



Exposed to constant vibrations:
WAGO rail-mounted terminal blocks
and the **WAGO X-COM®-SYSTEM**
in an electric locomotive.



Current-carrying capacity curves (derating curves)	
– Receptacle terminal blocks and female plugs	9.48 – 9.49
– Headers, male connectors and female plugs	9.50 – 9.51

Diode and LED receptacle terminal blocks	
– 1-conductor/1-pin	9.24
– 2-pin	9.24

Diode and LED receptacle terminal blocks with 2 jumper positions	
– 1-conductor/1-pin	9.25
– 2-pin	9.25

Disconnect receptacle terminal blocks with/without shield (screen) contact	
– 1-conductor/1-pin	9.22
– 2-pin	9.22

Disconnect receptacle terminal blocks with/without shield (screen) contact with 2 jumper positions	
– 1-conductor/1-pin	9.23
– 2-pin	9.23

Double deck terminal blocks	
– 1-conductor/1-pin	9.34 – 9.35
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Female plugs	
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Receptacle terminal blocks	
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Receptacle terminal blocks for pluggable modules with 2 jumper positions	
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– 2-conductor	9.32

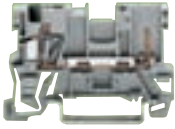
Receptacle terminal blocks with 3 jumper positions	
– 1-conductor/1-pin	9.20 – 9.21

Snap-on type strain relief housings	9.47
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Note other connectors with pin spacings
5.08 mm / 0.2 in; 7.5 mm / 0.295 in or 7.62 mm / 0.3 in
see MULTI CONNECTION SYSTEM Volume 2 – section 4 to 7

9 Product Summary X-COM®-SYSTEM – 2 ... Receptacle Terminal Blocks

Series 769 1-conductor/1-pin ...



without /with shield (screen) contact

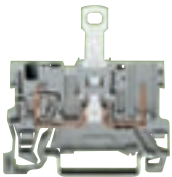
Page 9.12



Ground (earth) terminal block

Page 9.12

1-conductor/1-pin ...



Disconnect

Disconnect shield (screen)

Page 9.22

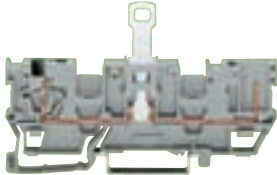


Diode

LED

Page 9.24

1-conductor/1-pin with 2 jumper positions



Disconnect

Disconnect shield (screen)

Page 9.23

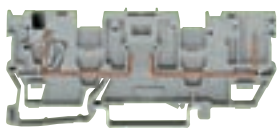


Diode

LED

Page 9.25

1-conductor/1-pin with 2 jumper positions



for 5 mm / 0.197 in wide plugs
with electronic components

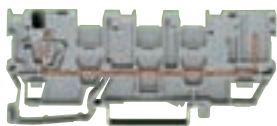
Page 9.28



for plugs with electronic components
10 mm / 0.394 in, 15 mm / 0.591 in,
20 mm / 0.787 in, 25 mm / 0.984 in wide

Page 9.30

1-conductor/1-pin with 3 jumper positions



Page 9.20

Series 769 2-pin ...



without /with shield (screen) contact

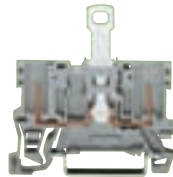
Page 9.14



Ground (earth) terminal block

Page 9.14

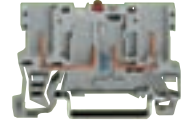
2-pin ...



Disconnect

Disconnect shield (screen)

Page 9.22

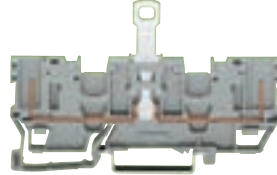


Diode

LED

Page 9.24

2-pin with 2 jumper positions



Disconnect

Disconnect shield (screen)

Page 9.23

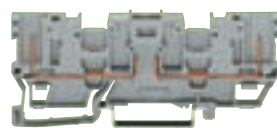


Diode

LED

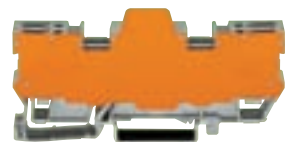
Page 9.25

2-pin with 2 jumper positions



for 5 mm / 0.197 in wide plugs
with electronic components

Page 9.28



for plugs with electronic components
10 mm / 0.394 in, 15 mm / 0.591 in,
20 mm / 0.787 in, 25 mm / 0.984 in wide

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... Receptacle Terminal Blocks

Series 769 2-conductor/2-pin ...



without /with shield (screen) contact

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Ground (earth) terminal block

Page 9.16

Series 769 4-pin ...



without /with shield (screen) contact

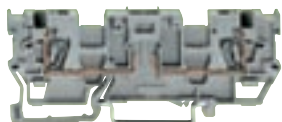
Page 9.18



Ground (earth) terminal block

Page 9.18

Series 769 2-conductor ...



for 5 mm /0.197 in wide plugs
with electronic components
Page 9.32



for plugs with electronic components
10 mm /0.394 in, 15 mm /0.591 in,
20 mm /0.787 in, 25 mm /0.984 in wide
Page 9.32

... Double Deck Receptacle Terminal Blocks

Series 870 1-conductor/1-pin ...



