

PRODUCT CHANGE NOTIFICATION: 2060 Series Surface Mount Terminal Block

Dear Customer,

Please be advised of the following product changes to WAGO's 2060 Series. Details of each are contained below:

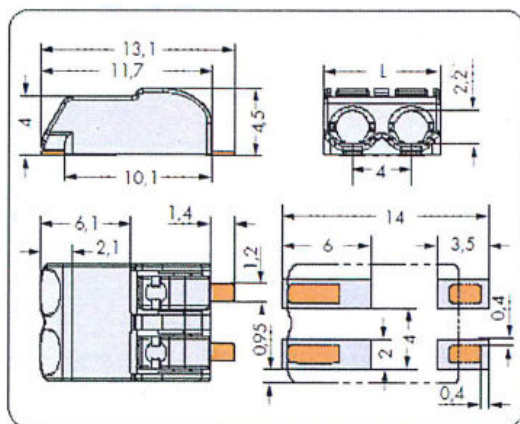
- 1) Dimensional changes
- 2) Color changes
- 3) New item numbers

1) **Dimensional changes**—marked in Yellow in the drawings below

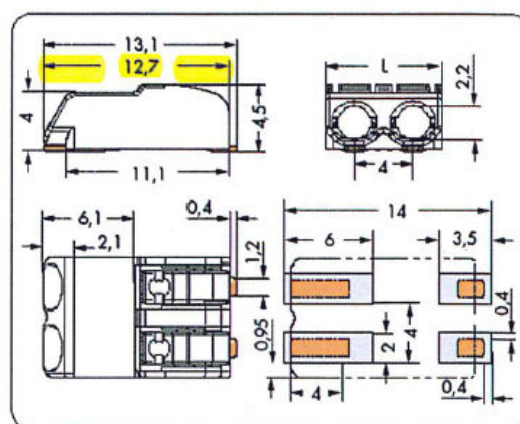
Increased housing length by 1mm at the rear of the terminal block. Total length of new variant is 12.7mm vs. 11.7mm of the old variant.

The increased housing length has the advantage of higher mechanical stability during pushbutton operation and for push-in insertion of solid wires (manual or automatic wiring). The metal contact has NOT been changed and therefore the PCB pad layout does NOT have to be changed to accommodate. In most applications there are no other objects/components positioned within the added 1mm length, and thus the terminal block can be changed to the new version without further consideration.

OLD VARIANT Dimensions



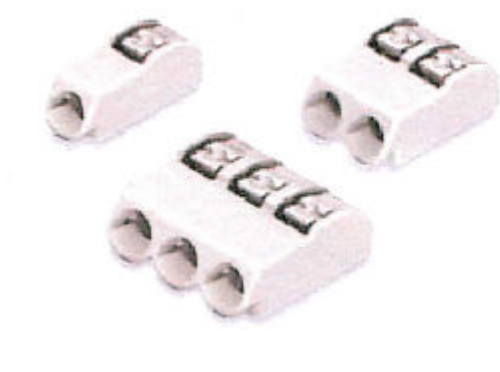
NEW VARIANT Dimensions



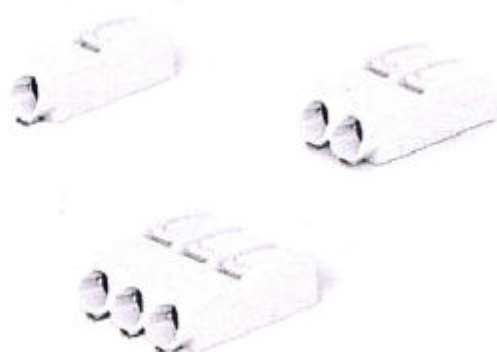
2) Color changes

The new variant features a pure white insulating housing color instead of a light-gray color of the old version. The advantage is better light characteristics—more reflection/less shadowing.

OLD VARIANT Color



NEW VARIANT Color



3) New item numbers

The new variants are called out by new item numbers in which the 6th digit of the item number is increased by '5', as follows:

<i>Bright White Variants with longer housings</i>		<i>Will Replace</i>
2060-451/998-404	1-pole bright white	2060-401/998-404
2060-452/998-404	2-pole bright white	2060-402/998-404
2060-453/998-404	3-pole bright white	2060-403/998-404
2060-852/998-404	2-pole 8mm bright white	2060-802/998-404
<i>Black Variants with longer housings</i>		<i>Will Replace</i>
2060-471/998-404	1-pole longer housing	2060-421/998-404
2060-472/998-404	2-pole longer housing	2060-422/998-404
2060-473/998-404	3-pole longer housing	2060-423/998-404
2060-872/998-404	2-pole 8mm longer housing	2060-822/998-404

Technical Data and Certifications

Please note that these changes do NOT affect the product's technical data or agency certifications. UL and EN/IEC certifications are identical to the old version and are available. Data sheets are included with this communication.

