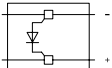


Empty Component Plug Housings and Pluggable Diode Modules on Through Terminal Blocks 2.5 mm²/AWG 12, Series 2002

Diode module; diode 1N 4007
U_N 250 V; U_{RM} 1000 V; 1 A max.
Operating temperature 85 °C max.

Module width 10.4 mm / 0.409 in



Item no.	Pack. unit	
Empty component plug housing, 10.4 mm/0.41 in wide, without component		
2002-880	50	
Diode module, 10.4 mm/0.41 in wide,		
 Diode 1N 4007 as free-wheeling diode		
2002-880/1000-411	50	
Through terminal blocks and accessories Appropriate terminal block marking systems: WMB/Marker Strips		

Similar to a push-in jumper, these diode modules are inserted into the current bar contact slots of two adjacent through terminal blocks.

This offers the following advantages:

- These modules are suitable for **all 2001 to 2006** Series Through Terminal Blocks equipped with jumper slots (please note the module's width).
- Existing terminal block assemblies can be easily retrofitted with diode modules.

Additional advantages:

- Separation into functional and wiring level.
- Modules can be replaced quickly by other types of modules.
- Solder-free assembly of diodes, resistors, etc.

(for additional notes see also pages 1.46 and 1.47)

2-conductor through terminal block, ①		
	0.25 - 2.5 (4) mm ² /AWG 22 - 12	
	Terminal block width 5.2 mm/0.205 in	
	gray 2002-1201	100
End and intermediate plate, 0.8 mm/0.031 in thick		
	orange 2002-1292	100 (4 x 25)
	gray 2002-1291	100 (4 x 25)
3-conductor through terminal block, ②		
	0.25 - 2.5 (4) mm ² /AWG 22 - 12	
	Terminal block width 5.2 mm/0.205 in	
	gray 2002-1301	100
End and intermediate plate, 0.8 mm/0.031 in thick		
	orange 2002-1392	100 (4 x 25)
	gray 2002-1391	100 (4 x 25)
4-conductor through terminal block, ③		
	0.25 - 2.5 (4) mm ² /AWG 22 - 12	
	Terminal block width 5.2 mm/0.205 in	
	gray 2002-1401	100
End and intermediate plate, 0.8 mm/0.031 in thick		
	orange 2002-1492	100 (4 x 25)
	gray 2002-1491	100 (4 x 25)

Application notes for all modules, without and with LED



Open the cover via operating tool 2.5 mm/0.098 in.



When closing the cover, please insert cover as shown in the illustration.



Marking using WMB Multi markers and marker strips.



Testing can also be performed using 2-pole test plugs.

- ① 48.5 mm / 1.91 in (2-conductor)
- ② 59.5 mm / 2.34 in (3-conductor)
- ③ 70.0 mm / 2.76 in (4-conductor)

Strip length, see packaging.

Pluggable LED Modules on Through Terminal Blocks 2.5 mm²/AWG 12, Series 2002

LED module:
 $I_N \leq 3 \text{ mA}$
 Operating temperature 85 °C max.

Module width 10.4 mm / 0.409 in



Item no.	Pack. unit	
LED module, 10.4 mm/0.41 in wide, with red LED		
AC/DC 12 - 30 V 2002-880/1000-541	50	
LED module, 10.4 mm/0.41 in wide, with red LED		
AC/DC 30 - 65 V 2002-880/1000-542	50	
LED module, 10.4 mm/0.41 in wide, with red LED		
AC/DC 110 - 250 V 2002-880/1000-836	50	
Through terminal blocks and accessories Appropriate terminal block marking systems: WMB/Marker Strips		
2-conductor through terminal block, ①		
0.08 - 2.5 (4) mm ² /AWG 28 - 12 Terminal block width 5.2 mm/0.205 in gray	2002-1201	100
End and intermediate plate, 0.8 mm/0.031 in thick		
orange	2002-1292	100 (4 x 25)
gray	2002-1291	100 (4 x 25)
3-conductor through terminal block, ②		
0.08 - 2.5 (4) mm ² /AWG 28 - 12 Terminal block width 5.2 mm/0.205 in gray	2002-1301	100
End and intermediate plate, 0.8 mm/0.031 in thick		
orange	2002-1392	100 (4 x 25)
gray	2002-1391	100 (4 x 25)
4-conductor through terminal block, ③		
0.08 - 2.5 (4) mm ² /AWG 28 - 12 Terminal block width 5.2 mm/0.205 in gray	2002-1401	100
End and intermediate plate, 0.8 mm/0.031 in thick		
orange	2002-1492	100 (4 x 25)
gray	2002-1491	100 (4 x 25)
① 48.5 mm / 1.91 in (2-conductor) ② 59.5 mm / 2.34 in (3-conductor) ③ 70.0 mm / 2.76 in (4-conductor) Strip length, see packaging.		

