

## Types of Connection

### a) Terminal Screw

Solder pin is directly attached to the terminal connector in one solid piece. This creates very low contact resistance giving extremely low voltage loss. Wire guards are fitted as standard and afford protection to the conductors. As an option the wire guard may be omitted, thereby increasing the Maximum Rated Cross Section and permitted size of conductor.

### b) Rising Cage-Clamp

Provides a 'cage' to protect the conductors and are especially recommended where frequent connections and disconnections are envisaged.

### c) Interconnection Plug In

Connector (Plug) and Header (Socket) provide flexible interconnection for installations anticipating frequent repair or servicing. Secondary PC Boards can be easily added. Connecting Terminals use the Rising Cage-Clamp technology to protect the conductors and Coding Profiles are available for enhanced protection, without loss of poles (not applicable to 20.130 Series).

### d) Screwless Spring-Clamp

Clamping of the conductor by the spring-clamp gives high retention force particularly useful in high vibration, corrosion or temperature fluctuating environments.

## Insulating Materials

High quality polyamide with flammability class V-0 (0.4mm) in accordance with UL94. Comparative Tracking Index (CTI) to IEC 112/DIN 0303/Section 1 is >600V. Plug and Socket connectors are moulded in *unbreakable* polyamide (PA) classified as V-0 under UL94.

### Polyamid Ratings (PA)

Flammability UL94 **V-0**

Tracking Index (CTI) IEC 112/DIN VDE 0303 Sec 1 **>600V**

Volume Resistivity IEC 93/DIN 53482 **10<sup>13</sup> Ohm**

Surface Resistivity IEC 93/DIN 53482 **10<sup>15</sup> Ohm**

Temperature Stability **-30°C/+105°C**

## Colours

Standard moulding colours are indicated for each type of connector, normally dark-grey or green, but other colours including blue, black and orange are available on request.

## Metal Parts

### Connecting Terminals

**a) Terminal Screw types** consist of a brass alloy, with the tin surface offering a high level of corrosion protection, low contact resistance and easy soldering. The Wire Guards are stainless steel which protect conductors against strain while maintaining optimum electrical contact.

**b) Cage Clamp types** consist of brass alloy, freed from stress by annealing procedures. The nickel-plated surface of the clamp combines with tin-plated solder tag to ensure low contact resistance, maximum corrosion protection and ease of soldering.

**Screws** are galvanised and yellow-chromed steel to protect against corrosion.

## Rated Cross Sections

Figures shown for each type of connector are the largest size of conductors which may be used. Where wire-end sleeves are used, the Rated Cross Section is reduced.

## Creepage Distances and Air Gaps

The rated voltage of electrical connecting elements depends upon the creepage distances, air gaps and degree of contamination or pollution present in the application. The contamination levels defined in **IEC664** are:-

**Pollution degree 1** No pollution or only dry, non-conductive pollution occurs. The pollution has no influence.

**Pollution degree 2** Normally, only non-conductive pollution occurs. Occasionally, however, a temporary conductivity caused by condensation must be expected.

**Pollution degree 3** Conductive pollution occurs, or dry, non-conductive pollution occurs which becomes conductive due to condensation which is expected.

**Pollution degree 4** The pollution generates persistent conductivity caused, for instance, by conductive dust or by rain or snow.

Depending upon the application, IMO Terminal Block Connectors usually fall into Pollution degree 2 or 3.

The **Maximum Voltage** figure shown in this catalogue is in accordance with **IEC664A** – International Electrotechnical Commission Report – Insulation co-ordination within low voltage systems. *Conditions:-* Creepage distances for Basic or Supplementary Insulation in accordance with Table IV, Pollution degree 2, Material group 1.

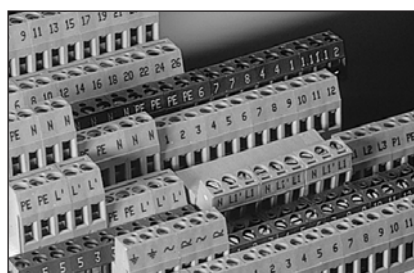
The **Rated Voltage** and **Rated Current** figures are specified against **EN60998** – European Norm:- “Connecting devices for low voltage circuits for household and similar purposes”. For Interconnection Plug-in Types the **VDE0627** approved ratings are used because, at the time of going to print, the appropriate European Norms were still in preparation. The **UL Ratings** are specified against **UL1059** – Underwriters Laboratory Standard 1059 for Terminal Blocks. *Conditions:-* User group B “Commercial appliances including business equipment, electronic data processing equipment and the like.”

## Screw Torque

The Torque Ratings shown are the minimum test figures quoted by VDE 0609 Part 1 for safe connections.

## Optional Marking

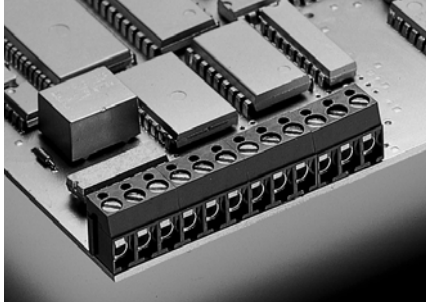
IMO utilizes a modern ink-jet system for high clarity marking of numbers, letters or symbols. These must be exactly specified at time of ordering.



*Customise your connectors*

## Vertical 101 Series

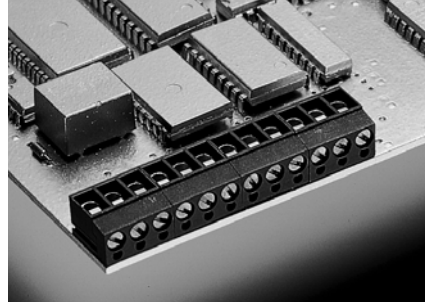
- Standard profile 5mm pitch
- Solid block construction



Part number 20.101/\*\* SB  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

## Horizontal 105 Series

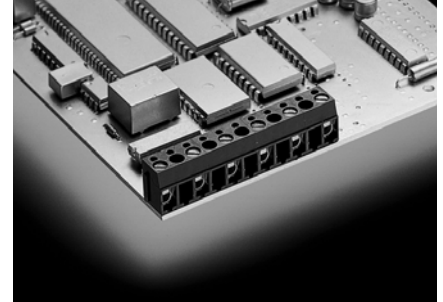
- Standard profile 5mm pitch
- Modular interlocking construction



