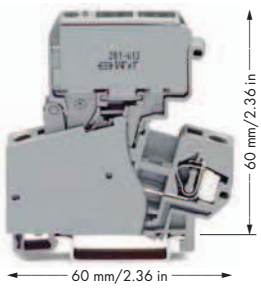
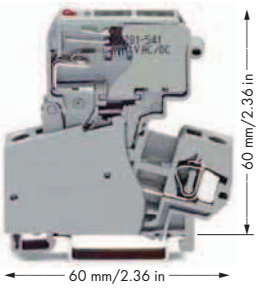
Fuse Disconnect Terminal Blocks with Pivoting Fuse Holder 4 mm² for Miniature Metric Fuses ¼" x 1" mm and ¼" x 1¼" mm
281 Series

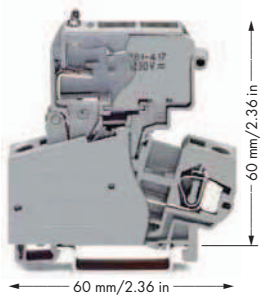
0.08 - 4 mm²	AWG 28 - 12	
800 V/8 kV/3 ❶ ❷	600 V, 10 A	
I_N 10 A (6.3 A)	600 V, 10 A	
Terminal block width 10 mm / 0.394 in		
9 - 10 mm / 0.37 in ❸		

0.08 - 4 mm²	AWG 28 - 12	
800 V/8 kV/3 ❶ ❷	30 V, 10 A	
I_N 10 A (6.3 A)	30 V, 10 A	
Terminal block width 10 mm / 0.394 in		
9 - 10 mm / 0.37 in ❸		

0.08 - 4 mm²	AWG 28 - 12	
800 V/8 kV/3 ❶ ❷	220 V, 10 A	
I_N 10 A (6.3 A)	100 V, 10 A	
Terminal block width 10 mm / 0.394 in		
9 - 10 mm / 0.37 in ❸		



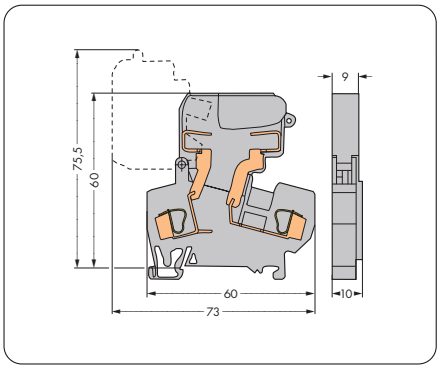




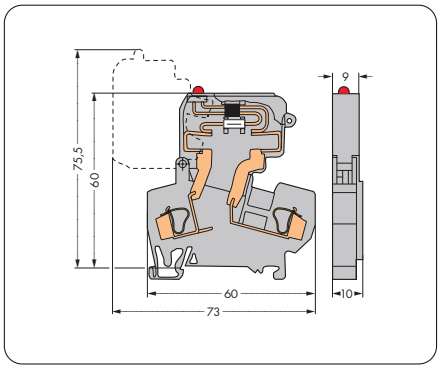
	Item No.	Pack. Unit
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1",		
without blown fuse indication,		
Nominal voltage and current are given by the fuse.		
◯ gray	**281-613**	50
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1¼",		
without blown fuse indication,		
Nominal voltage and current are given by the fuse.		
◯ gray	**281-623**	50
Miniature metric fuse on request		

	Item No.	Pack. Unit
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1",		
with blown fuse indication by LED, gray		
Nominal voltage and current are given by the LED or fuse.		
Leakage current in case of blown fuse: LED 6mA		
◯ 15 - 30 V	**281-613/281-541**	50
◯ 30 - 65 V	**281-613/281-542**	50
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1¼",		
with blown fuse indication by LED, gray		
Nominal voltage and current are given by the LED or fuse.		
Leakage current in case of blown fuse: LED 6mA		
◯ 15 - 30 V	**281-623/281-541**	50
◯ 30 - 65 V	**281-623/281-542**	50
Miniature metric fuse on request		

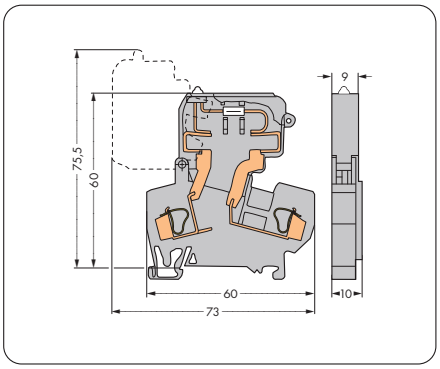
	Item No.	Pack. Unit
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1",		
with blown fuse indication by neon lamp, gray		
Nominal voltage and current are given by the LED or fuse.		
Leakage current in case of blown fuse: Neon lamp < 0.4mA		
◯ 230 V	**281-613/281-417**	50
◯ 120 V	**281-613/281-418**	50
Fuse disconnect terminal block with pivoting fuse holder,		
for miniature fuses ¼" x 1¼",		
with blown fuse indication by neon lamp, gray		
Nominal voltage and current are given by the LED or fuse.		
Leakage current in case of blown fuse: Neon lamp < 0.4mA		
◯ 230 V	**281-623/281-417**	50
◯ 120 V	**281-623/281-418**	50
Miniature metric fuse on request		



Dimensions in mm



Dimensions in mm



Dimensions in mm

For list of approvals and user guide, see pages 634 to 637.

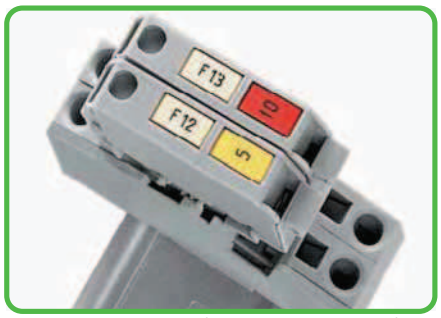
❶ 800 V = rated voltage
8 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Electrical ratings are given by the fuse (also see pages 234 – 235).

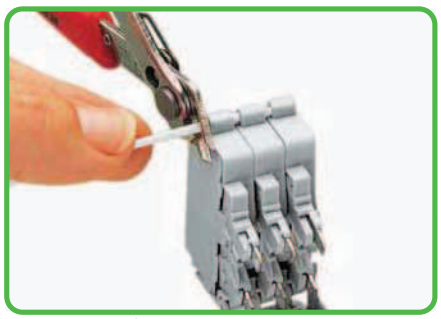
❸ Strip length, see packaging or instructions.



A spacer is standard equipment for 10 mm/0.394 in wide fuse terminal blocks. At the end of an assembly, or if there is **no** adjacent fuse terminal block, an end or intermediate plate must be used.



Two marker slots each per fuse holder are available for individual WMB Multi marking.
(example: 8 mm/0.315 in terminal blocks).



Ganging several fuse holders with a connecting strip (example: 8 mm/0.315 in terminal blocks).

281 Series Accessories

Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 2.5 mm thick			
	orange	**281-309**	100 (4x25)
	gray	**281-311**	100 (4x25)
Adjacent jumper, insulated,			
	I_N = I_N terminal block		
	gray	**281-402**	200 (8x25)
Collective carrier for adjacent jumpers			
	gray	**209-100**	50 (2x25)
Test plug adapter, 5 mm wide,			
	for terminal blocks 1.5 - 4 mm²,		
	for 210-137 test plug 2.3 mm Ø		
	gray	**280-404**	100 (4x25)
Test plug,			
	with 500 mm cable,		
	2.3 mm Ø		
	yellow	**210-137**	50
Test plug adapter, 6 mm wide,			
	with CAGE CLAMP®,		
	for 0.08 - 2.5 mm²		
	I_N 24 A	**281-407**	100 (4x25)
Push-in type wire jumper,			
	insulated,		
	I_N 9 A,		
	wire size 0.75 mm²		
	L = 60 mm	**249-125**	10
	L = 110 mm	**249-126**	10
	L = 250 mm	**249-127**	10
Interlocking link,			
	mechanically locks multiple links,		
	1 m/3'3" long		
	transparent	**210-254**	1
Screwless end stop,			
	for DIN 35 rail,		
	6 mm wide		
	gray	**249-116**	100 (4x25)
Screwless end stop,			
	for DIN 35 rail,		
	10 mm wide		
	gray	**249-117**	50 (2x25)

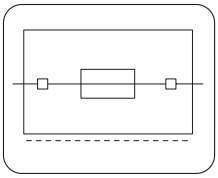
Fuse Plugs on Carrier Terminal Blocks 4 mm²
281 Series

Fuse plug with pull-tab
for miniature metric fuses 5 x 20 mm and 5 x 25 mm
250 V / I_N 6.3 A ❹
Plug width 6 mm / 0.236 in

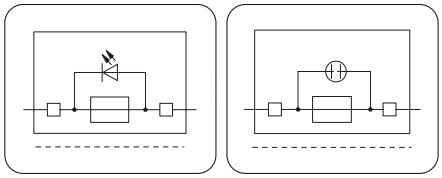




Circuit I Circuit II



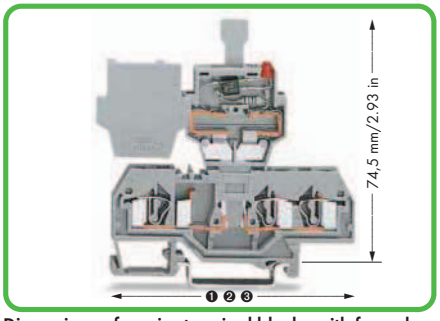
Circuit I Circuit II



	Item No.	Pack. Unit
Fuse plug with pull-tab, for miniature metric fuses 5 x 20 mm and 5 x 25 mm, Nominal voltage and current are given by the fuse. 6 mm wide, gray		
◯ Circuit I	**281-511**	50
Fuse plug with pull-tab, for miniature metric fuses 5 x 20 mm and 5 x 25 mm, with hole for one LED (for self-assembly), Nominal voltage and current are given by the LED or fuse. 6 mm wide, gray		
◯ Circuit II	**281-512**	50

Fuse plug with pull-tab
for miniature metric fuses 5 x 20 mm and 5 x 25 mm
250 V / I_N 6.3 A ❹
Plug width 6 mm / 0.236 in

