

TERMINAL BLOCKS— Introduction

elkay

The terminal blocks and connectors listed in this catalogue are designed to meet the technical specifications applying in Europe, North America and Australia with a view to obtaining as many individual national approvals as possible

Currently there is no British Standard devoted to terminal blocks but many British and International Standard Specifications make reference to terminal sizes and where relevant it has been assumed that the pillar terminal with single screw fixing is the equivalent of the standard block insert




The International Commission on Rules for the Approval of Electrical Equipment (CEE) has issued Recommendations relating to terminal blocks and indication is made throughout this catalogue where the CEE Recommendations are met

The following are some of the official specifications in which reference is made to terminals —

BS 415	Safety requirements for mains operated household sound and vision equipment
BS 2769	Portable electric motor-operated tools
BS 3456	The testing and approval of household electrical appliances
BS 3955	Electrical controls for domestic appliances
BS 4533	Electric luminaires (lighting fittings)
BS 5057	Snap-on Connectors
CEE 10	Electric motor-operated appliances for domestic and similar purposes
CEE 11	Electric cooking and heating appliances
CEE 20	Portable motor-operated tools
CEE REC 2	Terminals with screw clamping for external conductors
CEE REC 3	Creepage distances and clearances in air
CEE REC 4	Screwless terminals for connecting conductors without special preparation

Where terminal blocks meet the requirements of testing authorities of specific countries the appropriate national reference is indicated together with any conditional rating or cable size Other approvals are being applied for

In some cases the approval specifically relates to the terminal block, but sometimes it implies that approval is given subject to correct installation in the appliance
The following approval marks are used —

Austria	OVE	
Belgium	CEBEC	
Canada	CSA	

Denmark	DEMKO	
Finland	SF	
Germany	VDE	
Holland	KEMA	
Norway	NEMKO	
Sweden	SEMKO	
Switzerland	SEV	
U S A	UL	

Apart from the 6A range, which is not included in BS 3456, the stated current rating relates to the rating of the appliance in which the terminal block is to be used in accordance with BS 3456 and CEE 10 and 11, followed by the cable size specified in CEE REC 2 and does not always conform to the rating moulded into the block which relates to a specific national approval. CONBLOCK terminal blocks are supplied as 12-pole unless otherwise stated, and can be cut to order All have an integral barrier mid-way along the metal insert, signified by suffix 'T', to prevent conductors being inserted too far If specially ordered straight-through inserts can be supplied Unless otherwise stated terminal inserts are nickel plated brass

while screws are nickel-cadmium plated steel, and "captive" within the chimneys
Details of optional extras such as pressure plates, marker plates, hot foil stamping, covers, fixing pins etc are given on next page
Creepage and clearance distances are measured in accordance with British and International standards The standard material is white nylon 6 6 and the temperature rating is the maximum recommended for continuous use This may be exceeded for short periods only
Where indicated terminal blocks can be moulded in grey Noryl VO 150 for continuous working temperature up to 165°C—add 'N' to Cat No. Other materials may be supplied to special

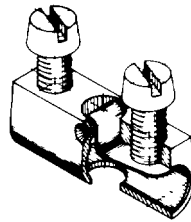
quantity order, such as nylon VO, polycarbonate, polyester
Coding References:—
A = Pressure plate along one side
L = Flat base
N = Noryl VO 150
T = Integral barrier insert
All dimensions are in millimetres
This catalogue is designed to give sufficient details to enable the most suitable block to be selected but please consult our technical staff if in difficulty With constant revision of current standards and the introduction of new methods and materials the information in this catalogue is not necessarily up-to-date and we reserve the right to alter specifications without prior notice

TERMINAL BLOCKS

elkay

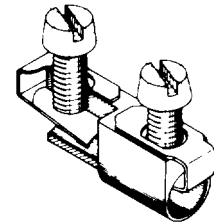
Pressure Plates

To avoid damage to stranded conductors by the terminal screw, pressure plates may be fitted as illustrated. The one-piece stainless steel pressure plate, No 151 etc is retained in the centre of the insert and protects both sides but there is no barrier across the insert. The phosphor bronze plate is independently retained by each terminal screw so can be fitted to one side only, specify 152A, 402A etc, or both sides, specify 152, 402 etc. Normally fitted to 'T' type inserts with centre barrier.



