

SMD TERMINAL BLOCKS

Small is Big!



**WE
INNOVATE!**



WAGO[®]

SMD TERMINAL BLOCKS

A compact and low-profile PCB connection is required to achieve the most uniform light distribution, while minimizing shadowing. WAGO's surface-mount terminal blocks, with their combination of a flat design and wide application scope, fully satisfy these demands. Furthermore, 1-, 2- and

3-pole terminal strips can be assembled without pole loss, providing total flexibility with just a few models. All SMD terminal blocks come in tape-and-reel packaging for full integration into an automated assembly process.

Applications

The numerous advantages of WAGO's SMD line of PCB terminal blocks enable them to be used in many different applications. From compact, conventionally wired LED spotlights up to automatically wired, recessed ceiling luminaires, WAGO's three SMD terminal block lines provide the perfect connection between driver and module.

The terminal blocks accommodate a broad range of conductors making them highly versatile for worldwide applications.



ADVANTAGES:

- Low profile minimizes on-board shadowing
- Simple push-in termination of solid conductors
- Terminal strips of different lengths can be assembled without pole loss, reducing the number of variants and lowering production costs
- Available in 1-3 pole configurations
- Delivery in tape-and-reel packaging for full integration into SMT soldering process
- Potential for significant cost savings via automated pick-and-place assembly



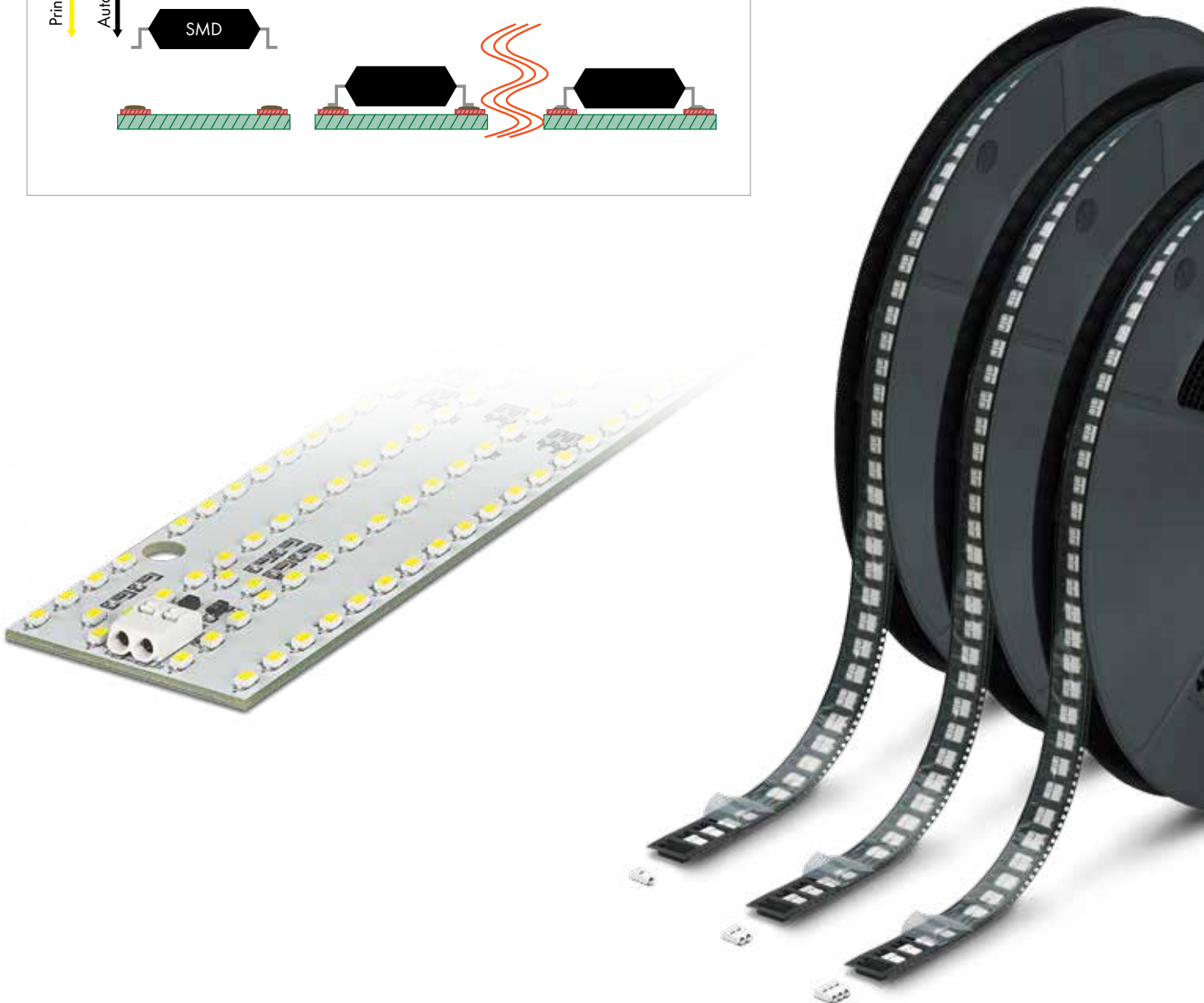
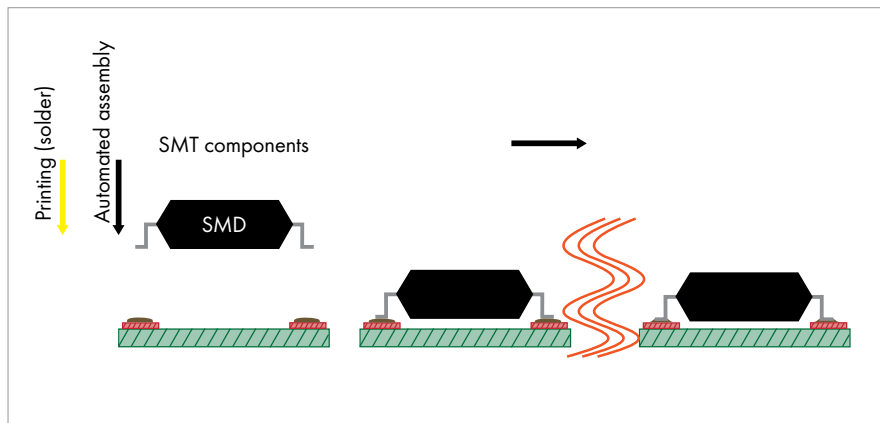
SURFACE-MOUNT TECHNOLOGY

