

K70 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: Polycarbonate, 10% Glass-filled

Housing Cover: Polycarbonate, 10% Glass-filled

Terminals

Pressure Plate: Chromated Steel

Terminal Screw: Chromated Steel

Connector Contact: Tin Plated Bronze

Temperature Rating: 125°C (257°F) UL94 V-0¹

Standard Color: Light Gray

PROTECTION

K70 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

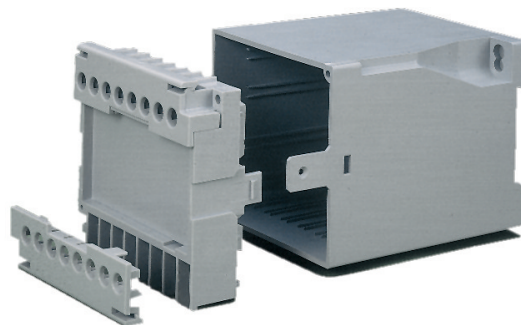
The K70 enclosures are supplied as unassembled kits. Each kit consists of a housing shell and a snap-on cover, complete with integral terminals and terminal-to-board connection provisions. Integral printed circuit board guides are molded into the housing shell to save time when inserting boards, to prevent 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.

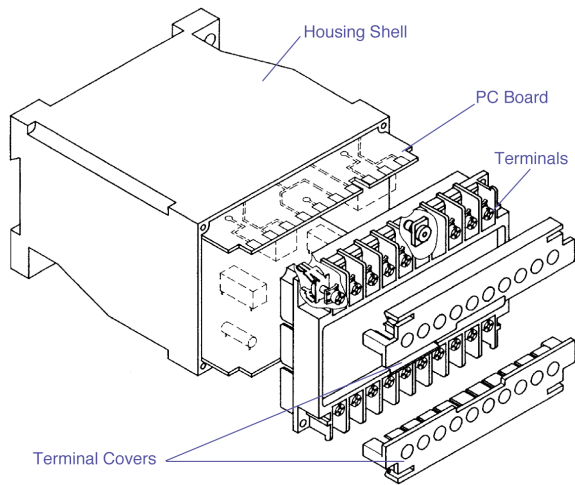


TERMINALS

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.

¹On request.



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).

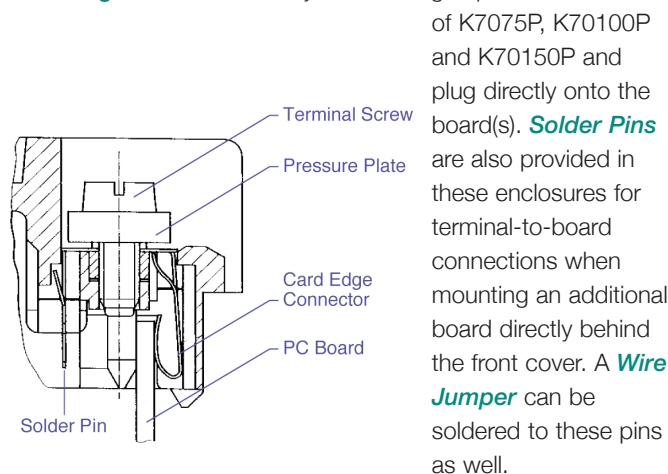
Fast On tabs, (2.8 x 0.8 mm) accept industry standard Fast On connectors crimped onto wire jumpers.

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).

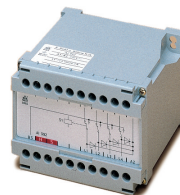


Solder Pins are also provided in these enclosures for terminal-to-board connections when mounting an additional board directly behind the front cover. A **Wire Jumper** can be soldered to these pins as well.

For better retention, the plug-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 49.)



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.