Type 151 Insert

No 151 for 1 5□
401 for 2 5□
601 for 6□
1001 for 10□
1601 for 16□



Type 152 Insert

No 152 for 1 5□
402 for 2 5□
602 for 6□
1002 for 10□
1602 for 16□

Marker Plates

These are manufactured in white pvc and supplied plain or hot foil stamped to customers' requirements. Customers can write on these plates or have them engraved to their own specification.

Marker plates are available for the standard range of nylon terminal blocks and the plug and socket terminal blocks. Details for ordering are given against the individual blocks within this catalogue.

Insulated Covers

Polyethylene snap-on covers for 2 or 3-pole and 4 or 5-pole terminal blocks rated at 10 and 16 amps. Maximum working temperature 80°C.

Hot Foil Stamping

A new method of providing a permanent marking on terminal blocks to provide identification for each pole. Normally the identification, (letter, number, or symbol) will be stamped on the terminal block chimney, but where there is no chimney then the marking will be made in a prominent position as close as possible to the cable entry hole.

Marking can be made on one or both sides of the pole and this must be specified when ordering.

Marker plates can also be hot foil stamped.

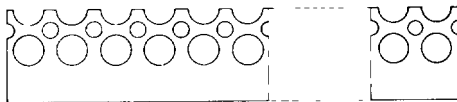
Prices are quoted on application and dependant upon the customer's specification and quantity involved.

Fixing Pins

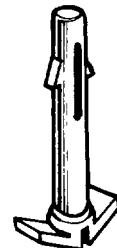
One method of fitting raised base terminal blocks onto panels is by means of these "push-in" fixing pins moulded in Delrin suitable for a working temperature up to 120°C. The maximum panel thickness on which these pins can be used is 1mm and preferably they should be inserted from beneath the panel.

At present they are only available for the 4012 and 4312 series with raised bases, although it is hoped to provide pins for the full range of raised base blocks, in due course.

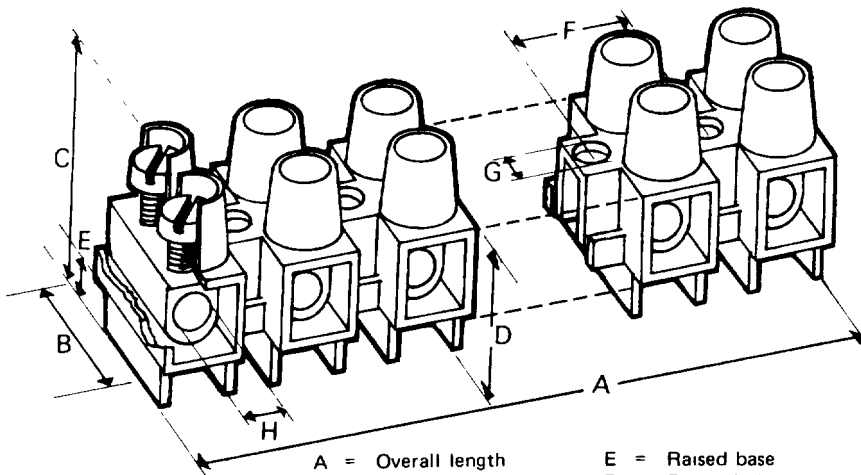
Compared with retaining terminal blocks on panels by means of screws and nuts these pins provide a worthwhile cost saving.



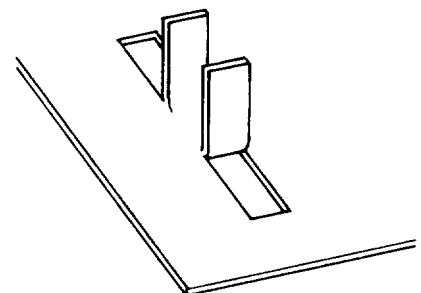
Marker Plates



Fixing Pin



A = Overall length
B = Overall width
C = Overall height
D = Height excl. chimney
E = Raised base
F = Fixing hole centres
G = Fixing hole diameter
H = Cable hole diameter



Lug Fixing for 4012T only

TERMINAL BLOCKS – Standard Nylon



6 Amps. 1.5[□] CEE REC 2 GROUP 1

CAT. NO. 1512T
 Features Raised base
 Creepage 11
 Clearance 8
 Material Nylon 6 6 (120°C)
Optional:—
 Alternative material: Noryl VO150.
 Pressure plates:
 Alternative pressure plates: 151—no barrier in insert—specify 1512/151
 Marker plates None available
 Hot foil marking See page 040278
 Fixing pins Details on application