	Item No.	Pack. Unit
Fuse plug with pull-tab, for miniature metric fuses 5 x 20 mm and 5 x 25 mm, with LED indicator, 24 V AC/DC, Nominal voltage and current are given by the LED or fuse. Leakage current in case of blown fuse: 5 - 20mA, 6 mm wide, gray		
◯ Circuit I	**281-512/281-501**	50
Fuse plug with pull-tab, for miniature metric fuses 5 x 20 mm and 5 x 25 mm, with neon lamp 120 V AC/DC, Nominal voltage and current are given by the LED or fuse. Leakage current in case of blown fuse: Neon lamp < 0.4mA, 6 mm wide, gray		
◯ Circuit II	**281-512/281-418**	50
Fuse plug with pull-tab, for miniature metric fuses 5 x 20 mm and 5 x 25 mm, with neon lamp 230 V AC/DC, Nominal voltage and current are given by the LED or fuse. Leakage current in case of blown fuse: Neon lamp < 0.4mA, 6 mm wide, gray		
◯ Circuit II	**281-512/281-417**	50



Dimensions of carrier terminal blocks with fuse plug
❶ 59 mm / 2.32 in for 281-916
❷ 73.5 mm / 2.89 in for 281-610
❸ 86 mm / 3.39 in for 281-656

For terminal blocks with side marking, see www.wagocatalog.com

Accessories

Appropriate marking system: 4 mm wide WSB for plug and WMB for terminal block

2-conductor carrier terminal block, ❶	0.08 - 4 mm² / AWG 28 - 12, Terminal block width 6 mm / 0.236 in		
	gray	**281-916**	50
End and intermediate plate, 2.5 mm thick			
	orange	**281-329**	100 (4x25)
	gray	**281-328**	100 (4x25)
Wire commoning chain, 50 connections,	insulated, I_N 8 A		
	black	**210-103**	1

3-conductor carrier terminal block, ❷	0.08 - 4 mm² / AWG 28 - 12, Terminal block width 6 mm / 0.236 in		
	gray	**281-610**	50
End and intermediate plate, 2.5 mm thick			
	orange	**281-326**	100 (4x25)
	gray	**281-324**	100 (4x25)
Wire commoning chain, 50 connections,	insulated, I_N 8 A		
	blue	**210-123**	1

Accessories

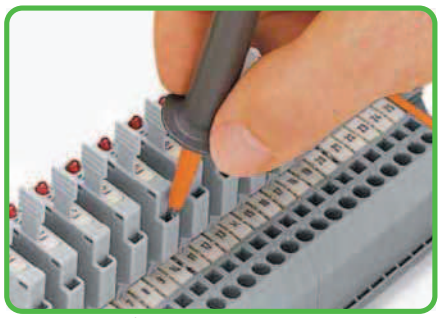
4-conductor carrier terminal block, ❸	0.08 - 4 mm² / AWG 28 - 12, Terminal block width 6 mm / 0.236 in		
	gray	**281-656**	50
End and intermediate plate, 2.5 mm thick			
	orange	**281-335**	100 (4x25)
	gray	**281-334**	100 (4x25)
Comb-style jumper bar, insulated,	I_N = I_N terminal block		
	2-way	**281-482**	100 (4x25)
	3-way	**281-483**	100 (4x25)
	5-way	**281-485**	100 (4x25)
	10-way	**281-490**	50 (2x25)
Alternate comb-style jumper bar,	insulated, I_N = I_N terminal block		
	2-way	**281-492**	100 (4x25)
Operating tool, of insulating material			
	2-way	**280-432**	1
	3-way	**280-433**	1
	5-way	**281-440**	1
WSB Quick marking system,	10 strips with 10 markers per card, WSB Markers 4 mm wide		
	plain	**209-701**	5
WSB Quick marking system, plain,	10 strips with 10 markers per card, WSB Markers 4 mm wide		
	yellow	**209-701/000-002**	
	red	**209-701/000-005**	
	blue	**209-701/000-006**	
	gray	**209-701/000-007**	
	orange	**209-701/000-012**	
	light green	**209-701/000-017**	
	green	**209-701/000-023**	
	violet	**209-701/000-024**	
			5
Shorting link, 5 x 20 mm,	if the fuse plug is used as disconnect plug		
	I_N 6.3 A	**281-503**	250 (10x25)

For list of approvals and user guide, see pages 634 to 637.

❹ Electrical ratings are given by the fuse or LED nominal voltage (also see pages 234 – 235).

Accessories

WSB Quick marking system,			
	for fuse plug 281-5..,		
	WSB Markers 4 mm wide		
	F1, ..., F10 (10x)	**209-787**	5
	F11, ..., F20 (10x)	**209-700/209-124**	
	F21, ..., F30 (10x)	**209-700/209-125**	
	F31, ..., F40 (10x)	**209-700/209-126**	
	F41, ..., F50 (10x)	**209-700/209-127**	
			5
WMB Multi marking system,			
	10 strips with 10 markers per card,		
	stretchable 5 - 5.2 mm		
	plain	**793-5501**	5
WMB Multi marking system, plain,			
	10 strips with 10 markers per card,		
	stretchable 5 - 5.2 mm		
	yellow	**793-5501/000-002**	
	red	**793-5501/000-005**	
	blue	**793-5501/000-006**	
	gray	**793-5501/000-007**	
	orange	**793-5501/000-012**	
	light green	**793-5501/000-017**	
	green	**793-5501/000-023**	
	violet	**793-5501/000-024**	
			5

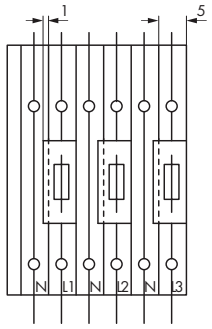


Using pluggable fuse holders with rail-mount terminal blocks for control circuit protection is highly advantageous for the user, as the function and the wiring are accomplished by two separate parts:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts during disconnection of fuse plug
- If exchanging a defective fuse, the fuse plug is completely separated from the carrier terminal block. This provides changeout away from current carrying parts.
- The fuse plug can be removed by service personnel, avoiding unintentional reclosing of the circuit by another person.
- Quickly exchange a fuse by using a prepared "stand-by plug."

The following fuse plug features provide quick and safe handling:

- Optional LED indicates blown fuse
- Markable fuse plug for clear coordination to the correct carrier terminal block
- Two touch-proof test slots
- High density with only 6 mm/0.236 in width of terminal block/fuse plug
- Instead of a fuse, a shorting link may be used as a disconnect plug.



Open side of terminal block left

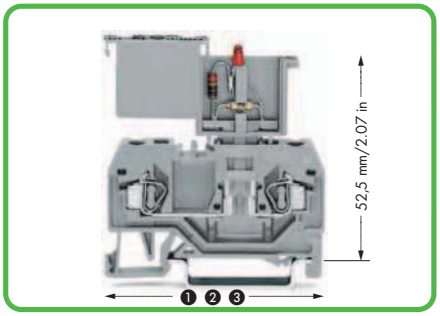
When corresponding Neutral-circuit is adjacent to a fuse plug, a 5 mm/0.197 in wide space saving terminal block may be used, as a 6 mm/0.236 in fuse plug may overlap the terminal block (see diagram below).
For 5 mm/0.197 in wide carrier terminal blocks, see page 232 (can be used with end plate, for example).

Fuse Plugs on Carrier Terminal Blocks 2.5 mm²
280 Series

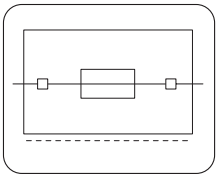
Fuse plug 5 mm wide 125 V / I_N 5 A ❹ Plug width 5 mm / 0.197 in	Fuse plug 5 mm wide 125 V / I_N 5 A ❹ Plug width 5 mm / 0.197 in

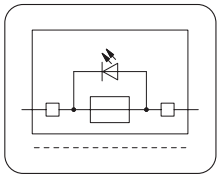






❶ 53 mm / 2.09 in for 280-916
❷ 64 mm / 2.52 in for 280-610
❸ 75 mm / 2.95 in for 280-816
For terminal blocks with side marking, see www.wagocatalog.com





	Item No.	Pack. Unit
Fuse plug,		
with soldered miniature fuse,		
Nominal voltage and current are given by the fuse.		
5 mm wide		
◯ 250 mA FF	**280-850**	100
◯ 500 mA FF	**280-852**	100
◯ 1 A FF	**280-854**	100
◯ 2 A FF	**280-856**	100

	Item No.	Pack. Unit
Fuse plug,		
with soldered miniature fuse,		
with indicator lamp, additional LED,		
15 - 30 VDC. Nominal voltage and current are given by the LED or fuse. Leakage current in case of blown fuse: 5 - 20 mA		
5 mm wide		
◯ 250 mA FF	**280-850/281-413**	100
◯ 500 mA FF	**280-852/281-413**	100
◯ 1 A FF	**280-854/281-413**	100
◯ 2 A FF	**280-856/281-413**	100

Fuse Plug Accessories

Wire commoning chain, 50 connections,
insulated, I_N 8 A

blue **210-123** 1

WMB Multi marking system,

10 strips with 10 markers per card, stretchable 5 - 5.2 mm
plain **793-5501** 5

WMB Multi marking system, plain,

10 strips with 10 markers per card, stretchable 5 - 5.2 mm

yellow	**793-5501/000-002**	
red	**793-5501/000-005**	
blue	**793-5501/000-006**	
gray	**793-5501/000-007**	
orange	**793-5501/000-012**	
light green	**793-5501/000-017**	
green	**793-5501/000-023**	
violet	**793-5501/000-024**	

5

Accessories for Carrier terminal blocks

Appropriate marking system:
WMB (see Section 13)

2-conductor carrier terminal block,
❶ 0.08 - 2.5 mm² / AWG 28 - 14,

Terminal block width 5 mm / 0.197 in
gray **280-916** 100

End and intermediate plate, 2.5 mm thick


orange	**280-309**	100 (4x25)
gray	**280-308**	100 (4x25)

3-conductor carrier terminal block,
❷ 0.08 - 2.5 mm² / AWG 28 - 14,

Terminal block width 5 mm / 0.197 in
gray **280-610** 100

End and intermediate plate, 2.5 mm thick


orange	**280-326**	100 (4x25)
gray	**280-324**	100 (4x25)

4-conductor carrier terminal block,
❸ 0.08 - 2.5 mm² / AWG 28 - 14,

Terminal block width 5 mm / 0.197 in
gray **280-816** 100

End and intermediate plate, 2.5 mm thick


orange	**280-315**	100 (4x25)
gray	**280-314**	100 (4x25)

Comb-style jumper bar, insulated,

I_N = I_N terminal block

2-way	**280-482**	200 (8x25)
3-way	**280-483**	200 (8x25)

Comb-style jumper bar, insulated,

I_N = I_N terminal block

10-way	**280-490**	50 (2x25)

Alternate comb-style jumper bar,

insulated,
I_N = I_N terminal block
2-way **280-492** 200 (8x25)

Operating tool, of insulating material


2-way	**280-432**	1
3-way	**280-433**	1

Operating tool, of insulating material

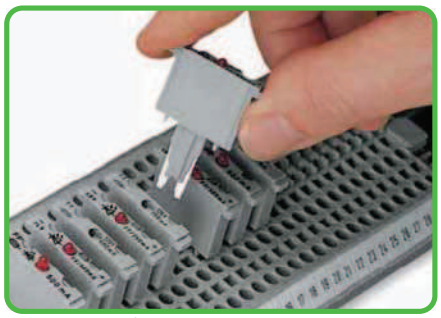
10-way **280-440** 1

Wire commoning chain, 50 connections,

insulated, I_N 8 A
black **210-103** 1

For list of approvals and user guide, see pages 634 to 637.