8 Terminal Solder/Tab Connection



TECHNICAL INFORMATION

Electrical: 25A, 300V, 24-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (2) Vertical
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

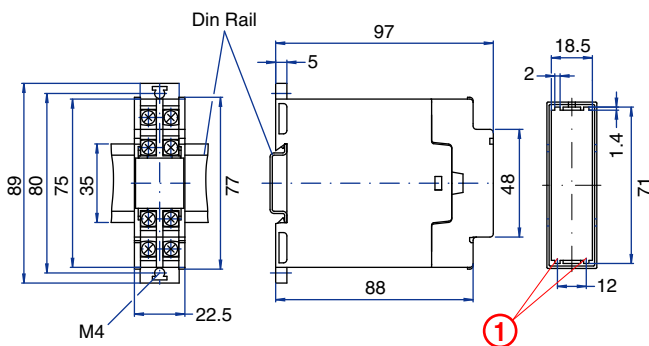
ORDERING INFORMATION

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

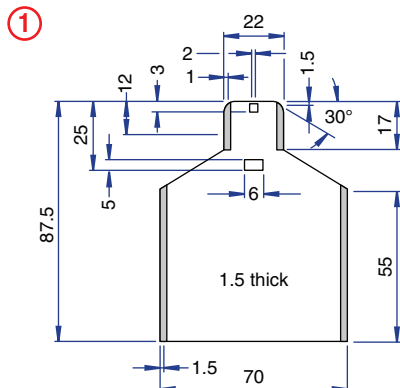
ACCESSORIES

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.)

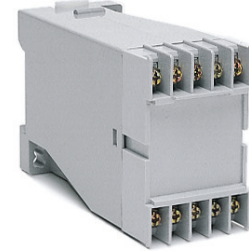


PCB DRAWING (To convert to inches divide by 25.4.)



* Note: Need one of each Terminal Cover. ¹On request. unused space

10 Terminal Solder/Tab Connection



TECHNICAL INFORMATION

Electrical: 25A, 300V, 22-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M3.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (10) Vertical
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

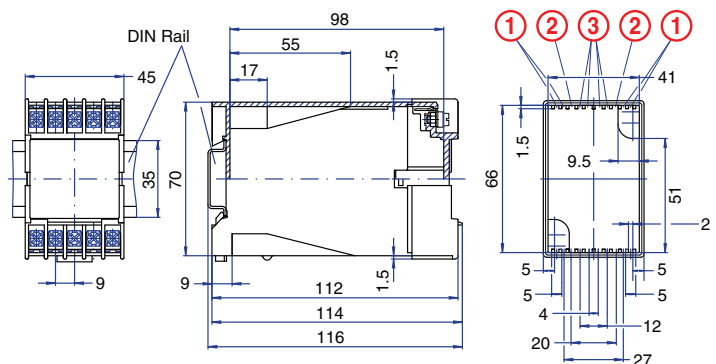
ORDERING INFORMATION

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

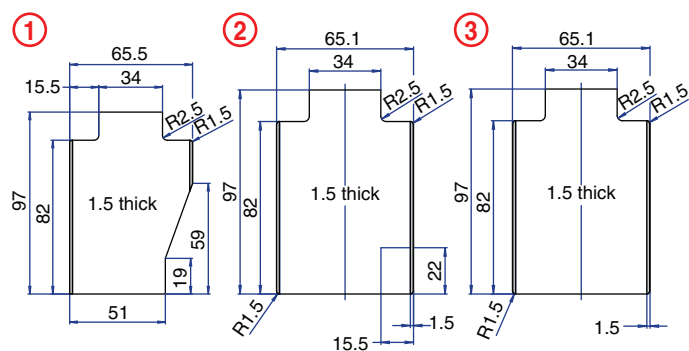
ACCESSORIES

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

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



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



** Note: One piece Terminal Cover covers both sides. unused space

12 Terminal
Solder/Tab Connection



TECHNICAL INFORMATION

Electrical: 20A, 300V, 24-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M2.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (2) Vertical
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