DIMENSIONS	
A	93.8
B	16
C	16.4
D	10.9
E	4
F	8
G	2.7
H	2.8

APPROVALS		
NEMKO	1.5 [□]	380V
SEMKO	2.5 [□]	380V
SEV	1.0 [□]	380V

CAT. NO. 1512LT
 Features Flat base
 Creepage 4
 Clearance 4
 Material Nylon 6 6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Pressure plates
 Alternative pressure plates: 151—no barrier in insert—specify 1512L/151
 Marker plates None available
 Hot foil marking See page 040278
 Fixing pins Details on application

DIMENSIONS	
A	93.8
B	16
C	12.4
D	6.9
E	—
F	8
G	2.7
H	2.8

APPROVALS		
SEV	1.0 [□]	380V

10 Amps. 2.5[□] CEE REC 2 GROUP 2

CAT. NO. 4012T
 Features Raised base
 Lug fixing
 Creepage 11
 Clearance 8
 Material Nylon 6 6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Pressure plates 402, 402A
 Alternative pressure plates: 401—no barrier in insert—specify 4012/401
 Marker plates 1101
 Hot foil marking. See page 040278
 Fixing pins 995
 Covers 2/3-pole: 1607-2/3
 4/5-pole 1607-4/5

DIMENSIONS	
A	116.5
B	20
C	19
D	12
E	4
F	10
G	3.5
H	3.6

APPROVALS		
DEMKO	2.5 [□]	380V
SF	2.5 [□]	380V
NEMKO	2.5 [□]	380V
SEMKO	4 [□]	380V
SEV	2.5 [□]	380V
VDE	2.5 [□]	380V

CAT. NO. 4012LT
 Features Flat base
 Creepage 4
 Clearance 4
 Material Nylon 6.6 (120°C)
Optional:—
 Alternative material: Noryl VO150
 Pressure plates 402, 402A
 Alternative pressure plates 401—no barrier in insert—specify 4012L/401
 Marker plates 1101
 Hot foil marking See page 040278
 Fixing pins Details on application
 Covers 2/3-pole 1607-2/3
 4/5-pole. 1607-4/5

DIMENSIONS	
A	116.5
B	20
C	15
D	8
E	—
F	10
G	3.5
H	3.6

APPROVALS		
DEMKO	2.5 [□]	380V
SF	2.5 [□]	380V

TERMINAL BLOCKS – Standard Nylon

elkay

16 Amps. 4[□] CEE REC 2 GROUP 3

CAT. NO. 4312T
 Features Raised base
 10A size moulding but with
 M3 5 screws to increase
 rating
 Creepage 11
 Clearance 8
 Material Nylon 6.6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Marker plates 1101
 Hot foil marking See page 040278
 Fixing pins 995

Covers 2/3-pole 1607-2/3
 4/5-pole 1607-4/5

DIMENSIONS	
A	116.5
B	20
C	19
D	12
E	4
F	10
G	3.5
H	3.6

APPROVALS		

CAT. NO. 4312LT
 Features Flat base
 10A size moulding but with
 M3 5 screws to increase
 rating
 Creepage 4
 Clearance 4
 Material Nylon 6.6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Marker plates 1101
 Hot foil marking See page 040278
 Fixing pins Details on application

Covers 2/3-pole 1607-2/3
 4/5-pole 1607-4/5

DIMENSIONS	
A	116.5
B	20
C	15
D	8
E	—
F	10
G	3.5
H	3.6

APPROVALS		

16 Amps. 6[□] CEE REC 2 GROUP 4

CAT. NO. 6012T
 Features Raised base
 Creepage 13
 Clearance 9.5
 Material Nylon 6.6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Pressure plates 602, 602A
 Alternative pressure plates 601—no
 barrier in insert—specify 6012/601
 Marker plates 1115
 Hot foil marking See page 040278
 Fixing pins 997
 Covers 2/3-pole 1608-2/3
 4/5-pole 1608-4/5