❹ Electrical ratings are given by the fuse or LED nominal voltage (also see pages 234 – 235).

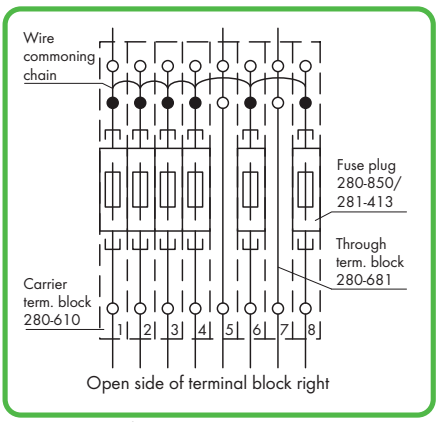


Using pluggable fuse holders with 280/281 and 769 Series rail-mount terminal blocks for control circuit protection is highly advantageous for the user, as the function and the wiring are accomplished by two separate parts:

- No additional cost for assembly and wiring
- No risk of accidental contact with live parts during disconnection of fuse plug
- Quick replacement of fuse plug in case of blown fuse
- The fuse plug can be be removed by service personnel, avoiding unintentional reclosing of the circuit by another person.

Further advantages:

- Extremely high density with only 5 mm/0.197 in width of terminal block/fuse plug
- Optional LED indicates blown fuse.



Fuse protection of individual outputs, supply via wire commoning chain

Applications Notes on Terminal Blocks for Miniature Metric Fuses

Terminal blocks for miniature metric fuses tested acc. to IEC or EN 60947-7-3/VDE 0611-6

When selecting miniature metric fuses, the maximum power loss listed below should not be exceeded.
The power loss is determined according to IEC or EN 60947-7-3/VDE 0611-6 at 23 °C.
The temperature rise of the terminal blocks must be checked according to their application and mounting.
Higher ambient temperatures represent an additional impact on miniature metric fuses. Therefore, in such applications the rated current must be reduced if necessary.
More details from the manufacturer.

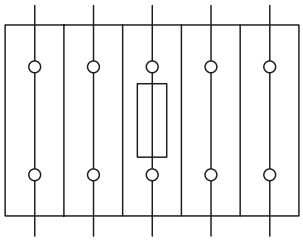
Miniature metric fuses 5 x 20

Series Item No.	Overload and short-circuit protection		Short-circuit protection only	
	Individual arrangement	Block arrangement	Individual arrangement	Block arrangement
Fuse terminal blocks (with screw cap), side-entry (5 x 20 mm)				
282-122 **282-124**	2.5 W	2.5 W	4 W	4 W
Fuse disconnect terminal blocks with pivoting fuse holder for miniature metric fuses (5 x 20 mm)				
281-611 **281-616** **281-611/281-541** **281-611/281-542** **281-611/281-417** **281-611/281-418**	2.5 W	1.6 W	4 W	4 W
Fuse plugs for miniature metric fuses (5 x 20 mm)				
281-511 **281-512** **281-512/281-501** **281-512/281-418** **281-512/281-417**	2.5 W	1.6 W	4 W	4 W

Miniature metric fuses 6.3 x 32

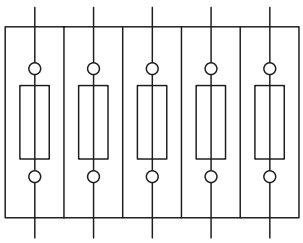
Series Item No.	Overload and short circuit protection		Short-circuit protection only	
	Individual arrangement	Block arrangement	Individual arrangement	Block arrangement
Fuse terminal blocks (with screw cap), side-entry ($^1/_4$" x $1^1/_4$" ≈ 6.3 x 32 mm)				
282-128 **282-128/281-418** **282-128/281-413** **282-128/281-417**	2.5 W	2.5 W	4 W	4 W
Fuse disconnect terminal blocks with pivoting fuse holder for miniature metric fuses ($^1/_4$" x $1^1/_4$" ≈ 6.3 x 32 mm)				
281-623 **281-623/281-541** **281-623/281-542** **281-623/281-417** **281-623/281-418**	2.5 W	1.6 W	4 W	2.5 W

Fuse terminal block in individual arrangement



Terminal block assembly including
one fuse terminal block and 4 through terminal blocks

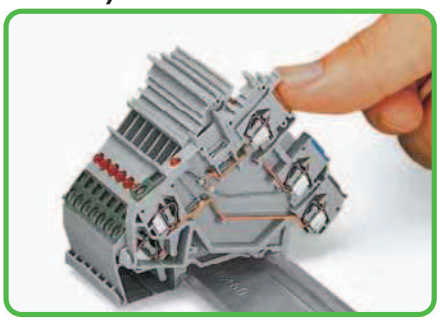
Fuse terminal blocks in block arrangement



Terminal block assembly including
5 fuse terminal blocks

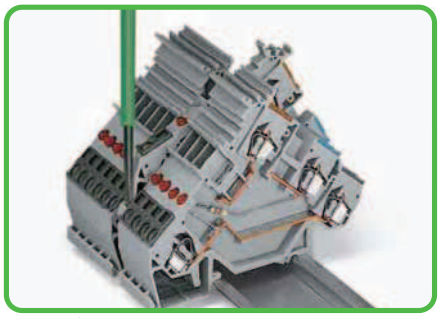
Sensor and Actuator Terminal Blocks
280 Series

Assembly



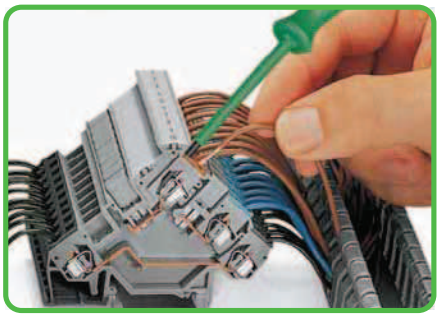
Assembly on the carrier rail. Terminal blocks with ground connection automatically establish a direct contact to the rail.

Removal



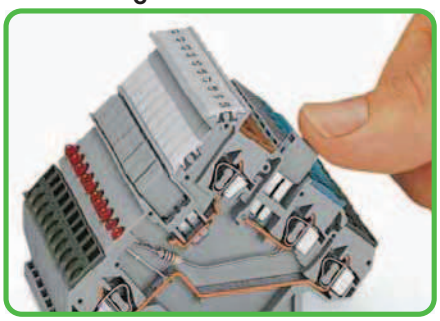
Removal from the carrier rail.
Notice: Remove jumper contacts first.

CAGE CLAMP® connection

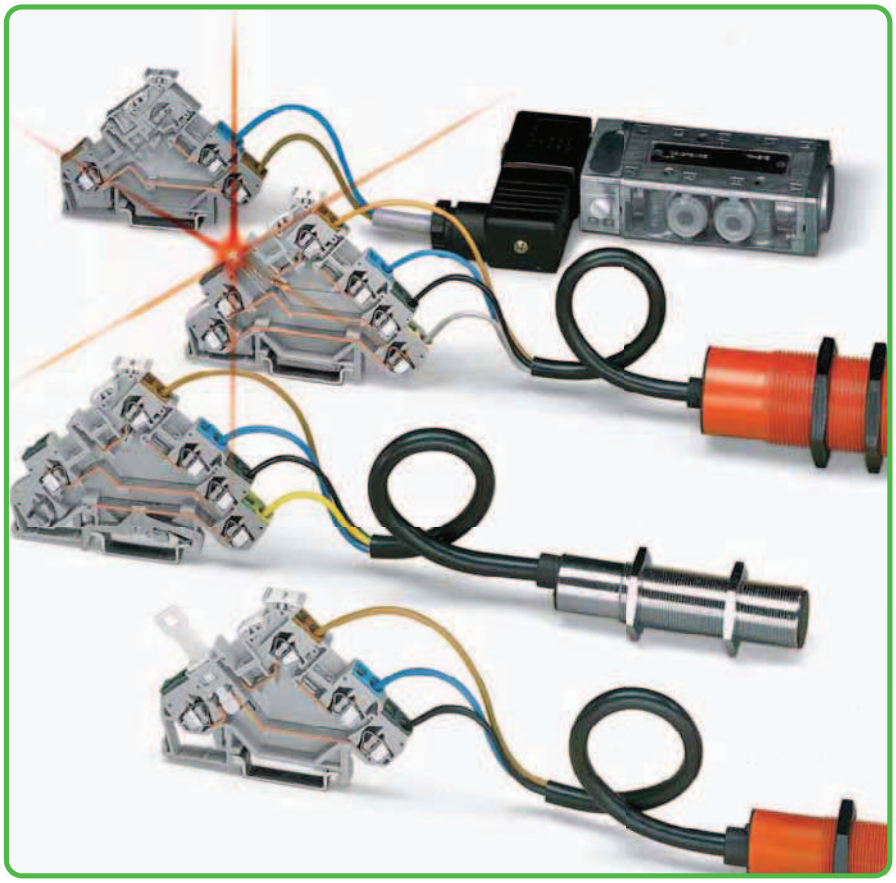


Conductor termination with straight operating tool (210-720).

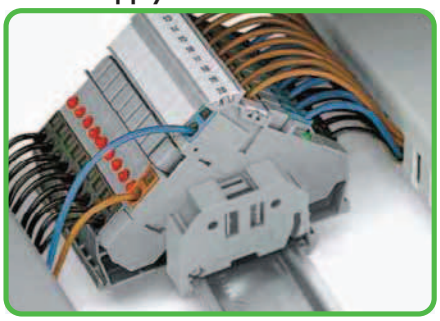
Commoning



Commoning with adjacent jumpers. Push down the adjacent jumper until fully inserted.