Part number 20.105/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles










## Vertical 200 Series

- Standard profile 10mm pitch
- Modular interlocking construction



Part number 20.200/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

## Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V		300 V	300 V	250 V		300 V	300 V	750 V
Rated current	15 A	15 A	24 A (T60)		15 A	15 A	24 A (T60)		15 A	15 A	24 A (T60)
Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>		AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>		AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>
Test voltage			2.0 kV				2.0 kV				3.0 kV
Rated torque/screw size			0.5 Nm/M3				0.5 Nm/M3				0.5 Nm/M3

## Maximum rated cross section

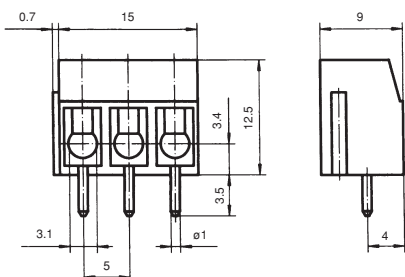
Single wire (solid)	2.5mm <sup>2</sup>	Single wire (solid)	2.5mm <sup>2</sup>	Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>	Stranded wire (flexible)	1.5mm <sup>2</sup>	Stranded wire (flexible)	1.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>	Stranded wire with Ferrules	1.5mm <sup>2</sup>	Stranded wire with Ferrules	1.5mm <sup>2</sup>

## Materials

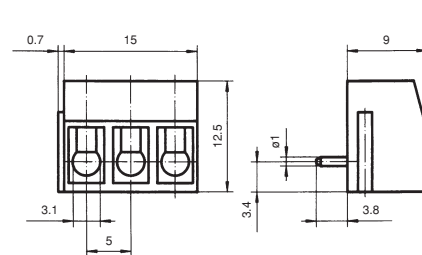
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	stainless steel	Wire guard	stainless steel	Wire guard	stainless steel
Colour		Colour		Colour	
Grey	RAL 7016	Grey	RAL 7016	Grey	RAL 7016

## Dimensions

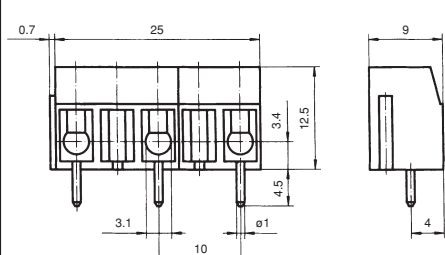
Spacing	5.0mm	Spacing	5.0mm	Spacing	10.0mm
PCB hole diameter	1.3mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	7.0mm	Stripped length	6.0mm	Stripped length	7.0mm



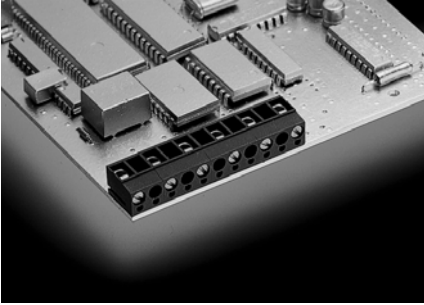
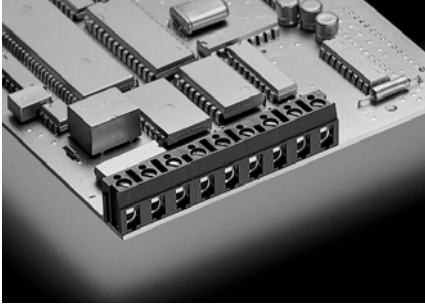
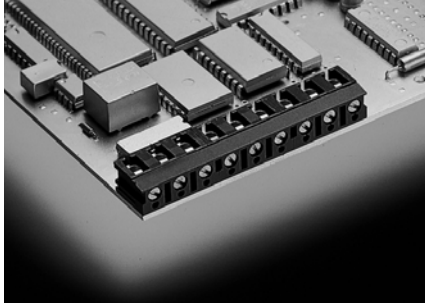
- Options:
- Modular interlocking construction
  - 5.08mm PIN pitch version available
  - Printed terminals












- Options:
- 5.08mm PIN pitch version available
  - Printed terminals



- Options:
- Printed terminals

Horizontal 205 Series		Vertical 110 Series		Horizontal 115 Series	
<ul style="list-style-type: none"> <li>● Standard profile 10mm pitch</li> <li>● Modular interlocking construction</li> </ul>		<ul style="list-style-type: none"> <li>● Standard profile 7.5mm pitch</li> <li>● Modular interlocking construction</li> </ul>		<ul style="list-style-type: none"> <li>● Standard profile 7.5mm pitch</li> <li>● Modular interlocking construction</li> </ul>	
					
Part number	20.205/**	Part number	20.110/**	Part number	20.115/**
Number of poles	2-12 poles	Number of poles	2-12 poles	Number of poles	2-12 poles
**Insert required No. of poles		**Insert required No. of poles		**Insert required No. of poles	

## Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	750 V	Rated voltage	300 V	300 V	500 V	Rated voltage	300 V	300 V	500 V
Rated current	15 A	15 A	24 A (T60)	Rated current	15 A	15 A	24 A (T60)	Rated current	15 A	15 A	24 A (T60)
Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>
Test voltage	3.5 kV			Test voltage	3.0 kV			Test voltage	3.0 kV		
Rated torque/screw size	0.5 Nm/M3			Rated torque/screw size	0.5 Nm/M3			Rated torque/screw size	0.5 Nm/M3		

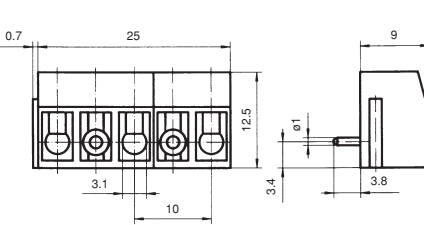
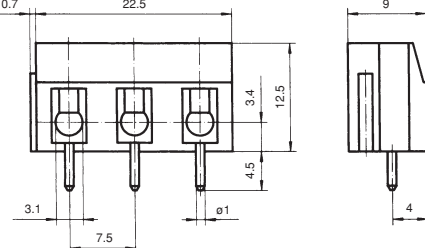
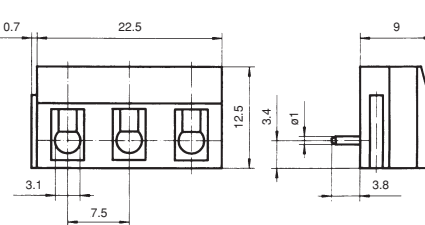
## Maximum rated cross section

Single wire (solid)	2.5mm <sup>2</sup>	Single wire (solid)	2.5mm <sup>2</sup>	Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>	Stranded wire (flexible)	1.5mm <sup>2</sup>	Stranded wire (flexible)	1.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>	Stranded wire with Ferrules	1.5mm <sup>2</sup>	Stranded wire with Ferrules	1.5mm <sup>2</sup>