DIMENSIONS	
A	141
B	22
C	22.5
D	14.5
E	5
F	12
G	4.5
H	4.1

APPROVALS		
DEMKO	20A	500V
SF	6 [□]	500V
NEMKO	6 [□]	500V
SEMKO	6 [□]	500V
SEV	4 [□]	500V

CAT. NO. 6012LT
 Features Flat base
 Creepage 4.5
 Clearance 4.5
 Material Nylon 6.6 (120°C)
Optional:—
 Alternative material Noryl VO150
 Pressure plates 602, 602A
 Alternative pressure plates 601—no
 barrier in insert—specify 6012L/601
 Marker plates 1115
 Hot foil marking See page 040278
 Fixing pins Details on application
 Covers 2/3-pole 1608-2-3
 4/5-pole 1608-4/5

DIMENSIONS	
A	141
B	22
C	17
D	9.5
E	—
F	12
G	4.5
H	4.1

APPROVALS		
DEMKO	20A	500V
SF	6 [□]	500V

TERMINAL BLOCKS – Standard Nylon

elkay

32 Amps. 10□ CEE REC 2 GROUP 5

CAT. NO. 10012T
 Features: Raised base
 Creepage: 15.5
 Clearance: 11
 Material: Nylon 6.6 (120°C)
Optional:—
 Alternative material: Noryl VO150
 Pressure plates.
 Alternative pressure plates: 1001—no barrier in insert—specify 10012/1001
 Marker plates: 1104
 Hot foil marking: See page 040278
 Fixing pins: Details on application

DIMENSIONS	
A	175
B	25
C	28
D	17.5
E	6
F	15
G	4.2
H	4.6

APPROVALS		
DEMKO	25A	500V
NEMKO	10□	500V
SEV	6□	500V

CAT. NO. 10012LT
 Features: Flat base
 Creepage: 5
 Clearance: 5
 Material: Nylon 6.6 (120°C)
Optional:—
 Alternative material: Noryl VO150
 Pressure plates
 Alternative pressure plates: 1001—no barrier in insert—specify 10012L/1001
 Marker plates: 1104
 Hot foil marking: See page 040278
 Fixing pins: Details on application

DIMENSIONS	
A	175
B	25
C	22
D	11.5
E	—
F	15
G	4.2
H	4.6

APPROVALS		
DEMKO	25A	500V

40 Amps. 16□ CEE REC 2 GROUP 6

CAT. NO. 16012T
 Features: Raised base
 Creepage: 15.5
 Clearance: 11
 Material: Nylon 6.6 (120°C)
Optional:—
 Alternative material: Noryl VO150
 Pressure plates: 1602, 1602A
 Alternative pressure plates: 1601—no barrier in insert—specify 16012/1601
 Marker plates: 1104
 Hot foil marking: See page 040278
 Fixing pins: Details on application

DIMENSIONS	
A	175
B	25
C	28
D	17.5
E	6
F	15
G	4.2
H	5.5

APPROVALS		
DEMKO	63A	500V
SF	16□	500V
NEMKO	16□	500V
SEMKO	16□	500V
SEV	10□	500V

CAT. NO. 16012LT
 Features: Flat base
 Creepage: 4.5
 Clearance: 4.5
 Material: Nylon 6.6 (120°C)
Optional:—
 Alternative material: Noryl VO150
 Pressure plates: 1602, 1602A
 Alternative pressure plate: 1601—no barrier insert—specify 16012L/1601
 Marker plates: 1104
 Hot foil marking: See page 040278
 Fixing pins: Details on application

DIMENSIONS	
A	175
B	25
C	22
D	11.5
E	—
F	15
G	4.2
H	5.5

APPROVALS		
DEMKO	63A	500V
SF	16□	500V

TERMINAL BLOCKS— Plug & Socket

elkay

10 Amps. 2.5[□] CEE REC 2 GROUP 2

CAT. NO. 4212-1/18

Features: Solid plug 11mm long
Raised base

Creepage: 10

Clearance: 8

Material: Nylon 6.6 (120°C)

Optional:—

Any specified insert can be fitted with 15mm plug to special order, to act as earth plug to make contact before live plugs

Screw terminals can be fitted with pressure plates—specify 4212-1/18/402A

Mates with 4212-2 or 4212L-2

Marker plates 1103

Fixing pins 995

CAT. NO. 4212-1/22

As above except that the plugs are 15mm long and designed for mating with standard terminal block 4012T or 4012LT