Surface-Mount Technology (SMT) means soldering electronic components directly onto PCB surface pads without drilling holes.

The basic SMT process consists of applying solder paste to

the PCB via solder dispensing equipment, screen or stencil printing. SMT assembly is performed using fully automated placement machines. Surface-mount components are soldered to the board in infrared, convection or vapor phase ovens.

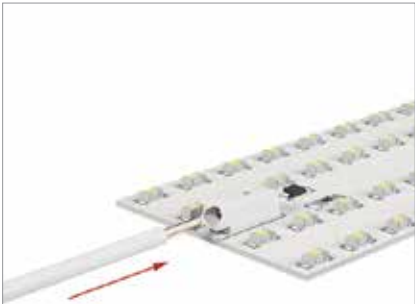
Reflow Soldering Process:



2059 SERIES

For the Smallest Sizes

- Low profile of just 2.7 mm
- Pin spacing: 3 mm
- Terminate solid conductors from 26 to 22 AWG (0.14–0.34 mm²)
- Simple push-in termination of solid conductors
- Easy conductor removal via operating tool
- Ratings: 160 V, 2.5 kV/2 (III), 3 A
- Available in 1–3 pole variants
- Assemble terminal strips without losing any poles
- Available in tape-and-reel packaging



Inserting solid conductors via push-in termination.

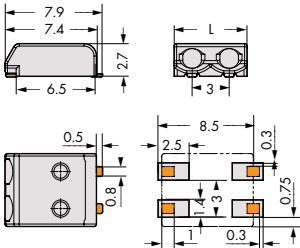


Easy conductor removal, e.g., via the optional 206-859 Operating Tool.



2059 Series, 3 mm Pin Spacing						
Pin Spacing		3 mm / 0.118 in.			Conductor Data	
Ratings per		IEC/EN 60664-1			Connection technology PUSH WIRE®	
Overvoltage category	III	III	II		Conductor size: solid	0.14–0.34 mm ²
Pollution degree	3	2	2		AWG	26–22 "sol."
Rated voltage	63 V	160 V	320 V		Strip length	4–5.5 mm / 0.16–0.22 in.
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV			
Rated current	3 A	3 A	3 A			
Pole No.	Item No.			Pack. Unit		
SMD terminal blocks in tape-and-reel packaging, white						
					Reel diameter: 330 mm	
1	2059-301/998-403			31800 (12 x 2650)		
2	2059-302/998-403			21000 (12 x 1750)		
3	2059-303/998-403			21000 (12 x 1750)		