Similar to a push-in jumper, these LED modules are inserted into the current bar contact slots of two adjacent through terminal blocks.

This offers the following advantages:

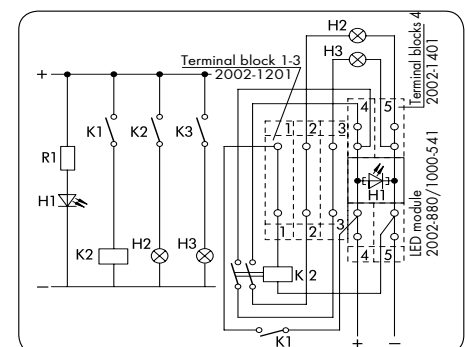
- These modules are suitable for **all 2001 to 2006** Series Through Terminal Blocks that can be commoned (please note the module's width).
- Existing terminal block assemblies can be easily retrofitted with diode modules..

Additional advantages:

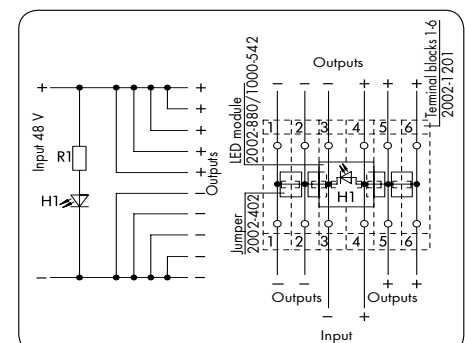
- Separation into functional and wiring level.
- Modules can be replaced quickly by other types of modules.

(for additional notes see also pages 1.46 and 1.47)

Examples of circuit configuration



Control unit



Multiple outputs with indicator lamp

Empty Component Plug Housings and Pluggable Diode Modules on Carrier Terminal Blocks 2.5 mm²/AWG 12, Series 2002

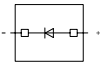
Diode module; diode 1N 4007
 U_N 250 V; U_{RM} 1000 V; 1 A max.
 Operating temperature: 85 °C max.

Module width 5.2 mm / 0.205 in



Picture of type 3



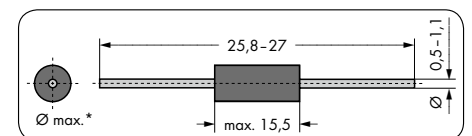
Item no.	Pack. unit	Item no.	Pack. unit
Empty component plug housing, 5.2 mm/0.204 in wide, without component		Empty component plug housing, type 2	
2002-800	100	10.4 mm/0.409 in wide, 2-pole	
		2002-810	50
Diode module, 5.2 mm/0.204 in wide, Diode 1N 4007		Empty component plug housing, type 3	
		10.4 mm/0.409 in wide, 4-pole	
2002-800/1000-411	100	2002-820	50

These diode modules, specially designed for the individual construction of, for example, lamp test circuits or collective fault indicating systems, offer the following advantages:

- Separation into functional and wiring level
- Polarized direction of switching
- Quick and easy exchange of modules
- High density with only 5.2 mm/0.204 in width of terminal block and module
- Solder-free assembly of diodes, resistors, etc.