CAT. NO. 4212L-1/18

As Cat No 4212-1/18 above but with flat base

Creepage 4

Clearance 4

Mates with 4212-2 or 4212L-2

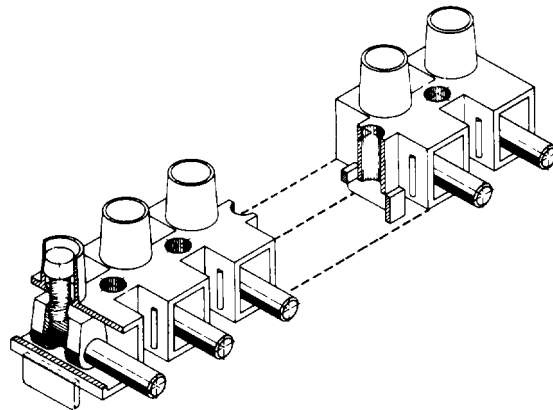
CAT. NO. 4212L-1/22

As Cat No 4212-1/22 above but with flat base

Creepage 3.5

Clearance 3.5

Mates with 4012T or 4012LT



DIMENSIONS

4212-1/18 and 4212-1/22		4212L-1/18 and 4212L-1/22	
A	116.5	A	116.5
B	16	B	16
C	19	C	15
D	12	D	8
E	4	E	—
F	10	F	10
G	3.5	G	3.5
H	3.5	H	3.5

CAT. NO. 4212-2

Features: Split socket, shrouded
Raised base
Non-reversible

Creepage 10

Clearance 8

Material: Nylon 6.6 (120°C)

Optional:—

Marker plates 1103

Fixing pins 995

Screw terminals can be fitted with pressure plates—specify 4212-2/402A

CAT. NO. 4212L-2

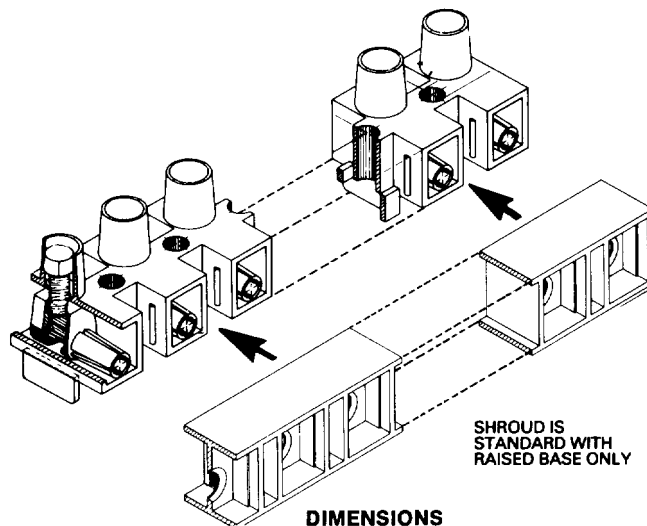
As Cat No 4212-2 above but with flat base and without shroud, which makes it reversible

Creepage 4

Clearance 4

Optional:—

The clip-on shroud, No 4712, can be supplied separately to make it non-reversible but only where the socket is floating as it makes the base uneven. Screw terminals can be fitted with pressure plates—specify 4212L-2/402A
Plug and socket terminal blocks can be ordered so that both sections have flat bases or raised bases or combinations of both to suit the application. E.g. the fixed section could have a raised base, making it easier to unplug the loose section which could have a flat base. Only when the clip-on shroud is fitted is it non-reversible.



DIMENSIONS

4212-2		4212L-2	
A	116.5	A	116.5
B	16	B	16
C	19	C	15
D	12	D	8
E	4	E	—
F	10	F	10
G	3.5	G	3.5
H	3.5	H	3.5

Page ref: 040678

TERMINAL BLOCKS – Plug & Socket

elkay

10 Amps. 2.5[□] CEE REC 2 GROUP 2

CAT. NO. 4103 3-pole plug & socket with centre earth

Features Moulded-in shroud on socket section
Raised base
Non-reversible
Centre earth plug 2mm longer than outer plugs
Two fixing holes in each section at 11.5mm crs

Creepage 9

Clearance 9

Material Nylon 6.6 (120°C)