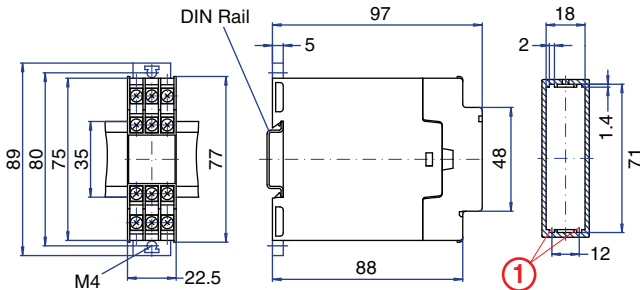
ORDERING INFORMATION

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

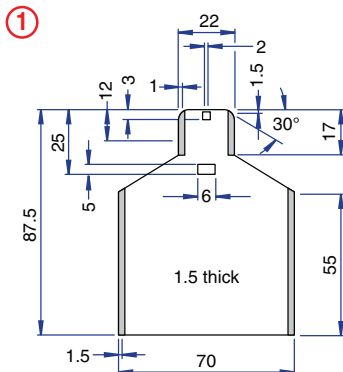
ACCESSORIES

Accessories	Part Number	Type
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. ¹On request. unused space

12 Terminal
Solder Connection



TECHNICAL INFORMATION

Electrical: 20A, 300V, 22-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M3.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (2) Vertical
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

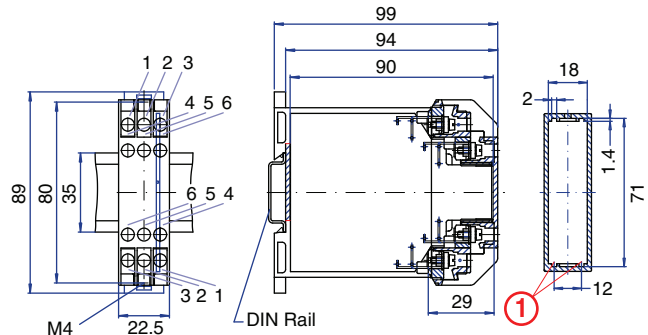
ORDERING INFORMATION

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

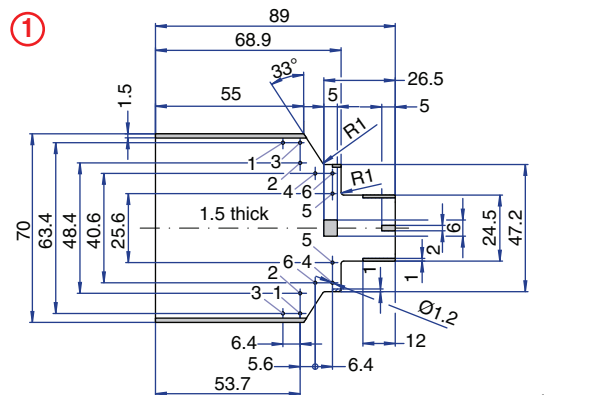
ACCESSORIES

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.)