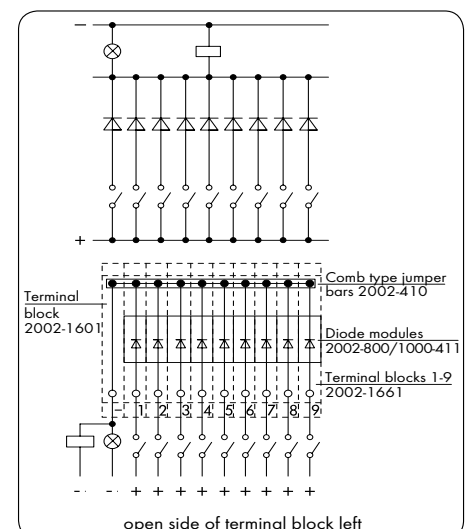
Terminal blocks and accessories Appropriate terminal block marking systems: WMB/Marker Strips

2-conductor carrier terminal block, ①		Push-in type jumper bars, light gray, insulated, I_N 25 A	
	0.25 - 2.5 (4) mm ² /AWG 22 - 12 Terminal block width 5.2 mm/0.205 in gray 2002-1661 50		2-way 2002-402 200 (8 x 25) 3-way 2002-403 200 (8 x 25) 4-way 2002-404 200 (8 x 25) 5-way 2002-405 100 (4 x 25) 6-way 2002-406 100 (4 x 25) 7-way 2002-407 100 (4 x 25) 8-way 2002-408 100 (4 x 25) 9-way 2002-409 100 (4 x 25) 10-way 2002-410 100 (4 x 25)
End and intermediate plate, 1 mm/0.039 in thick			
	orange 2002-1692 100 (4 x 25) gray 2002-1691 100 (4 x 25)		
4-conductor carrier terminal block, ②			
	0.25 - 2.5 (4) mm ² /AWG 22 - 12 Terminal block width 5.2 mm/0.205 in gray 2002-1861 50		
End and intermediate plate, 1 mm/0.039 in thick		Push-in type jumper bars, light gray, insulated, I_N 25 A	
	orange 2002-1892 100 (4 x 25) gray 2002-1891 100 (4 x 25)		1 - 3 2002-433 200 (8 x 25) 1 - 4 2002-434 200 (8 x 25) 1 - 5 2002-435 100 (4 x 25) 1 - 6 2002-436 100 (4 x 25) 1 - 7 2002-437 100 (4 x 25) 1 - 8 2002-438 100 (4 x 25) 1 - 9 2002-439 100 (4 x 25) 1 - 10 2002-440 100 (4 x 25)
Insulation stop, 5 pcs/strip			
	200 strips light gray 2002-171 0.25-0.5 mm ² dark gray 2002-172 0.75-1 mm ² must be applied individually		
Test plug adapter, 4 mm Ø/0.157 in			
	2009-174 100 (4 x 25)		
Testing tap, for max. 2.5 mm²/AWG 14		Staggered jumpers, light gray, insulated, I_N 25 A	
	2009-182 100 (4 x 25)		2-way 2002-472 100 (4 x 25) 3-way 2002-473 100 (4 x 25) 4-way 2002-474 100 (4 x 25) 5-way 2002-475 50 (2 x 25) 5-way 2002-476 50 (2 x 25) 5-way 2002-477 50 (2 x 25) 5-way 2002-478 50 (2 x 25) 5-way 2002-479 50 (2 x 25) 5-way 2002-480 50 (2 x 25) 5-way 2002-481 50 (2 x 25) 12-way 2002-482 50 (2 x 25)
Protective warning marker, with high-voltage symbol, black, for 5 terminal blocks			
	yellow 2002-115 100 (4 x 25) must be applied individually		
① 66.5 mm / 2.62 in (2-conductor) ② 87.5 mm / 3.45 in (4-conductor) Strip length, see packaging.			



*Ø max. 3.4 mm/0.13 in at 5.2 mm/0.205 in module width
 *Ø max. 5.4 mm/0.21 in at 10.4 mm/0.41 in module width
 NOTICE: Reconnection only possible with similar or larger wire diameter.
 Smaller wire diameters must be soldered.

