120/1M

90.050.1

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

35mm DIN Rail

### **20 Terminal**Solder/Tab Connection



#### **TECHNICAL INFORMATION**

Electrical:

25A, 300V, 22-14 AWG

**Housing Material:** 

**ABS** 

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Pressure Plate

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(10) Vertical

Mounting:

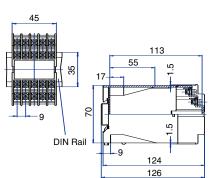
35mm DIN Rail or panel mount

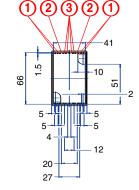
Part Number	Type	Description	PCB Connection
90.060	K7045D1	Double Level	Wire Jumper/
		Terminals	Fast On

#### **ACCESSORIES**

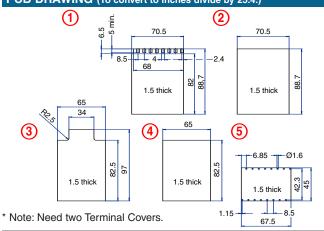
Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M

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





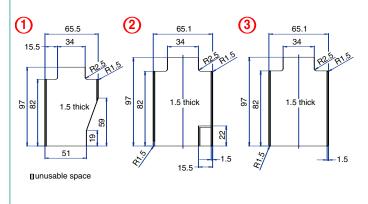
#### PCB DRAWING (To convert to inches divide by 25.4.)



112

114

116





#### **TECHNICAL INFORMATION**

**Electrical:** 

25A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

#### Terminal Type:

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(10) Vertical

Mounting:

35mm DIN Rail or

panel mount

#### TECHNICAL INFORMATION



**20 Terminal**Solder/Tab Connection

25A, 300V, 22-14 AWG

**Housing Material:** 

ABS

Cover Material:

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### Terminal Type:

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(4) Vertical (6) Horizontal

Mounting:

35mm DIN Rail or panel mount

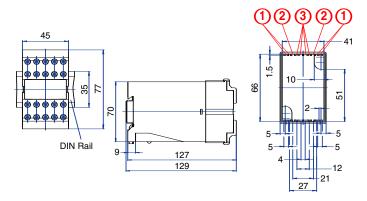
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
90.070	K7045D2	Shrouded Double	Wire Jumper/
		Level Terminals	Fast On

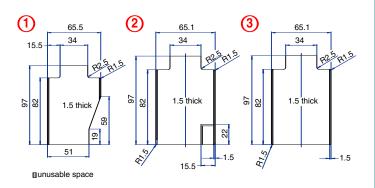
#### **ACCESSORIES**

Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Covers*		

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



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



#### \* Note: Integral Terminal Covers.

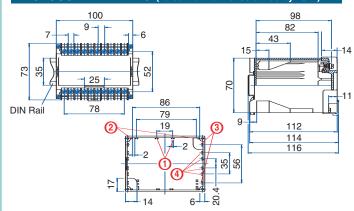
#### ORDERING INFORMATION

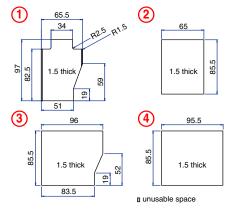
Part Number	Type	Description	PCB Connection
90.080	K70100A	Single Level	Wire Jumper/
		Terminals	Fast On

#### **ACCESSORIES**

Accessories	Part Number	Type	
DIN Rail	2511120/1M	TS35x7.5/1M	
Terminal Cover**	90.080.1	K70100/TC1	_

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





<sup>\*\*</sup> Note: Need two Terminal Covers.



### **20 Terminal**Pluggable Connection



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

#### Terminal Type:

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations** 

(4) Vertical (6) Horizontal

(1) Behind Cover

Mounting:

35mm DIN Rail or panel mount

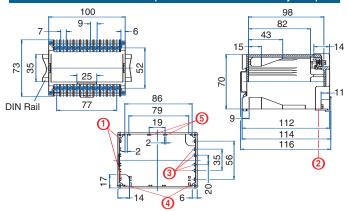
ORDERING INFORMATION	N
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Part Number	Type	Description	PCB Connection
90.090	K70100P	Single Level	Wire Jumper/
		Terminals	Solder Pin/ Card Edge

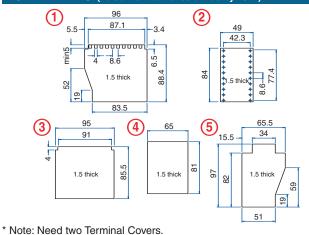
#### **ACCESSORIES**

Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Covers*	90.080.1	K70100/TC1

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



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



32 Terminal
Pluggable Connection



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

ABS

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 60°C (140°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations** 

(9) Vertical (6) Horizontal

(1) Behind Cover

Mounting:

35mm DIN Rail or panel mount

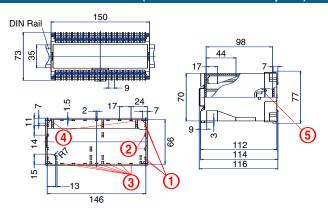
#### **ORDERING INFORMATION**

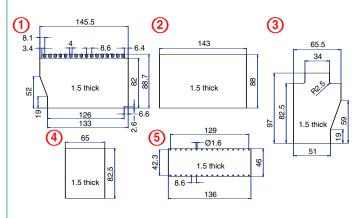
Part Number	Type	Description	PCB Connection
90.100	K70150P	Single Level	Wire Jumper/
		Terminals	Solder Pin/ Card Edge

#### **ACCESSORIES**

Accessories	Part Number	Туре
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover*	90.100.1	K70150P/TC1

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





<sup>\*</sup> Note: Need two Terminal Covers.

# KO4070 Enclosure Series



Economical, compact KO4070 enclosures are supplied as easy to assemble kits. They are ideal for housing I/O circuits, relays, timers and other small devices. Each kit consists of two identical housing half shells and 4 to 16 machine solderable terminals with standard or extended length pins.

#### **MATERIALS**

Housing Shell: Polycarbonate, 10% Glass Filled

Terminal: Tinned Bronze

Terminal Screw: Chromated Steel

#### **Temperature Rating:**

125°C (257°F) UL94 VO Standard Color: Light Gray

#### **PROTECTION**

KO4070 enclosures have an IP20 rating (finger protected) and meet VBG4 and other European accident prevention requirements.

#### CONSTRUCTION

The KO4070 enclosures consist of two housing shells that snap together, and sectional, snap-together terminals. The maximum preassembled number of terminals are part of the enclosure kit. Potting is not recommended. Enclosures with removable center cover sections are available upon request.

#### **BOARD PLACEMENT**

Each enclosure can accept two boards, each up to 1.5mm (.0625 in.) thick, inserted vertically (parallel to the DIN rail) facing the terminals. These boards can be machine soldered to the terminals. Enclosure types KO4074 through KO4079, accept larger boards that can be screwed to the sidewalls of the housing shells (vertically, perpendicular to the DIN rail) using molded-in standoffs and 2 screws. Boards mounted on the sides can be 1 mm (.04 in.) thick and require a wire jumper connection.

#### **TERMINALS**

Box clamp design terminal blocks are used with the KO4070 series enclosures. Wire(s) to be terminated are squeezed between the bottom of the clamp and the busbar for reliable, gastight connections. The terminal blocks can be machine soldered to the board in the same step as the other components to save time and labor. Enclosures with extended length pins are available to increase enclosure cavity for large components.

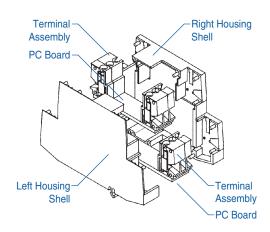
All terminals have funnel shaped wire openings to eliminate wire fraying. The terminal screws can be turned with a flat tip or a #1 or #2 Philips screwdriver.

#### MOUNTING

The KO4070 series have integral mounting feet that snap onto standard 35mm DIN rail. They cannot be panel mounted.

#### **MARKING**

Silk screen or attach label to the face of the enclosure.







#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) **Flammability Rating:** 

UL94 V-O

Color:

Light Gray

Terminal Type:

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

#### 6 Terminal



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

Terminal Type:

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

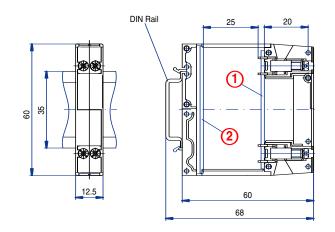
#### **ORDERING INFORMATION**

Part Number	Type	Description	<b>PCB Connection</b>
91 001	KO4071	Standard Length Pins	Solder Pins

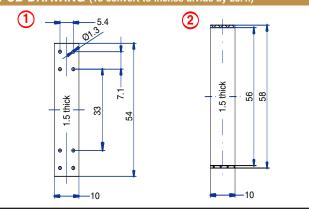
#### **ACCESSORIES**

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.)



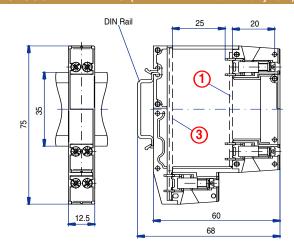
#### ORDERING INFORMATION

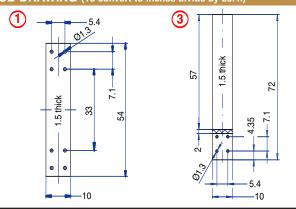
Part Number	Type	Description	<b>PCB Connection</b>
91.010	KO4072	Standard Length Pins	Solder Pins

#### **ACCESSORIES**

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

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







#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(1) Vertical, Perpendicular

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

#### 8 Terminal



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

Terminal Type:

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical, Parallel

**Mounting:** 

35mm DIN Rail

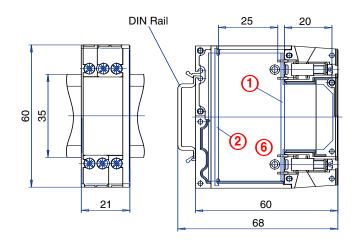
#### **ORDERING INFORMATION**

Part Number Type Description PCB Connection 91.020 KO4074 Standard Length Pins Solder Pins

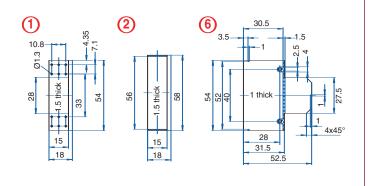
#### **ACCESSORIES**

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.)



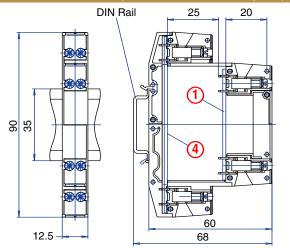
#### ORDERING INFORMATION

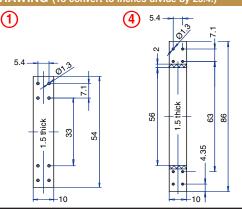
Part Number	Type	Description	<b>PCB Connection</b>
91.030	KO4073	Standard Length Pins	Solder Pins

#### **ACCESSORIES**

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

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









#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical, Perpendicular

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

#### 9 Terminal



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

Terminal Type:

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(1) Vertical, Perpendicular

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

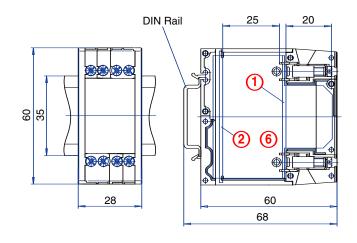
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
91.040	KO4077	Standard Length Pins	Solder Pins

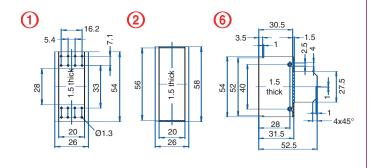
#### **ACCESSORIES**

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.)



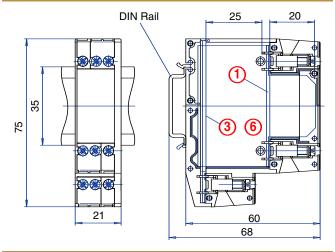
#### ORDERING INFORMATION

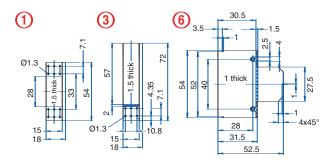
Part Number	Type	Description	<b>PCB Connection</b>
91.050	KO4075	Standard Length Pins	Solder Pins

#### **ACCESSORIES**

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

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







#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### **PCB Locations:**

- (1) Vertical, Perpendicular
- (2) Vertical, Parallel

#### Mounting:

35mm DIN Rail

#### 12 Terminal



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

**PCB Locations:** 

(2) Vertical, Perpendicular

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

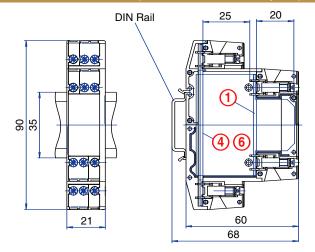
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection		
91.060 KO4076		Standard Length Pins	Solder Pins		

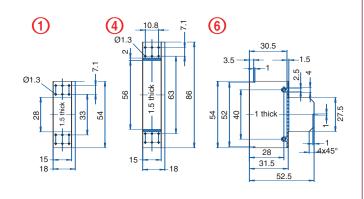
#### **ACCESSORIES**

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.)



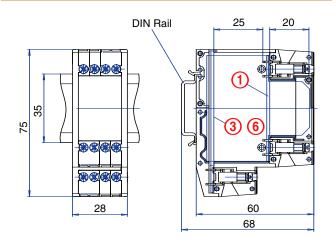
#### **ORDERING INFORMATION**

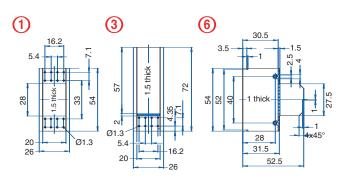
Part Number	Type	Description	PCB Connection		
91.070	KO4078	Standard Length Pins	Solder Pins		

#### **ACCESSORIES**

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

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









#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Box Clamp

**Terminal Screw Size:** 

M3.5

Recommended Torque:

0.8Nm

**PCB Locations:** 

(2) Vertical, Perpendicular

(2) Vertical, Parallel

Mounting:

35mm DIN Rail

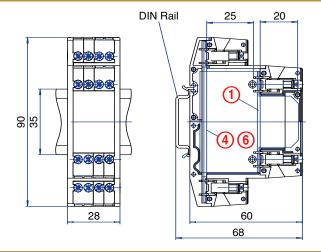
#### **ORDERING INFORMATION**

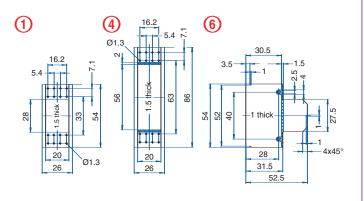
Part Number	Type	Description	PCB Connection		
91.080	KO4079	Standard Length Pins	Solder Pins		

#### **ACCESSORIES**

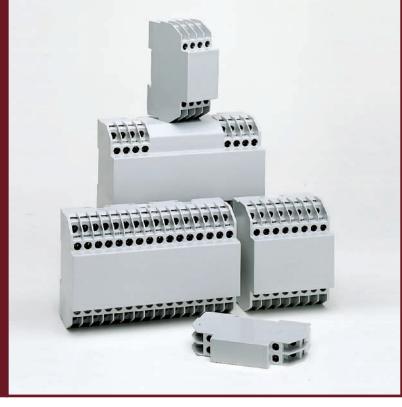
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M

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





# KU4000 Enclosure Series



Versatile, compact enclosures are ideal for applications with space constraints and for mounting within large international style enclosures with 45mm (1.77 in.) cutouts, such as Altech's EK and AK series nonmetallic enclosures. Small to medium in size, KU4000 enclosures offer 8 to 64 terminals for field wire connections. Pressure plate or spring cage terminals are standard. The KU4000 series are equipped with double level terminals which provide a maximum number of external connections in a minimum amount of space. Standard enclosures are supplied as kits, containing the base, cover and the maximum number of terminals.

