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

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)

Through terminal blocks and accessories

Appropriate terminal block marking systems: **WMB/Marker Strips**

	Item no.	Pack. unit
2-conductor through terminal block, ❶ 0.25 – 2.5 (4) mm²/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)
End and intermediate plate, 0.8 mm/0.031 in thick, gray	**2002-1291**	100 (4 x 25)
3-conductor through terminal block, ❷ 0.25 – 2.5 (4) mm²/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)
End and intermediate plate, 0.8 mm/0.031 in thick, gray	**2002-1391**	100 (4 x 25)
4-conductor through terminal block, ❸ 0.25 – 2.5 (4) mm²/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)
End and intermediate plate, 0.8 mm/0.031 in thick, gray	**2002-1491**	100 (4 x 25)

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

Strip length, see packaging.

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.

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

LED module:
I_N ≤ 3 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, ❶		
0.08 - 2.5 (4) mm²/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, ❷		
0.08 - 2.5 (4) mm²/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, ❸		
0.08 - 2.5 (4) mm²/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)

❶ 48.5 mm / 1.91 in (2-conductor)
❷ 59.5 mm / 2.34 in (3-conductor)
❸ 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:

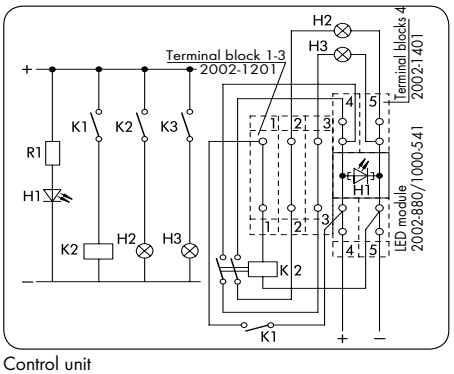
- These modules are suitable for **all 2001 to 2006** Series Through Terminal Blocks that can be commoned (please note the module's width).
- Existing terminal block assemblies can be easily retrofitted with diode modules..

Additional advantages:

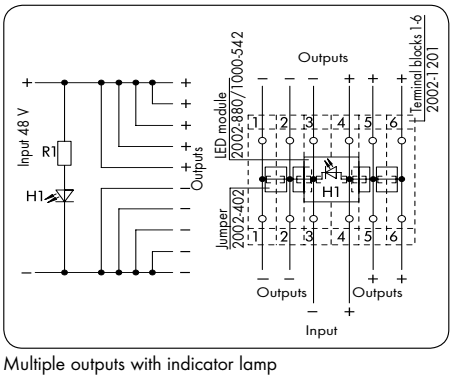
- Separation into functional and wiring level.
- Modules can be replaced quickly by other types of modules.

(for additional notes see also pages 1.46 and 1.47)

Examples of circuit configuration



Control unit



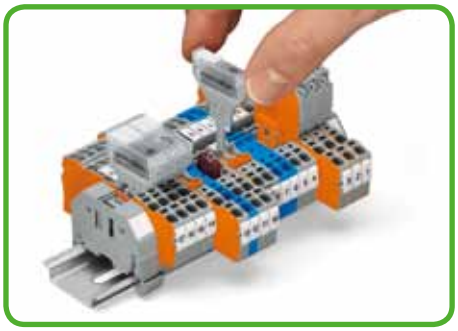
Multiple outputs with indicator lamp

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
Empty component plug housing, 5.2 mm/0.204 in wide, without component	**2002-800**	100
Diode module, 5.2 mm/0.204 in wide, Diode 1N 4007	**2002-800/1000-411**	100

	Item no.	Pack. unit
Empty component plug housing, type 2 10.4 mm/0.409 in wide, 2-pole	**2002-810**	50
Empty component plug housing, type 3 10.4 mm/0.409 in wide, 4-pole	**2002-820**	50