Optional:—

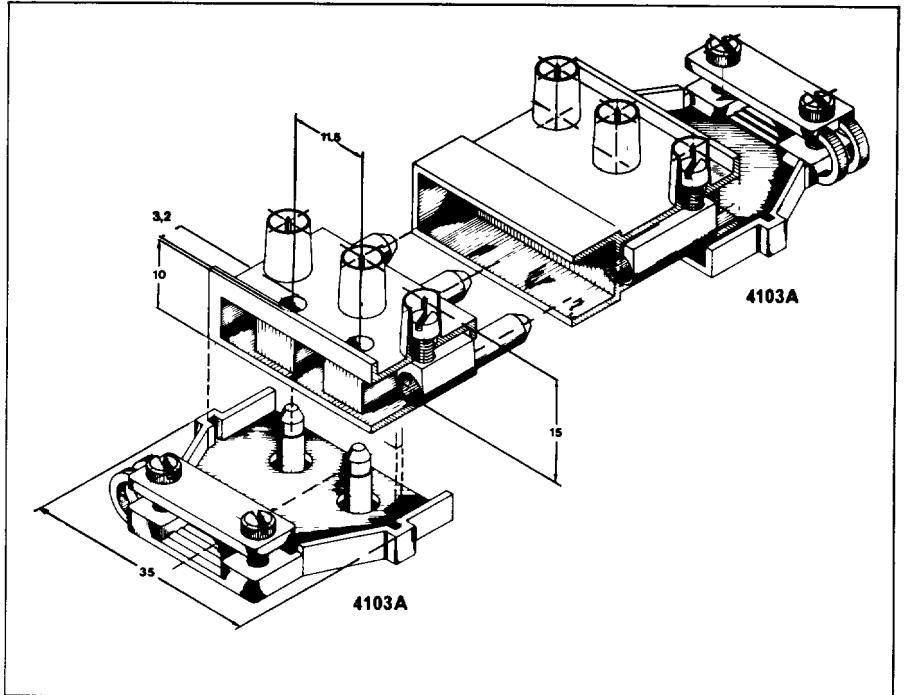
Pressure plates in screw terminals—specify 4103/402

CAT. NO. 4103A

A moulded cable clamp designed for pressing-in to each section of the 4103 to clamp cables up to 4mm diameter or thick

The hinged clamp has ribbed faces to grip the cable and two self-tapping screws for tightening

When fitted with the cable clamps the 4103 cannot be fixed to a base



CAT. NO. 4203 3-pole plug & socket with centre earth

Features Cut from standard 12-pole moulding
Removable shroud on socket section
Raised base
Non-reversible whilst shroud in position
Centre earth plug 4mm longer than outer plugs

Creepage 10

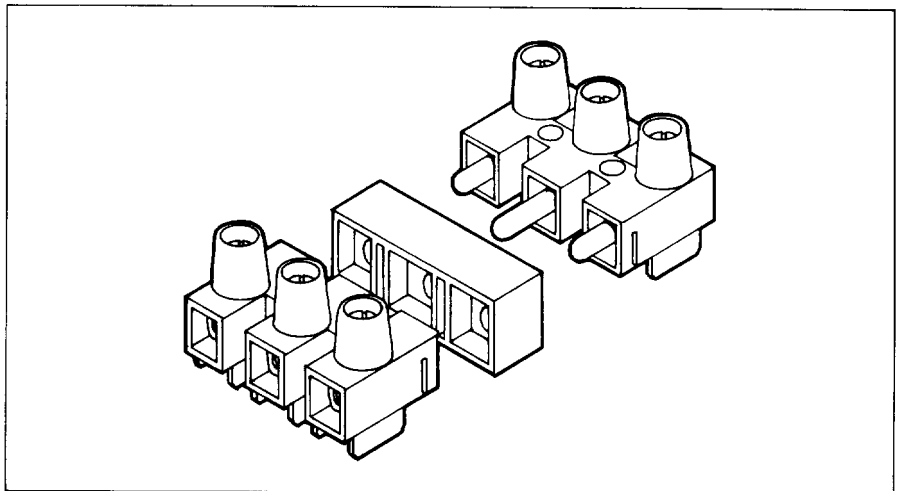
Clearance 8

Material Nylon 6.6 (120°C)

Optional:—

Pressure plates in screw terminals—specify 4203/402A

Note If required separately specify 4203-1 for plug section, 4203-2 for socket section