#### **MATERIALS**

#### Housing

Housing Shell: Polycarbonate, 10% Glass Filled Base: Polycarbonate, 10% Glass Filled

#### Terminals

Terminal Pins: Tinned Steel Pressure Plate: Chromated Steel Terminal Screws: Chromated Steel Spring Clamps: Stainless Steel

Temperature Rating: 110°C (230°F) UL94VO

Standard Color: Light Gray

#### **PROTECTION**

KU4000 enclosures have an IP20 rating (finger protected) and meet VBG4 and other European accident prevention requirements.

#### **CONSTRUCTION**

The KU4000 series housings are supplied as unassembled kits. Each kit consists of a flat base, a housing cover and 8, 16, 24, 32, 48 or 64 terminals. Double level terminals keep the enclosure size to a minimum, and yet, due to the innovative housing design, relatively large components can be mounted inside.

The terminals are machine solderable and have straight or right angle pins, depending on enclosure type (Type C has straight pins, Type B has right angle pins). We can also supply enclosures with fewer than the maximum number of terminals, please contact us with your requirements.

The KU4000 series are available in five widths, and are supplied with terminals in three standard positions:

- Terminals on top and bottom
- Terminals on one side only
- Terminals at both ends, the center area has no terminals.

Cover plugs are available as accessories and can be plugged into unused screw holes and wire entries. Plugs are offered as sets, consisting of one screw-hole cover and one wire entry cover (Refer to Accessories in the Ordering Pages).

Integral printed circuit board guides are molded into the housing cover to save time when inserting boards. They also prevent misconnections and keep the boards from moving.

Printed circuit boards can be mounted in three ways:

- Horizontally, parallel with the base
- •Vertically, perpendicular to the base
- •Vertically, parallel with the DIN rail

One large board can be mounted against the base of the enclosure (parallel with the base) using terminals with straight solder pins. Boards can

KU4012C

KU4011B

also be mounted vertically (perpendicular to the base) by using terminals with right angle solder pins, or vertically (parallel with the DIN rail) by using a wire jumper connection.

(Refer to the Ordering Pages).



The face of the cover is 45mm (1.77 in.) high, and can be mounted into standard DIN distribution systems which have 45mm cutouts like Altechs EK and AK series of industrial enclosures. Mount the KU4000 enclosures together with circuit breakers and other DIN rail mount devices which also meet



EK Series Industrial Enclosure

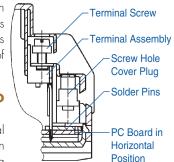
the 45mm standard. Removal of the housing cover is possible for service and repair after disconnecting the wires. KU4000 covers cannot be potted without taking special steps.

#### **TERMINALS**

Pressure plate terminals are standard for the KU4000 enclosure and ensure a vibration proof connection. The pressure plate, which is captive to the terminal screw, automatically rises when the screw is loosened. One or two wires of equal or different sizes up to 2.5mm² (14 AWG) can be terminated in each terminal. The grooved corners of the pressure plate ensure positive retention of the wires. The flat bottom of the terminal extends to the inside of the enclosure and provides the terminal-to-board connection. The terminal screws can be turned by a flat tip or a #2 Philips screwdriver.

The KU4000 series is also available with spring cage terminals. The

terminal is opened by appling pressure with a screwdriver to open the clamp. Once the wire is inserted, the screwdriver is removed, creating a vibration proof connection to the wire.



### TERMINAL-TO-BOARD CONNECTIONS

The KU4000 series offers several fixed terminal-to-board connection possibilities. (Refer to the Ordering Pages for connection types.)

**Wire Jumper** connections can be made by soldering a wire jumper between the center hole of the right angle solder pins and the printed circuit board(s). Upon soldering, the board is installed into the enclosure complete with terminals and other components. All KU4000 terminals have Machine Solderable Pins, which can be machine soldered to the board(s) in the same step as the other components, saving assembly time.

#### **MOUNTING**

The KU4000 enclosures snap onto standard 35mm DIN rail or can be panel mounted. Mount one or several enclosures together, or mix them with other DIN rail mounted devices such as terminal blocks, circuit breakers, etc. The choice is yours.

#### **MARKING**

The KU4000 series have large marking areas on the front of the cover

#### **ACCESSORIES**

- Cover Plugs for Screw Hole and Wire Entries
- Screws for Mounting Printed Circuit Board
- Pull-Out Panel Mounting Tabs
- 35mm DIN Rail

#### **CUSTOMIZATION**

We can supply the KU4000, series enclosure kits with the exact number of terminals to meet your requirements. Enclosures can also be customized with cutouts and holes. Custom colors and special markings are also available



#### **Enclosure Mounting Procedures**

#### **DIN Rail Mounting**

The top of the enclosure base has notches molded onto the sides. The bottom of the base has one spring-loaded tab that is factory installed into a molded guide for DIN rail mounting.

When mounting, tilt the bottom of the enclosure slightly away from the rail until the notches grab onto the top flange of the DIN rail. Push the bottom of the enclosure forward towards the DIN rail. The spring-loaded tab will snap onto the bottom of the rail and hold the enclosure firmly in place.



To remove the enclosure from the DIN rail, insert a screwdriver into the exposed slot in the tab and pull the tab down. Pull enclosure forward and remove from the rail.

#### **Panel Mounting**

To mount enclosures on a panel or any flat surface, at least one tab must be in place on the top and on the bottom of the enclosure base in the panel mount position. Standard enclosures are supplied with one tab on the bottom for DIN rail mounting.

Install one or more additional tabs (see Accessories in the Ordering Pages) into molded tab guides on the back of the enclosure base. Move the pre-installed bottom tab from the DIN rail position to the panel mount position.

To move the tab, insert a screwdriver under the spring pin, lift it and pull the tab forward until it extends approximately 6mm(.25 in.) from the enclosure. Release pin and lock the tab in the panel mount position.

We can supply the enclosures already set up for panel mounting if desired. (*Please specify when ordering*).

**Vertical PCB Screw Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

#### ORDERING INFORMATION

Part Number Type		Туре	Description	<b>PCB Connection</b>		
91.201 KU4001		KU4001B	Right Angle Pins	Machine Solder/		
				Wire Jumper		

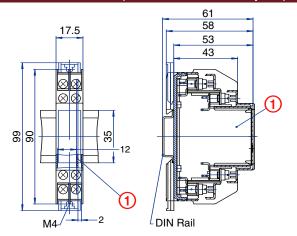
#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		

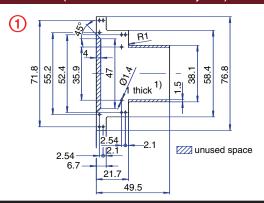
\*Panel Mount Tab

93.001.5 PMA/KU

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



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



#### 8 Terminal

**Horizontal PCB Screw Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal

Mounting:

35mm DIN Rail or optional panel mounting\*

ORDERING INFORMATION

Part Number	Туре	Description	PCB Connection
01 202	KI MOO1C	Straight Pine	Machine Solder

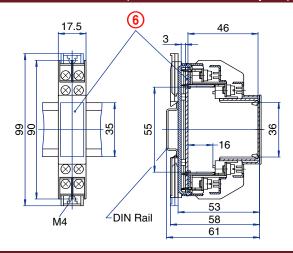
#### **ACCESSORIES**

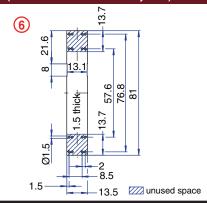
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Mira Entry Cover Dive C	204	

Wire-Entry Cover Plug Set

93.001.5 \*Panel Mount Tab PMA/KU

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







8 Terminal **Vertical PCB Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(1) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

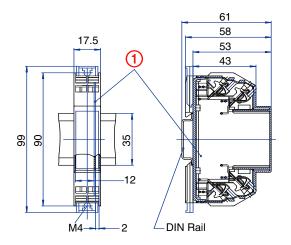
٦	п	п	EDI	M	$\sim$ 1	M	$\smallfrown$	П	М	ΑТ	10	M
J	п	u	ERI	M	G I	IN	U	п	W	ΑI	IU	IN

Part Number	Type	Description	PCB Connection
91.501	KU4037B	Right Angle Pins	Machine Solder/
			Wire Jumper

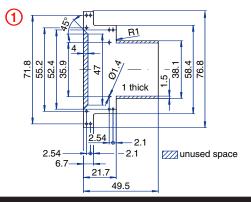
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 8 Terminal

**Horizontal PCB Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

**Terminal Type:** 

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(1) Horizontal

Mounting:

35mm DIN Rail or optional panel mounting\*

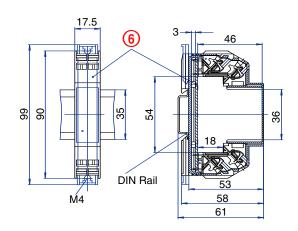
#### **ORDERING INFORMATION**

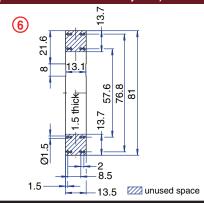
Part Number	Type	Description	<b>PCB Connection</b>
91.502	KU4037C	Straight Pins	Machine Solder

#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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





**Tall Vertical PCB Screw Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

Terminal Type:

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

Recommended Torque:

0.8Nm

Max. PCB's:

(1) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

**PCB Connection** 

#### **ORDERING INFORMATION** Description **Part Number** Type 91.203 KU4001BT Right Angle Pins

Machine Solder/ Wire Jumper

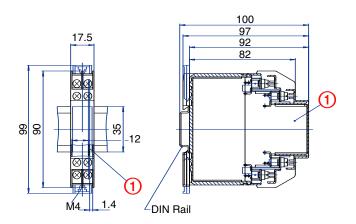
#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC

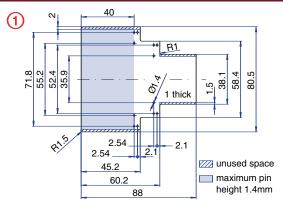
Wire-Entry Cover Plug Set

\*Panel Mount Tab 93.001.5 PMA/KU

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



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



#### 8 Terminal

Tall Vertical PCB **Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(1) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

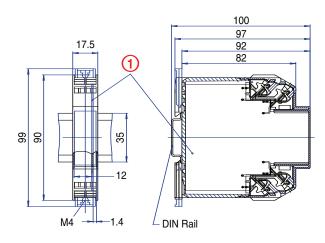
#### ORDERING INFORMATION

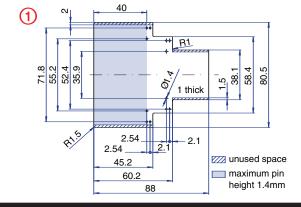
Part Number	Туре	Description	PCB Connection
91.503	KU4037BT	Right Angle Pins	Machine Solder/
			Wire lumper

#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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







Vertical PCB Screw Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

Housing Material:

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O **Color:** 

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

Recommended Torque:

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

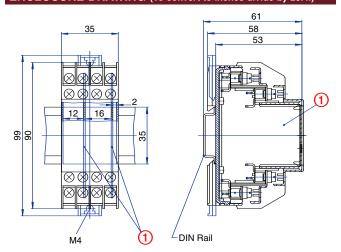
#### ORDERING INFORMATION

Part Number	Туре	Description	PCB Connection
91.240	KU4002B	Right Angle Pins	Machine Solder/
			Wire Jumper

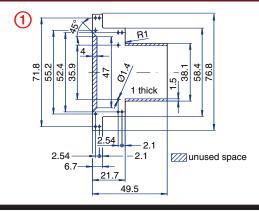
#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Se	t	
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 16 Terminal

Horizontal PCB Screw Clamp



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal

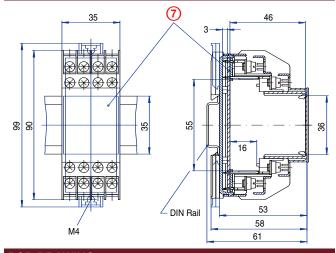
Mounting:

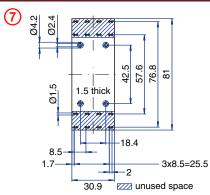
35mm DIN Rail or optional panel mounting\*

### ORDERING INFORMATION Part Number Type Description PCB Connection 91.220 KU4002C Straight Pins Machine Solder

# ACCESSORIES Accessories Part Number Type 1 Meter DIN Rail 2511120/1M TS35x7.5/1M Screw-hole and 91.201.1 SHPC Wire-Entry Cover Plug Set \*Panel Mount Tab 93.001.5 PMA/KU

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





Vertical PCB Spring Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

Terrimai Screw Size.