 unused space

12 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-0¹

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

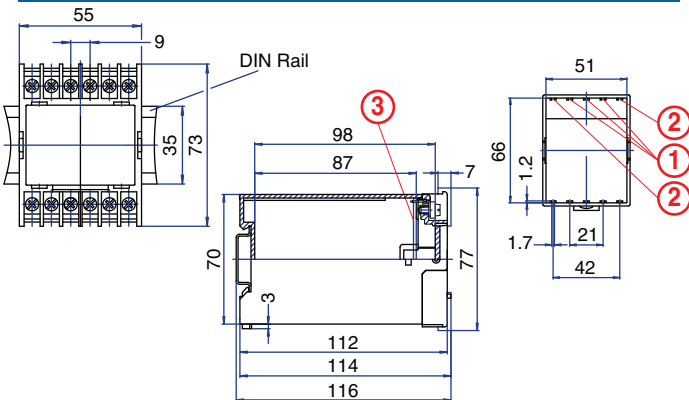
ORDERING INFORMATION

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

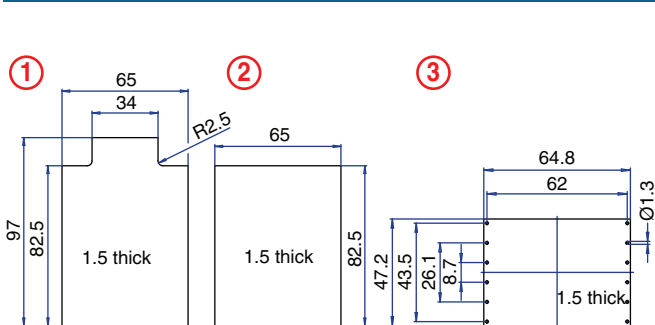
ACCESSORIES

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.)

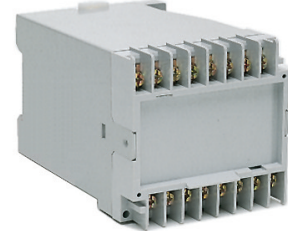


PCB DRAWING (To convert to inches divide by 25.4.)



* Note: Need two Terminal Covers. ¹On request. unused space

16 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-0¹

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

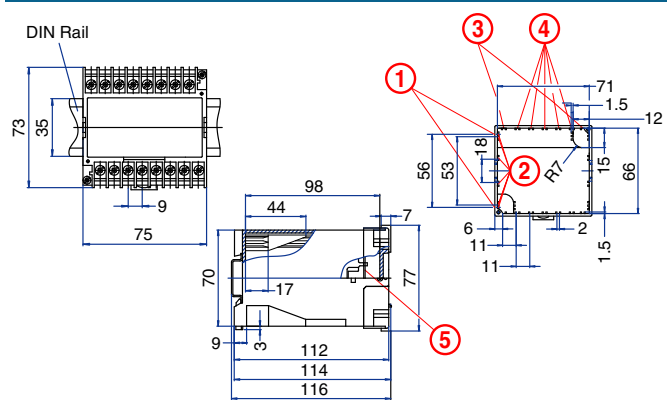
ORDERING INFORMATION

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

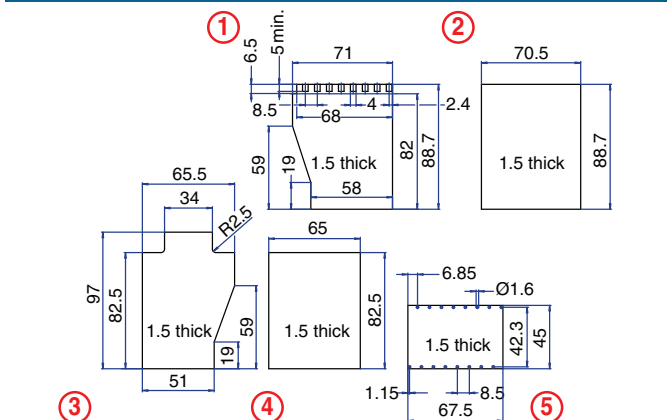
ACCESSORIES

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

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

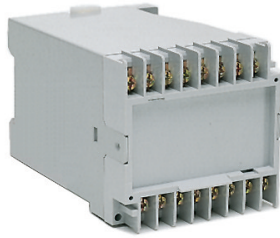


PCB DRAWING (To convert to inches divide by 25.4.)