TERMINAL BOX 2.5[□] CEE REC 2 GROUP 2

CAT. NO. 1513

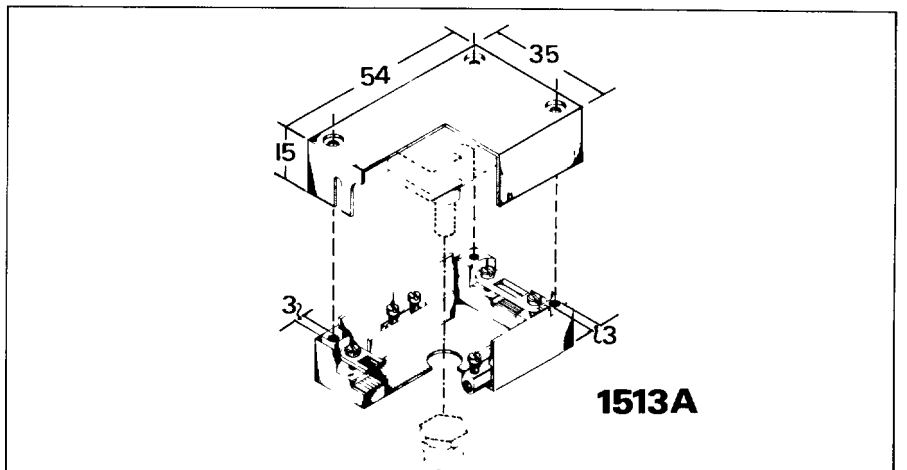
A white nylon 6.6 box in two parts measuring 54 × 35 × 15mm overall. It has two fixed 2.5[□] terminals with M3 screws and an internal fixed cable clamp at each end for cables up to 7mm o.d.

The clip-on lid can be retained with two self-tapping screws and the whole unit fixed with two other screws.

Alternatives A round hole in the centre of the lid, dia 10.5mm—specify 1513A

A shaped hole in the centre of the lid 10 × 8mm—specify 1513B

The provision of a hole in the lid enables panel push switches to be fitted but it should be noted that 1513A and B are to special order only



Page ref: 040778

TERMINAL BLOCKS – Printed Circuit

elkay

10 Amps. 2.5[□] CEE REC 2 GROUP 2

CAT. NO. 4212L-7

Features Standard screw terminals along one side and 1mm p c pins at 10mm crs
Flat base

Creepage N/A

Clearance N/A

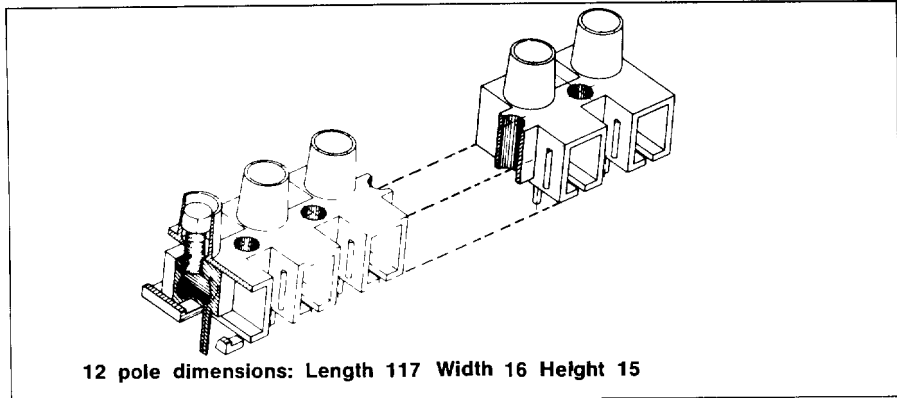
Material Nylon 6 6 (120°C)