Recommended Torque:

Max. PCB's:

(2) Vertical

Mounting:

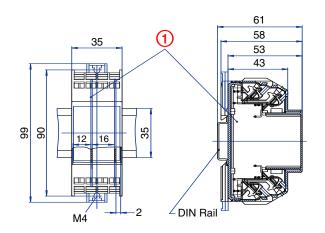
35mm DIN Rail or optional panel mounting\*

Part Number	Type	Description	PCB Connection
91.540	KU4038B	Right Angle Pins	Machine Solder/
			Wire Jumper

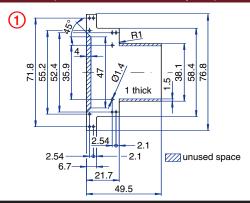
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 16 Terminal

Horizontal PCB Spring Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Spring Cage Clamp

**Terminal Screw Size:** 

Recommended Torque:

\_

Max. PCB's:

(1) Horizontal

Mounting:

35mm DIN Rail or optional panel mounting\*

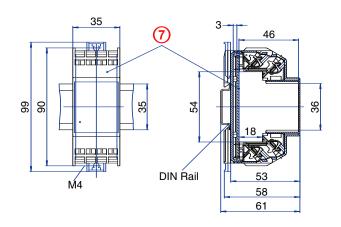
#### **ORDERING INFORMATION**

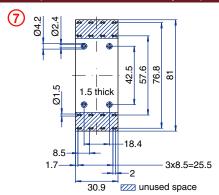
Part Number	Type	Description	<b>PCB Connection</b>
01 520	KIIMOSOC	Ctroight Ding	Machine Colder

#### **ACCESSORIES**

Accessories	Part Number	Туре	
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M	
*Panel Mount Tab	93.001.5	PMA/KU	

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







**Tall Vertical PCB Screw Clamp** 



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating: UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

#### ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.243	KU4002BT	Right Angle Pins	Machine Solder/
			Wire Jumper

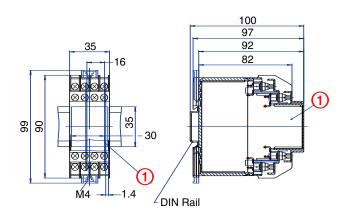
#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC

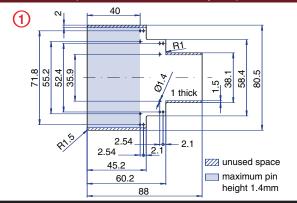
Wire-Entry Cover Plug Set

93.001.5 PMA/KU \*Panel Mount Tab

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



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



#### 16 Terminal

**Tall Vertical PCB Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

**UL94 V-O** Color:

Light Gray

**Terminal Type:** 

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

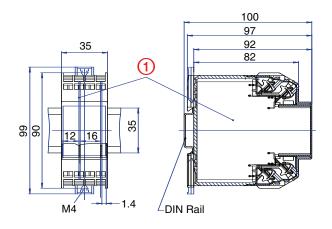
#### **ORDERING INFORMATION**

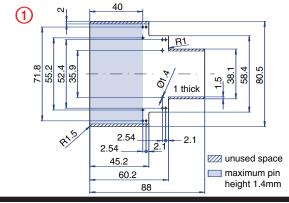
Part Number	Type	Description	PCB Connection
91.543	KU4038BT	Right Angle Pins	Machine Solder/
			Wire Jumper

#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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





Vertical PCB Screw Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color: Light Gray Terminal Type:

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

ORDERING INFORMATION
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Part Number	Type	Description	<b>PCB Connection</b>
91.280	KU4003B	Right Angle Pins	Machine Solder/ Wire Jumper

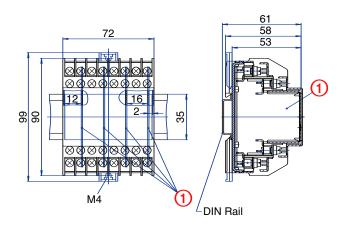
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC

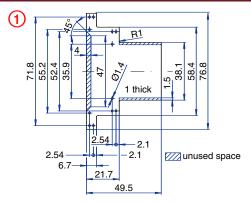
Wire-Entry Cover Plug Set

\*Panel Mount Tab 93.001.5 PMA/KU

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



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



#### 32 Terminal

Horizontal PCB Screw Clamp



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O **Color:** 

Light Gray

Terminal Type:

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

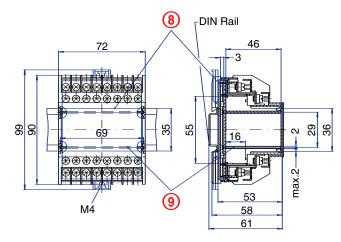
(1) Horizontal, (2) Vertical

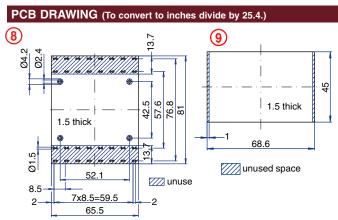
Mounting:

35mm DIN Rail or optional panel mounting\*

### ORDERING INFORMATION Part Number Type Description PCB Connection 91.260 KU4003C Straight Pins Machine Solder

ACCESSORIES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panel Mount Tab	93.001.5	PMA/KU







**Vertical PCB Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

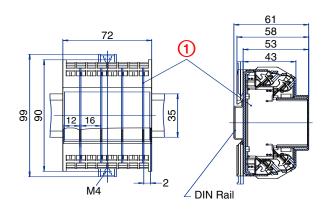
ORDERING INFORMATION	ORDERING IN	NFORMATION
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Part Number	Туре	Description	PCB Connection
91.580	KU4039B	Right Angle Pins	Machine Solder/
			Wire Jumper

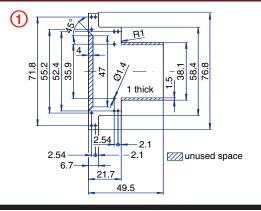
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 32 Terminal

**Horizontal PCB Spring Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(1) Horizontal

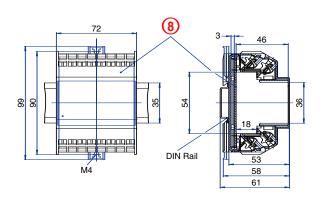
Mounting:

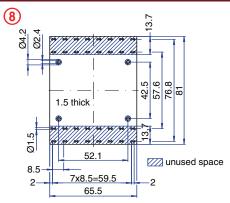
35mm DIN Rail or optional panel mounting\*

#### **ORDERING INFORMATION Part Number** Туре Description **PCB Connection** 91.560 KU4039C Straight Pins Machine Solder

ACCESSORIES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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





Tall Vertical PCB Screw Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail or

. N. I

optional panel mounting\*

PMA/KU

#### ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
91.283	KU4003BT	Right Angle Pins	Machine Solder/
			Wire Jumper

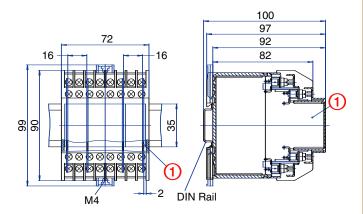
#### **ACCESSORIES**

\*Panel Mount Tab

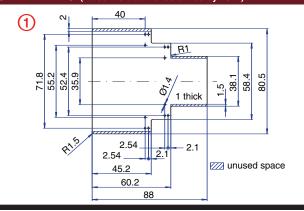
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug S	et	

93.001.5

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



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



#### 32 Terminal

Tall Vertical
PCB Spring Clamp



#### TECHNICAL INFORMATION

Electrical:

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

Terminal Type:

Spring Cage Clamp

**Terminal Screw Size:** 

\_

**Recommended Torque:** 

\_

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

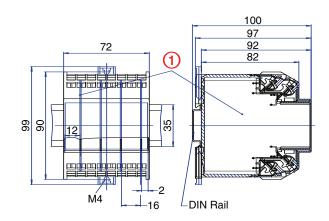
#### **ORDERING INFORMATION**

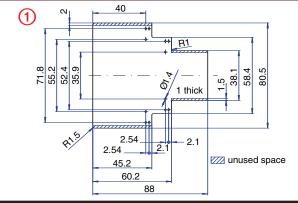
Part Number	Type	Description	PCB Connection
91.583	KU4039BT	Right Angle Pins	Machine Solder/
			Wire Jumper

#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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







16 Terminal **Vertical PCB** 

**Screw Clamp** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

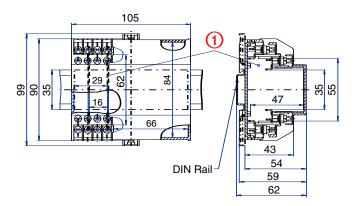
#### **ORDERING INFORMATION**

Part Number	Туре	Description	PCB Connection
91.250	KU4090B16	Right Angle Pins	Machine Solder/
			Wire Jumper

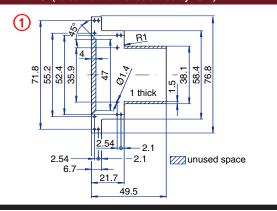
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 16 Terminal **Horizontal PCB Screw Clamp**



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

**Terminal Type:** 

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

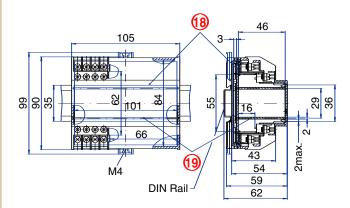
35mm DIN Rail or optional panel mounting\*

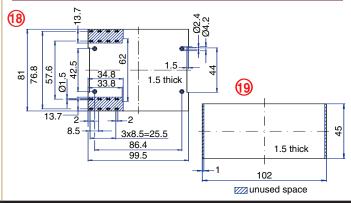
#### **ORDERING INFORMATION**

Part Number	r Type	Description	<b>PCB Connection</b>
91.230	KU4090C16	Straight Pins	Machine Solder

Part Number	Туре
2511120/1M	TS35x7.5/1M
91.201.1	SHPC
93.001.5	PMA/KU
	2511120/1M 91.201.1

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





Vertical PCB Screw Clamp with vent slots



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

Recommended Torque:

0.8Nm

Max. PCB's:

(3) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

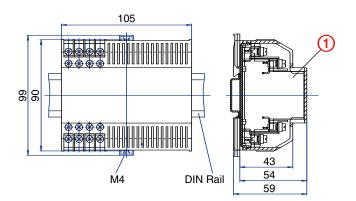
#### **ORDERING INFORMATION**

Part Number	r Type	Description	PCB Connection
91.255	KU4090B16V	Right Angle Pins	Machine Solder/
			Wire Jumper

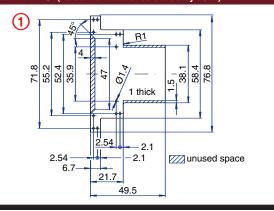
#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panal Mount Tah	02 001 5	DMA/KII

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



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



#### 16 Terminal

Horizontal PCB Screw Clamp with vent slots



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Screw / Pressure Plate

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

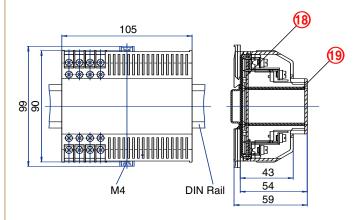
#### **ORDERING INFORMATION**

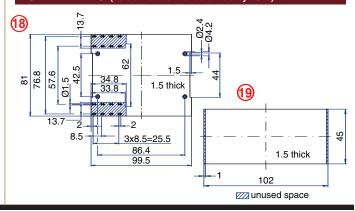
Part Numbe	r Type	Description	<b>PCB Connection</b>
91 235	KU4090C16V	Straight Pins	Machine Solder

#### **ACCESSORIES**

Part Number	Туре
2511120/1M	TS35x7.5/1M
91.201.1	SHPC
93.001.5	PMA/KU
	2511120/1M 91.201.1

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







24 Terminal
Vertical PCB
Screw Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(6) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

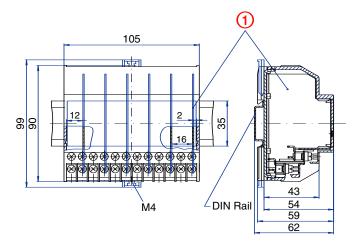
#### **ORDERING INFORMATION**

Part Number	Туре	Description	PCB Connection
91.290	KU4090B24	Right Angle Pins	Machine Solder/
			Wire Jumper

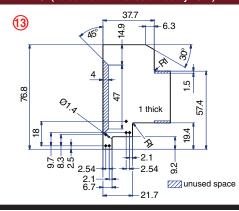
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set	t	
*Panel Mount Tab	93.001.5	PMA/KU

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



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



### **24 Terminal** Horizontal PCB

**Screw Clamp** 



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

**Terminal Type:** 

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

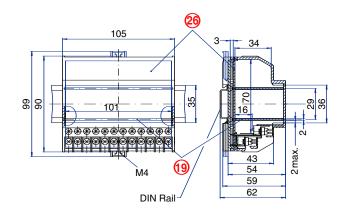
#### **ORDERING INFORMATION**

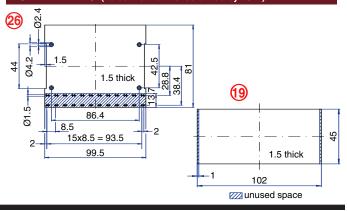
Part Number	r Type	Description	PCB Connection	
91.270	KU4090C24	Straight Pins	Machine Solder	

#### ACCESSORIES

ACCECCOTILEC					
Accessories	Part Number	Туре			
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M			
Screw-hole and	91.201.1	SHPC			
Wire-Entry Cover Plug Set					
*Panel Mount Tab	93.001.5	PMA/KU			

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





**Vertical PCB Screw Clamp** 



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(6) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

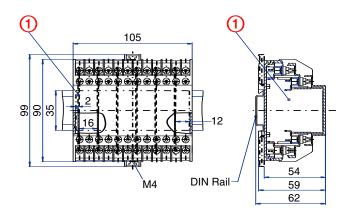
#### **ORDERING INFORMATION**

Part Number	Туре	Description	PCB Connection
91.330	KU4090B48	Right Angle Pins	Machine Solder/
			Wire Jumper

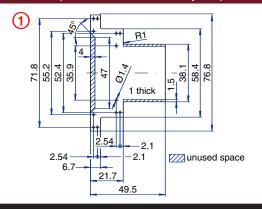
#### ACCESSORIES

AUULUUIIILU			
Accessories	Part Number	Туре	
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M	
Screw-hole and	91.201.1	SHPC	
Wire-Entry Cover Plug S	et		
*Panel Mount Tah	93 001 5	PMA/KU	

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



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



#### 48 Terminal

**Horizontal PCB Screw Clamp** 



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

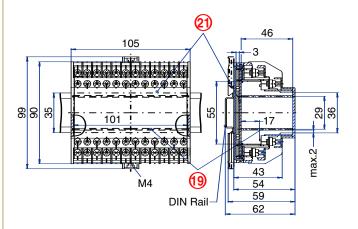
#### **ORDERING INFORMATION**

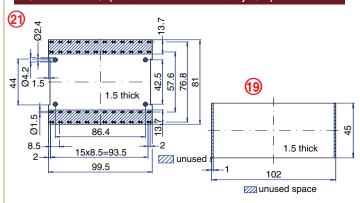
Part Number	r Type	Description	<b>PCB Connection</b>
91 310	KU4090C48	Straight Pins	Machine Solder

#### **ACCESSORIES**

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panel Mount Tab	93.001.5	PMA/KU

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







**Vertical PCB Spring Clamp** 



#### TECHNICAL INFORMATION

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### Terminal Type:

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(6) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

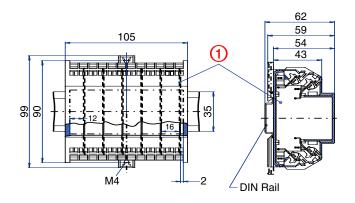
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Part Number	Type	Description	PCB Connection
91.530	KU4040B	Right Angle Pins	Machine Solder/
			Wire Jumper

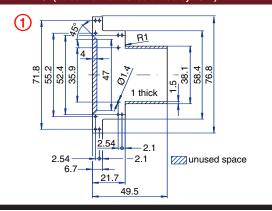
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 48 Terminal

**Horizontal PCB Spring Clamp** 



**Terminal Type:** 

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

#### TECHNICAL INFORMATION

Electrical:

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color: Light Gray

Mounting:

Max. PCB's:

(1) Horizontal

35mm DIN Rail or optional panel mounting\*

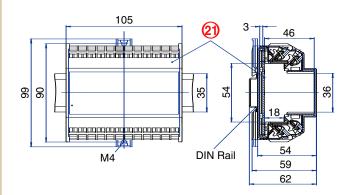
ORDERING INFORMATIOI
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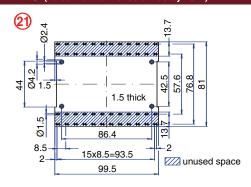
Part Number	Туре	Description	PCB Connection
91.510	KU4040C	Straight Pins	Machine Solder

#### ACCESSORIES

Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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





**Vertical PCB Screw Clamp** terminals on one side only



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

**UL94 V-O** 

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(8) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

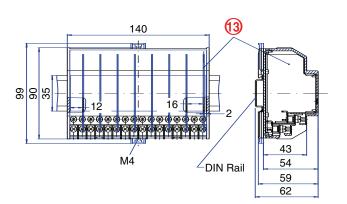
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
91.320	KU4011B	Right Angle Pins	Machine Solder/
			Wire Jumper