## Materials

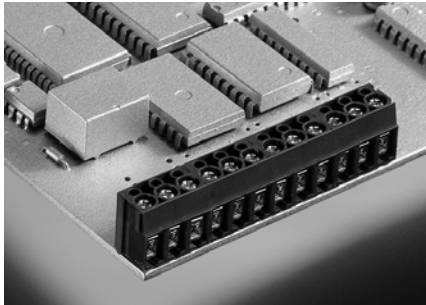
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	stainless steel	Wire guard	stainless steel	Wire guard	stainless steel
Colour		Colour		Colour	
Grey	RAL 7016	Grey	RAL 7016	Grey	RAL 7016

## Dimensions

Spacing	10.0mm	Spacing	7.5mm	Spacing	7.5mm
PCB hole diameter	1.3mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	6.0mm	Stripped length	7.0mm	Stripped length	6.0mm
					
Options: ● Printed terminals		Options: ● Printed terminals		Options: ● Printed terminals	

### Vertical 102 Series

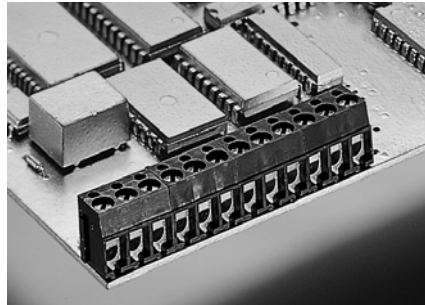
- Standard profile 5mm pitch
- 4mm<sup>2</sup> wire cross section
- Modular interlocking construction



Part number 20.102/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Vertical 104 Series

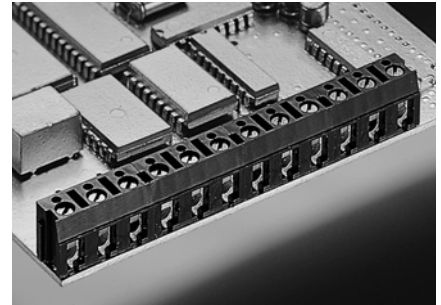
- Twist – Resist
- 5mm pitch
- Modular interlocking construction



Part number 20.104/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles




### Vertical 114 Series




- Twist – Resist
- 7.5mm pitch
- Modular interlocking construction






Part number 20.114/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Ratings

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	15 A	15 A	24 A (T60)
Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	15 A	15 A	32 A (T60)
Wire size	AWG 22-12	AWG 22-12	4.0mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.8 Nm/M3

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	500 V
Rated current	15 A	15 A	32 A (T60)
Wire size	AWG 22-12	AWG 22-12	4.0mm <sup>2</sup>
Test voltage			3.0 kV
Rated torque/screw size			0.8 Nm/M3

### Maximum rated cross section

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

### Materials

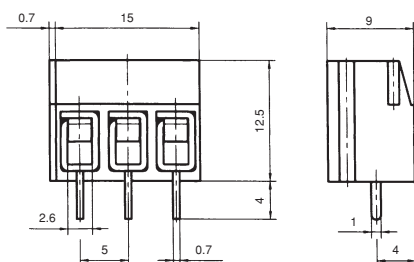
Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	CuSn
Colour	
Grey	RAL 7016

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	stainless steel
Colour	
Grey	RAL 7016

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	stainless steel
Colour	
Grey	RAL 7016

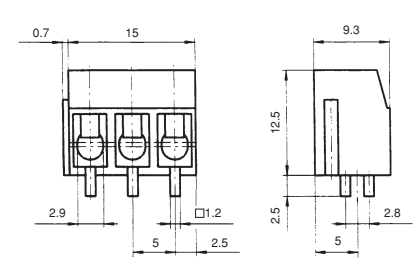
### Dimensions

Spacing	5.0mm
PCB hole diameter	1.3mm
Stripped length	7.0mm



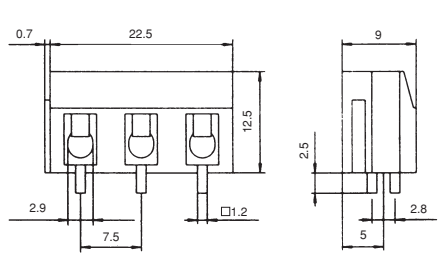
Options:

Spacing	5.0mm
PCB hole diameter x pitch	2.0mm x 2.8mm
Stripped length	7.0mm



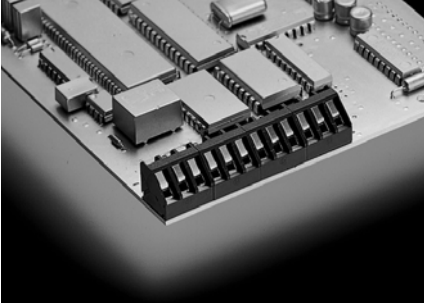
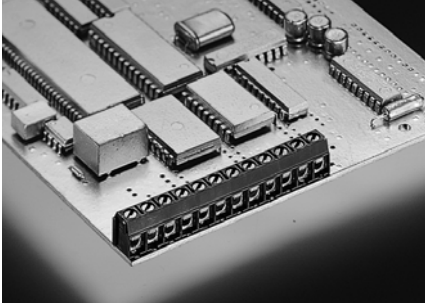
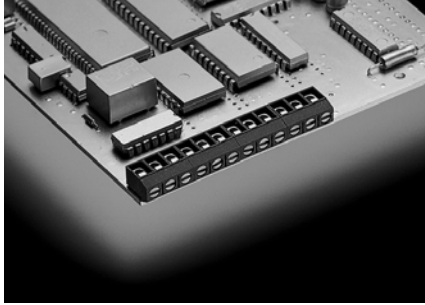
Options: ● Printed terminals

Spacing	7.5mm
PCB hole diameter x pitch	2.0mm x 2.8mm
Stripped length	7.0mm












Options: ● Printed terminals



Angled 300 Series		Vertical 501 Series		Horizontal 505 Series	
<ul style="list-style-type: none"> <li>● Standard profile 5mm pitch</li> <li>● 45 degrees</li> <li>● Modular interlocking construction</li> <li>● Rising cage clamp mechanism</li> </ul>		<ul style="list-style-type: none"> <li>● Low profile 5mm pitch</li> <li>● Solid block construction</li> </ul>		<ul style="list-style-type: none"> <li>● Low profile 5mm pitch</li> <li>● Modular interlocking construction</li> </ul>	
					