Changeover Schedule

The new variant is available from stock and can be ordered today in large production quantities. This changeover began gradually in January 2015 and is now ready for full transition. For all **new designs** we recommend use of the new variant only. For **existing designs**, we recommend a transition to the new product as soon as is feasible in your design process.

While this announcement is not intended to force immediate and inconvenient engineering change activity, we DO anticipate that a phase-out period will begin at some point in 2016 and thus wanted to provide advance notice in the hope that this change could be accommodated at a 'regular' design change interval.

Best Regards,



Cory M. Thiel
Product Manager—Electrical Interconnect

SMD Terminal Blocks with Push-Buttons, 0.75 mm² 4 mm Pin Spacing 2060 Series



- SMD terminal blocks with CAGE CLAMP® S and push-buttons
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Just 4.5 mm high
- Available in tape-and-reel packaging for automated assembly
- White version

Technical Data

Pin Spacing	4 mm 0.157 in			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Degree of contamination	3	2	2	
Rated voltage	63 V	160 V	320 V	
Rated surge voltage	2.5 kV	2.5 kV	2.5 kV	
Nominal current	9 A	9 A	9 A	
Approvals per	UL 1977			
Rated voltage, 1-pole	600 V			
Rated voltage, 2 or more poles	250 V			
Nominal current UL	9 A			

Conductor data:

Connection technology	CAGE CLAMP® S		
Conductor size: solid	0.2–0.75 mm ²		
Conductor size: fine-stranded	0.2–0.75 mm ²		
Conductor size: fine-stranded	0.25–0.34 mm ² (with insulated ferrule)		
Conductor size: fine-stranded	0.25–0.34 mm ² (with uninsulated ferrule)		
AWG	24 – 18		
Strip length	7–9 mm / 0.28–0.35 in		
Conductor entry	0° to PCB		

Material data:

Material group	I
Insulation material	Glass-fiber-reinforced polyphthalamide (PPA-GF)
Flammability rating per UL 94	V0
Lower/Upper limit temperature	-60 °C / +105 °C
Contact material	Copper alloy
Contact plating	Tin-plated

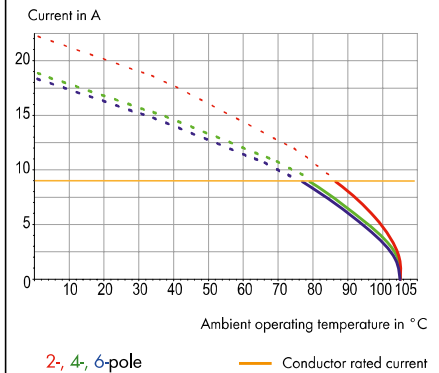
Application note:

Suitable for lead-free, reflow-soldering profiles acc. to DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD positioning pattern: Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Current-Carrying Capacity Curve

Pin spacing: 4 mm / Conductor size: 0.75 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