Example of circuit configuration

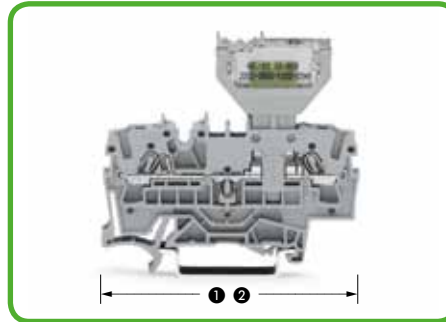


Diode gate for collective fault indication

Pluggable LED Modules on Carrier Terminal Blocks 2.5 mm²/AWG 12, Series 2002

LED module:
 $I_N \leq 3 \text{ mA}$
 Operating temperature 85 °C max.

Module width 5.2 mm / 0.205 in



Item no.	Pack. unit
LED module, 5.2 mm/0.205 in wide, with red LED	
AC/DC 12 - 30 V 2002-800/1000-541	100
AC/DC 30 - 65 V 2002-800/1000-542	100
AC/DC 110 - 250 V 2002-800/1000-836	100

The monitoring of control and operating current circuits with LED modules on rail-mounted terminal blocks provides several advantages:

- No additional cost for assembly and wiring
- Separation into functional and wiring level
- Modules can be replaced quickly and easily by other types of modules

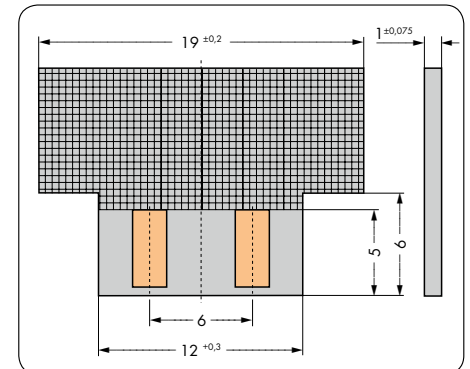
Further advantages:

- Polarized direction of switching
- High density with only 5.2 mm/0.204 in width of terminal block and module

Terminal blocks and accessories Appropriate terminal block marking systems: WMB/Marker Strips

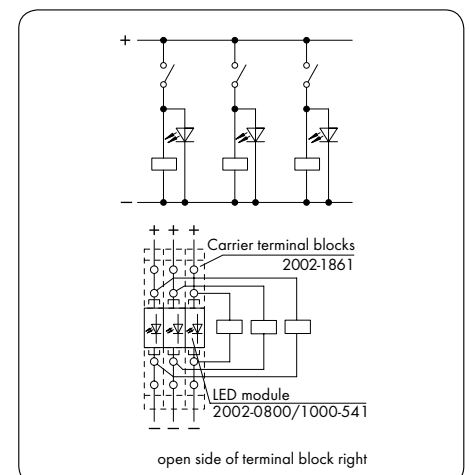
2-conductor carrier terminal block, ①		Push-in type jumper bars, light gray, insulated, I_N 25 A	
0.25 - 2.5 (4) mm ² /AWG 22 - 12		2-way	2002-402 200 (8 x 25)
Terminal block width 5.2 mm/0.205 in		3-way	2002-403 200 (8 x 25)
gray 2002-1661	50	4-way	2002-404 200 (8 x 25)
End and intermediate plate, 1 mm/0.039 in thick		5-way	2002-405 100 (4 x 25)
orange 2002-1692	100 (4 x 25)	6-way	2002-406 100 (4 x 25)
gray 2002-1691	100 (4 x 25)	7-way	2002-407 100 (4 x 25)
4-conductor carrier terminal block, ②		8-way	2002-408 100 (4 x 25)
0.25 - 2.5 (4) mm ² /AWG 22 - 12		9-way	2002-409 100 (4 x 25)
Terminal block width 5.2 mm/0.205 in		10-way	2002-410 100 (4 x 25)
gray 2002-1861	50	Push-in type jumper bars, light gray, insulated, I_N 25 A	
End and intermediate plate, 1 mm/0.039 in thick		1 - 3	2002-433 200 (8 x 25)
orange 2002-1892	100 (4 x 25)	1 - 4	2002-434 200 (8 x 25)
gray 2002-1891	100 (4 x 25)	1 - 5	2002-435 100 (4 x 25)
Insulation stop, 5 pcs/strip		1 - 6	2002-436 100 (4 x 25)
light gray 2002-171	200 strips	1 - 7	2002-437 100 (4 x 25)
dark gray 2002-172	0.25-0.5 mm ²	1 - 8	2002-438 100 (4 x 25)
must be applied individually		1 - 9	2002-439 100 (4 x 25)
Test plug adapter, 4 mm Ø/0.157 in		1 - 10	2002-440 100 (4 x 25)
2009-174	100 (4 x 25)	Staggered jumpers, light gray, insulated, I_N 25 A	
Testing tap, for max. 2.5 mm²/AWG 14		2-way	2002-472 100 (4 x 25)
2009-182	100 (4 x 25)	3-way	2002-473 100 (4 x 25)
Protective warning marker, with high-voltage symbol, black, for 5 terminal blocks		4-way	2002-474 100 (4 x 25)
yellow 2002-115	100 (4 x 25)	5-way	2002-475 50 (2 x 25)
must be applied individually		5-way	2002-476 50 (2 x 25)
		5-way	2002-477 50 (2 x 25)
		5-way	2002-478 50 (2 x 25)
		5-way	2002-479 50 (2 x 25)
		5-way	2002-480 50 (2 x 25)
		5-way	2002-481 50 (2 x 25)
		5-way	2002-482 50 (2 x 25)
		12-way	2002-482 50 (2 x 25)