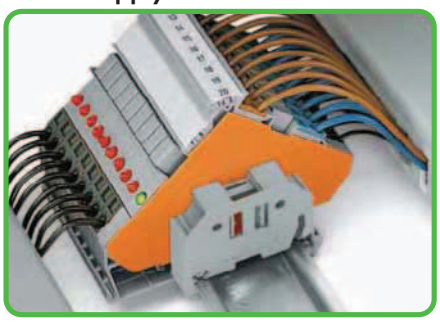


Power supply

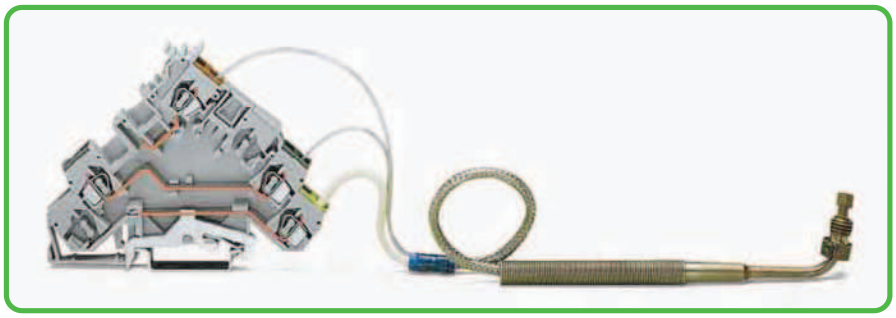


Sensor terminal blocks.
Power supply from control cabinet side.

Power supply



Sensor terminal blocks.
Power supply from sensor side.



Actuator terminal block and thermocouple with shield contact.



CAGE CLAMP® clamps the following copper conductors:*

solid



stranded

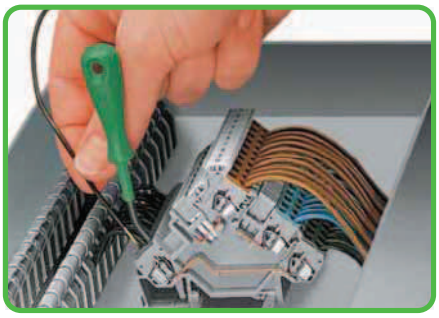


fine-stranded, also with tinned single strands

* For aluminum conductors, see notes in Section 14.

– Description and Handling –

CAGE CLAMP® connection



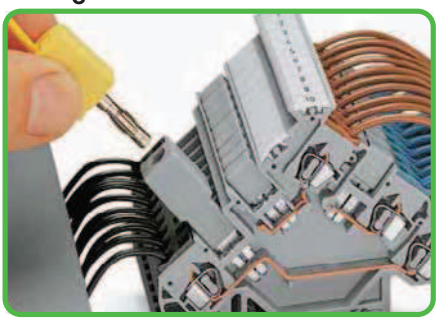
Conductor termination with angled operating tool (210-658).

Marking

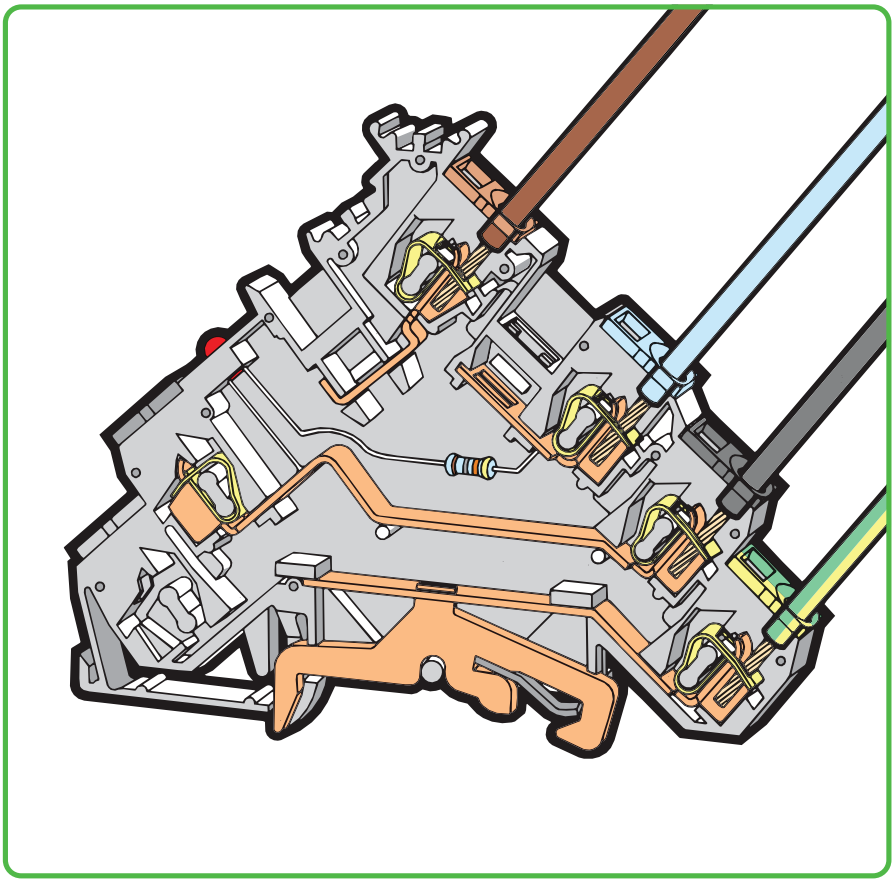


Marking with WMB Multi marking system.
For additional systems, see Section 13.

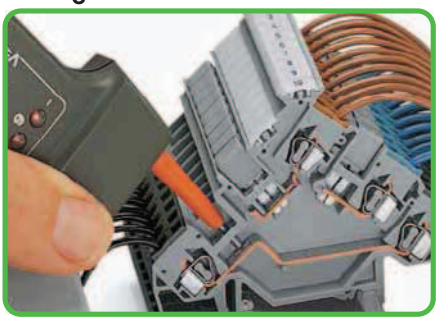
Testing



Testing via banana plug and 209-170 test plug adapter.

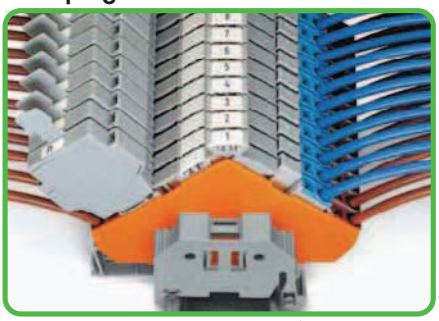


Testing

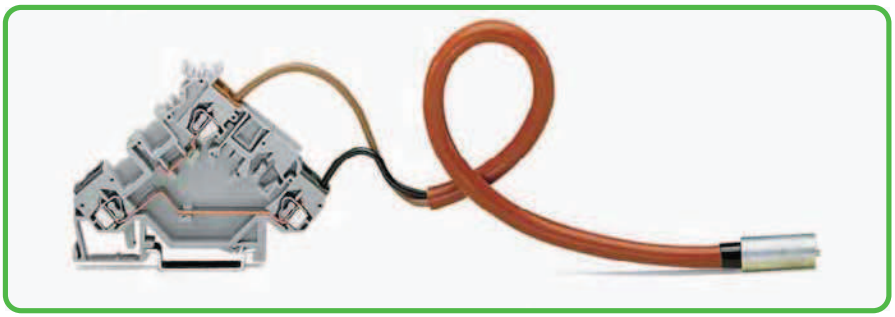


Testing with voltage tester directly on the current bar.

Fuse plugs

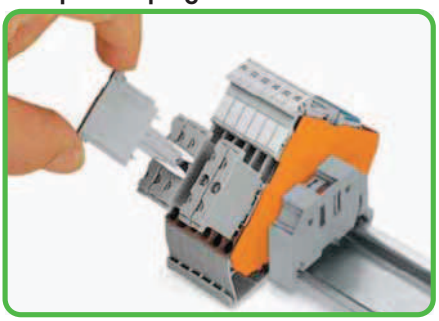


Actuator terminal blocks with 281-511 fuse plugs (requires additional intermediate plates).



Actuator terminal block with thermocouple.

Component plugs



Actuator terminal blocks with component plugs (280-801).



fine-stranded, tip-bonded



fine-stranded, with ferrule ❶ (gastight crimped)

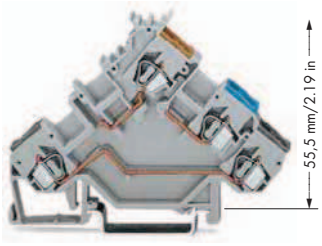


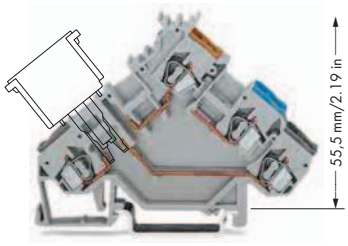
fine-stranded, with pin terminal (gastight crimped)

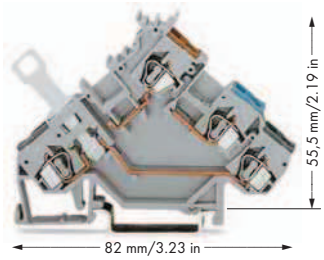
❶ When using ferrules, the max. conductor cross section accommodated is one size smaller than max. rating of terminal block.