Terminal blocks and accessories

Appropriate terminal block marking systems: **WMB/Marker Strips**

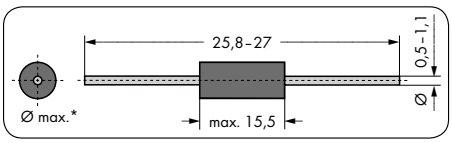
		Item no.	Pack. unit
2-conductor carrier terminal block, ❶	0.25 - 2.5 (4) mm²/AWG 22 - 12		
	Terminal block width 5.2 mm/0.205 in		
	gray	**2002-1661**	50
End and intermediate plate, 1 mm/0.039 in thick	orange	**2002-1692**	100 (4 x 25)
	gray	**2002-1691**	100 (4 x 25)
4-conductor carrier terminal block, ❷	0.25 - 2.5 (4) mm²/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	orange	**2002-1892**	100 (4 x 25)
	gray	**2002-1891**	100 (4 x 25)
Insulation stop, 5 pcs/strip			200 strips
	light gray	**2002-171**	0.25-0.5 mm²
	dark gray	**2002-172**	0.75-1 mm²
	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		**2009-182**	100 (4 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		

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

		Item no.	Pack. unit
Push-in type jumper bars, light gray, insulated, I_N 25 A	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)
Push-in type jumper bars, light gray, insulated, I_N 25 A	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)
Staggered jumpers, light gray, insulated, I_N 25 A	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)

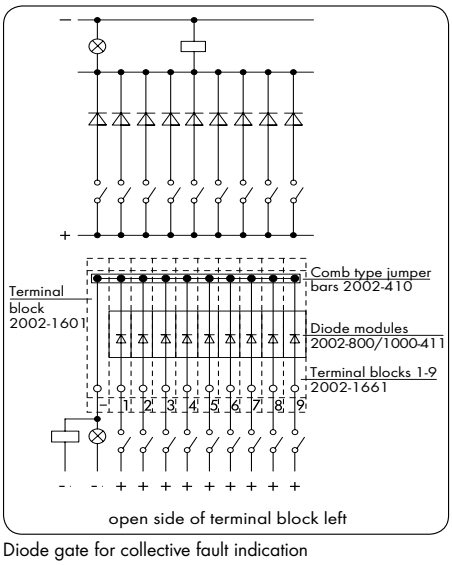
These diode modules, specially designed for the individual construction of, for example, lamp test circuits or collective fault indicating systems, offer the following advantages:

- 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.



*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

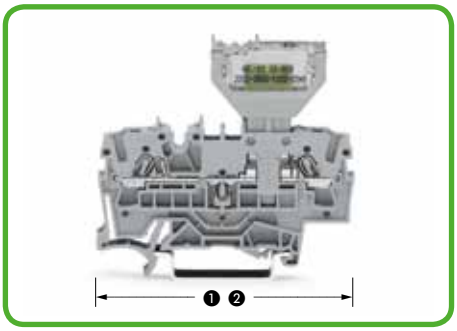


Diode gate for collective fault indication

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

LED module:
I_N ≤ 3 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
LED module, 5.2 mm/0.205 in wide, with red LED	
AC/DC 30 - 65 V	
2002-800/1000-542	100
LED module, 5.2 mm/0.205 in wide, with red LED	
AC/DC 110 - 250 V	
2002-800/1000-836	100

Terminal blocks and accessories

Appropriate terminal block marking systems: **WMB/Marker Strips**

2-conductor carrier terminal block, ❶		
0.25 - 2.5 (4) mm²/AWG 22 - 12		
Terminal block width 5.2 mm/0.205 in		
gray	**2002-1661**	50
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, ❷		
0.25 - 2.5 (4) mm²/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		
orange	**2002-1892**	100 (4 x 25)
gray	**2002-1891**	100 (4 x 25)
Insulation stop, 5 pcs/strip		200 strips
light gray	**2002-171**	0.25-0.5 mm²
dark gray	**2002-172**	0.75-1 mm²
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		
	2009-182	100 (4 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		

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

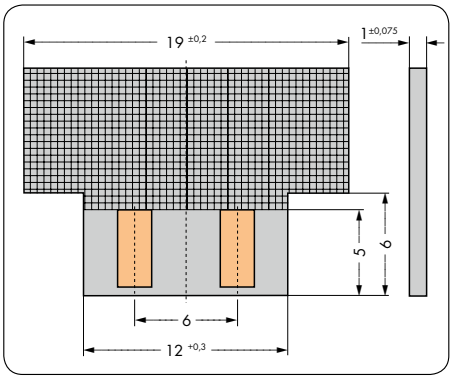
Push-in type jumper bars, light gray, insulated, I_N 25 A			
2-way	**2002-402**	200 (8 x 25)	
3-way	**2002-403**	200 (8 x 25)	
4-way	**2002-404**	200 (8 x 25)	
5-way	**2002-405**	100 (4 x 25)	
6-way	**2002-406**	100 (4 x 25)	
7-way	**2002-407**	100 (4 x 25)	
8-way	**2002-408**	100 (4 x 25)	
9-way	**2002-409**	100 (4 x 25)	
10-way	**2002-410**	100 (4 x 25)	
Push-in type jumper bars, light gray, insulated, I_N 25 A			
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)	
Staggered jumpers, light gray, insulated, I_N 25 A			
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)	