L = (pole no. x pin spacing) – 0.1 mm

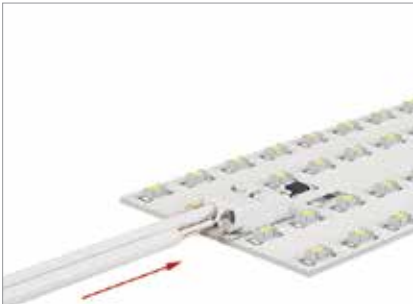


$L = (\text{pole no.} \times \text{pin spacing}) - 0.1 \text{ mm}$

2060 SERIES

For Manual and Automated Wiring Systems

- 4.5 mm tall
- Pin spacing: 4 mm
- Terminate conductors from 24 to 18 AWG (0.2–0.75 mm²)
- Simple push-in termination of solid conductors
- Push-buttons simplify insertion/removal of all conductor types
- Ratings: 160 V, 2.5 kV/2 (III), 9 A
- Available in 1–3 pole variants
- Assemble terminal strips without losing any poles
- Available in tape-and-reel packaging



Inserting solid conductors via push-in termination.

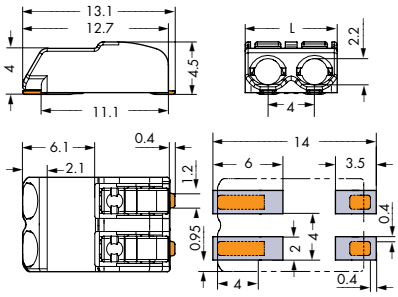


Inserting/removing fine-stranded conductors by lightly depressing the push-button (e.g., using the optional 206-860 Operating Tool).



2060 Series, 4 mm Pin Spacing

Pin Spacing	4 mm / 0.157 in.			Conductor Data	
Ratings per	IEC/EN 60664-1			Connection technology	CAGE CLAMP® S
Overvoltage category	III	III	II	Conductor size: solid	0.2–0.75 mm²
Pollution degree	3	2	2	Conductor size: fine-stranded	0.2–0.75 mm²
Rated voltage	63 V	160 V	320 V	Conductor size: fine-stranded	0.25–0.34 mm² (with insulated ferrule)
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV		
Rated current	9 A	9 A	9 A	Conductor size: fine-stranded	0.25–0.34 mm² (with uninsulated ferrule)
Approvals per	UL 1977				
Rated voltage, 1-pole	600 V			AWG	24–18
Rated voltage, 2 or more poles	250 V			Strip length	7–9 mm / 0.28–0.35 in.
Rated current (UL)	9 A				
Pole No.	Item No.	Pack. Unit			
SMD terminal blocks with push-buttons in tape-and-reel packaging, white					
		Reel diameter: 330 mm			
1	2060-451/998-404	13500 (9 × 1500)			
2	2060-452/998-404	9000 (9 × 1000)			
3	2060-453/998-404	6750 (9 × 750)			



L = (pole no. x pin spacing) - 0.1 mm

2060 SERIES

8 mm Pin Spacing

The 2-pole SMD terminal block with 8 mm pin spacing has been added to WAGO's portfolio, providing higher rated voltages up to 630 V/6 kV/2 in LED and industrial applications.



Board-to-Board Link

Besides standard wiring, several LED modules can be easily assembled into a single string using board-to-board connection links. This minimizes labor (no manual wiring) and materials needed for connecting LED modules.



Assembly: Place PCBs on a flat surface and connect terminal blocks on adjoining PCBs via board-to-board link.

Disassembly: Pull PCBs apart (max. 10 connections/disconnections). The PCBs must be secured.

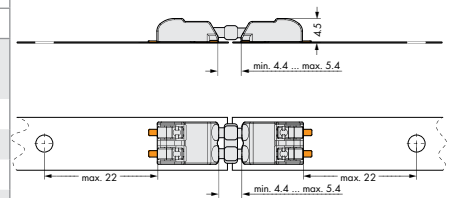
THR and Wave Soldering

WAGO's 2060 Series THR PCB Terminal Blocks with soldering pins are ideally suited for THR and wave soldering. The THR 2060 Series is available in light gray and black housings. For more information, go to www.wago.com/2060.