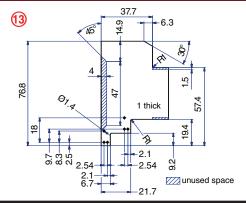
#### ACCESSORIES

ASSESSSITES			
	Accessories	Part Number	Туре
	1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
	Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set			
	*Panel Mount Tab	93.001.5	PMA/KU

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



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



#### 32 Terminal

**Horizontal PCB Screw Clamp** 

terminals on one side only



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

#### **Recommended Torque:**

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

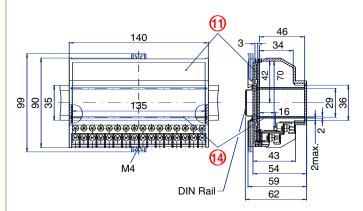
#### **ORDERING INFORMATION**

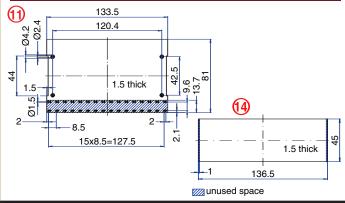
Part Number	Type	Description	PCB Connection
91 300	KU4011C	Straight Pins	Machine Solder

#### **ACCESSORIES**

7.00_00010		
Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panel Mount Tab	93.001.5	PMA/KU

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







Vertical PCB Screw Clamp terminals in corners only



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Temperature Range:** Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

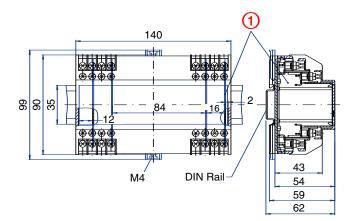
#### ORDERING INFORMATION

	Part Number	Type	Description	PCB Connection
	91.360	KU4012B	Right Angle Pins	Machine Solder/
ı				Wire Jumper

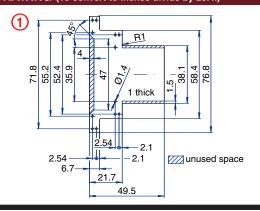
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Daniel Marriet Tale	00 004 5	DMAA/IZI I

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



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



#### 32 Terminal

Horizontal PCB Screw Clamp terminals in corners only



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating: UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

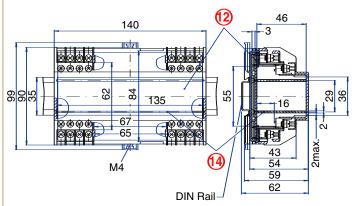
#### **ORDERING INFORMATION**

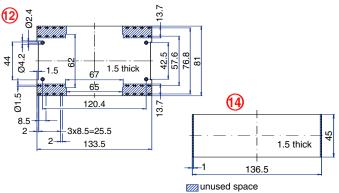
<b>Part Number</b>	Type	Description	<b>PCB Connection</b>
91.340	KU4012C	Straight Pins	Machine Solder

#### CCESSORIES

ACCESSORIES			
Accessories	Part Number	Туре	
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M	
Screw-hole and	91.201.1	SHPC	
Wire-Entry Cover Plug Set			
*Panel Mount Tab	93.001.5	PMA/KU	

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





Vertical PCB Screw Clamp with vent slots



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

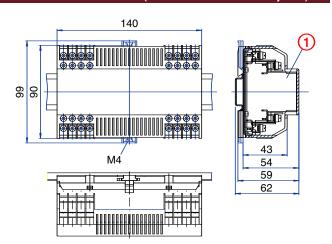
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
91.365	KU4012BV	Right Angle Pins	Machine Solder/
			Wire Jumper

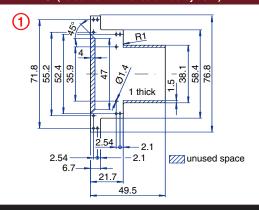
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Donal Mount Toh	02 001 E	DMA/KLI

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



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



#### 32 Terminal

Horizontal PCB Screw Clamp with vent slots



#### TECHNICAL INFORMATION

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M35

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal

Mounting:

35mm DIN Rail or

optional panel mounting\*

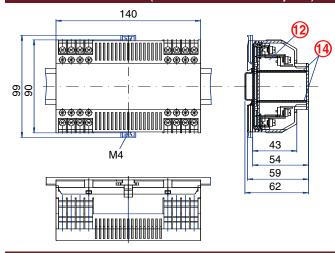
#### **ORDERING INFORMATION**

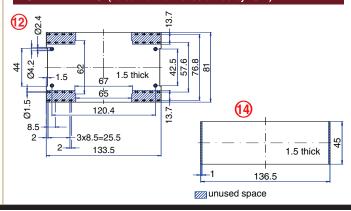
Part Number	Type	Description	<b>PCB Connection</b>
91 345	KI I4012CV	Straight Pins	Machine Solder

#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug S		
*Panel Mount Tab	93.001.5	PMA/KU

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







Vertical PCB Screw Clamp



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F) Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(8) Vertical

Mounting:

35mm DIN Rail or

optional panel mounting\*

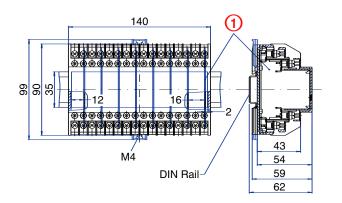
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Part Number	Type	Description	<b>PCB Connection</b>
91.400	KU4013B	Right Angle Pins	Machine Solder/ Wire Jumper

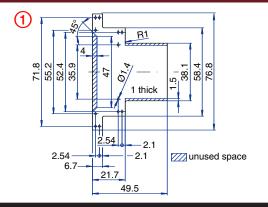
#### **ACCESSORIES**

Accessories	Part Number	Туре	
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M	
Screw-hole and	91.201.1	SHPC	
Wire-Entry Cover Plug Set			
*Panel Mount Tab	93.001.5	PMA/KU	

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



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



#### 64 Terminal

Horizontal PCB Screw Clamp



#### **TECHNICAL INFORMATION**

Electrical:

16A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(1) Horizontal, (2) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

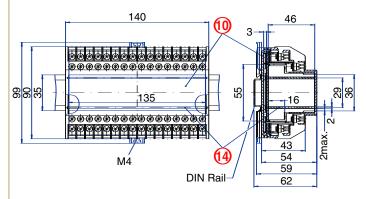
#### ORDERING INFORMATION

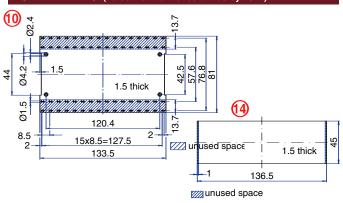
Part Number	Туре	Description	PCB Connection
91.380	KU4013C	Straight Pins	Machine Solder

#### ACCESSORIES

ACCESCOTILES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
Screw-hole and	91.201.1	SHPC
Wire-Entry Cover Plug Set		
*Panel Mount Tab	93.001.5	PMA/KU

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





Vertical PCB Spring Clamp



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

riallillability

UL94 V-O **Color:** 

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

\_

#### Recommended Torque:

Max. PCB's:

(8) Vertical

Mounting:

35mm DIN Rail or optional panel mounting\*

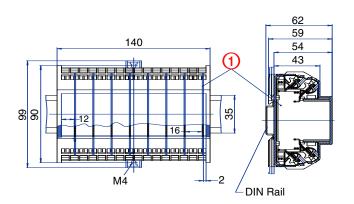
#### **ORDERING INFORMATION**

Part Number	Type	Description	PCB Connection
91.600	KU4041B	Right Angle Pins	Machine Solder/
			Wire Jumper

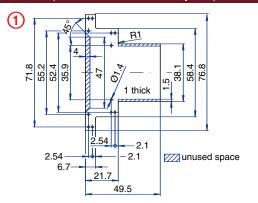
#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93 001 5	PMA/KU

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



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



#### 64 Terminal

Horizontal PCB Spring Clamp



#### **TECHNICAL INFORMATION**

Electrical:

10A, 300V, 26-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Light Gray

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

\_

#### **Recommended Torque:**

Max. PCB's:

(1) Horizontal

Mounting:

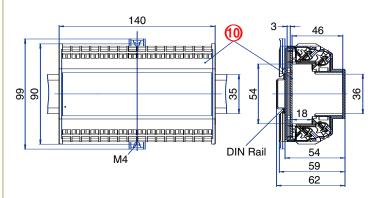
35mm DIN Rail or

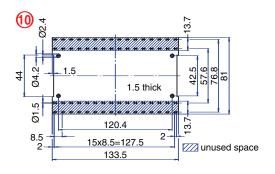
optional panel mounting\*

ORDERING INFORMATION				
Part Number	Type	Description	<b>PCB Connection</b>	
91 610	K114041C	Straight Pins	Machine Solder	

ACCESSORIES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.5	PMA/KU

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





# KO4700 Enclosure Series



Ideal for industrial applications. Small to large in size, KO4700 enclosures can accommodate 8 to 132 terminals for field wire connections. Series KO4700 enclosures can be customized to the exact number of terminals required. Standard enclosures are equipped with the maximum number of terminal strips and terminals. The KO4700 series are available with two types of terminations for connecting external wires. The Pressure Plate type terminals, with a center line spacing of 9mm (.35 in.) and the Box Clamp design, which has a 5mm (.19 in.) center line spacing for much higher density.

#### **MATERIALS**

Housing

Housing Shell: Polycarbonate, 10% Glass Filled Cover: Polycarbonate, 10% Glass Filled

Cover Panel: Clear Polycarbonate or Glass Filled Polycarbonate

**Terminals** 

Pressure Plate: Zinc Plated, Chromated Steel Terminal Screw: Zinc Plated, Chromated Steel

Clamp: Nickel Plated Brass Busbar: Tin Plated Bronze

Connector Contact: Beryllium Copper, Tin Plated

(gold plating available)

**Temperature Rating:** 

125°C (257°F), UL94VO Housing Shell Color: Black Terminal Cover Color: Tan

#### **PROTECTION**

KO4700 enclosures have an IP20 rating (finger protected) and meet VBG4 and other European accident prevention requirements.

#### **CONSTRUCTION**

The KO4700 enclosure series consists of a black housing shell and a tan cover with integral terminals and terminal-to-board connections. They are supplied unassembled.

The housing shell has molded printed circuit board guides to save time when inserting printed circuit boards, prevent misconnections and to keep the boards from moving. Integral tabs on the bottom of the shell further help to hold boards in place, eliminating lateral movement. KO4700 housing shells can be potted.

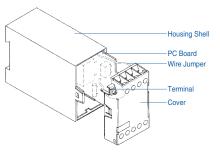


Printed circuit boards can be mounted in three ways:

- Behind the Front Cover
- Horizontally
- Vertically

Depending on the enclosure type, one board can be mounted directly

behind the front cover (parallel to the DIN rail). Boards can also be mounted horizontally (parallel to the DIN rail) or vertically (perpendicular to the DIN rail). (Refer to the Ordering Pages for board patterns and location of board guides.)



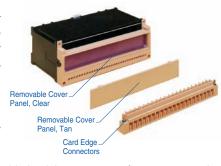
The housing cover snaps onto the housing shell. Two keyed tabs lock the cover firmly in place. Removal of the cover is possible for service and repair.

#### **COVER DESIGNS**

Single piece, tan color covers are typically used with the smaller enclosures. They incorporate terminals and connections to the inside of the enclosure. In some of the smaller enclosures, the cover doubles as a plug.

A printed circuit board can be mounted directly behind the front cover. This board is ideal for mounting components used for setting, adjusting and monitoring such as switches, potentiometer, LEDs and LCDs. There is no interferance with any other boards mounted within the enclosure.

Modular covers consist of a one-piece tan frame with matching flat front panel. Some versions have a front cover panel that is removable and offered in matching tan or clear. The front covers can be custom imprinted or marking plates can



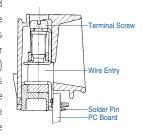
be produced and installed behind the transparent front cover panel.

#### **TERMINAL DESIGNS**

Select from Pressure Plate or Box Clamp terminals with wire protectors, and fixed or pluggable terminal-to-board connections. (Please refer to the Ordering Pages). Removable fixed or pluggable terminal strips can be replaced by terminal plugs if not all of the external connections of the standard enclosure are needed. The terminal screws used with both the pressure plate and box clamp designs can be operated with a flat tip or a #1 or #2 Philips type screwdriver.

#### **Pressure Plate Termination**

This type of terminal consists of a pressure plate (captive to the terminal screw) and the terminal bottom. The pressure plate rises automatically when the screw is loosened. One or two wires, of equal or different sizes up to 2.5mm² (14 AWG) can be terminated. The grooved corners of the pressure plate ensure positive retention of wire(s). The flat bottom of the terminal extends to the inside of the enclosure and connects the terminal to the board(s) inside.



#### **Box Clamp Termination**

The box clamp terminal accepts wires up to 4mm² (12 AWG). When the terminal screw is tightened, the serrated bottom of the wire protector pushes the wire to be terminated against the serrated busbar. The busbar extends to the inside of the enclosure to provide the terminal-to-board connection.

#### **TERMINAL-TO-BOARD CONNECTIONS**

The KO4700 Series offers fixed and pluggable terminal-to-board connection possibilities. (Please refer to the Ordering Pages on the following pages for your selection.)

#### **Fixed Connections**

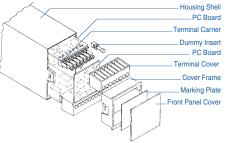
Fixed terminal-to-board connections can be made by Wire Jumper, Fast On tabs, Solder tabs, or Machine Solderable Pins.

Fast On tabs, 2.8mm (.11in.) accept industry standard Fast On connectors. Use with

wire jumpers to connect to board(s).

#### Wire Jumper

connections can also be made by soldering a wire jumper between the center hole of the Fast On tab and the printed circuit board(s).



**Solder Tab** can be hand soldered to the board.

**Machine Solderable Pins** can be machine soldered to the board in the same step as the other components, saving assembly time. The metal parts of the terminals are supplied as separate strips which snap into the terminal housing after soldering.

#### **Pluggable Connections**

The pluggable terminal strips of the KO4700 series fit across the width of the enclosure and plug directly into the board(s) by using a Card Edge connector. Enclosures equipped with pressure plate terminals also provide Solder Tabs for terminal-to-board connections when mounting an additional board directly behind the front cover. A Wire Jumper can be soldered to these tabs as well.

For better retention, the strips have captive screws at each end that insert into brass bushings, molded into the housing shell. Up to four terminal strips can be used per enclosure. The pluggable versions are ideal whenever quick connections and replacement of boards and devices is important. They also reduce the danger of misconnected wires and downtime.

#### **MOUNTING**

The KO4700 Series enclosures are designed to be mounted on standard  $35 \times 7.5$ mm DIN rail but will also fit on the  $35 \times 15$ mm DIN rail. The extra high enclosures should be mounted on the deeper,  $35 \times 15$ mm DIN rail. (Refer to the Ordering Pages on the following pages to determine the correct size rail for the enclosure you select.)

KO4700 series enclosures can also be panel mounted using pull-out tabs on the base of the enclosure. One tab is factory installed on each enclosure. Up to a





total of 6 pull-out mounting tabs can be installed (See Accessories) (Refer to page 19 for mounting instructions.)