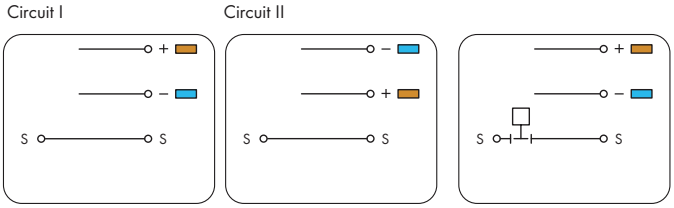
Sensor Terminal Blocks 2.5 mm² for 3-Conductor Sensors
280 Series

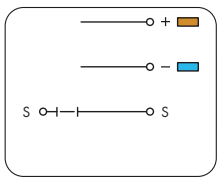
0.08 - 2.5 mm² 400 V/6 kV/3 ❶ I_N 20 A	AWG 28 - 12 * 300 V, 15 A 300 V, 15 A	0.08 - 2.5 mm² 250 V/4 kV/3 ❶ ❷ I_N 6 A ❷	AWG 28 - 12 * 300 V, 6 A 300 V, 15 A	0.08 - 2.5 mm² 400 V/6 kV/3 ❶ I_N 10 A	AWG 28 - 12 * 300 V, 10 A 300 V, 15 A
Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸		Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸		Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸	











	Item No.	Pack. Unit
Sensor terminal block		
Circuit I	**280-560**	50
Circuit II	**280-553**	50

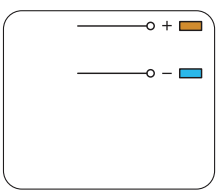
	Item No.	Pack. Unit
Sensor terminal block,		
for component plugs		
	280-561 ❹	50

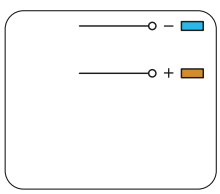
	Item No.	Pack. Unit
Sensor disconnect terminal block,		
for signal interruption		
	280-563	50









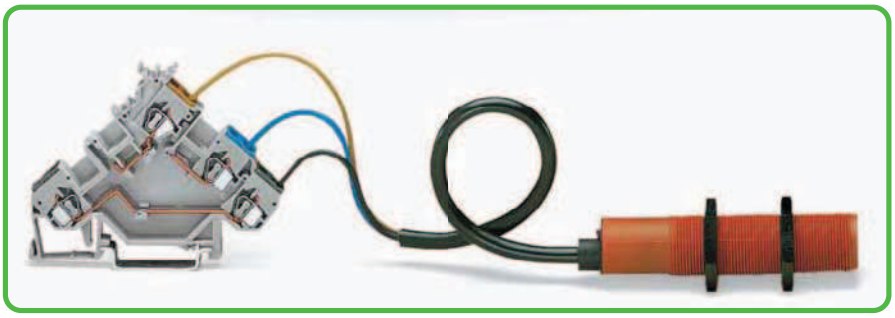


	Item No.	Pack. Unit
Sensor supply terminal block,		
power supply from sensor side		
	280-564	10

	Item No.	Pack. Unit
Spacer,		
same profile as 3-conductor sensor terminal blocks or appropriate actuator terminal blocks		
Spacers with the profile clearly differentiate between sensor or actuator terminal groups, e.g., of different power supply.		
gray	**280-559**	50

	Item No.	Pack. Unit
Sensor supply terminal block,		
power supply from control panel side, with end plate		
	280-567	20
Technical data:		
400 V/6 kV/3		I_N 20 A

For list of approvals and user guide, see pages 634 to 637.



Sensor terminal block with 3-conductor sensor

* AWG 12: THHN, THWN

❶ 400 V/250 V = rated voltage
6 kV/4 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

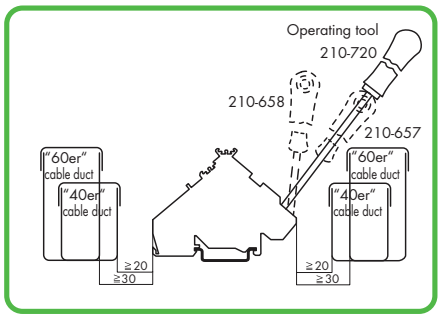
❷ Electrical ratings are given by the fuse plug or empty component plug housing.

❸ Strip length, see packaging or instructions.

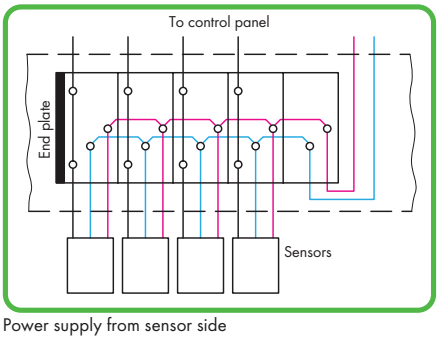
❹ For empty component plug housings, see interface modules
x = 12 mm/0.472 in
For fuse plugs, see page 232
x = 20 mm/0.787 in

❺ See application notes for:
Insulation stop, page 199

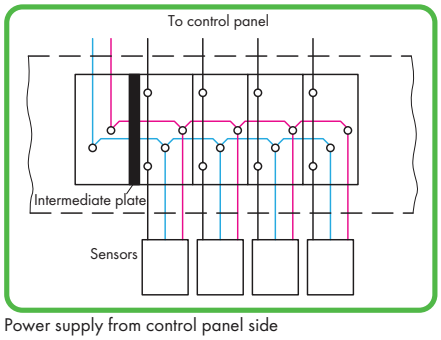




Min. mounting distance – terminal blocks to cable duct



Power supply from sensor side



Power supply from control panel side

280 Series Accessories

Appropriate marking system:
WMB (see Section 13)

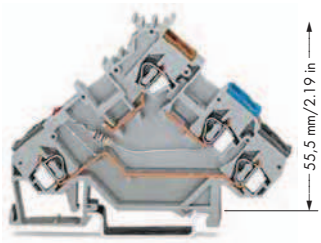
End and intermediate plate, 1 mm thick, for triple-deck terminal blocks			
	orange	**280-321**	100 (4x25)
	gray	**280-319**	100 (4x25)
Insulation stop, ❺			
	5 pcs/strip, 0.08 - 0.2 mm² "s" (0.14 mm² "f-st")		
	white	**280-470**	200 (8x25)
Insulation stop, ❺			
	5 pcs/strip, 0.25 - 0.5 mm²		
	light gray	**280-471**	200 (8x25)
Insulation stop, ❺			
	5 pcs/strip, 0.75 - 1 mm²		
	dark gray	**280-472**	200 (8x25)
Adjacent jumper, insulated,			
	I_N = I_N terminal block		
	gray	**280-402**	200 (8x25)
Screwless end stop, for DIN 35 rail, 6 mm wide			
	gray	**249-116**	100 (4x25)
Screwless end stop, for DIN 35 rail, 10 mm wide			
	gray	**249-117**	50 (2x25)

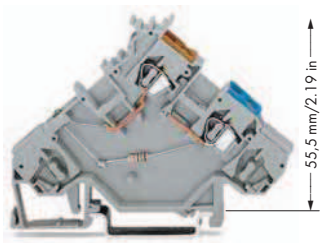
Sensor LED Terminal Blocks 2.5 mm² for 3-Conductor Sensors 280 Series

CAGE CLAMP®

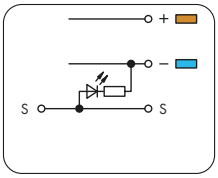
0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	

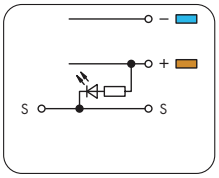
0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	



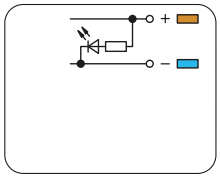


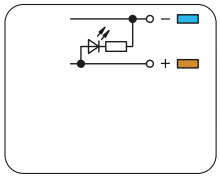
Circuit I Circuit II





Circuit I Circuit II





* AWG 12: THHN, THWN

❶ Other voltages upon request.

❷ Strip length, see packaging or instructions.



	Item No.	Pack. Unit
Sensor LED terminal block,		
for PNP (positive) switching sensors,		
additional LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-560/281-434**	50
Sensor LED terminal block,		
for NPN (negative) switching sensors,		
red LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-561/281-413**	50

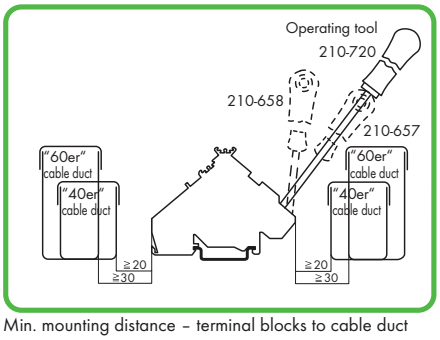
	Item No.	Pack. Unit
Sensor LED supply terminal block,		
power supply from sensor side,		
for PNP (positive) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-564/281-483**	10
Sensor LED supply terminal block,		
power supply from sensor side,		
for NPN (negative) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-566/281-496**	10

280 Series Accessories

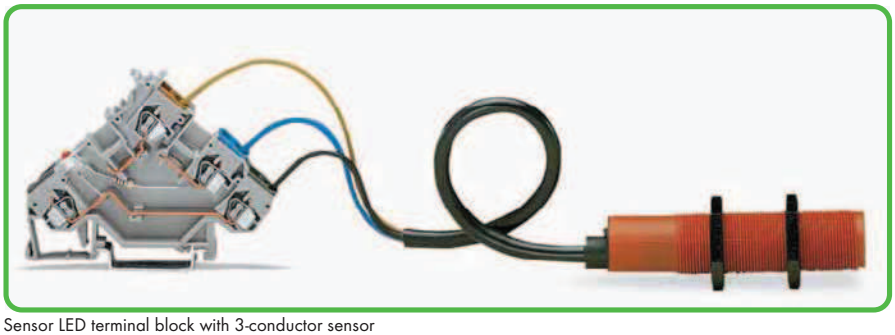
Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for triple-deck terminal blocks			
orange	**280-321**	100 (4x25)	
gray	**280-319**	100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 - 0.2 mm² "s" (0.14 mm² "f-st")			
white	**280-470**	200 (8x25)	

Insulation stop, 5 pcs/strip, 0.25 - 0.5 mm²			
light gray	**280-471**	200 (8x25)	
Insulation stop, 5 pcs/strip, 0.75 - 1 mm²			
dark gray	**280-472**	200 (8x25)	



Min. mounting distance – terminal blocks to cable duct



Sensor LED terminal block with 3-conductor sensor

For list of approvals and user guide, see pages 634 to 637.

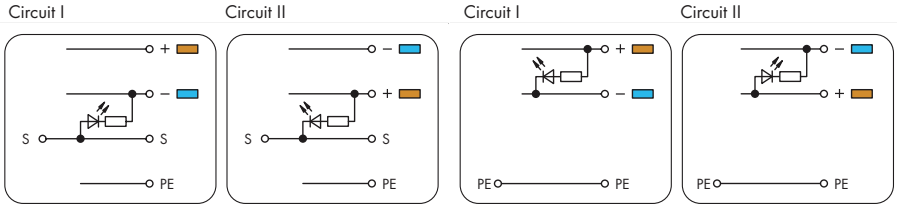
Sensor LED Terminal Blocks 2.5 mm² for 4-Conductor Sensors 280 Series

0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	

0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	







* AWG 12: THHN, THWN

❶ Other voltages upon request.

❷ Strip length, see packaging or instructions.