2060 Series accessories:

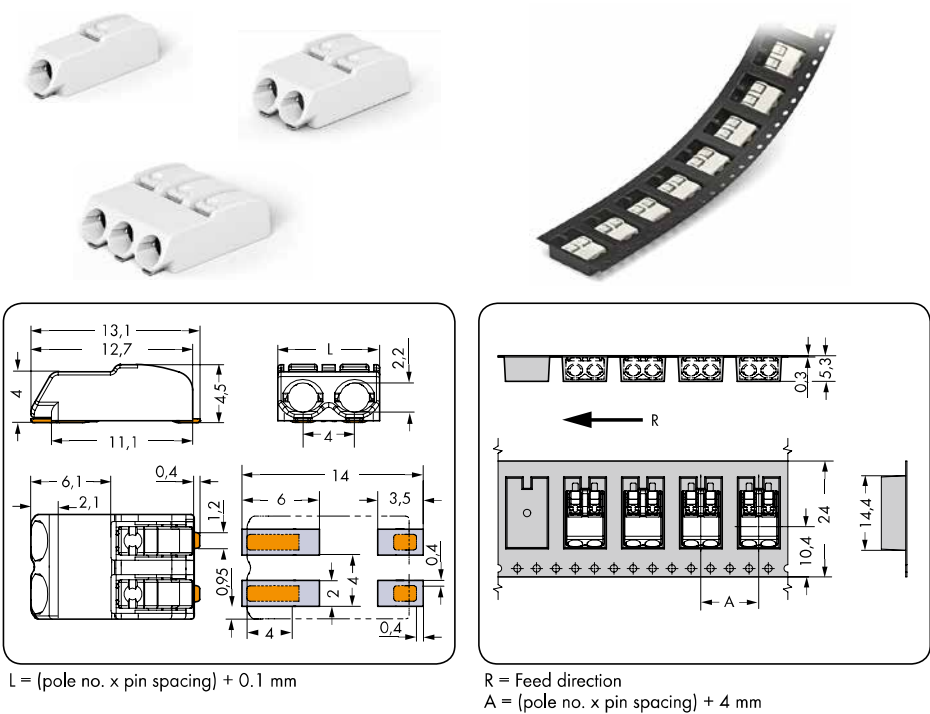
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SMD Terminal Blocks with Push-Buttons, 0.75 mm²

CAGE CLAMP® S

Pin spacing 4 mm / 0.157 in			
0.2-0.75 mm ² 160 V/2.5 kV/2 9 A	24-18 AWG		



Pole No.	Item No.	Pack. Unit
SMD terminal blocks with push-buttons, in tape-and-reel packaging, white*		
1	2060-451/998-404	13500 (9 x 1500)
2	2060-452/998-404	9000 (9 x 1000)
3	2060-453/998-404	6750 (9 x 750)
Reel diameter: 330 mm		



Inserting solid conductors via push-in termination.



Inserting/removing fine-stranded conductors by lightly pressing on push-button (e.g., using a 206-860 operating tool).



Terminal blocks can be arranged side-by-side without loss of poles.

* Depending on reflow soldering temperatures and times, color deviations may occur.

SMD Terminal Blocks with Push-Buttons, 0.75 mm² 8 mm Pin Spacing 2060 Series



- SMD terminal blocks with CAGE CLAMP® S and push-buttons
- 8 mm pin spacing version for higher rated voltages
- Push-in termination of solid and ferruled conductors
- Convenient termination/removal of fine-stranded conductors via push-buttons
- Height of just 4.5 mm minimizes on-board LED shadowing
- Available in tape-and-reel packaging for automated assembly

Technical Data

Pin Spacing	8 mm 0.314 in			
Ratings per	IEC/EN 60664-1			
Overvoltage category	III	III	II	
Degree of contamination	3	2	2	
Rated voltage	400 V	630 V	1000 V	
Rated surge voltage	6 kV	6 kV	6 kV	
Nominal current	9 A	9 A	9 A	
Approvals per	UL 1977			
Rated voltage	600 V			
Nominal current UL	9 A			

Conductor data:

Connection technology	CAGE CLAMP® S		
Conductor size: solid	0.2–0.75 mm ²		
Conductor size: fine-stranded	0.2–0.75 mm ²		
Conductor size: fine-stranded	0.25–0.34 mm ² (with insulated ferrule)		
Conductor size: fine-stranded	0.25–0.34 mm ² (with uninsulated ferrule)		
AWG	24 – 18		
Strip length	7–9 mm / 0.28–0.35 in		
Conductor entry	0° to PCB		

Material data:

Material group	I
Insulation material	Glass-fiber-reinforced polyphthalamide (PPA-GF)
Flammability rating per UL 94	V0
Lower/Upper limit temperature	-60 °C / +105 °C
Contact material	Copper alloy
Contact plating	Tin-plated

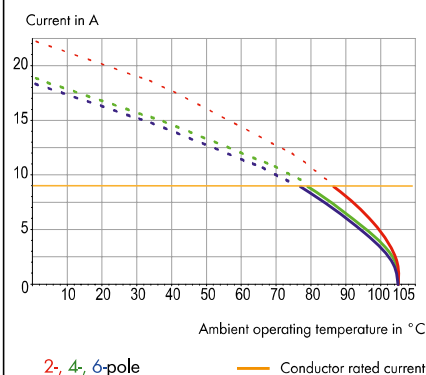
Application note:

Suitable for lead-free, reflow-soldering profiles acc. to DIN EN 61760-1 and IEC 60068-2-58 up to max. 260 °C peak temperature. Due to customer-specific variables (e.g., component configuration and orientation, type of soldering machine, solder paste), trial runs are recommended to ensure product and process compatibility under actual manufacturing conditions.