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

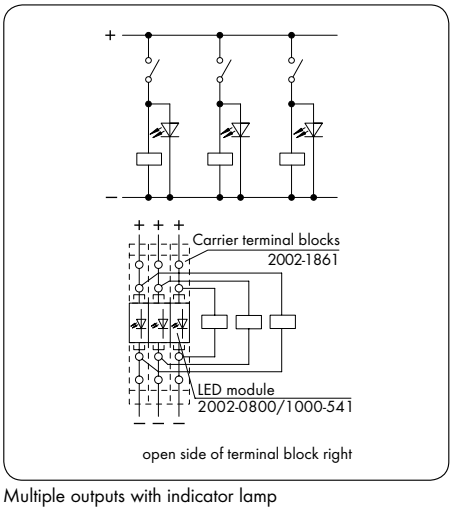
Further advantages:

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

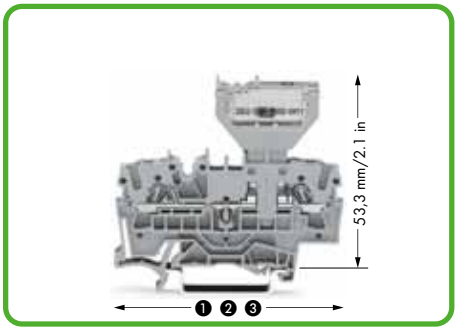


Dimensions of self-assembled PCBs
Module height 2 mm/0.078 in at 5.2 mm/0.2 in module width
Module height 3.3 mm/0.13 in at 10.4 mm/0.41 in module width

Example of circuit configuration



Multiple outputs with indicator lamp



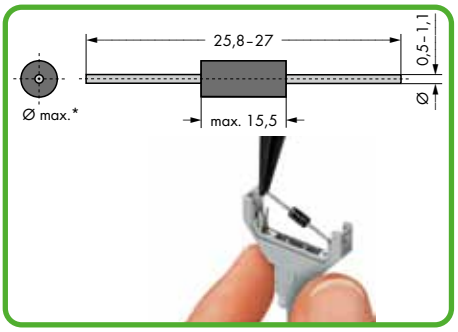
Here is an example of a diode plug

1 2002-1661 – 66.5 mm / 2.62 in (2-conductor carrier)

2 2002-1861 – 87.5 mm / 3.45 in (4-conductor carrier)

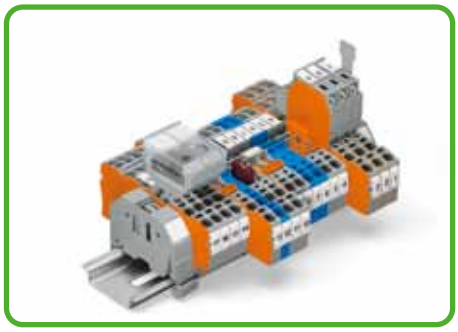
Open the carrier with multi-function tool (2002-116)

When closing the cover, please insert as shown here

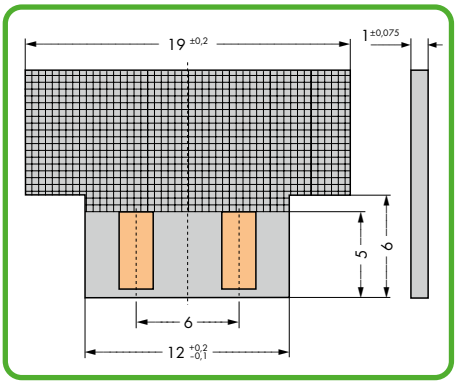


* Ø max. 3.4 mm max 5.2mm-wide plug
* Ø max. 5.4 mm max 10.4mm-wide plug
Notice: Reconnection only possible with similar or larger wire diameter. Smaller diameters must be soldered.

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 heigh 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