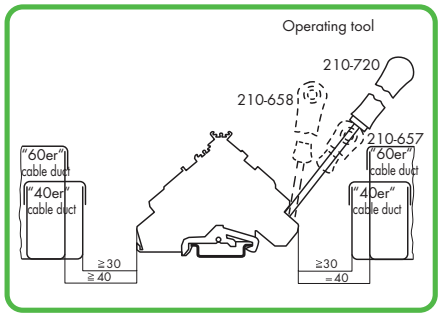
	Item No.	Pack. Unit
Sensor LED terminal block,		
for PNP (positive) switching sensors,		
red LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-570/281-434**	50
Sensor LED terminal block,		
for NPN (negative) switching sensors,		
additional LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-571/281-413**	50

	Item No.	Pack. Unit
Sensor LED supply terminal block,		
power supply from sensor side,		
for PNP (positive) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-574/281-483**	10
Sensor LED supply terminal block,		
power supply from sensor side,		
for NPN (negative) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-576/281-496**	10
Sensor LED supply terminal block,		
power supply from control panel side,		
for PNP (positive) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA,		
with end plate		
◯ Circuit II	**280-577/281-496**	20

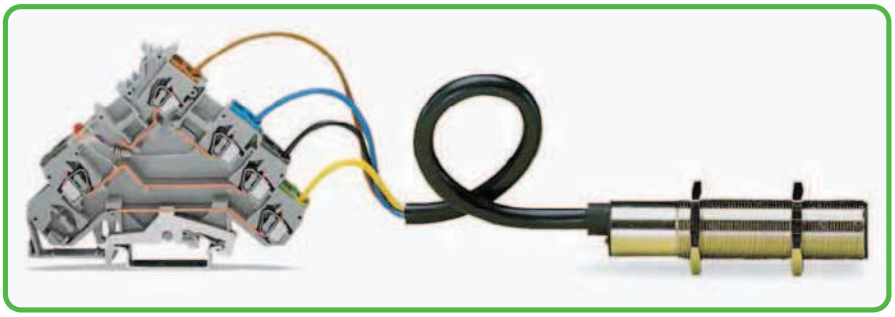
280 Series Accessories

Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 1 mm thick,			
for quadruple-deck terminal blocks			
orange	**280-323**	100 (4x25)	
gray	**280-320**	100 (4x25)	



Min. mounting distance – terminal blocks to cable duct



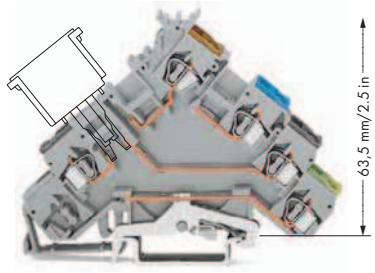
Sensor LED terminal block, with 3-conductor sensor with ground connection

For list of approvals and user guide, see pages 634 to 637.

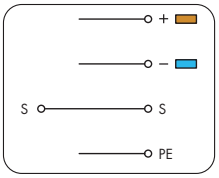
Sensor Terminal Blocks 2.5 mm² for 3-Conductor Sensors with Ground Connection
280 Series

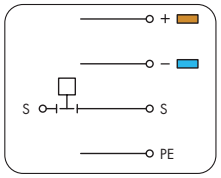
0.08 - 2.5 mm²	AWG 28 - 12 *	0.08 - 2.5 mm²	AWG 28 - 12 *	0.08 - 2.5 mm²	AWG 28 - 12 *
400 V/6 kV/3 ❶	300 V, 15 A	250 V/4 kV/3 ❶ ❷	300 V, 6 A	400 V/6 kV/3 ❶	300 V, 10 A
I_N 20 A	300 V, 15 A	I_N 6 A	300 V, 15 A	I_N 10 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in		Terminal block width 5 mm / 0.197 in		Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❸		8 - 9 mm / 0.33 in ❸		8 - 9 mm / 0.33 in ❸	

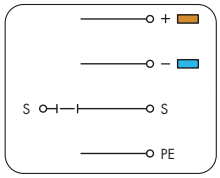










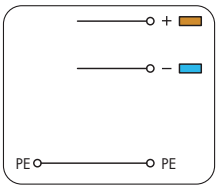


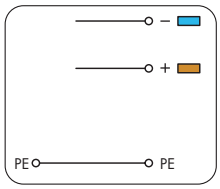
Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor terminal block with ground connection		**Sensor terminal block with ground connection,** for component plugs		**Sensor disconnect terminal block with ground connection,** for signal interruption	
280-570	50	**280-571** ❹	50	**280-573**	50





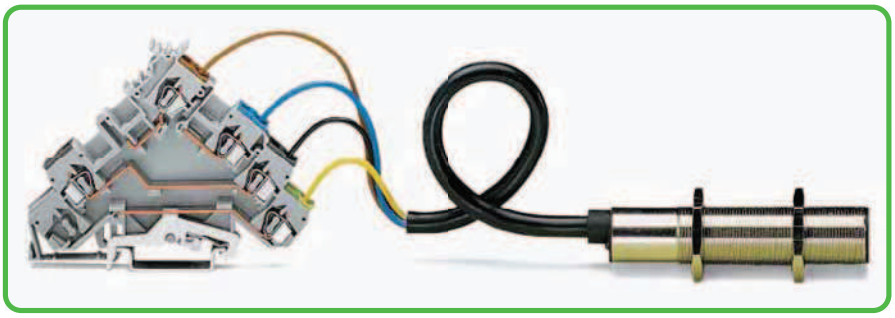






Item No.	Pack. Unit	Item No.	Pack. Unit	Item No.	Pack. Unit
Sensor supply terminal block with ground connection, power supply from sensor side		**Spacer,** same profile as 4-conductor sensor terminal blocks, 3-conductor sensor terminal blocks with ground connection or appropriate actuator terminal blocks Spacers with the profile clearly differentiate between sensor or actuator terminal groups, e.g., of different power supply.		**Sensor supply terminal block with ground connection,** power supply from control panel side, with end plate	
280-574	10	**280-582**	50	**280-577**	20
				Technical data:	
				400 V/6 kV/3	I_N 20 A

For list of approvals and user guide, see pages 634 to 637.



Sensor terminal block, with 3-conductor sensor with ground connection

* AWG 12: THHN, THWN

❶ 400 V/250 V = rated voltage
6 kV/4 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

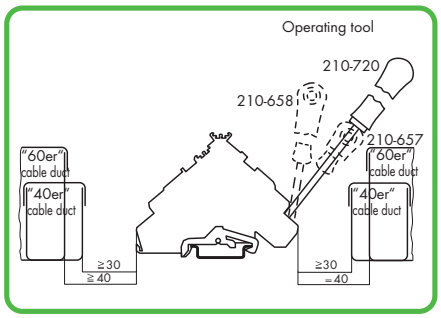
❷ Electrical ratings are given by the fuse plug or empty component plug housing.

❸ Strip length, see packaging or instructions.

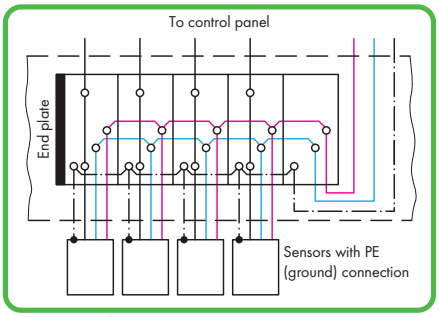
❹ For empty component plug housings, see interface modules
x = 12 mm/0.472 in
For fuse plugs, see page 232
x = 20 mm/0.787 in

❺ See application notes for:
Insulation stop, page 199

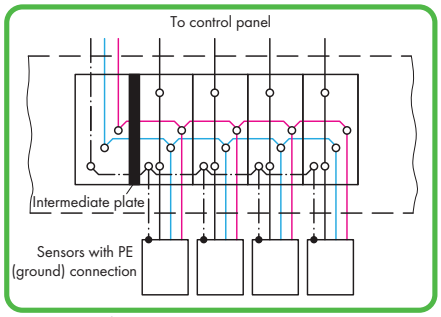




Min. mounting distance – terminal blocks to cable duct



Power supply from sensor side



Power supply from control panel side

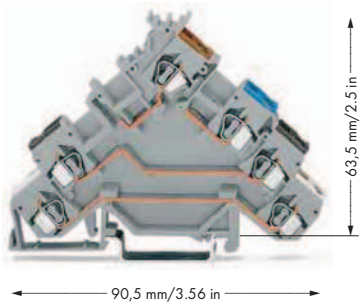
280 Series Accessories

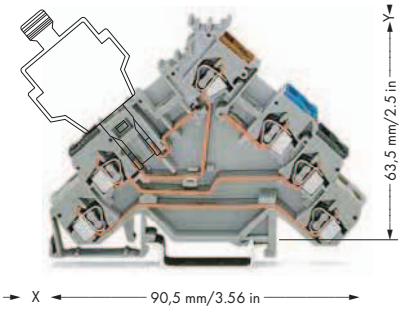
Appropriate marking system:
WMB (see Section 13)

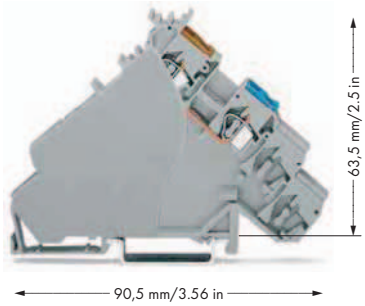
End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks			
	orange	**280-323**	100 (4x25)
	gray	**280-320**	100 (4x25)
Insulation stop, ❺			
	5 pcs/strip, 0.08 - 0.2 mm² "s" (0.14 mm² "f-st")		
	white	**280-470**	200 (8x25)
Insulation stop, ❺			
	5 pcs/strip, 0.25 - 0.5 mm²		
	light gray	**280-471**	200 (8x25)
Insulation stop, ❺			
	5 pcs/strip, 0.75 - 1 mm²		
	dark gray	**280-472**	200 (8x25)
Adjacent jumper, insulated,			
	I_N = I_N terminal block		
	gray	**280-402**	200 (8x25)
Screwless end stop, for DIN 35 rail, 6 mm wide			
	gray	**249-116**	100 (4x25)
Screwless end stop, for DIN 35 rail, 10 mm wide			
	gray	**249-117**	50 (2x25)

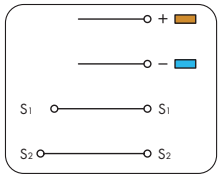
Sensor Terminal Blocks 2.5 mm² for 4-Conductor Sensors
280 Series