* Note: Need two Terminal Covers. unused space

16 Terminal
Pluggable Connection
(DIN Rail Mount Only)



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-0¹
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

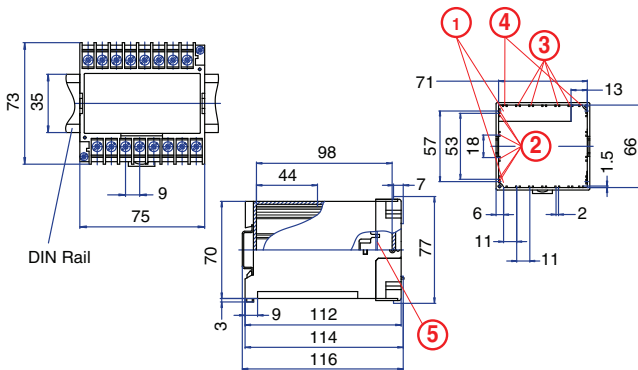
ORDERING INFORMATION

Part Number	Type	Description	PCB Connection
90.050.5	K7075P	Single Level Terminals	Wire Jumper/ Solder Tab/ Card Edge

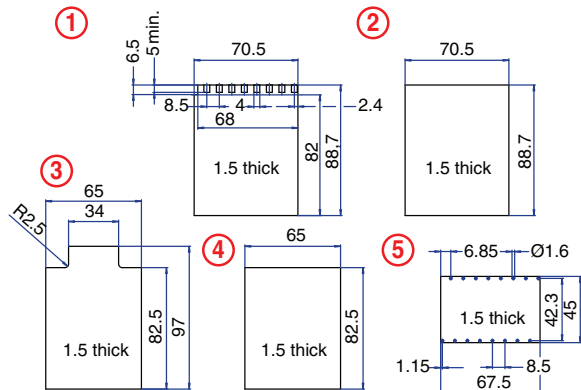
ACCESSORIES

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

20 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-0¹
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

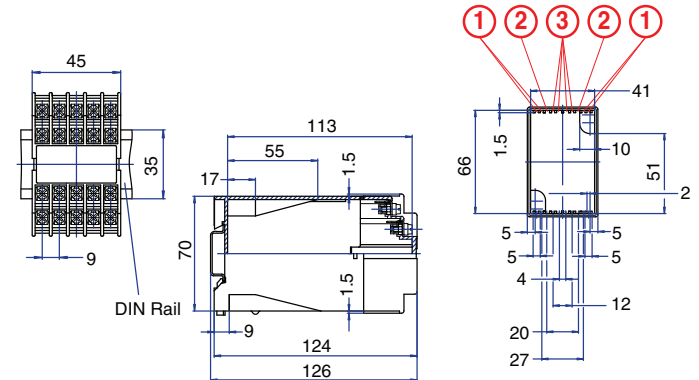
ORDERING INFORMATION

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

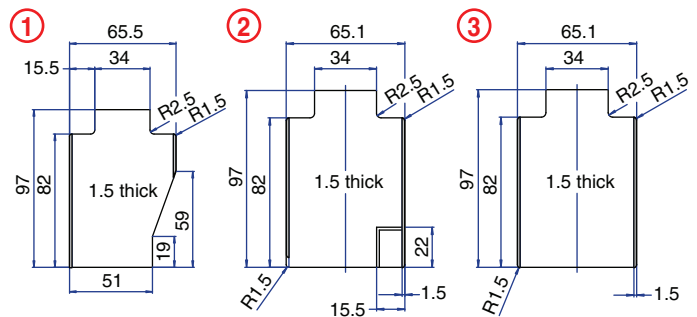
ACCESSORIES

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.)



unused space

20 Terminal Solder/Tab Connection



TECHNICAL INFORMATION

Electrical: 25A, 300V, 22-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M3.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (10) Vertical
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