- ① 66.5 mm / 2.62 in (2-conductor)
 ② 87.5 mm / 3.45 in (4-conductor)
 Strip length, see packaging.

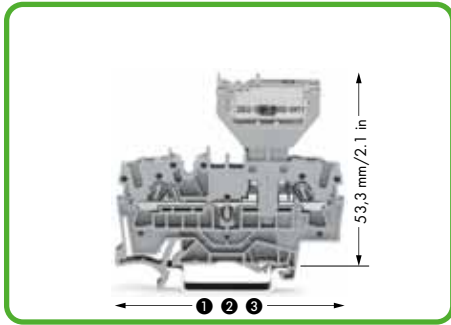


Dimensions of self-assembled PCBs
 Module height 2 mm/0.078 in at 5.2 mm/0.2 in module width
 Module height 3.3 mm/0.13 in at 10.4 mm/0.41 in module width

Example of circuit configuration



Multiple outputs with indicator lamp



Here is an example of a diode plug

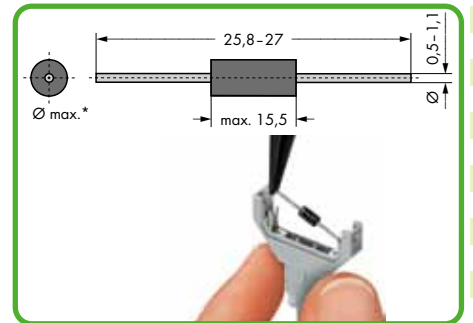
- ❶ 2002-1661 – 66.5 mm / 2.62 in
(2-conductor carrier)
- ❷ 2002-1861 – 87.5 mm / 3.45 in
(4-conductor carrier)



Open the carrier with multi-function tool (2002-116)



When closing the cover, please insert as shown here



* Ø max. 3.4 mm max 5.2mm-wide plug

* Ø max. 5.4 mm max 10.4mm-wide plug

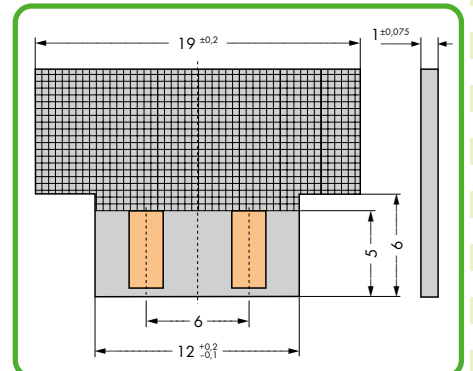
Notice: Reconnection only possible with similar or larger wire diameter. Smaller diameters must be soldered.



Inserting a diode plug across jumper locations



Diode component plugs inserted into terminal blocks



Dimensions of self assembled PCBs:

Module height 2 mm at 5.2mm-module width

Module height 3.3 mm at 10.4mm-module width



Measure component length with 2002-116 tool



Insert component into plug contacts using 2002-116 tool



Insert PCB into plug contact using 2002-116 tool