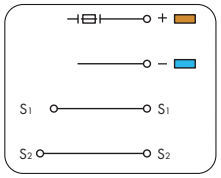
0.08 - 2.5 mm²	AWG 28 - 12 *	0.08 - 2.5 mm²	AWG 28 - 12 *	0.08 - 2.5 mm²	AWG 28 - 12 *
400 V/6 kV/3 ❶	300 V, 15 A	125 V/5 A ❷	300 V, 6 A	400 V/6 kV/3 ❶	24 V, 15 A
I_N 20 A	300 V, 15 A	250 V/6.3 A ❷	300 V, 15 A	I_N 20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in		Terminal block width 5 mm / 0.197 in		Terminal block width 6 mm / 0.236 in	
8 - 9 mm / 0.33 in ❸		8 - 9 mm / 0.33 in ❸		8 - 9 mm / 0.33 in ❸	

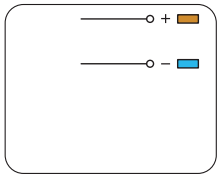








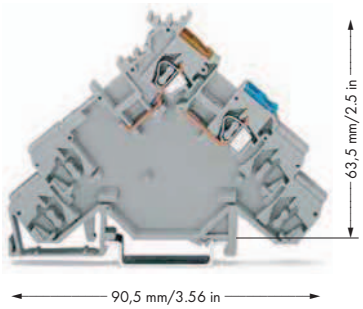


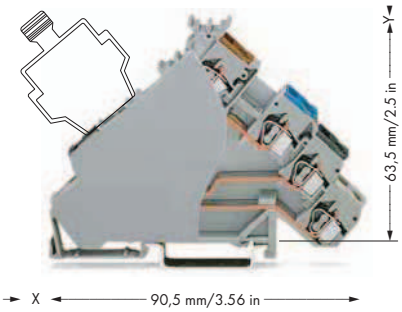


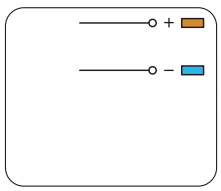
Item No.	Pack. Unit
Sensor terminal block	
○ **280-580**	50

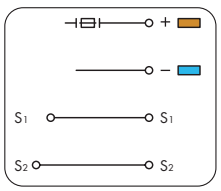
Item No.	Pack. Unit
Sensor terminal block,	
for fuse plugs,	
for PNP (positive) switching sensors without end plate	
○ **280-588** ❹	50

Item No.	Pack. Unit
Sensor supply terminal block,	
power supply from control panel side,	
with end plate	
○ **280-587**	20





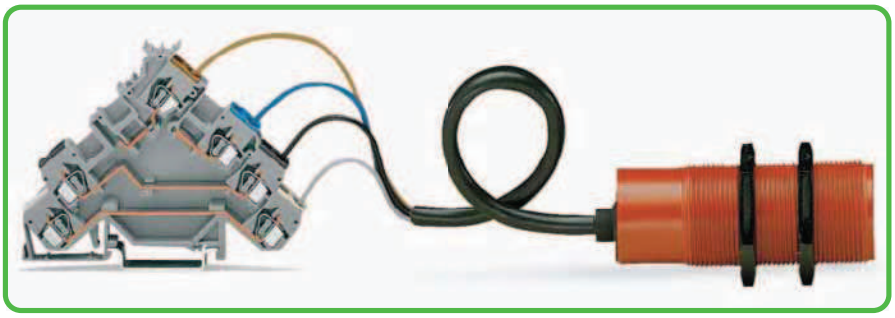




Item No.	Pack. Unit
Sensor supply terminal block,	
power supply from sensor side,	
without end plate	
○ **280-584**	10

Item No.	Pack. Unit
Sensor terminal block,	
for fuse plugs,	
for PNP (positive) switching sensors with end plate	
○ gray **280-588/280-320**	50
○ gray **280-588/280-323**	50

For list of approvals and user guide, see pages 634 to 637.



Sensor terminal block with 4-conductor sensor

* AWG 12: THHN, THWN

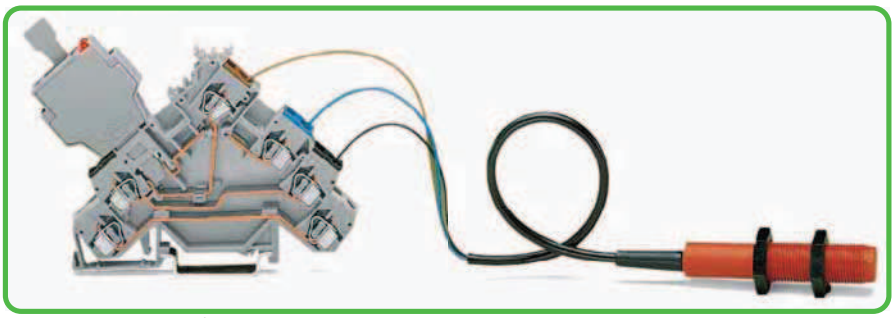
❶ 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Electrical ratings are given by the fuse plug or empty component plug housing.

❸ Strip length, see packaging or instructions.

❹ For empty component plug housings, see interface modules
x=12 mm/0.472 in
For fuse plugs, see page 230
x = 15.5 mm/0.61 in
y = 10 mm/0.394 in

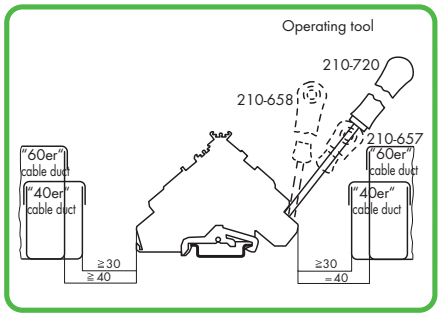
❺ See application notes for:
Insulation stop, page 199



Sensor terminal block with fuse plug, including 3-conductor sensor



The fuse plug is 1 mm/0.039 in wider than the terminal block. This means an intermediate plate has to be fitted.



Min. mounting distance – terminal blocks to cable duct

280 Series Accessories

Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 1 mm thick,			
	for quadruple-deck terminal blocks		
	orange	**280-323**	100 (4x25)
	gray	**280-320**	100 (4x25)
Insulation stop,			
❺ 	5 pcs/strip,		
	0.08 - 0.2 mm² "s" (0.14 mm² "f-st")		
	white	**280-470**	200 (8x25)
Insulation stop,			
❺ 	5 pcs/strip,		
	0.25 - 0.5 mm²		
	light gray	**280-471**	200 (8x25)
Insulation stop,			
❺ 	5 pcs/strip,		
	0.75 - 1 mm²		
	dark gray	**280-472**	200 (8x25)
Adjacent jumper, insulated,			
	I_N = I_N terminal block		
	gray	**280-402**	200 (8x25)
Screwless end stop,			
	for DIN 35 rail,		
	6 mm wide		
	gray	**249-116**	100 (4x25)
Screwless end stop,			
	for DIN 35 rail,		
	10 mm wide		
	gray	**249-117**	50 (2x25)

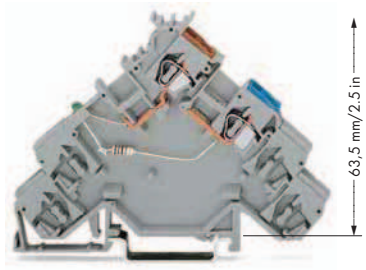
Sensor LED Terminal Blocks 2.5 mm² for 4-Conductor Sensors 280 Series

CAGE CLAMP®

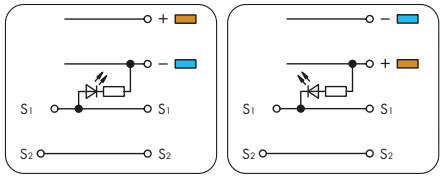
0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	

0.08 - 2.5 mm²	AWG 28 - 12 *
24 VDC ❶	24 V, 15 A
20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	

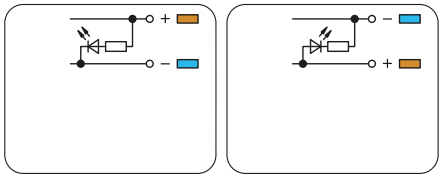




Circuit I Circuit II



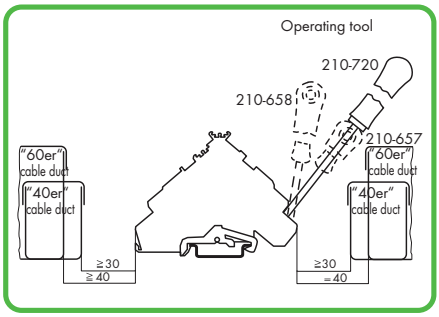
Circuit I Circuit II



* AWG 12: THHN, THWN

❶ Other voltages upon request.

❷ Strip length, see packaging or instructions.



Min. mounting distance – terminal blocks to cable duct

Item No.		Pack. Unit
Sensor LED terminal block,		
for PNP (positive) switching sensors,		
red LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-580/281-434**	50
Sensor LED terminal block,		
for NPN (negative) switching sensors,		
red LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-581/281-413**	50

Item No.		Pack. Unit
Sensor LED supply terminal block,		
power supply from sensor side,		
for PNP (positive) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit I	**280-584/281-483**	10
Sensor LED supply terminal block,		
power supply from sensor side,		
for NPN (negative) switching sensors,		
green LED, 24 VDC, LED power consumption: 4.8 mA		
◯ Circuit II	**280-586/281-496**	10

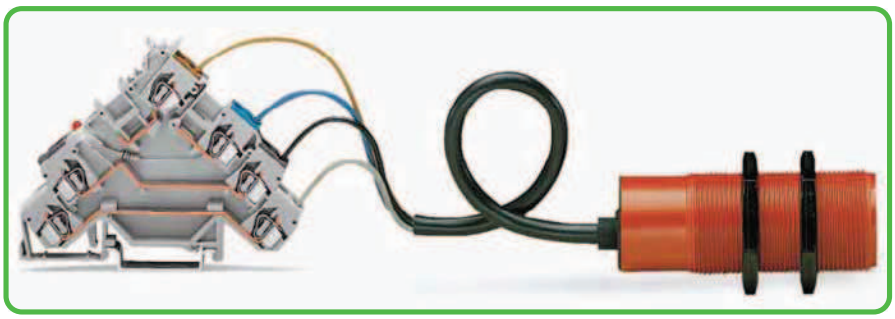
280 Series Accessories

Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for quadruple-deck terminal blocks			
orange	**280-323**	100 (4x25)	
gray	**280-320**	100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 - 0.2 mm² "s" (0.14 mm² "f-st")			
white	**280-470**	200 (8x25)	

Insulation stop, 5 pcs/strip, 0.25 - 0.5 mm²			
light gray	**280-471**	200 (8x25)	
Insulation stop, 5 pcs/strip, 0.75 - 1 mm²			
dark gray	**280-472**	200 (8x25)	





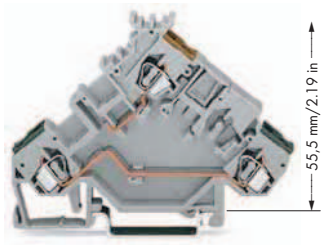
Sensor LED terminal block with 4-conductor sensor

For list of approvals and user guide, see pages 634 to 637.