Part number	20.300/**	Part number	20.501/**SB	Part number	20.505/**
Number of poles	2-12 poles	Number of poles	2-12 poles	Number of poles	2-12 poles
**Insert required No. of poles		**Insert required No. of poles		**Insert required No. of poles	

## Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V	Rated voltage	300 V	300 V	250 V	Rated voltage	300 V	300 V	250 V
Rated current	15 A	15 A	24 A (T60)	Rated current	15 A	15 A	17.5 A (T60)	Rated current	15 A	15 A	17.5 A (T60)
Wire size	AWG 22-12	AWG 22-12	2.5mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>
Test voltage	2.0 kV			Test voltage	2.0 kV			Test voltage	2.0 kV		
Rated torque/screw size	0.5 Nm/M2.6			Rated torque/screw size	0.4 Nm/M2.6			Rated torque/screw size	0.4 Nm/M2.6		

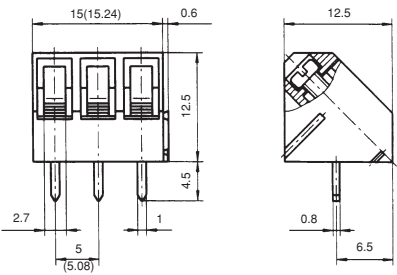
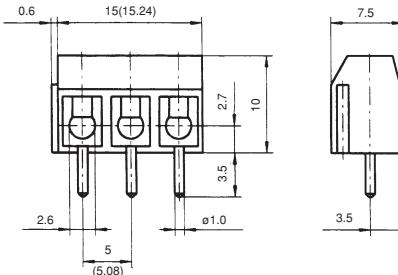
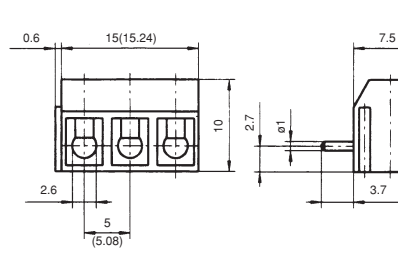
## Maximum rated cross section

Single wire (solid)	2.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>

## Materials

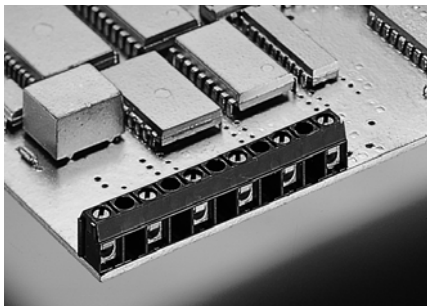
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	Cu	Wire guard	stainless steel	Wire guard	stainless steel
Colour		Colour		Colour	
Grey	RAL 7016	Grey	RAL 7016	Grey	RAL 7016

## Dimensions

Spacing	5.0mm (5.08mm)	Spacing	5.0mm (5.08mm)	Spacing	5.0mm (5.08mm)
PCB hole diameter	1.3mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	7.0mm	Stripped length	6.0mm	Stripped length	5.0mm
					
Options:	● 5.08mm PIN pitch	Options:	● Modular interlocking construction ● 5.08mm PIN pitch ● Printed terminals	Options:	● 5.08mm PIN pitch ● Printed terminals

### Vertical 600 Series

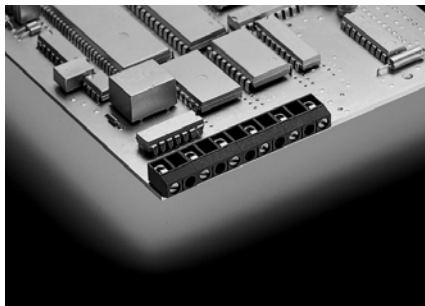
- Low profile 10mm pitch
- Modular interlocking construction



Part number 20.600/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Horizontal 605 Series

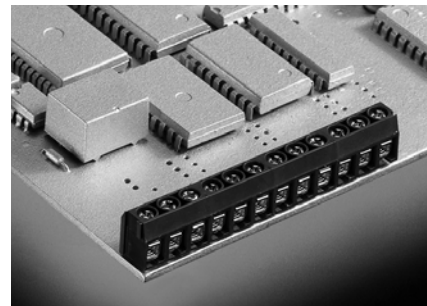
- Low profile 10mm pitch
- Modular interlocking construction



Part number 20.605/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles










### Vertical 502 Series

- Low profile 5mm pitch
- Modular interlocking construction



Part number 20.502/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	750 V		300 V	300 V	750 V		300 V	300 V	250 V
Rated current	15 A	15 A	17.5 A (T60)		15 A	15 A	17.5 A (T60)		15 A	15 A	17.5 A (T60)
Wire size	AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>		AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>		AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>
Test voltage			3.0 kV				3.0 kV				2.0 kV
Rated torque/screw size			0.4 Nm/M2.6				0.4 Nm/M2.6				0.4 Nm/M2.6

### Maximum rated cross section

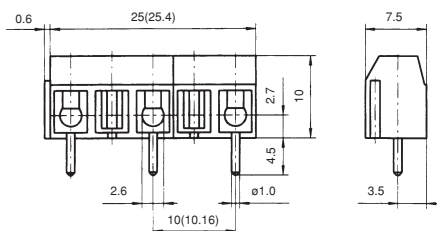
Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>
Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>
Stranded wire with Ferrules	0.75mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>

### Materials

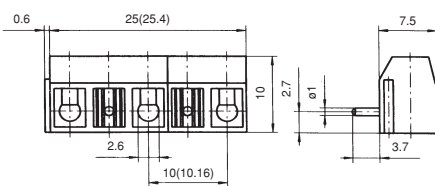
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	stainless steel	Wire guard	stainless steel	Wire guard	CuSn
Colour		Colour		Colour	
Grey	RAL 7016	Grey	RAL 7016	Grey	RAL 7016

### Dimensions

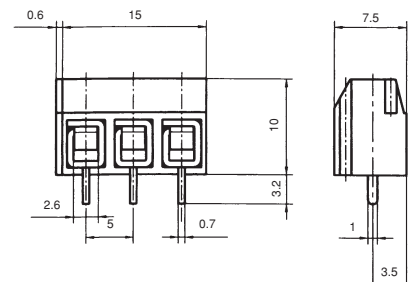
Spacing	10.0mm (10.16mm)	Spacing	10.0mm (10.16mm)	Spacing	5.0mm
PCB hole diameter	1.3mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	6.0mm	Stripped length	5.0mm	Stripped length	6.0mm