#### **MARKING**

KO4700 enclosures have a flat center area on the cover for marking and mounting of components. Several types have removable front cover panels, which can be marked at a separate location. Imprinted marking plates can be used in conjunction with the transparent, removable cover panel.

#### **ACCESSORIES**

- Terminal Cover Strips
- Pull-Out Panel Mounting Tabs
- Screws for Mounting Printed Circuit Board
- 35 x 7.5mm DIN Rail
- 35 x 15mm DIN Rail

# **CUSTOMIZATION**

Enclosures can be customized to the exact number of terminals needed. We can punch, drill or cut custom cutouts and holes for potentiometers, switches, LEDs or LDCs. Custom colors and special markings are also available. Please call us for further information.

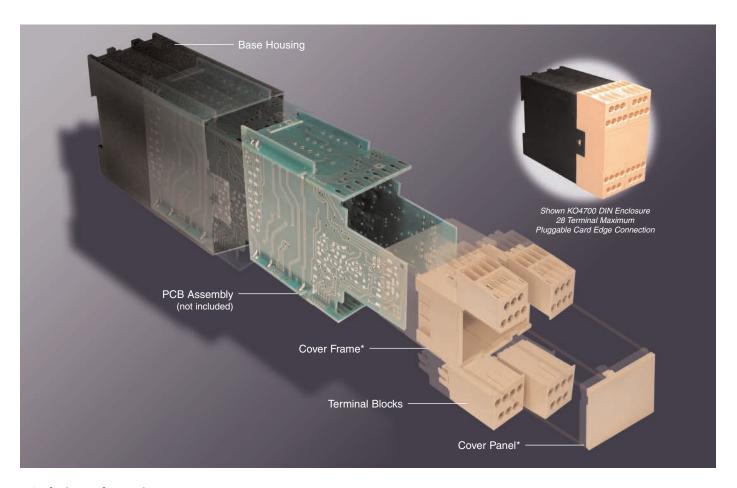




#### **MODULAR ENCLOSURES**

A new group of modular enclosures has been added to the KO4700 series. These enclosures can be ordered in a variety of terminal arrangements allowing for many different customized configurations. Terminal sets are available in 3, 4 and 7 pole blocks as well as blank blocks without terminals. High Current terminals are also available on some models. This new modular terminal design allows anywhere from 0 to 56 terminals for field wire connections.

The KO4700 modular enclosures have the same design features of the standard series as well as the same materials. The terminals are of the box clamp style. The standard terminals feature pluggable connections while solder connections are used on the high current terminals. Printed circuit board placement is horizontal (parallel to the DIN rail) or vertical (perpendicular to the DIN rail).



#### **Ordering Information**

The modular enclosures are ordered in separate pieces. A complete enclosure consists of a base, cover frame\*, cover panel\* and the appropriate number of terminal blocks. Standard terminal blocks can be ordered as blank blocks with no termination points or with 3, 4, or 7 terminations. High current terminal blocks are available on some models. Theses blocks can also be ordered as blank blocks with no terminations or with 3 terminations. (Please refer to the Ordering Pages on the following pages for a list of how many blocks should be ordered per enclosure).

<sup>\*</sup> High current versions have one piece center cover section instead of this two piece design.

Solder

**Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

ACCECCODIEC

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 Clear Panel)

Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

(1) Behind cover

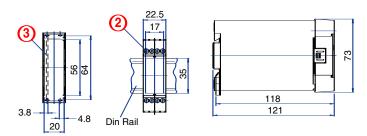
Mounting:

35mm DIN Rail or optional panel mounting\*

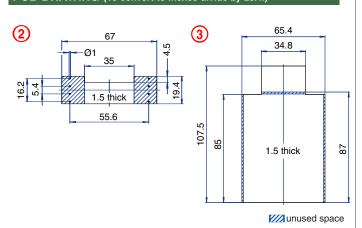
0	ORDERING INFORMATION					
Part Number Type Description PCB Connection						
	90.201	KO4712	Solid Cover	Machine Solderable Pins		
	90.201.1	KO4712	Removable Cover Panel, Tan	Machine Solderable Pins		
	90.201.2	KO4712	Removable Cover Panel, Clear	Machine Solderable Pins		

ACCESSORIES				
Accessories	Part Number	Type		
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M		
*Panel Mount Tab	93.001.2	PMA		

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



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



# 8 Terminal

Solder/Tab **Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 Clear Panel)

Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm Max. PCB's:

(2) Vertical

Mounting:

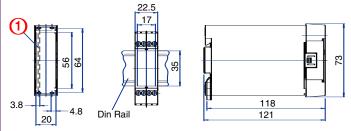
35mm DIN Rail or

optional panel mounting\*

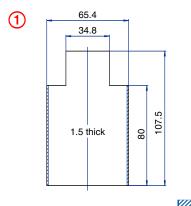
ORDERING INFORMATION					
Part Number	Type	Description	<b>PCB Connection</b>		
90.202	KO4712B	Solid Cover	Wire		
			Jumper		
90.202.1	KO4712B	Removable Cover	Wire		
		Panel, Tan	Jumper		
90.202.2	KO4712B	Removable Cover	Wire		
		Panel, Clear	Jumper		

ACCESSORIES				
Acce	essories	Part Number	Туре	
1 Mete	er DIN Rail	2511120/1M	TS35x7.5/1M	
*Panel	Mount Tab	93.001.2	PMA	

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



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





**Spring Clamp Solder/Tab Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 24-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range: Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Spring Cage Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail

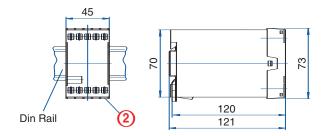
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
90.215	KO4761	Solid Cover	Wire Jumper/
			Fast On

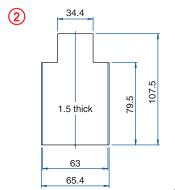
#### **ACCESSORIES**

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

# 10 Terminal

Solder/Tab **Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

25A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

**UL94 V-O** Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

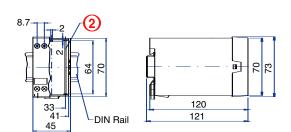
(2) Vertical

Mounting:

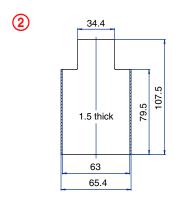
35mm DIN Rail

ORDERING INFORMATION					
Part Number Type Description PCB Connecti					
90.230	KO4762	Solid Cover	Wire Jumper/ Fast On		
ACCESSORIES					
Accessor	ies	Part Number	Туре		
1 Meter DIN	l 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.)



# 16 Terminal Solder

**Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

(1) Horizontal

Mounting:

35mm DIN Rail

# 16 Terminal

Solder/Tab Connection





#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail

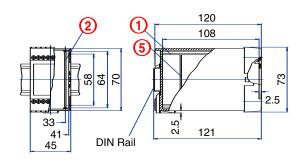
ORDERING	INFORM.	ATION
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Part Number	Type	Description	PCB Connection
90.290	KO4763A	Solid Cover	Machine
			Solderable Pins
90.291	KO4763A	Removable Cover	Machine
		Panel, Tan	Solderable Pins
90.292	KO4763A	Removable Cover	Machine
		Panel, Clear	Solderable Pins

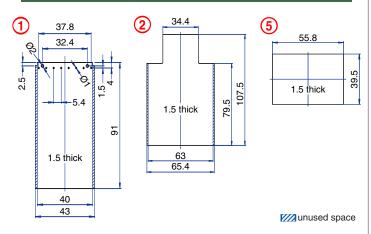
#### **ACCESSORIES**

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

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



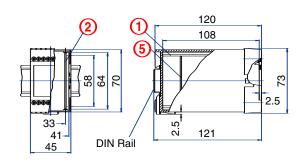
#### PCB DRAWING (To convert to inches divide by 25.4.)

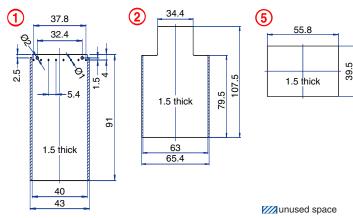


#### **ORDERING INFORMATION Part Number** Type Description **PCB Connection** 90.300 KO4763B Solid Cover Wire Jumper 90.301 KO4763B Removable Cover Wire Panel, Tan Jumper Removable Cover Wire 90.302 KO4763B Panel, Clear Jumper **ACCESSORIES**

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

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







Pluggable Connection



#### TECHNICAL INFORMATION

#### **Electrical:**

10A, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### Temperature Range:

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 clear panel)

#### Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(2) Vertical

# (1) Horizontal

(1) 1101120111a1

# Mounting:

35mm DIN Rail

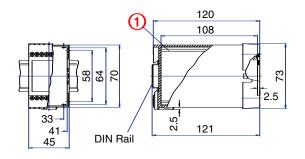
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UND		G IIV	FUN	WALL	UN

Part Number	Туре	Description	PCB Connection
90.320	KO4763P	Solid Cover	Card Edge
90.321	KO4763P	Removable Cover Panel, Tan	Card Edge
90.322	KO4763P	Removable Cover Panel, Clear	Card Edge

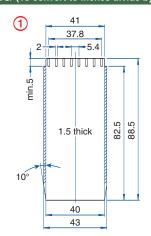
#### **ACCESSORIES**

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

# 20 Terminal

Pluggable Connection



#### TECHNICAL INFORMATION

#### Electrical:

10A, 300V, 22-14 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

# Temperature Range:

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 clear panel)

#### Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Screw / Pressure Plate

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(5) Vertical

(1) Horizontal behind cover

#### Mounting:

35mm DIN Rail or optional panel mounting\*

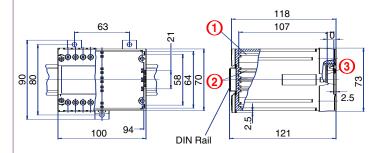
# ORDERING INFORMATION

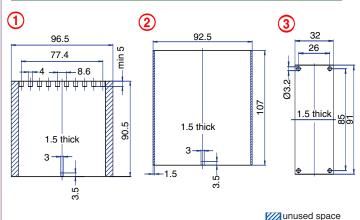
Part Number		Description	PCB Connection
90.350	KO4718P	Solid Cover	Card Edge/
			Wire Jumper
90.351	KO4718P	Removable Cover	Card Edge/
		Panel, Tan	Wire Jumper
90.352	KO4718P	Removable Cover	Card Edge/
		Panel, Clear	Wire Jumper

#### **ACCESSORIES**

Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 2)	93.001.2	PMA

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





Solder

**Connection** 



#### **TECHNICAL INFORMATION**

#### **Electrical:**

16A, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### **Temperature Range:**

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(5) Vertical

(1) Behind cover

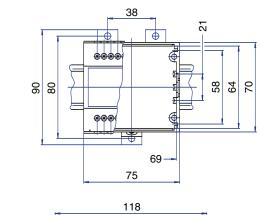
#### Mounting:

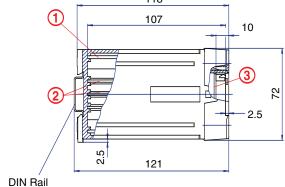
35mm DIN Rail or optional panel mounting\*

ORDERING	INFORM.	ATION	
Part Number	Type	Description	<b>PCB Connection</b>
90.380	KO4713A	Solid Cover	Machine
			Solderable Pins
90.381	KO4713A	Removable Cover	Machine
		Panel, Tan	Solderable Pins
90.382	KO4713A	Removable Cover	Machine
		Panel, Clear	Solderable Pins

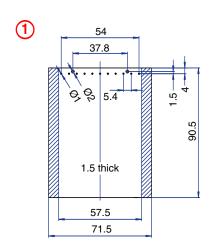
ACCESSORIES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 2)	93.001.2	PMA

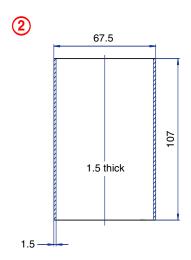
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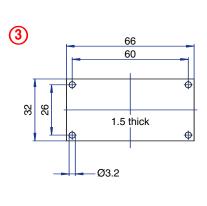




## PCB DRAWING (To convert to inches divide by 25.4.)









Pluggable Connection



# **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-12 AWG **Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating: UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

# Max. PCB's:

(5) Vertical

(1) Behind cover

Mounting:

35mm DIN Rail or optional panel mounting\*

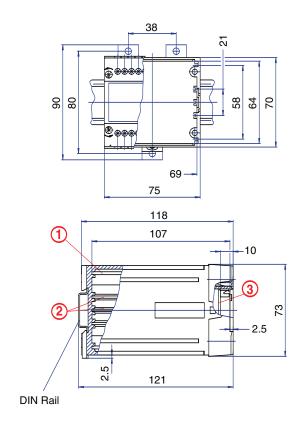
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Part Number	Туре	Description	PCB Connection
90.410	KO4713P	Solid Cover	Card Edge
90.411	KO4713P	Removable Cover Panel, Tan	Card Edge
90.412	KO4713P	Removable Cover Panel, Clear	Card Edge

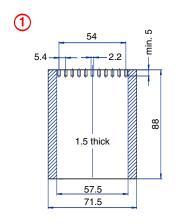
#### **ACCESSORIES**

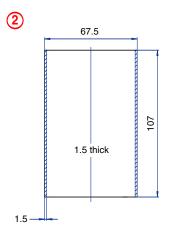
Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 2)	93 001 2	DMΔ

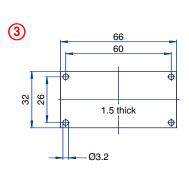
#### ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



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







# **30 Terminal** Solder

Connection



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3 5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(5) Vertical

(1) Behind Cover

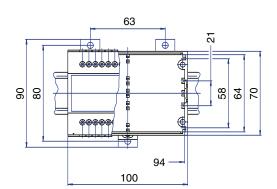
Mounting:

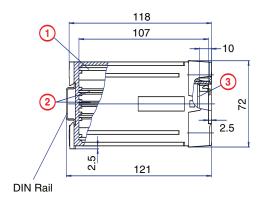
35mm DIN Rail or optional panel mounting\*

ORDERING	INFORMA	ATION	
Part Number	Type	Description	PCB Connection
90.440	KO4717A	Solid Cover	Machine Solderable Pins
90.441	KO4717A	Removable Cover Panel, Tan	Machine Solderable Pins
90.442	KO4717A	Removable Cover Panel, Clear	Machine Solderable Pins
ACCESSOF	RIES		

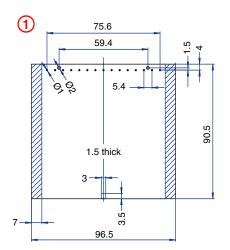
ACCESSORIES				
Accessories	Part Number	Type		
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M		
*Panel Mount Tab (need 2)	93 001 2	РΜΔ		

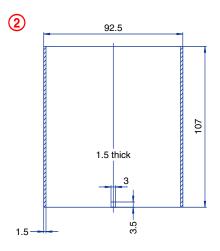
#### ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

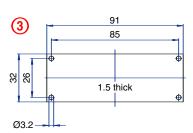




# PCB DRAWING (To convert to inches divide by 25.4.)









# 30 Terminal Pluggable

**Connection** 

o recenerates

# TECHNICAL INFORMATION

**Electrical:** 

10A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel) **Color:** 

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### Max. PCB's:

(5) Vertical

(1) Behind Cover

#### Mounting:

35mm DIN Rail or optional panel mounting\*

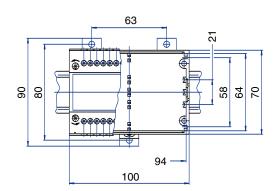
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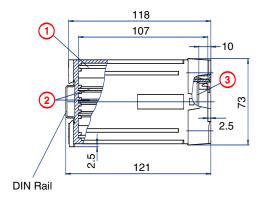
Part Number	Type	Description	PCB Connection
90.470	KO4717P	Solid Cover	Card Edge
90.471	KO4717P	Removable Cover Panel, Tan	Card Edge
90.472	KO4717P	Removable Cover Panel, Clear	Card Edge

#### **ACCESSORIES**

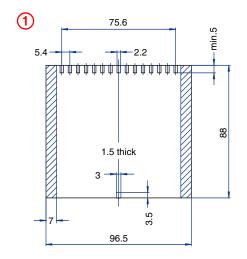
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 2)	93 001 2	DMΔ

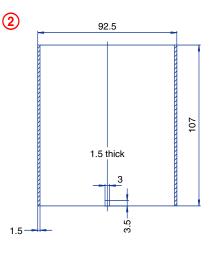
#### ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

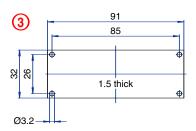




# PCB DRAWING (To convert to inches divide by 25.4.)







# 32 Terminal Pluggable and

Solder Connection



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Screw/ Pressure Plate

**Terminal Screw Size:** 

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (5) Vertical
- (1) Behind cover
- (1) Base Mount

#### Mounting:

35mm DIN Rail or optional panel mounting\*

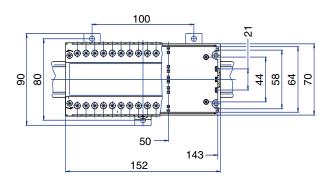
# ORDERING INFORMATION

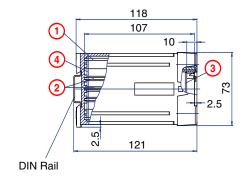
Part Number	Type	Description	<b>PCB Connection</b>
90.500	KO4719P	Solid Cover	Card Edge/
			Wire Jumper
90.501	KO4719P	Removable Cover	Card Edge/
		Panel, Tan	Wire Jumper
90.502	KO4719P	Removable Cover	Card Edge/
		Panel, Clear	Wire Jumper

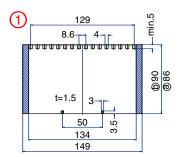
#### **ACCESSORIES**

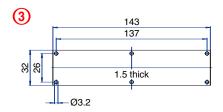
Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 3)	93.001.2	PMA

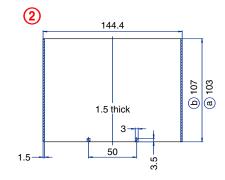
#### ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

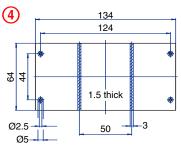












- unused space
- (a) with base mount PCB
- (b) without base mount PCB



Pluggable and **Solder Connection** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 clear panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Screw/ Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### Max. PCB's:

(5) Vertical

(1) Behind cover

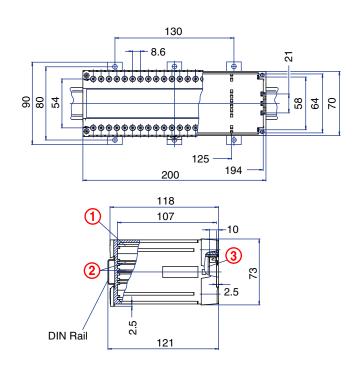
#### Mounting:

35mm DIN Rail or optional panel mounting\*

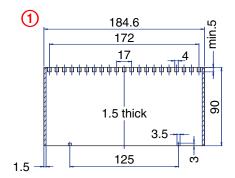
ORDERING INFORMATION				
Part Number	Type	Description	<b>PCB Connection</b>	
90.530	KO4720P	Solid Cover	Card Edge/ Wire Jumper	
90.531	KO4720P	Removable Cover Panel, Tan	Card Edge/ Wire Jumper	
90.532	KO4720P	Removable Cover Panel, Clear	Card Edge/ Wire Jumper	
ACCESSORIES				
Accesso	ries	Part Number	Туре	

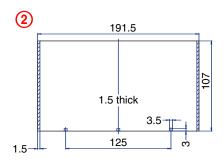
ACCESSORIES				
Accessories	Part Number	Type		
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M		
*Panel Mount Tab (need 3)	93.001.2	PMA		

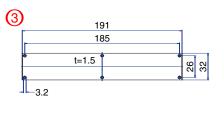
# ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



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









Pluggable and Solder Connection



# **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

**Temperature Range:** 

Up to 125°C (257°F)

Flammability Rating: UL94 V-O

Color:

Black Housing with Tan Cover

# **Terminal Type:**

Screw/ Pressure Plate

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm Max. PCB's:

(11) Vertical

(1) Base Mount

Mounting:

35mm DIN Rail or

optional panel mounting\*

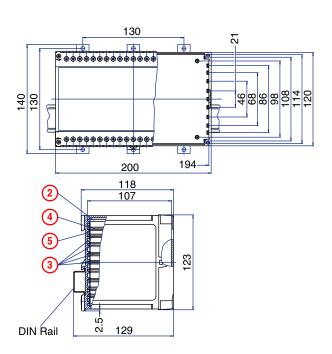
#### **ORDERING INFORMATION**

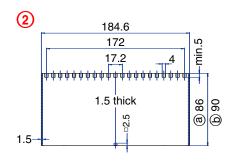
Part Number	er Type	Description	<b>PCB Connection</b>
90.560	KO4722SP	Solid Cover	Card Edge/
			Wire Jumper

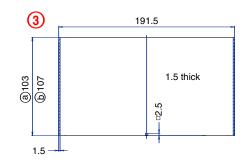
#### **ACCESSORIES**

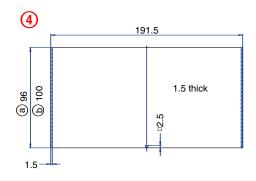
Accessories	Part Number	Type
1 Meter DIN Rail	CA701/15-S	TS35x15/1M
*Panel Mount Tab (need 3)	93.001.2	PMA

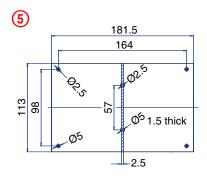
# ENCLOSURE DRAWING (To convert to inches divide by 25.4.)











- unused space
- (a) with base mount PCB
- (b) without base mount PCB



# 50 Terminal Solder



#### TECHNICAL INFORMATION

Electrical:

**Connection** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O (V-2 Clear Panel)

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### Max. PCB's:

- (5) Vertical
- (1) Behind Cover
- (1) Base Mount

# Mounting:

35mm DIN Rail or optional panel mounting\*

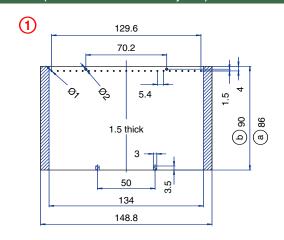
# 

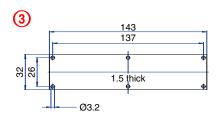
ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

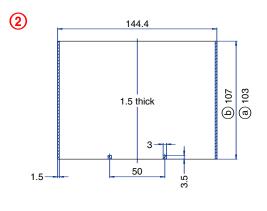
100

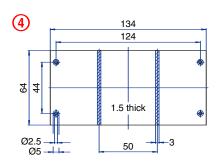
#### ORDERING INFORMATION **PCB Connection Part Number** Type Description 90.590 KO4716A Solid Cover Machine Solderable Pins 90.591 KO4716A Removable Cover Machine Panel, Tan Solderable Pins 90.592 KO4716A Removable Cover Machine Panel, Clear Solderable Pins

ACCESSORIES		
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 3)	93.001.2	PMA









- unused space
- (a) with base mount PCB
- (b) without base mount PCB

# 50 Terminal Pluggable



#### **TECHNICAL INFORMATION**

#### **Electrical:**

**Connection** 

10A, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### **Temperature Range:**

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

**ecom**r 0.8Nm

#### Max. PCB's:

- (5) Vertical
- (1) Behind cover
- (1) Base Mount

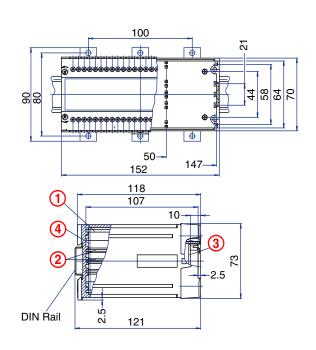
#### Mounting:

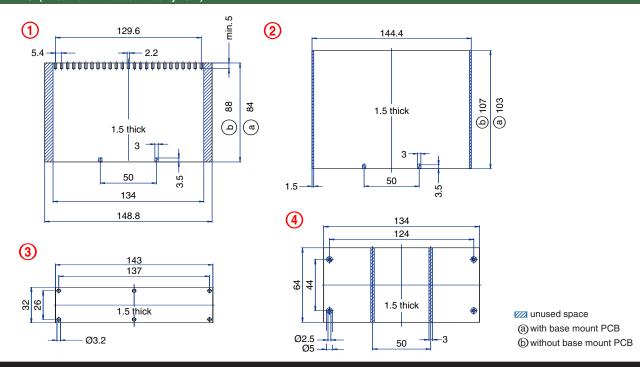
35mm DIN Rail or optional panel mounting\*

ORDERING INFORMATION				
Part Number	Type	Description	PCB Connection	
90.620	KO4716P	Solid Cover	Card Edge	
90.621	KO4716P	Removable Cover Panel, Tan	Card Edge	
90.622	KO4716P	Removable Cover Panel, Clear	Card Edge	

ACCESSORIES			
Accessories	Part Number	Type	
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M	
*Panel Mount Tab (need 3)	93.001.2	PMA	

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







Pluggable Connection



# **TECHNICAL INFORMATION**

#### **Electrical:**

10A, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### **Temperature Range:**

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box Clamp

#### **Terminal Screw Size:**

M3.5

# **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (5) Vertical
- (1) Behind cover

#### Mounting:

35mm DIN Rail or optional panel mounting\*

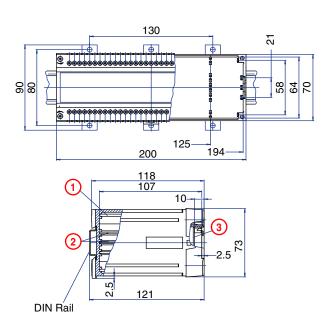
OF	RDEF	RING	INFORM	IATION
_			_	_

Part Number	Type	Description	PCB Connection
90.680	KO4721P	Solid Cover	Card Edge
90.681	KO4721P	Removable Cover Panel, Tan	Card Edge
90.682	KO4721P	Removable Cover Panel, Clear	Card Edge

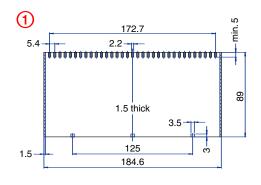
# **ACCESSORIES**

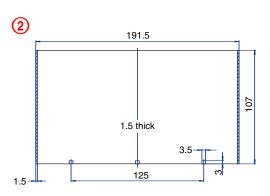
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 3)	93 001 2	РΜΔ

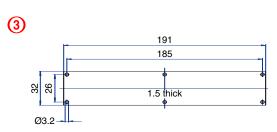
## ENCLOSURE DRAWING (To convert to inches divide by 25.4.)



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







# Pluggable Connection



# **TECHNICAL INFORMATION**

**Electrical:** 

10A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

#### Max. PCB's:

(11) Vertical

(1) Base Mount

#### Mounting:

35mm DIN Rail or optional panel mounting\*

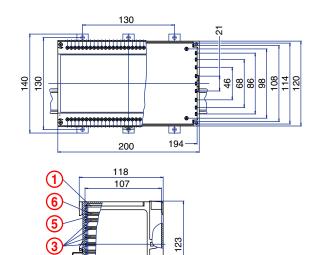
# ORDERING INFORMATION

Part Number	er Type	Description	PCB Connection
90.710	KO4723SP	Solid Cover	Card Edge

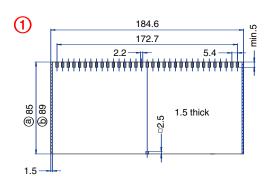
#### **ACCESSORIES**

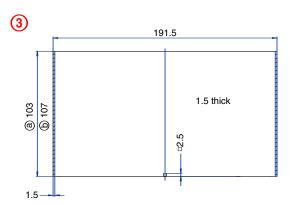
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 3)	93 001 2	PMA

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



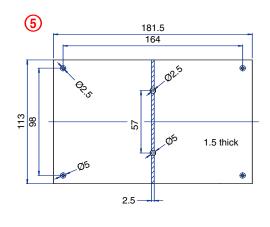
# PCB DRAWING (To convert to inches divide by 25.4.)

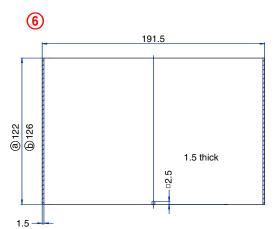




129

DIN Rail





- (a) with base mount PCB
- (b) without base mount PCB



Pluggable and Solder Connection



#### TECHNICAL INFORMATION

**Electrical:** 

10A, 300V, 22-14 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

\*Panel Mount Tab (need 3)

Flammability Rating: UL94 V-O

Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Screw / Pressure Plate

**Terminal Screw Size:** 

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(11) Vertical

(1) Base Mount

#### Mounting:

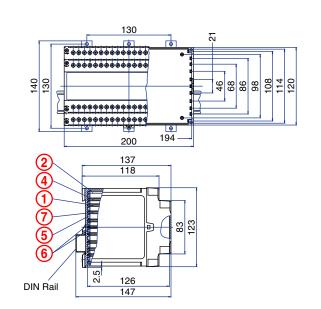
35mm DIN Rail or optional panel mounting\*

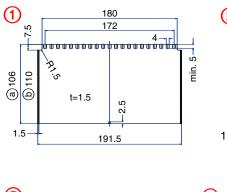
PMA

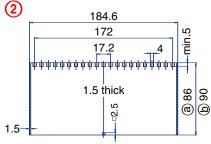
ORDERING INFORMATION			
Part Number Type	Description	<b>PCB Connection</b>	
90.740 KO4722DP	Solid Cover	Card Edge/ Wire Jumper	
ACCESSORIES			
Accessories	Part Number	Туре	
1 Meter DIN Rail	CA701/15-S	TS35x15/1M	

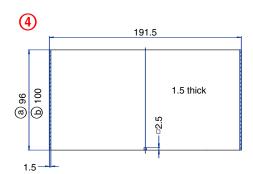
93.001.2

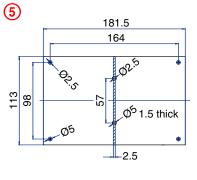
# ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

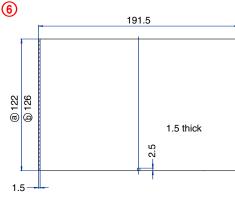


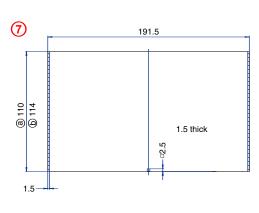












- unused space
- (a) with base mount PCB
- (b) without base mount PCB

# Pluggable Connection



#### **TECHNICAL INFORMATION**

#### **Electrical:**

10A, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

# **Temperature Range:**

Up to 125°C (257°F)

# Flammability Rating:

UL94 V-O

Part Number

#### Color:

Black Housing with Tan Cover
ORDERING INFORMATION

90.770 KO4723DP

Type

#### **Terminal Type:**

Box Clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(11) Vertical

(1) Base Mount

#### Mounting:

35mm DIN Rail or

optional	panel	mounting*

**PCB Connection** 

Card Edge

130
2
© ************************************
130 88 88 88 88 88 88 88 88 88 88 88 88 88
•••••••••••
(1) 137
118
4
[23] 83 <del>[ ] [</del> [3]
(6)
/ μς DIN Rail
DIT (10)
147

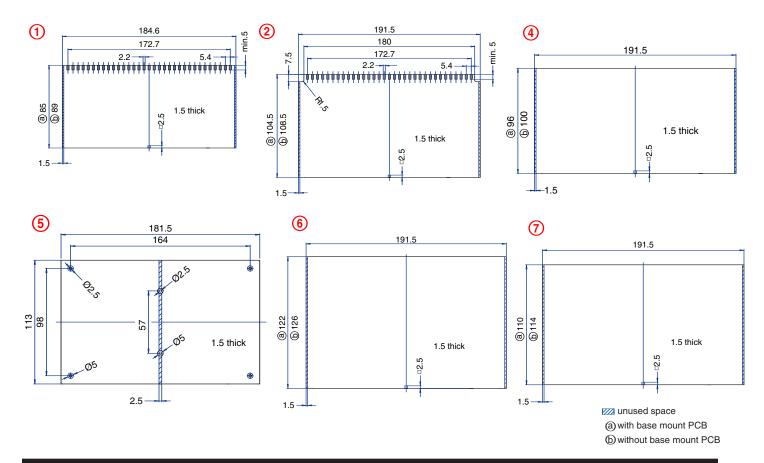
ENCLOSURE DRAWING (To convert to inches divide by 25.4.)