Actuator Terminal Blocks 2.5 mm²
for Pressure Switches, Thermocouples, etc.
Serie 280

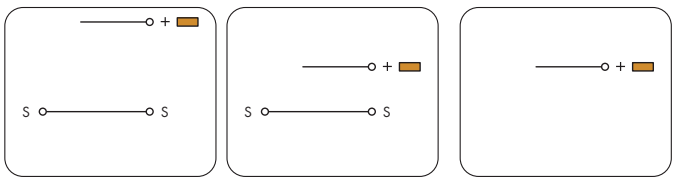
0.08 - 2.5 mm²	AWG 28 - 12 *
400 V/6 kV/3 ❶	300 V, 15 A
I_N 20 A	300 V, 15 A
Terminal block width 5 mm / 0.197 in	
8 - 9 mm / 0.33 in ❷	

0.08 - 2.5 mm²	AWG 28 - 12 *
400 V/6 kV/3 ❶	300 V, 15 A
I_N 20 A	300 V, 15 A
Terminal block width 6 mm / 0.236 in	
8 - 9 mm / 0.33 in ❷	





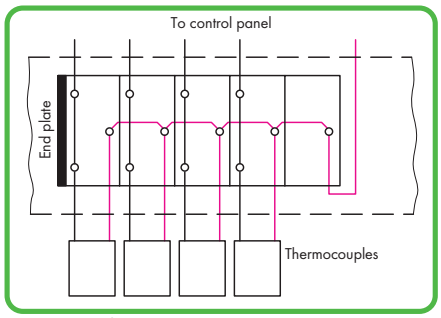
Circuit I Circuit II



* AWG 12: THHN, THWN

❶ 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(also see Section 14)

❷ Strip length, see packaging or instructions.



Power supply from actuator side

	Item No.	Pack. Unit
Actuator terminal block		
Circuit I	**280-555**	50
Actuator terminal block, (no picture)		
Circuit II	**280-554**	50

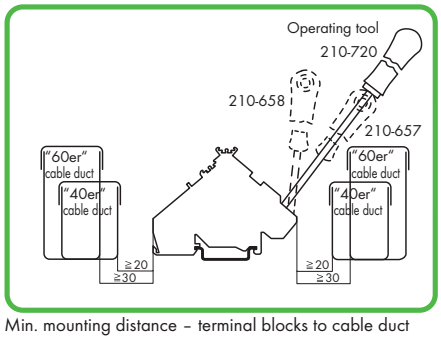
	Item No.	Pack. Unit
Actuator supply terminal block, in connection with 280-555: power supply from control cabinet side, in connection with 280-554: power supply from actuator side, with end plate		
	280-556	20

280 Series Accessories

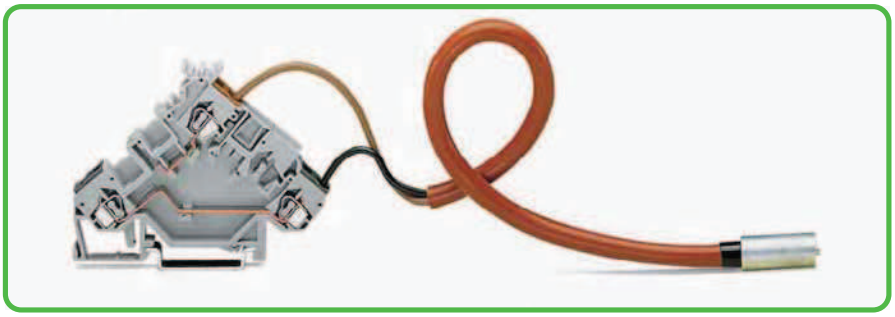
Appropriate marking system:
WMB (see Section 13)

End and intermediate plate, 1 mm thick, for triple-deck terminal blocks			
orange	**280-321**	100 (4x25)	
gray	**280-319**	100 (4x25)	
Insulation stop, 5 pcs/strip, 0.08 - 0.2 mm² "s" (0.14 mm² "f-st")			
white	**280-470**	200 (8x25)	
Screwless end stop, for DIN 35 rail, 6 mm wide			
gray	**249-116**	100 (4x25)	

Insulation stop, 5 pcs/strip, 0.25 - 0.5 mm²		
light gray	**280-471**	200 (8x25)
Insulation stop, 5 pcs/strip, 0.75 - 1 mm²		
dark gray	**280-472**	200 (8x25)
Screwless end stop, for DIN 35 rail, 10 mm wide		
gray	**249-117**	50 (2x25)



Min. mounting distance – terminal blocks to cable duct

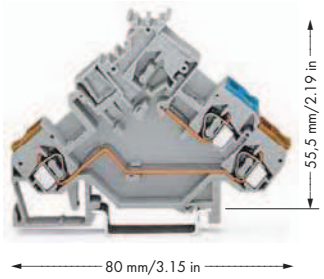


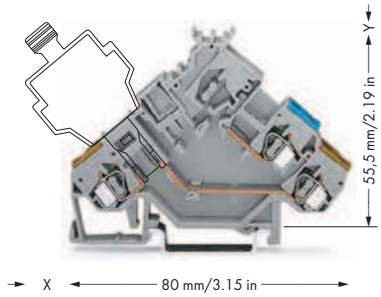
Actuator terminal block paired with a thermocouple

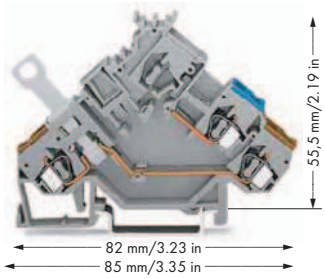
For list of approvals and user guide, see pages 634 to 637.

Actuator Terminal Blocks 2.5 mm² for Magnetic Valves, Servomotors, etc.
280 Series

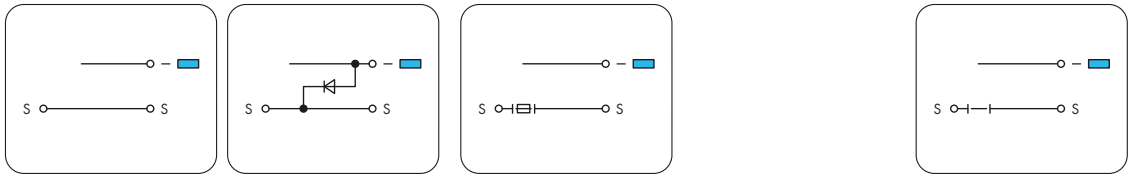
0.08 - 2.5 mm² 400 V/6 kV/3; 20 A ❶ ❷ 250 V/4 kV/3; 20 A ❶ ❷ Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸	AWG 28 - 12 * 300 V, 15 A 300 V, 15 A	0.08 - 2.5 mm² 125 V/5 A ❷ 250 V/6.3 A ❷ Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸	AWG 28 - 12 * 300 V, 6 A 300 V, 15 A	0.08 - 2.5 mm² 400 V/6 kV/3 ❶ I_N 10 A Terminal block width 5 mm / 0.197 in 8 - 9 mm / 0.33 in ❸	AWG 28 - 12 * 300 V, 10 A 300 V, 15 A







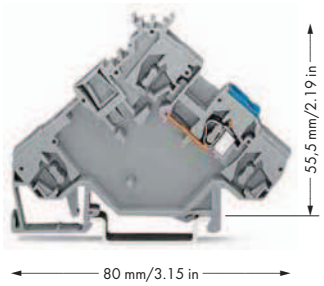
Circuit I Circuit II

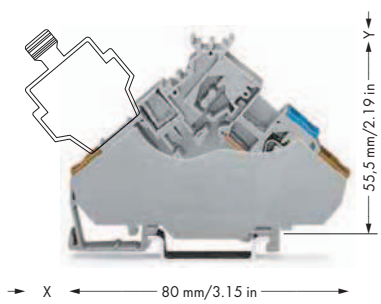


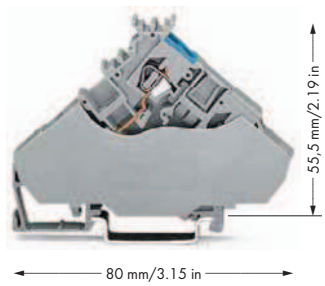
Item No.	Pack. Unit
Actuator terminal block	
◯ Circuit I **280-562**	50
Actuator terminal block,	
with recovery diode 1N4007	
◯ Circuit II **280-562/281-411**	50

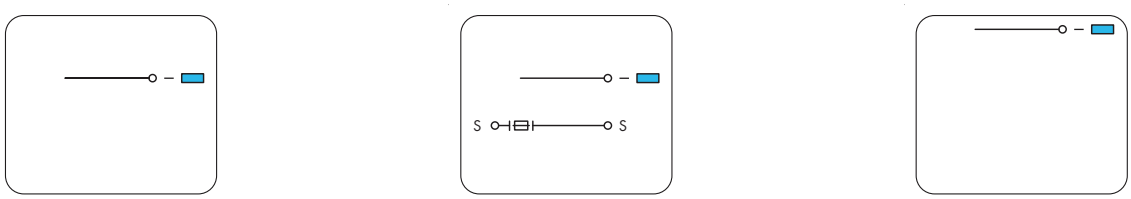
Item No.	Pack. Unit
Actuator terminal block,	
for fuse plugs,	
for fuse protection of line voltage, without end plate	
◯ **280-565** ❹	50

Item No.	Pack. Unit
Actuator disconnect terminal block,	
for interruption of line	
◯ **280-566**	50









Item No.	Pack. Unit
Actuator supply terminal block,	
power supply form actuator side	
◯ **280-592**	10

Item No.	Pack. Unit
Actuator terminal block,	
for fuse plugs,	
for fuse protection of line voltage, with end plate	
◯ gray **280-565/280-319**	50
◯ gray **280-565/280-321**	50

Item No.	Pack. Unit
Actuator supply terminal block,	
power supply from control panel side,	
with end plate	
◯ **280-568**	20
Technical data:	
400 V/6 kV/3	I_N 20 A

For list of approvals and user guide, see pages 634 to 637.