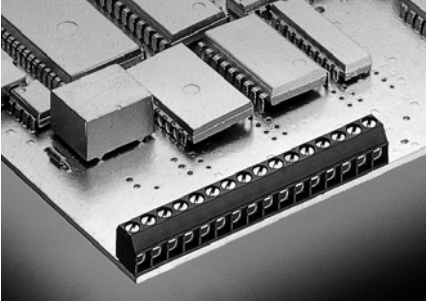
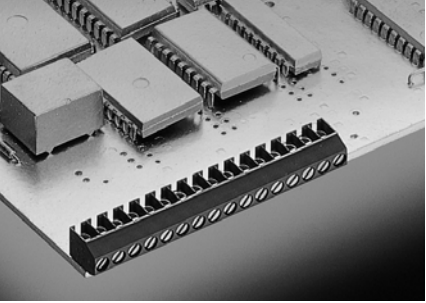
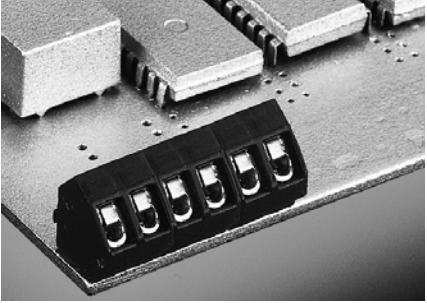
- Options: ● 10.16mm PIN pitch  
 ● Printed terminals












- Options: ● 10.16mm PIN pitch  
 ● Printed terminals



- Options:

Vertical 550 Series		Horizontal 555 Series		Angled 590 Series	
<ul style="list-style-type: none"> <li>● Miniature 3.5mm pitch</li> <li>● Solid block construction</li> </ul>		<ul style="list-style-type: none"> <li>● Miniature 3.5mm pitch</li> <li>● Solid block construction</li> </ul>		<ul style="list-style-type: none"> <li>● Miniature 5mm pitch</li> <li>● 45 degrees</li> <li>● Modular interlocking construction</li> </ul>	
					
Part number	20.550/**	Part number	20.555/**	Part number	20.590/**
Number of poles	2-16 poles	Number of poles	2-16 poles	Number of poles	2-12 poles
**Insert required No. of poles		**Insert required No. of poles		**Insert required No. of poles	

## Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	125 V	150 V	130 V	Rated voltage	125 V	150 V	130 V	Rated voltage	300 V	300 V	250 V
Rated current	6 A	6 A	13.5 A (T60)	Rated current	6 A	6 A	13.5 A (T60)	Rated current	15 A	15 A	17.5 A (T60)
Wire size	AWG 28-16	AWG 28-16	1.0mm <sup>2</sup>	Wire size	AWG 28-16	AWG 28-16	1.0mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	1.5mm <sup>2</sup>
Test voltage	2.0 kV			Test voltage	2.0 kV			Test voltage	2.0 kV		
Rated torque/screw size	0.4 Nm/M2			Rated torque/screw size	0.4 Nm/M2			Rated torque/screw size	0.4 Nm/M2.6		

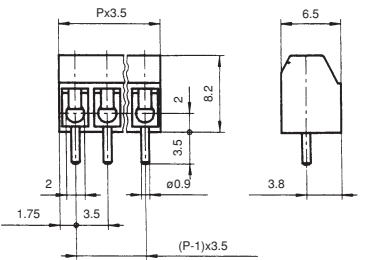
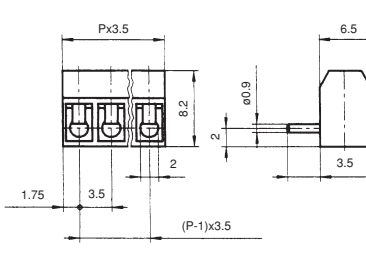
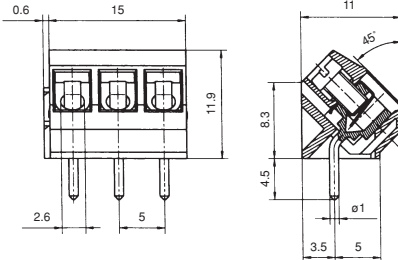
## Maximum rated cross section

Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	1.5mm <sup>2</sup>
Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	1.0mm <sup>2</sup>
Stranded wire with Ferrules	0.75mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>	Stranded wire with Ferrules	0.75mm <sup>2</sup>

## Materials

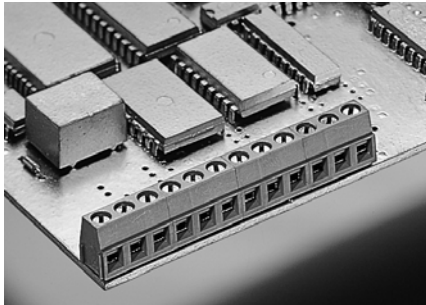
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	CuSn	Wire guard	CuSn	Wire guard	stainless steel
Colour		Colour		Colour	
Grey	RAL 7016	Grey	RAL 7016	Grey	RAL 7016

## Dimensions

Spacing	3.5mm	Spacing	3.5mm	Spacing	5.0mm
PCB hole diameter	1.2mm	PCB hole diameter	1.2mm	PCB hole diameter	1.3mm
Stripped length	5.5mm	Stripped length	5.5mm	Stripped length	6.0mm
					
Options: ● 7.0mm PIN pitch ● Printed terminals		Options: ● 7.0mm PIN pitch ● Printed terminals		Options:	

### Vertical 250 Series

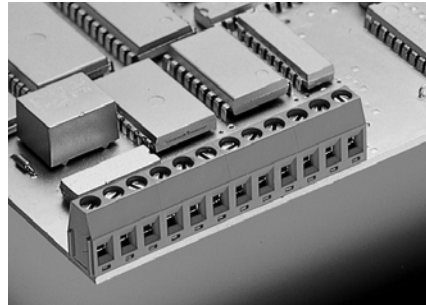
- Miniature 5.08mm pitch
- Rising clamp mechanism
- Modular interlocking construction



Part number 21.250/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Vertical 350 Series

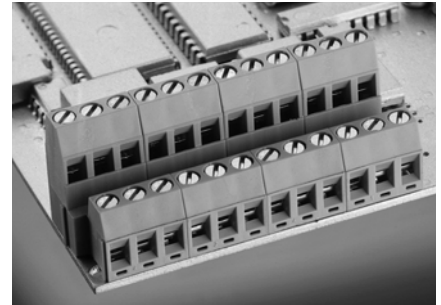
- Low profile 5.08mm pitch
- Rising clamp mechanism
- Modular interlocking construction