# ACCESSORIES

Accessories	Part Number	Туре
1 Meter DIN Rail	CA701/15-S	TS35x15/1M
*Panel Mount Tab (need 3)	93.001.2	PMA

Description

Solid Cover





with 6 High Current Terminals Solder Connection



#### **TECHNICAL INFORMATION**

**Electrical:** 

40A, 300V, 18-8 AWG

Housing Material:

Glass-filled Polycarbonate

**Cover Material:** 

Glass-filled Polycarbonate

Temperature Range:

Up to 125°C (257°F)

Flammability Rating:

UL94 V-O

**Color:**Black Housing with Tan Cover

**Terminal Type:** 

Box Clamp

**Terminal Screw Size:** 

M3.5

Recommended Torque:

0.8Nm

Max. PCB's:

(2) Vertical

(2) Horizontal

Mounting:

35mm DIN Rail or

Wire Jumper Terminals

optional panel mounting\*

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v	שח		NG	шиг	$\mathbf{o}$ n	IVIAI	

Part Number Type Description
90.815 KO4734 Removable High Current

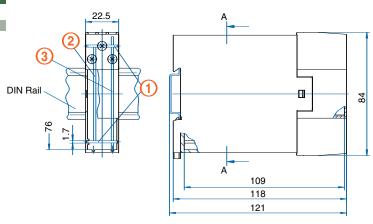
ACCESSORIES

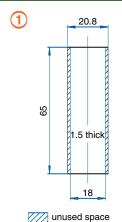
 Accessories
 Part Number
 Type

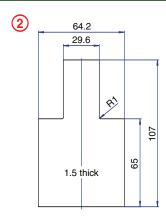
 1 Meter DIN Rail
 2511120/1M
 TS35x7.5/1M

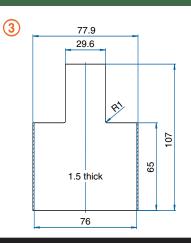
 \*Panel Mount Tab
 93.001.2
 PMA

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









Pluggable Card Edge Connection



#### **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### Temperature Range: Up to 125°C (257°F)

Flammability Rating: UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (2) Vertical
- (2) Horizontal

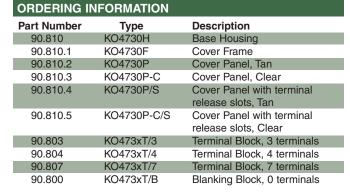
#### Mounting:

35mm DIN Rail or optional panel mounting\*

#### COMPLETE ENCLOSURE CONSISTS OF

- (1) Base Housing
- (1) Cover Frame
- (1) Cover Panel
- (2) Terminal or blanking blocks

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

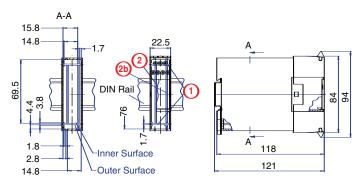


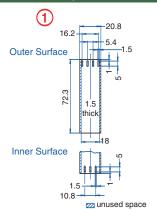
ACCESSORIES				
Accessories	Part Number	Туре		
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M		
*Panel Mount Tab	93.001.2	PMA		

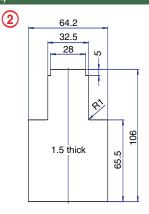
# AMPERAGE CHART

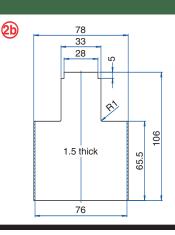
#### Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole	7 pole
	000	0000	000 0000
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom row
Max Amperage Per Terminal Point	5A	8A	5A top row 8A bottom row











with 6 High Current Terminals

Pluggable Card Edge

**Connection/ Solder Connection** 



#### TECHNICAL INFORMATION

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG standard 18-8 AWG high current

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### **Temperature Range:**

Up to 125°C (257°F)

## Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (2) Vertical
- (2) Horizontal

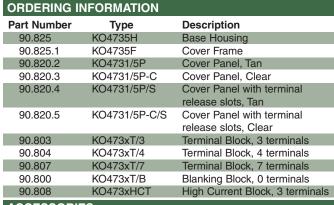
#### Mounting:

35mm DIN Rail or optional panel mounting\*

#### **COMPLETE ENCLOSURE CONSISTS OF**

- (1) Base Housing
- (1) Center Cover
- (2) Terminal or blanking blocks
- (2) High current terminal blocks

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



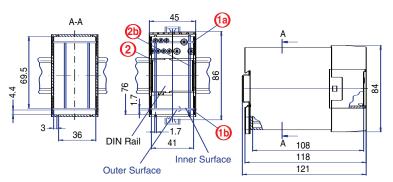
# ACCESSORIES

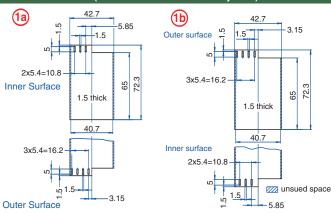
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tah	93 001 2	PMA

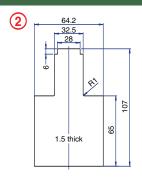
# AMPERAGE CHART

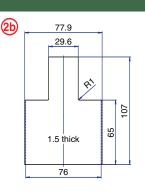
#### Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole	7 pole	<b>High Current</b>
	000	0000	000	00
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom rov	v 40A
Max Amperage Per Terminal Point	8A	8A	5A top row 8A bottom row	, 40A









# Pluggable Card Edge Connection



#### **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### Temperature Range: Up to 125°C (257°F)

Flammability Rating: UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

(2) Vertical(2) Horizontal

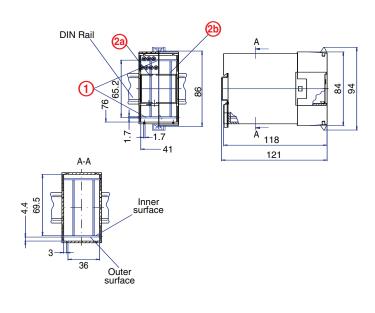
# Mounting:

35mm DIN Rail or optional panel mounting\*

#### **COMPLETE ENCLOSURE CONSISTS OF**

- (1) Base Housing
- (1) Cover Frame
- (1) Cover Panel
- (4) Terminal or blanking blocks

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



#### **ORDERING INFORMATION**

Part Number	Туре	Description
90.820	KO4731H	Base Housing
90.820.1	KO4731F	Cover Frame
90.820.2	KO4731/5P	Cover Panel, Tan
90.820.3	KO4731/5P-C	Cover Panel, Clear
90.820.4	KO4731/5P/S	Cover Panel with terminal
		release slots, Tan
90.820.5	KO4731/5P-C/S	Cover Panel with terminal
		release slots, Clear
90.803	KO473xT/3	Terminal Block, 3 terminals
90.804	KO473xT/4	Terminal Block, 4 terminals
90.807	KO473xT/7	Terminal Block, 7 terminals
90.800	KO473xT/B	Blanking Block, 0 terminals

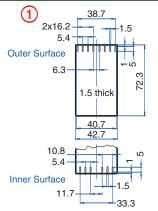
# ACCESSORIES

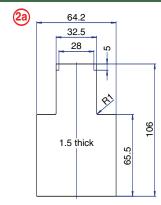
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab	93.001.2	PMA

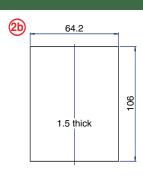
#### **AMPERAGE CHART**

#### Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole	7 pole
	000	0000	000 0000
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom row
Max Amperage Per Terminal Point	5A	8A	5A top row 8A bottom row









with 6 High Current Terminals

**Pluggable Card Edge** 

**Connection / Solder Connection** 



# **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG standard 18-8 AWG high current

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

#### **Temperature Range:**

Up to 125°C (257°F)

# Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

**Part Number** 

90.830

90.803

90.804

90.807

90.800

90.808

90.830.6

Black Housing with Tan Cover **ORDERING INFORMATION** 

Type

KO4732/6H

KO473xT/3

KO473xT/4

KO473xT/7

KO473xT/B

KO473xHCT

KO4736F

#### **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (3) Vertical
- (2) Horizontal
- (1) Parallel with cover

#### Mounting:

Description

Base Housing

Center Cover

35mm DIN Rail or optional panel mounting\*

Terminal Block, 3 terminals

Terminal Block, 4 terminals

Terminal Block, 7 terminals

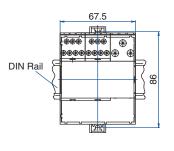
Blanking Block, 0 terminals

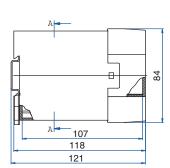
High Current Block, 3 terminals

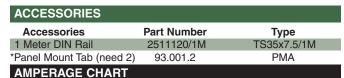
#### **COMPLETE ENCLOSURE CONSISTS OF**

- (1) Base Housing
- (1) Center Cover
- (4) Terminal or blanking blocks
- (2) High current terminal blocks

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

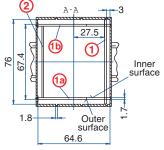


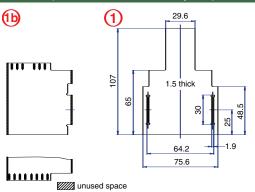


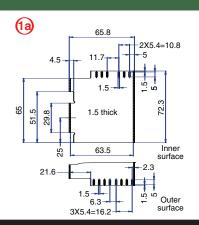


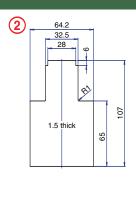
#### Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole	7 pole	<b>High Current</b>
	000	0000	000	00
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom rov	v 40A
Max Amperage Per Terminal Point	8A	8A	5A top row 8A bottom row	40A









with 12 High Current Terminals

Pluggable Card Edge

**Connection/ Solder Connection** 



#### **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG standard 18-8 AWG high current

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

# **Temperature Range:**

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

**Part Number** 

Black Housing with Tan Cover ORDERING INFORMATION

Type

#### **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (4) Vertical
- (2) Horizontal
- (1) Parallel with cover

#### Mounting:

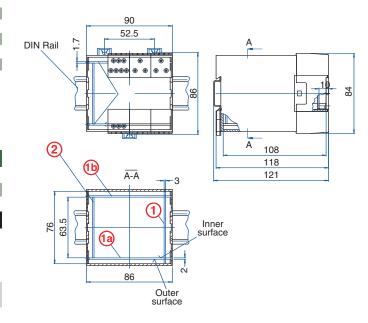
Description

35mm DIN Rail or optional panel mounting\*

#### **COMPLETE ENCLOSURE CONSISTS OF**

- (1) Base Housing
- (1) Center Cover
- (4) Terminal or blanking blocks
- (4) High current terminal blocks

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



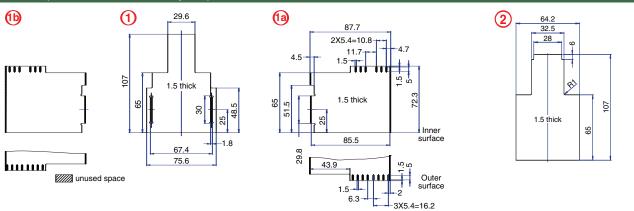
#### 90.845 Base Housing 90.845.6 KO4737F Center Cover KO473xT/3 Terminal Block, 3 terminals 90.803 KO473xT/4 Terminal Block, 4 terminals 90.804 90.807 KO473xT/7 Terminal Block, 7 terminals 90.800 KO473xT/B Blanking Block, 0 terminals 90.808 KO473xHCT High Current Block, 3 terminals

# ACCESSORIES Accessories Part Number Type 1 Meter DIN Rail 2511120/1M TS35x7.5/1M \*Panel Mount Tab (need 2) 93.001.2 PMA

#### **AMPERAGE CHART**

# Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole		High Current
	000	0000	000	00
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom rov	v 40A
Max Amperage Per Terminal Point	8A	8A	5A top row 8A bottom row	40A





# Pluggable Card Edge Connection



#### **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

# **Temperature Range:**

Up to 125°C (257°F)

#### Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

#### **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### **Recommended Torque:**

0.8Nm

#### Max. PCB's:

- (3) Vertical
- (2) Horizontal
- (1) Parallel with cover

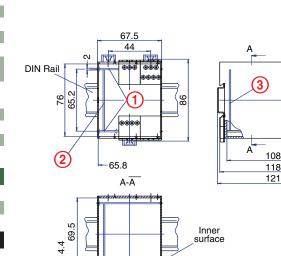
#### Mounting:

35mm DIN Rail or optional panel mounting\*

#### **COMPLETE ENCLOSURE CONSISTS OF**

- (1) Base Housing
- (1) Cover Frame
- (1) Cover Panel
- (6) Terminal or blanking blocks

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



surface

#### **ORDERING INFORMATION Part Number** Description Type 90.830 KO4732/6H Base Housing 90.830.1 KO4732F Cover Frame 90.830.2 KO4732P Cover Panel, Tan 90.830.3 KO4732P-C Cover Panel, Clear KO4732P/S Cover Panel with terminal 90.830.4 release slots, Tan 90.830.5 KO4732P-C/S Cover Panel with terminal release slots, Clear Terminal Block, 3 terminals 90.803 KO473xT/3 90.804 KO473xT/4 Terminal Block, 4 terminals 90.807 KO473xT/7 Terminal Block, 7 terminals KO473xT/B 90.800 Blanking Block, 0 terminals