2060 Series, Board-to-Board Link

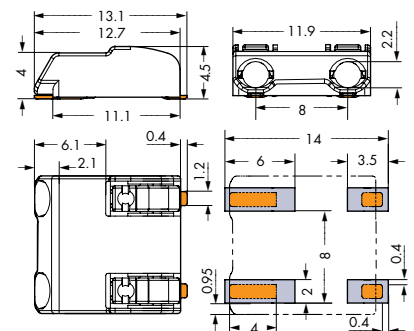
Pin Spacing	4 mm / 0.157 in.			Pole No.	Item No.	Pack. Unit
Ratings per	IEC/EN 60664-1			Board-to-board link for SMD terminal blocks with push-buttons		
Overvoltage category	III	III	II			
Pollution degree	3	2	2			
Rated voltage	63 V	160 V	320 V	1	2060-901	1500
Rated impulse voltage	2.5 kV	2.5 kV	2.5 kV	2	2060-902	500
Rated current	9 A	9 A	9 A	3	2060-903	375



2060 Series, 8 mm Pin Spacing

Pin Spacing	8 mm / 0.314 in.			Conductor Data	
Ratings per	IEC/EN 60664-1			Connection technology	CAGE CLAMP® S
Overvoltage category	III	III	II	Conductor size: solid	0.2–0.75 mm ²
Pollution degree	3	2	2	Conductor size: fine-stranded	0.2–0.75 mm ²
Rated voltage	400 V	630 V	1000 V	Conductor size: fine-stranded	0.25–0.34 mm ² (with insulated ferrule)
Rated impulse voltage	6 kV	6 kV	6 kV	Conductor size: fine-stranded	0.25–0.34 mm ² (with uninsulated ferrule)
Rated current	9 A	9 A	9 A	AWG	24–18
Approvals per	UL 1977			Strip length	7–9 mm / 0.28–0.35 in.
Rated voltage	600 V				
Rated current (UL)	9 A				

Pole No.	Item No.	Pack. Unit
SMD terminal blocks with push-buttons in tape-and-reel packaging, white		
		Reel diameter: 330 mm
2	2060-852/998-404	6750 (9 x 750)



2061 SERIES

For Direct Power System Feed-In

- 5.6 mm tall
- Pin spacing: 6 mm
- Terminate conductors from 20 to 16 AWG ($0.5\text{--}1.5\text{ mm}^2$)
- Simple push-in termination of solid conductors
- Push-buttons simplify insertion/removal of all conductor types
- Ideal for automated wiring systems
- Ratings: 320 V, 4 kV/2 (III), 17.5 A
- 300 V UL 1059
- Available in 1–3 pole variants
- Assemble terminal strips without losing any poles
- Available in tape-and-reel packaging



The 2061 THR Series is available in both white and black housings.

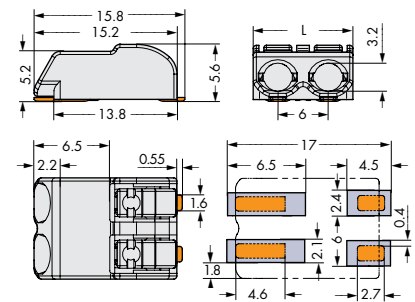


Inserting/removing fine-stranded conductors by lightly depressing the push-button (e.g., using the optional 206-861 Operating Tool).



2061 Series, 6 mm Pin Spacing

Pin Spacing	6 mm / 0.24 in.			Conductor Data	
Ratings per	IEC/EN 60664-1			Connection technology	CAGE CLAMP® S
Overvoltage category	III	III	II	Conductor size: solid	0.5 – 1.5 mm ²
Pollution degree	3	2	2	Conductor size: fine-stranded	0.5 – 1.5 mm ²
Rated voltage	250 V	320 V	630 V	Conductor size: fine-stranded	0.5 – 0.75 mm ²
Rated impulse voltage	4 kV	4 kV	4 kV		(with insulated ferrule)
Rated current	17.5 A	17.5 A	17.5 A	Conductor size: fine-stranded	0.5 – 0.75 mm ²
					(with uninsulated ferrule)
				AWG	20 – 16
				Strip length	7 – 10 mm / 0.28 – 0.39 in.
Pole No.	Item No.		Pack. Unit		
SMD terminal blocks with push-buttons in tape-and-reel packaging, white					Reel diameter: 330 mm
1	2061-601/998-404		8100 (9 x 900)		
2	2061-602/998-404		6300 (9 x 700)		
3	2061-603/998-404		4050 (9 x 450)		



$$L = (\text{pole no.} \times \text{pin spacing}) - 0.3 \text{ mm}$$



www.wago.com/SMD

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