Optional:—

Pressure plates in screw terminals—specify 4212L-7/402A

Marker plates 1103

Hot foil marking See page 040278



12 pole dimensions: Length 117 Width 16 Height 15

CAT. NO. 4412L

Features Standard screw terminals on top
1mm p c pins at 10mm crs
Flat base

Creepage N/A

Clearance N/A

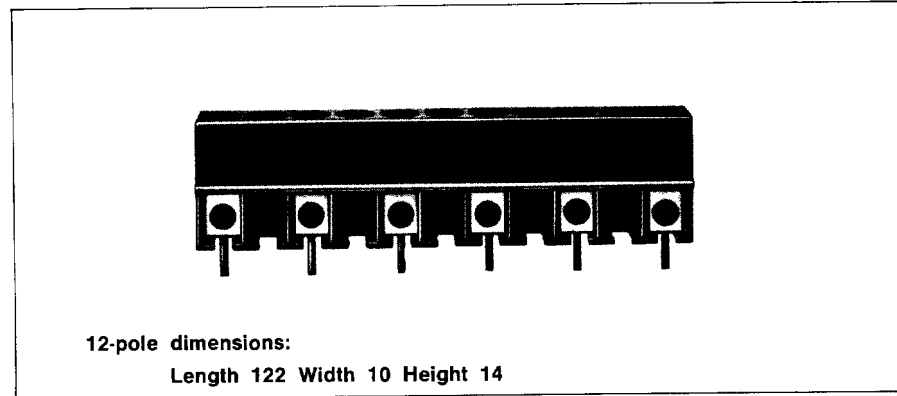
Material Polyester

Optional:—

Pressure plates in screw terminals—specify 4412L/152

Hot foil marking See page 040278

N B Discolouration of inserts is a protective coating to facilitate flow soldering at 300°C Hand solder at 300°C also



12-pole dimensions:
Length 122 Width 10 Height 14

CAT. NO 4424L

Features Standard screw terminals on top
1mm p c pins at 5mm crs
Flat base

Creepage N/A

Clearance N/A

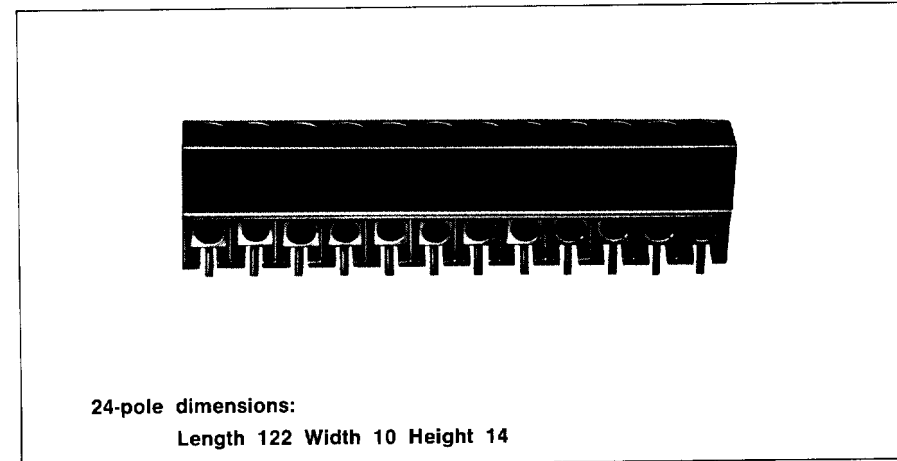
Material Polyester

Optional:—

Pressure plates in screw terminals—specify 4424L/152

Hot foil marking See page 040278

N B Discolouration of inserts is a protective coating to facilitate flow soldering at 300°C Hand solder at 300°C also



24-pole dimensions:
Length 122 Width 10 Height 14

CAT. NO. 4412/10-1

Features Standard screw terminals at side Top cable entry 1mm p c pins at 10mm pitch

Material Polyester

CAT NO 4424/5-1

Features Standard screw terminals at side Top cable entry 1mm p c pins at 5mm pitch

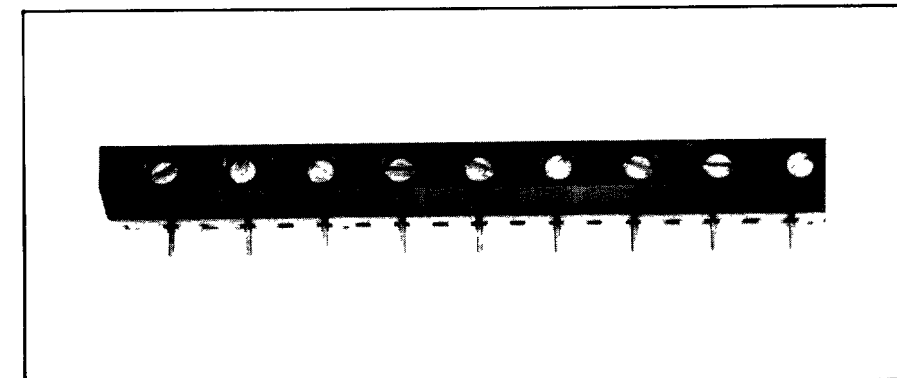
Material Polyester

Optional —

Pressure plates in screw terminals—Specify 4412/10-1/152 or 4424/5-1/152

Hot foil marking See page 040278

See above N B for special finish for soldering



PLEASE NOTE. CAT. NO. 4212L-7 is now available in 16amp version – CAT NO 4312L-7

Page Ref 040878(b)