#### ACCESSORIES

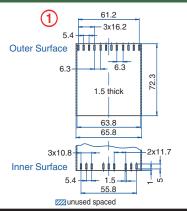
Accessories	Part Number	Туре
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need 2)	93.001.2	PMA

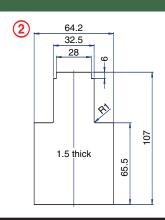
#### **AMPERAGE CHART**

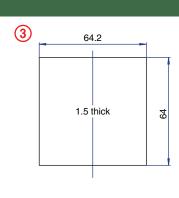
#### Max. Current Carrying Capacity of Terminal Blocks

	<b>3 pole</b> 000	<b>4 pole</b>	<b>7 pole</b>
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom row
Max Amperage Per Terminal Point	5A	8A	5A top row 8A bottom row

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







94

**Pluggable Card Edge** Connection



#### **TECHNICAL INFORMATION**

#### **Electrical:**

see chart for Amperages, 300V, 22-12 AWG

#### **Housing Material:**

Glass-filled Polycarbonate

#### **Cover Material:**

Glass-filled Polycarbonate

# **Temperature Range:**

Up to 125°C (257°F)

## Flammability Rating:

UL94 V-O (V-2 Clear Panel)

#### Color:

Black Housing with Tan Cover

# **Terminal Type:**

Box clamp

#### **Terminal Screw Size:**

M3.5

#### Recommended Torque:

0.8Nm

#### Max. PCB's:

(4) Vertical (2) Horizontal

(1ea.) Parallel with/

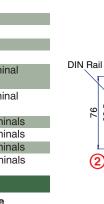
#### behind cover Mounting:

35mm DIN Rail or optional panel mounting\*

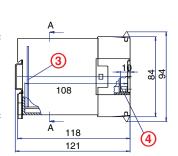
#### **COMPLETE ENCLOSURE CONSISTS OF**

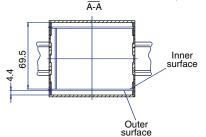
- (1) Base Housing
- (1) Cover Frame
- (1) Cover Panel
- (8) Terminal or blanking blocks

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



9/ 63.5





90

52.5

#### **ORDERING INFORMATION Part Number** Type Description KO4733H 90.840 Base Housing KO4733F 90.840.1 Cover Frame KO4733P Cover Panel, Tan 90.840.2 90.840.3 KO4733P-C Cover Panel, Clear KO4733P/S 90.840.4 Cover Panel with terminal release slots, Tan 90.840.5 KO4733P-C/S Cover Panel with terminal release slots, Clear 90.803 KO473xT/3 Terminal Block, 3 terminals 90.804 KO473xT/4 Terminal Block, 4 terminals KO473xT/7 Terminal Block, 7 terminals 90.807 90.800 KO473xT/B Blanking Block, 0 terminals

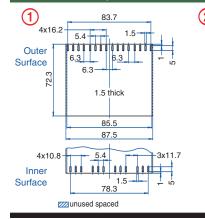
# **ACCESSORIES**

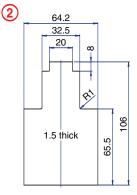
Accessories	Part Number	Type
1 Meter DIN Rail	2511120/1M	TS35x7.5/1M
*Panel Mount Tab (need	2) 93.001.2	PMA

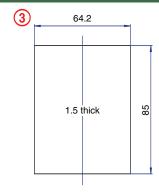
# **AMPERAGE CHART**

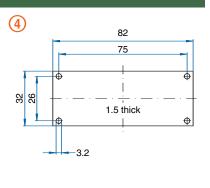
#### Max. Current Carrying Capacity of Terminal Blocks

	3 pole	4 pole	7 pole
	000	0000	000 0000
Max Amperage of Terminal Blocks	15A	28A	15A top row 28A bottom row
Max Amperage Per Terminal Point	5A	8A	5A top row 8A bottom row











**The KO4300 Series Enclosures** feature high density double level terminals making them ideal for many electronic applications. They are small to medium in size ranging from 16 to 64 terminals. There are 4 widths available each having a short and tall version available.

#### **MATERIALS**

Housing Shell: Polycarbonate, 10% Glass Filled Terminal Housing: Polyamide, 40% Glass Filled

Terminal: Tin-plated Steel

#### **TEMPERATURE RATINGS:**

Housing: 115°C (239°F) UL94VO Terminal Housing: 290°C (554°F) UL94VO

Standard Color: Light Gray

#### **PROTECTION**

KO4300 series enclosures have an IP20 rating (finger protected) and meet VBG4 and other European accident prevention requirements.

#### CONSTRUCTION

The KO4300 enclosure series housings are supplied as unassembled kits. Each kit consists of a housing base, terminal cover side parts, terminal blocks and a front plate. The double level terminal design keeps the enclosure width to a minimum freeing valuable DIN rail space. The terminals are machine solderable with right angle pins. Integral printed circuit board guides are molded into the housing base to help with proper board insertion and containment. Boards are mounted vertically in the enclosure, perpendicular to the DIN rail.

#### **TERMINALS**

Rising clamp screw terminals are used with the KO4300 series enclosures. Wires to be terminated are squeezed between the bottom of the rising clamp and the terminal strip for reliable, gas-tight connections. The terminals can be machine soldered to the board in the same step as the other components to save time and labor. All terminals have funnel shaped wire openings to eliminate wire fraying. The terminal screws can be turned with a flat tip or a #2 Philips screwdriver.

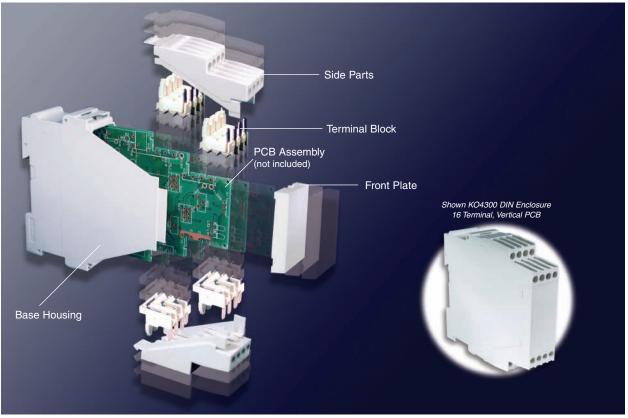
#### **MOUNTING**

The KO4300 series can easily be mounted on standard 35mm DIN rail by means of the integral mounting foot and DIN clip.

#### **CUSTOMIZATION**

Many custom options are available for the KO4300 series enclosures. Some of the available options are:

- Partial terminal loading
- Internal/External bus connections
- PCB grounding to the DIN rail
- Side ventilation slots
- Machining of custom holes
- RJ45 and DB9 openings in front plate



#### HOUSING ASSEMBLY

- Place all assemblies on a level surface
- Terminal blocks should be pre-assembled on the PCB
- Push the side parts over the terminal blocks ensuring that the guide pins of the terminal blocks slide into the holes of the side parts
- Snap the front plate onto the pre-mounted side parts
- Slide the PCB of the upper section into the guide groves of the base
- Slide the upper section into the base. Make sure that the wall areas overlap correctly and the guide element of the base slides in the mating recess of the base.
- Push the assembly completely together so that the clips on the side parts snap into the recesses in the base

# 16 Terminal Vertical PCB

000

# TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O **Color:** Light Gray

#### **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

MOE

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail

# ORDERING INFORMATION

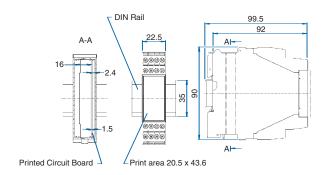
Part NumberTypeDescriptionPCB Connection90.900KO4323Right Angle PinsMachine Solder

#### **ACCESSORIES**

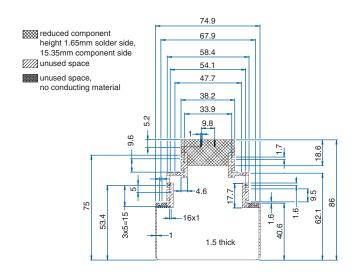
 Accessories
 Part Number
 Type

 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.)



# 16 Terminal

**Tall Vertical PCB** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

Temperature Range:

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O

Color: Light Gray

#### **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(2) Vertical

Mounting:

35mm DIN Rail

#### **ORDERING INFORMATION**

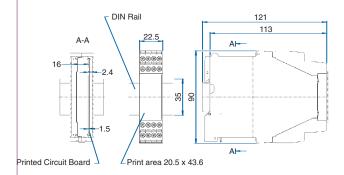
Part NumberTypeDescriptionPCB Connection90.910KO4303Right Angle PinsMachine Solder

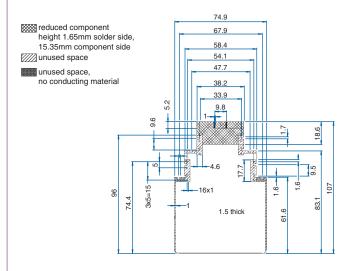
#### **ACCESSORIES**

 Accessories
 Part Number
 Type

 1 Meter DIN Rail
 2511120/1M
 TS35x7.5/1M

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







**Vertical PCB** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O Color: Light Gray

# **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail

#### **ORDERING INFORMATION**

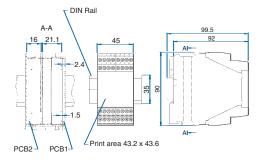
Part NumberTypeDescriptionPCB Connection90.920KO4324Right Angle PinsMachine Solder

#### **ACCESSORIES**

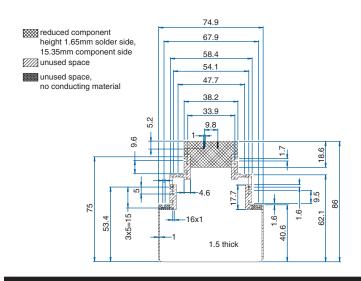
 Accessories
 Part Number
 Type

 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.)



# **32 Terminal**

**Tall Vertical PCB** 



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O

Color: Light Gray

#### **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(4) Vertical

Mounting:

35mm DIN Rail

# ORDERING INFORMATION

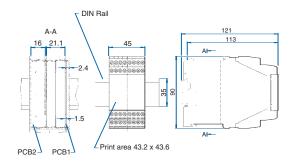
Part NumberTypeDescriptionPCB Connection90.930KO4304Right Angle PinsMachine Solder

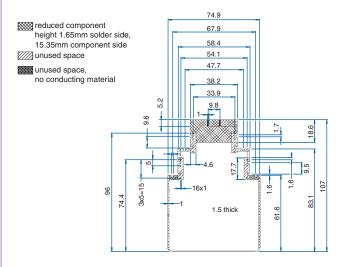
#### **ACCESSORIES**

 Accessories
 Part Number
 Type

 1 Meter DIN Rail
 2511120/1M
 TS35x7.5/1M

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





# **48 Terminal**Vertical PCB



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O **Color:** Light Gray

# **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

Terminal Screw Size

IVI3.5

Recommended Torque:

0.8Nm

Max. PCB's:

(6) Vertical

Mounting:

35mm DIN Rail

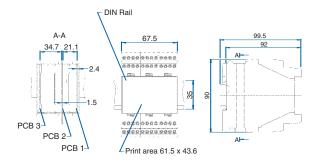
#### **ORDERING INFORMATION**

Part NumberTypeDescriptionPCB Connection90.940KO4325Right Angle PinsMachine Solder

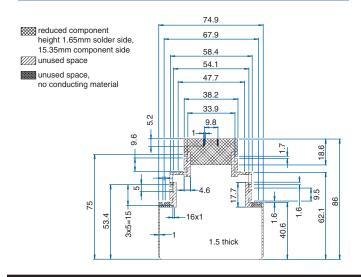
#### **ACCESSORIES**

Accessories	Part Number	Туре
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.)



# 48 Terminal Tall Vertical PCB



#### TECHNICAL INFORMATION

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O **Color:** Light Gray

#### **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

M3.5

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(6) Vertical

Mounting:

35mm DIN Rail

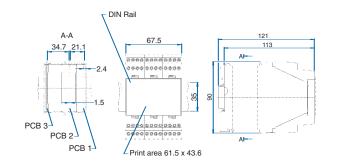
#### **ORDERING INFORMATION**

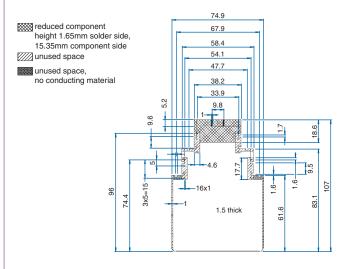
Part Number	Type	Description	PCB Connection
90.950	KO4305	Right Angle Pins	Machine Solder

#### **ACCESSORIES**

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

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







# 64 Terminal **Vertical PCB**



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** Glass-filled Polyamide

Temperature Range:

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

**UL94 V-O** Color: Light Gray

# **Terminal Type:**

Screw / Rising Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(8) Vertical

Mounting:

35mm DIN Rail

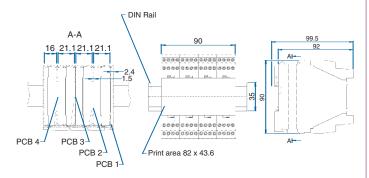
#### **ORDERING INFORMATION**

Description **PCB Connection** Part Number Type 90.960 KO4326 Right Angle Pins Machine Solder

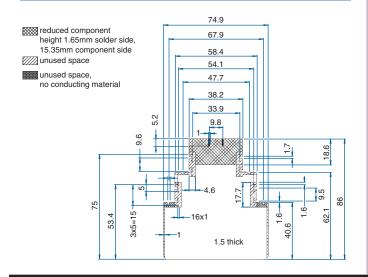
#### **ACCESSORIES**

**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.)



# 64 Terminal **Tall Vertical PCB**



#### **TECHNICAL INFORMATION**

**Electrical:** 

16A, 300V, 22-12 AWG

**Housing Material:** 

Glass-filled Polycarbonate

**Terminal Block Material:** 

Glass-filled Polyamide

**Temperature Range:** 

Up to 115°C (239°F), Housing 290°C (554°F), Terminals

Flammability Rating:

UL94 V-O Color: Light Gray

#### Terminal Type:

Screw / Rising Clamp

**Terminal Screw Size:** 

**Recommended Torque:** 

0.8Nm

Max. PCB's:

(8) Vertical

Mounting:

35mm DIN Rail

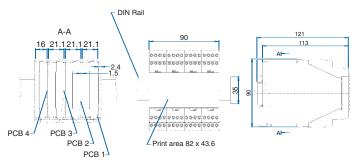
# **ORDERING INFORMATION**

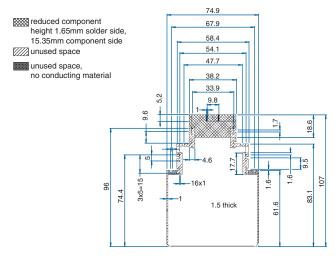
**Part Number** Description **PCB Connection** Type 90.970 KO4306 Right Angle Pins Machine Solder

#### **ACCESSORIES**

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

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





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