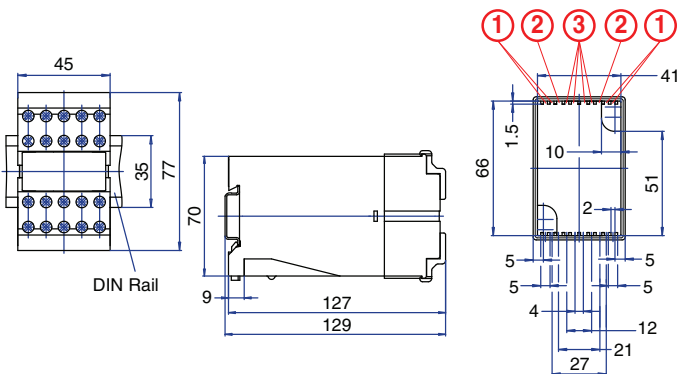
ORDERING INFORMATION

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

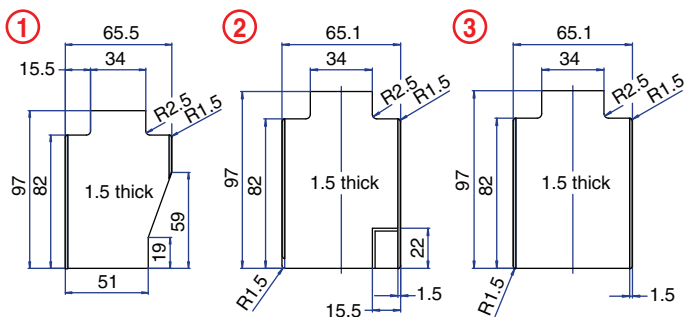
ACCESSORIES

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. ¹On request. unused space

20 Terminal Solder/Tab Connection



TECHNICAL INFORMATION

Electrical: 25A, 300V, 22-14 AWG	Terminal Type: Pressure Plate
Housing Material: Glass-filled Polycarbonate	Terminal Screw Size: M3.5
Cover Material: Glass-filled Polycarbonate	Recommended Torque: 0.8Nm
Temperature Range: Up to 125°C (257°F)	PCB Locations: (4) Vertical (6) Horizontal
Flammability Rating: UL94 V-0 ¹	Mounting: 35mm DIN Rail or panel mount
Color: Light Gray	

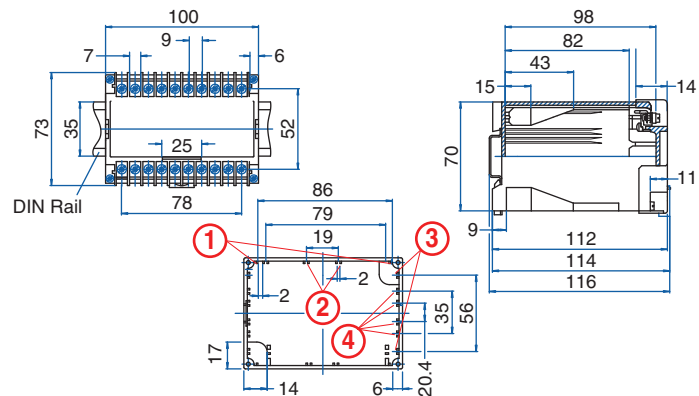
ORDERING INFORMATION

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

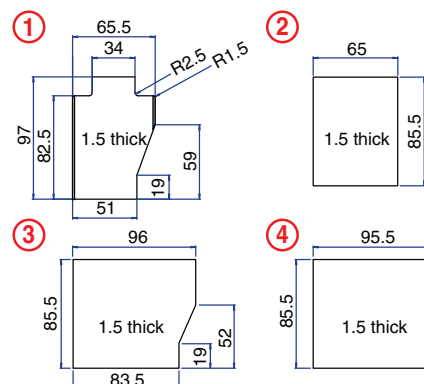
ACCESSORIES

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.)