Part number 21.350/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles




### Vertical 370 Series




- Low profile double decker 5mm pitch
- Rising clamp mechanism
- Modular interlocking construction






Part number 20.370/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Ratings

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	15 A	15 A	13 A (T60)
Wire size	AWG 28-14	AWG 28-14	1.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	16 A	16 A	24 A (T60)
Wire size	AWG 28-12	AWG 28-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	16 A	16 A	24 A (T60)
Wire size	AWG 22-12	AWG 22-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

### Maximum rated cross section

Single wire (solid)	1.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	1.5mm <sup>2</sup>
Stranded wire with Ferrules	1.5mm <sup>2</sup>

### Materials

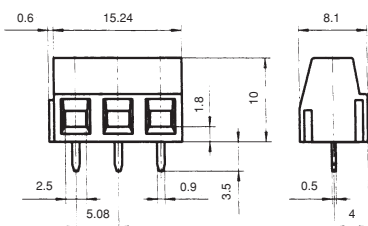
Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

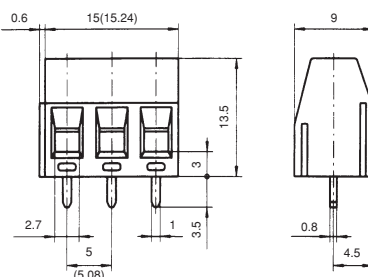
### Dimensions

Spacing	5.08mm
PCB hole diameter	1.3mm
Stripped length	6.0mm



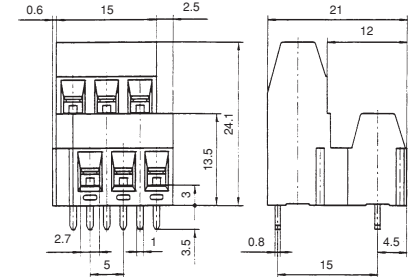
- Options: ● 10.16mm PIN pitch  
 ● Printed terminals

Spacing	5.08mm (5.0mm)
PCB hole diameter	1.3mm
Stripped length	6.0mm



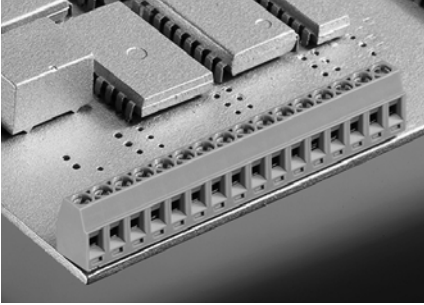
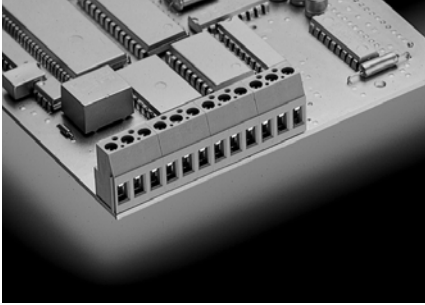
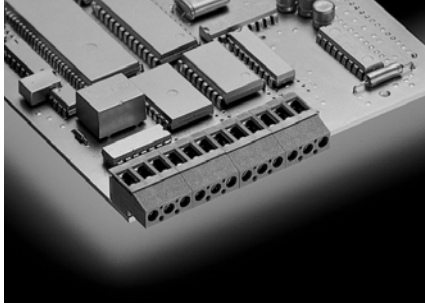
- Options: ● 5.0mm, 7.5mm, 10.16mm PIN pitch  
 ● Horizontal mounting  
 ● Printed terminals

Spacing	5.0mm
PCB hole diameter	1.3mm
Stripped length	6.0mm












- Options: ● Printed terminals



Vertical 602 Series		Vertical 700 Series		Horizontal 705 Series	
<ul style="list-style-type: none"> <li>● Miniature non-solder press in 3.81mm pitch</li> <li>● Rising clamp mechanism</li> <li>● Solid block construction</li> </ul>		<ul style="list-style-type: none"> <li>● Standard profile 5mm pitch</li> <li>● Rising clamp mechanism</li> <li>● Modular interlocking construction</li> </ul>		<ul style="list-style-type: none"> <li>● Standard profile 5mm pitch</li> <li>● Rising clamp mechanism</li> <li>● Modular interlocking construction</li> </ul>	
					
Part number	21.602/**	Part number	20.700/**	Part number	20.705/**
Number of poles	2-16 poles	Number of poles	2-12 poles	Number of poles	2-12 poles
**Insert required No. of poles		**Insert required No. of poles		**Insert required No. of poles	

## Ratings

											
	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	130 V	Rated voltage	300 V	300 V	250 V	Rated voltage	300 V	300 V	250 V
Rated current	10 A	10 A	13.5 A (T60)	Rated current	20 A	20 A	24 A (T60)	Rated current	15 A	15 A	24 A (T60)
Wire size	AWG 30-16	AWG 30-16	1.0mm <sup>2</sup>	Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>	Wire size	AWG 22-14	AWG 22-14	2.5mm <sup>2</sup>
Test voltage			1.25 kV	Test voltage			2.0 kV	Test voltage			2.0 kV
Rated torque/screw size			0.4 Nm/M2	Rated torque/screw size			0.5 Nm/M3	Rated torque/screw size			0.5 Nm/M3

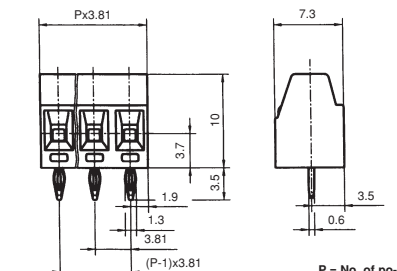
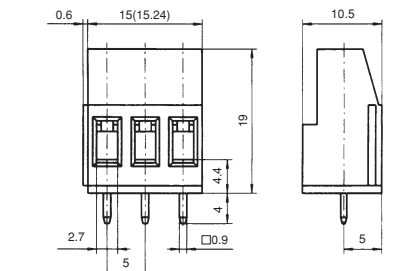
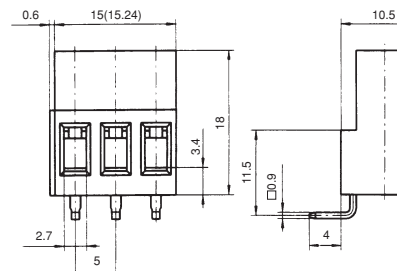
## Maximum rated cross section

