

Screw terminal block (Rail-mount)

Product Line-up

■2-tier Type Terminal block

- The two-tier terminal block is ideal when many control circuit terminals are required in a limited space.
- The upper and lower terminals are offset by half a pole, allowing wiring from either the upper or lower side.
 - In addition to standard screw terminals, spring-loaed terminals are also available. These allow ring-type crimp terminals to be connected without removing the screw, greatly reducing wiring time.
 - A globally compliant product, certified to cULus and EN/IEC standards.

Series Name	Abstract	Rated Insulation Voltage	Ratings ^{Note1}	Terminal screw ^{Note2}	Product Name	Rough Weight per 1 poles
TTG	•A globally compliant product certified to c-UL-us and EN/IEC standards. It is also approved for UL field wiring. •The snap-on mounting system allows easy installation or removal between existing units. •The lower terminal plate has been made flat, making wiring work easier and more efficient.	800V	2mm ² [20A]	M3×8⊕ Standard screw	TTG203	17g
				M3×8⊕ Spring-loaded screw terminal	TTG20U3	19g
			2mm ² [20A]	M3.5×8⊕ Standard screw	TTG2035	19g
				M3.5×8⊕ Spring-loaded screw terminal	TTG20U35	21g
			5.5mm ² [40A]	M4×10⊕ Standard screw	TTG40	30g
				M4×8.5⊕ Spring-loaded screw terminal	TTG40U	32g
TT	• This is a standard 2-tier Type Terminal block.	600V	1.25mm ² [15A]	M3×8⊕ Standard screw	TT105K	16g
				M3×8⊕ Spring-loaded screw terminal	TT105UK	18g
			2mm ² [20A]	M3.5×8⊕ Standard screw	TT105KM35	18g
				M3.5×8⊕ Spring-loaded screw terminal	TT105UKM35	20g
			3.5mm ² [30A]	M4×10⊕ Standard screw	TT20K	29g
				M4×10⊕ Spring-loaded screw terminal	TT20UK	31g

Note1 Ratings are recommended values with usage in compliance to JIS standards.

Note2 As for the Symbols inTerminal screw columns, ⊕ is plus/minus screw.

Common Specifications

Operational Ambience	－25～＋55℃	
Temperature Range	(without Freezing nor Dew condensation)	
Relative Humidity	45～85%RH	
Temperature rise	Max. 45℃ of temperature rise at conducting metals	
Insulating Resistance	Between each live part and between each live part and the mounting metal plate: Min. 100 MΩ	
Commercial Frequency Withstanding Voltage	2500V 1 Min.	
ImpulseWithstanding Voltage	TTG	6000V(TTG20(U)3, TTG20(U)35) 8000V(TTG40, TTG40U) ^{Note1}
	TT	6000V
Conformed Standards	JIS C8201-7-1 ^{Note2} , NECA C2811 (JIS C2811) ^{Note3} UL1059 (TTG series) EN/IEC60947-7-1 (TTG series)	

Note1: As for TTG20(U)3 and TTG20(U)35, when the crimped section of the solderless terminal is insulated, the Impulse Withstanding voltage becomes 8,000 V.

Note 2: As of May 2010, JIS C2811 has been replaced by JIS C8201-7-1.

Note 3: NECA C2811 is a standard conforming to the contents of JIS C2811.

Materials

Name	Materials	Flame retardance grade
Terminal Base	Polycarbonate (Black)	UL94V-0 UL94V-2 (only TT)
Terminal screws	Steel (Zinc plated Chromate Treatment)	—
Conducting Plate	TTG	Copper Alloy (Nickel plating)
	TT	Brass (Nickel plating)
Seal for legends	Fiber Vinyl chloride Polypropylene	—
Cover	Polycarbonate	UL94V-2 Equivalent

Ratings for Overseas Certification

■The Ratings used as comforming products to UL/cULus

TTG seriesTerminal block series of Terminal Blocks are certified products by cULus.

The ratings in using products as the cULus conformed ones are as shown below:

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Product Name		UL Standards (UL1059)						c-UL-us Standards (CSA Standards C22-2 No.158)			
		Ratings Voltage (V)	Ratings Current (A)	Applicable wires(AWG/MCM) ^{Note1}		FW ^{Note2}	Tightening Torque (N·m)	Ratings Voltage (V)	Ratings Current (A)	Applicable wires ^{Note1} (AWG/MCM)	Tightening Torque (N·m)
Single wire	Stranded wire										
Standard screw	Spring-loaded screw terminal										
TTG203	TTG20U3	600	15	20~14	20~14	2	0.9	600	15	20~14	0.9
TTG2035	TTG20U35	600	15	20~14	20~14	2	1.3	600	15	20~14	1.3
TTG40	TTG40U	600	30	* 10	* 10	2	1.8	600	30	18~* 10	1.8
			25	18~12	18~12	2					

Note1: The above list applies to connection by bare copper or by crimp terminals. As for Applicable Wires, however, values with * are only for connection by crimp terminals. Please use only crimp terminals with UL or cULus conformance.

Note2: FW1: Wirings at factory, FW2: Wirings at factory and in-field

Note3: If products are used at UL Ratings, connect only one wire to one terminal.

■The Ratings used as comforming products to EN/IEC

TTG series Terminal Blocks are certified by TÜV, an international third-party certification organization, to conform to EN/IEC standards, enabling smoother verification of CE marking compliance for machinery.

The ratings when used as EN/IEC-compliant products are as follows:

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Product Name		Ratings Voltage (V)	Impulse Withstanding Voltage (V)	Ratings Current (A)	Applicable wires (AWG/MCM) ^{Note}		Tightening torque (N•m)	Connectable Wires
					Single wire	Stranded wire		
TTG203	TTG20U3	600	6000	20	20～14 (0.5-2.5mm ²)	20～14 (0.5-2.5mm ²)	0.9	1 or 2
TTG2035	TTG20U35	600	6000	20	20～14 (0.5-2.5mm ²)	20～14 (0.5-2.5mm ²)	1.3	1 or 2
TTG40	TTG40U	600	6000	40	18～10 (0.75-6mm ²)	18～10 (0.75-6mm ²)	1.8	1 or 2

Note: The above table applies to both bare copper wire connections and crimp terminal connections. Please note the following points:

For crimp terminal connections: Use insulated crimp terminals, or insulate bare crimp terminals with sleeves, tubes, or tape.

When connecting two bare wires: Use wires of the same size and type (solid or stranded). Do not connect wires of different sizes or types.