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



** Note: Need two Terminal Covers. 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-0¹
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

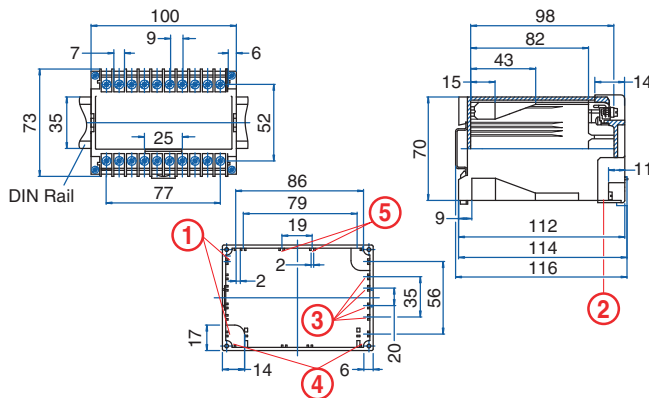
ORDERING INFORMATION

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

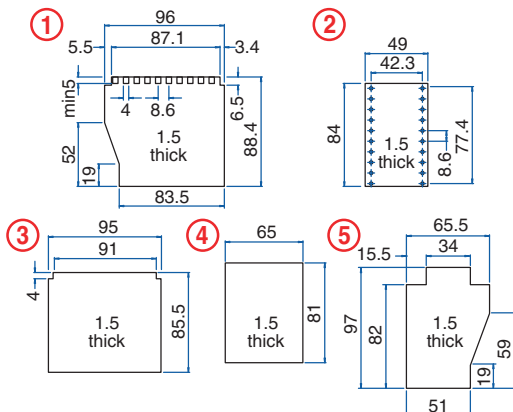
ACCESSORIES

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.)

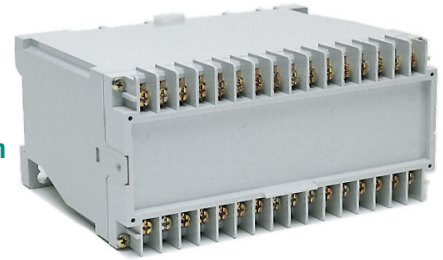


PCB DRAWING (To convert to inches divide by 25.4.)



* Note: Need two Terminal Covers. ¹On request. unused space

**32 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-0¹
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

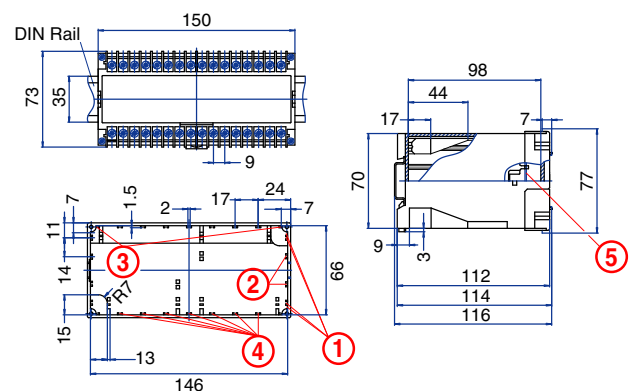
ORDERING INFORMATION

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

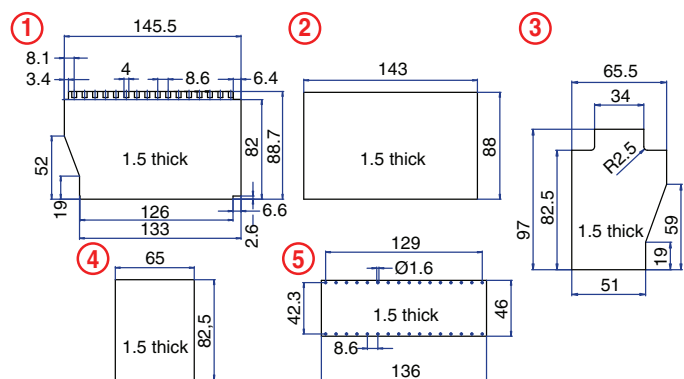
ACCESSORIES

Accessories	Part Number	Type
DIN Rail	2511120/1M	TS35x7.5/1M
Terminal Cover*	90.100.1	K70150P/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. unused space