Recommendation for SMD positioning pattern: Material thickness, 150 µm. Pattern layout identical to solder pad layout.

Current-Carrying Capacity Curve

Pin spacing: 4 mm / Conductor size: 0.75 mm² "f-st"
Based on: EN 60512-5-2 / Reduction factor: 1



2060 Series accessories:

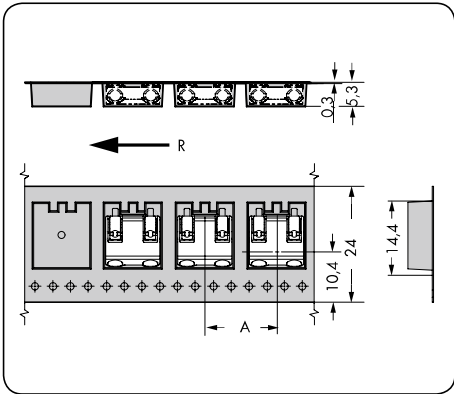
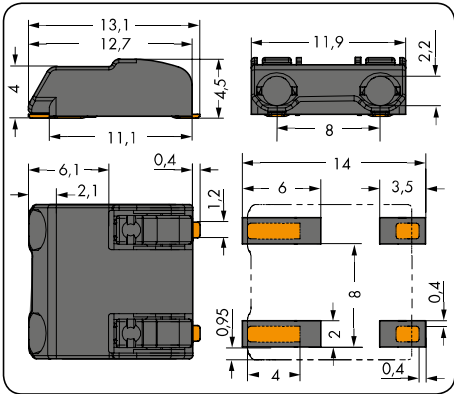
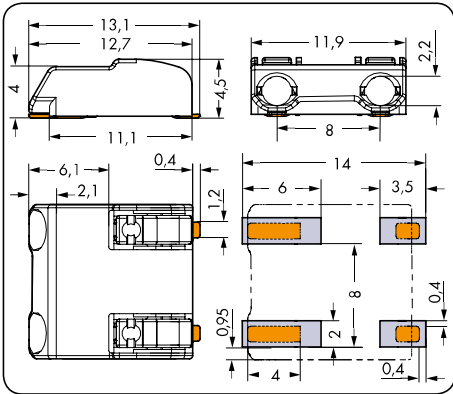
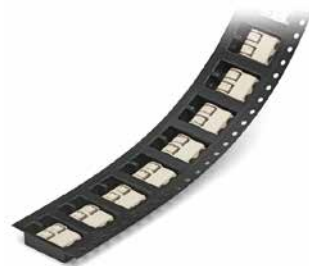
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SMD Terminal Blocks with Push-Buttons, 0.75 mm²



Pin spacing 8 mm / 0.314 in		Pin spacing 8 mm / 0.314 in		
0.2-0.75 mm ²	24-18 AWG	0.2-0.75 mm ²	24-18 AWG	
630 V/6 kV/2 9 A		630 V/6 kV/2 9 A		



R = Feed direction
A + 16 mm

Pole No.	Item No.	Pack. Unit	Pole No.	Item No.	Pack. Unit
SMD terminal blocks with push-buttons, in tape-and-reel packaging, white*			SMD terminal blocks with push-buttons in tape-and-reel packaging, black*		
2	2060-852/998-404	6750 (9 x 750)	2	2060-872/998-404	6750 (9 x 750)
Reel diameter: 330 mm			Reel diameter: 330 mm		



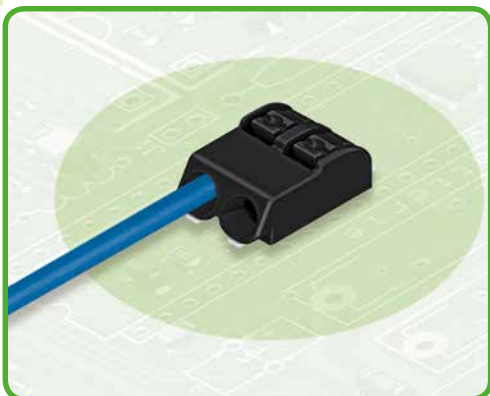
Inserting solid conductors via push-in termination.
(Picture shows 2060 Series)



Inserting/removing fine-stranded conductors by lightly pressing on push-button (e.g., using a 206-860 operating tool).