Single wire (solid)	1.5mm <sup>2</sup>	Single wire (solid)	4.0mm <sup>2</sup>	Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	1.0mm <sup>2</sup>	Stranded wire (flexible)	2.5mm <sup>2</sup>	Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	0.5mm <sup>2</sup>	Stranded wire with Ferrules	2.5mm <sup>2</sup>	Stranded wire with Ferrules	2.5mm <sup>2</sup>

## Materials

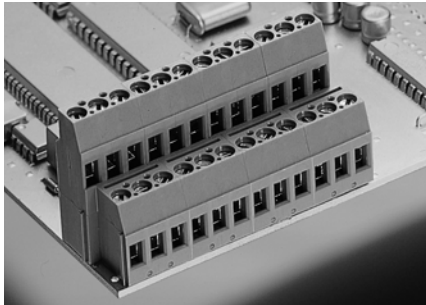
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	CuSn	Wire guard	Cu	Wire guard	Cu
Colour		Colour		Colour	
Green	RAL 6018	Green	RAL 6018	Green	RAL 6018

## Dimensions

Spacing	3.81mm	Spacing	5.0mm (5.08mm)	Spacing	5.0mm (5.08mm)
PCB contact hole diameter	1.0 <sup>+0.06</sup> / <sub>-0.06</sub> mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	5.0mm	Stripped length	8.0mm	Stripped length	8.0mm
					
Options: ● Standard PCB PIN ● Printed terminals		Options: ● 5.08mm, 7.5mm, 7.62mm ● 10.0mm, 10.16mm PIN pitch ● Printed terminals		Options: ● 5.08mm PIN pitch ● Printed terminals	

### Vertical 750 Series

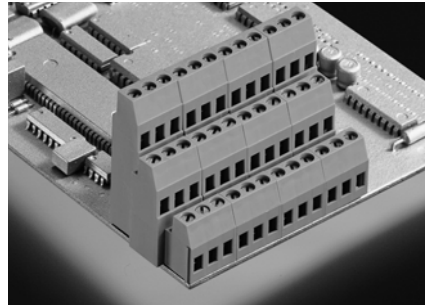
- Standard off-set double decker
- 5mm pitch ● Rising clamp mechanism
- Modular interlocking construction



Part number 20.750/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Vertical 770 Series

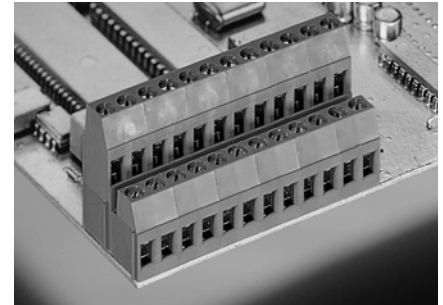
- Standard off-set triple decker
- 5.08mm pitch ● Rising clamp mechanism
- Modular interlocking construction



Part number 21.770/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Vertical 790 Series

- Standard in-line double decker
- 5mm pitch ● Rising clamp mechanism
- Modular interlocking construction



Part number 20.790/\*\*  
 Number of poles 2-12 poles  
 \*\*Insert required No. of poles

### Ratings

	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	20 A	20 A	24 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	20 A	20 A	24 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	20 A	20 A	24 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M3

### Maximum rated cross section

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>

Single wire (solid)	4.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>

### Materials

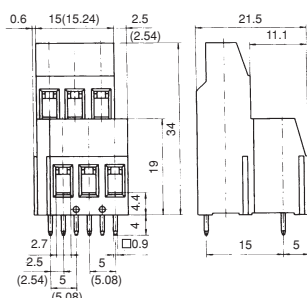
Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	CuZn
Wire guard	Cu
Colour	
Green	RAL 6018

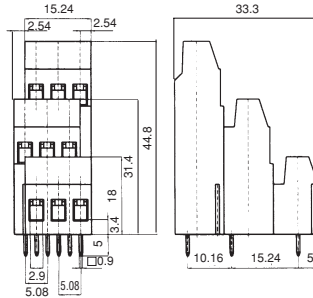
### Dimensions

Spacing	5.0mm (5.08mm)
PCB hole diameter	1.3mm
Stripped length	8.0mm



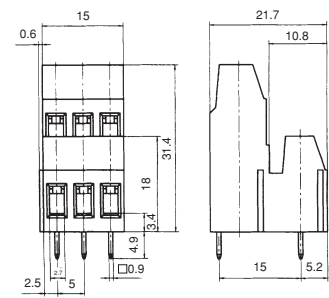
- Options: ● 5.08mm PIN pitch  
 ● Printed terminals

Spacing	5.08mm
PCB hole diameter	1.3mm
Stripped length	8.0mm

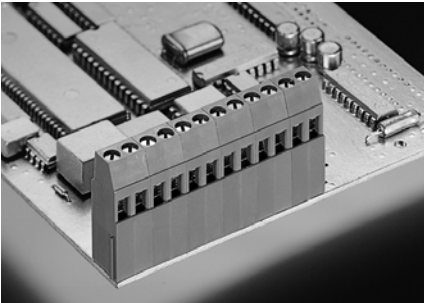
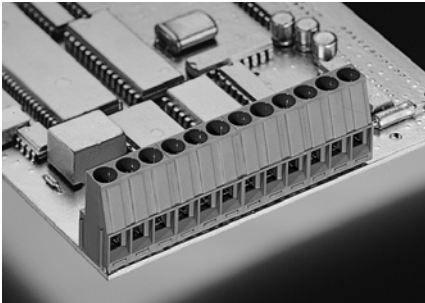
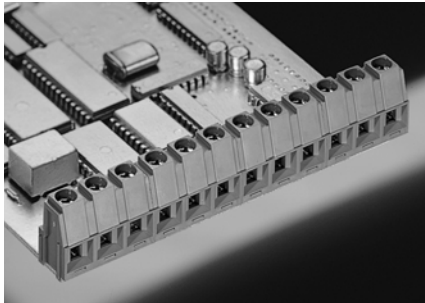


- Options: ● Printed terminals

Spacing	5.0mm
PCB hole diameter	1.3mm
Stripped length	8.0mm



- Options: ● Printed terminals

Vertical 793 Series	Vertical 840 Series	Vertical 841 Series
<ul style="list-style-type: none"> <li>● Top tier only</li> <li>● 5mm pitch</li> <li>● Rising clamp mechanism</li> <li>● Modular interlocking construction</li> </ul>	<ul style="list-style-type: none"> <li>● High power 6.35mm pitch</li> <li>● Rising clamp mechanism</li> <li>● Modular interlocking construction</li> </ul>	<ul style="list-style-type: none"> <li>● High power 9.52mm pitch</li> <li>● Rising clamp</li> <li>● Modular interlocking construction</li> </ul>
		