* Depending on reflow soldering temperatures and times, color deviations may occur.

SMD Terminal Blocks with Push-Buttons, 0.75 mm² 4 mm Pin Spacing 2060 Series



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Technical Data

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Overvoltage category	III	III	II	
Degree of contamination	3	2	2	
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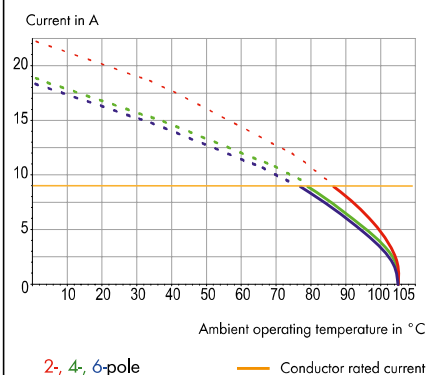
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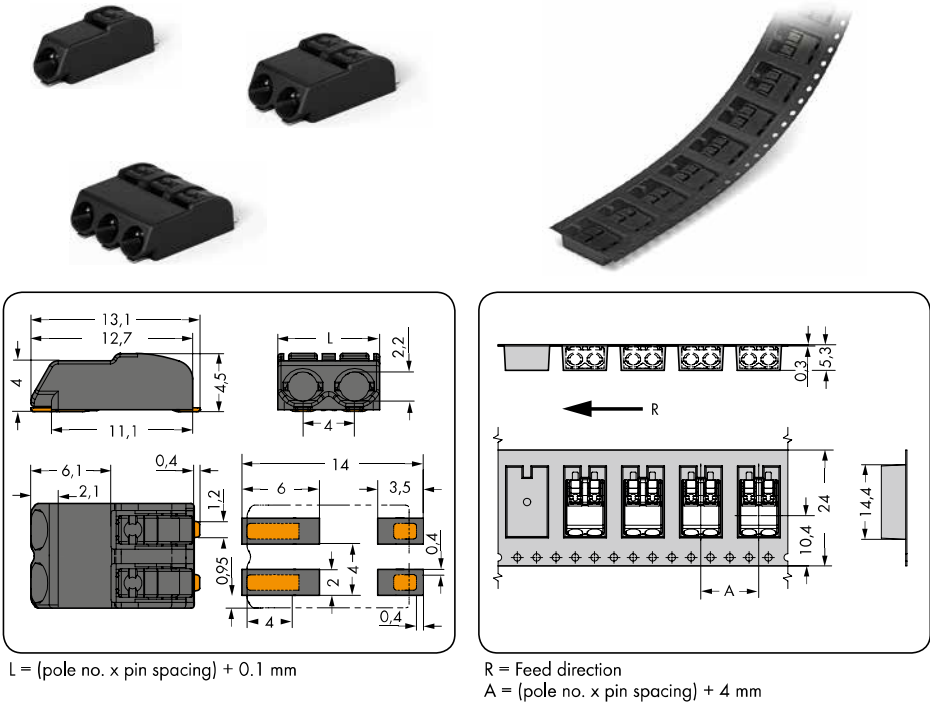
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Terminal blocks can be arranged side-by-side without loss of poles.

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A Stronger Variant of the Proven 2060 Series

GERMANTOWN, WI – February, 2015 – WAGO introduces a new variant in the 2060 Series. Stronger housing material and increased wall thickness makes the new variant particularly robust. This housing is also 1mm longer, giving the new variant mechanical stability when the integrated push-buttons are actuated. Benefits include:

- More robust design for automated and manual wiring of fine-stranded conductors
- Brighter white housing for minimized shadowing
- Same pad layout as original variant
- Insulating material with optimum electrical properties for rated voltages up to 630 V (IEC)
- Available in 1-, 2- and 3-pole variants with 4 mm or 8 mm pin spacing

While the housing is new, the 2060's well-established benefits remain. Solid conductors can be inserted directly, and the convenient push-buttons simplify the connection and removal of all conductor types.

About WAGO:

WAGO is the leader in spring pressure connection technology that eliminates loose wires resulting from vibration and temperature cycling, while providing highly reliable, corrosion-resistant and maintenance-free connections.

For additional information, visit www.wago.us. Contact WAGO at 1-800-DIN-RAIL or info.us@wago.com.