Part number: 20.793/** Number of poles: 2/4/6/8/10/12 poles **Insert required No. of poles	Part number: 21.840/** Number of poles: 2-12 poles **Insert required No. of poles	Part number: 21.841/** Number of poles: 2-12 poles **Insert required No. of poles

## Ratings

	UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998		UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V		300 V	300 V	450 V		300 V	300 V	1000 V
Rated current	20 A	20 A	24 A (T60)		30 A	30 A	41 A (T60)		30 A	30 A	41 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>		AWG 28-10	AWG 28-10	6.0mm <sup>2</sup>		AWG 28-10	AWG 28-10	6.0mm <sup>2</sup>
Test voltage			2.0 kV				2.5 kV				3.5 kV
Rated torque/screw size			0.5 Nm/M3				0.8 Nm/M3				0.8 Nm/M3

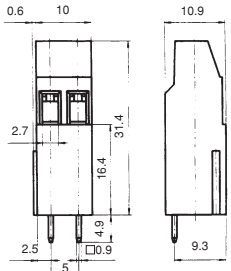
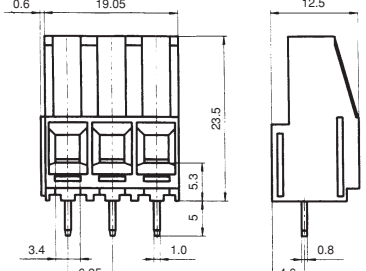
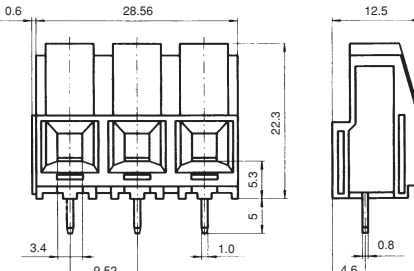
## Maximum rated cross section

Single wire (solid)	4.0mm <sup>2</sup>	Single wire (solid)	6.0mm <sup>2</sup>	Single wire (solid)	6.0mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>	Stranded wire (flexible)	4.0mm <sup>2</sup>	Stranded wire (flexible)	4.0mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>	Stranded wire with Ferrules	4.0mm <sup>2</sup>	Stranded wire with Ferrules	4.0mm <sup>2</sup>

## Materials

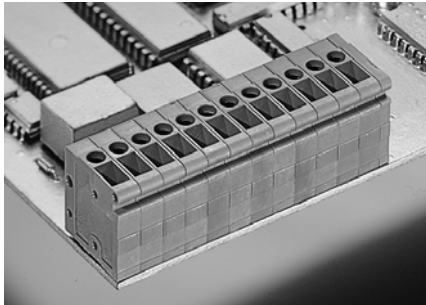
Insulating material	PA	Insulating material	PA	Insulating material	PA
Flammability class	UL94 V-0	Flammability class	UL94 V-0	Flammability class	UL94 V-0
Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C	Temperature range	-30°C/+105°C
Terminal block	CuZn	Terminal block	CuZn	Terminal block	CuZn
Wire guard	Cu	Wire guard	Cu	Wire guard	Cu
Colour		Colour		Colour	
Green	RAL 6018	Green	RAL 6018	Green	RAL 6018

## Dimensions

Spacing	5.0mm	Spacing	6.35mm	Spacing	9.52mm
PCB hole diameter	1.3mm	PCB hole diameter	1.3mm	PCB hole diameter	1.3mm
Stripped length	8.0mm	Stripped length	8.0mm	Stripped length	8.0mm
					
Options: ● Printed terminals		Options:		Options:	

### Vertical 2200V Series

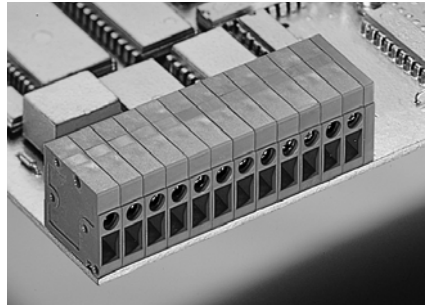
- Parallel direction of wire and screwdriver
- 5mm pitch
- Modular interlocking construction



Part number 20.2250V/\*\*  
 Number of poles Any number  
 \*\*Insert required No. of poles




### Horizontal 2200H Series




- Parallel direction of wire and screwdriver
- 5mm pitch
- Modular interlocking construction



Part number 20.2250H/\*\*  
 Number of poles Any number  
 \*\*Insert required No. of poles

### Ratings

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	20 A	20 A	24 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M2.5

			
	UL 1059	CSA 22.2 No.158	EN 60998
Rated voltage	300 V	300 V	250 V
Rated current	20 A	20 A	24 A (T60)
Wire size	AWG 30-12	AWG 30-12	2.5mm <sup>2</sup>
Test voltage			2.0 kV
Rated torque/screw size			0.5 Nm/M2.5

### Maximum rated cross section

Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>

Single wire (solid)	2.5mm <sup>2</sup>
Stranded wire (flexible)	2.5mm <sup>2</sup>
Stranded wire with Ferrules	2.5mm <sup>2</sup>

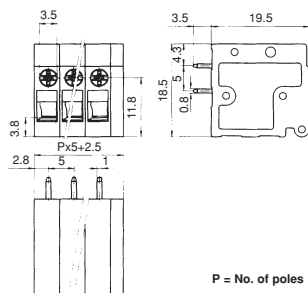
### Materials

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	Fe/Fe
Wire guard	Cu
Colour	
Green	RAL 6018

Insulating material	PA
Flammability class	UL94 V-0
Temperature range	-30°C/+105°C
Terminal block	Fe/Fe
Wire guard	Cu
Colour	
Green	RAL 6018

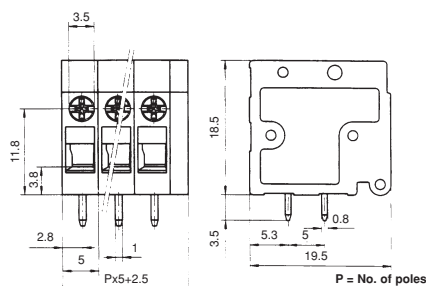
### Dimensions

Spacing	5.0mm
PCB hole diameter	1.3mm
Stripped length	9.0mm



Options: ● 7.5mm, 10.0mm PIN pitch

Spacing	5.0mm
PCB hole diameter	1.3mm
Stripped length	9.0mm



Options: ● 7.5mm, 10.0mm PIN pitch