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internal commoning

Page 9.34



internal commoning

Page 9.35

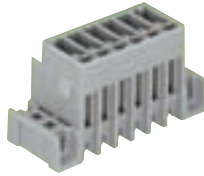
9 X-COM®-SYSTEM

... Headers and Male Connectors

Series 769 Headers with straight solder pins

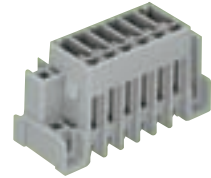


Page 9.40



with fixing flanges

Page 9.41



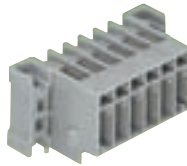
with fixing flanges
for feedthrough applications

Page 9.42

Series 769 Headers with right angle solder pins

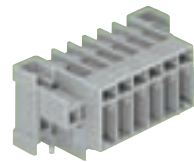


Page 9.40



with fixing flanges

Page 9.41



with fixing flanges
for feedthrough applications

Page 9.42

... Male Connectors with CAGE CLAMP® Connection

Series 769 Male connectors with CAGE CLAMP® connection



Page 9.38



with snap-in mounting feet

Page 9.38



with snap-in flanges

Page 9.39



with fixing flanges

Page 9.38

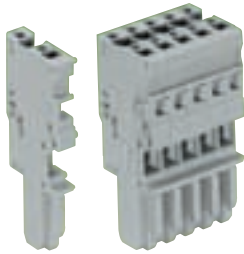


with fixing flanges
for feedthrough applications

Page 9.39

... Female Plugs

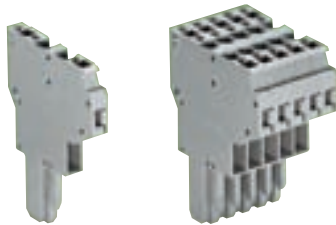
Series 769 Female plugs with CAGE CLAMP® connection



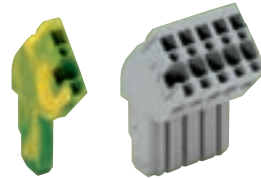
1-conductor
Page 9.44



1-conductor
with lateral locking levers
Page 9.44

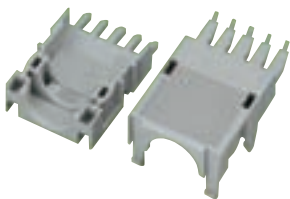


2-conductor
Page 9.45

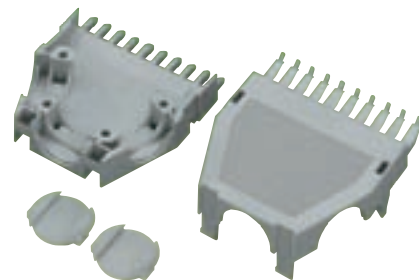


1-conductor
angled
Page 9.46

... Accessories



Snap-on type strain relief housings
Page 9.47



Operating tool
Page 9.36

WAGO X-COM[®]-SYSTEM

COM-bination of Connectors and Rail-Mounted Terminal Blocks

The WAGO X-COM[®]-SYSTEM is mostly used in switchgear and control applications.

It is designed for a **rated current up to 16/32 A at U_N 500 V and AWG 12 / 4 mm² rated cross section (up to 600 V, 10 A, and 12 AWG UL)**

offering an alternative to heavy duty rectangular and circular connectors used in power wiring applications where electrical compliance is more important than a high degree of protection.

Pre-assembly of connector systems offers the following advantages to the user:

- During manufacturing: Pre-assembled part or function assemblies can be tested before assembly.
- During assembly: Pre-assembled pluggable cable harnesses help solve time and space issues on site. Connector systems with protection against mismatching can be handled by persons of all skill levels.
- During servicing: Sub-assemblies can be replaced very quickly and without failures.

The X-COM[®]-SYSTEM consists of base receptacle rail-mounted terminal blocks, male connectors and female plugs with different types of mounting systems as well as headers with solder pins. Pin spacing is generally 5 mm/0.197 in.

Protection against mismatching and accidental contact

The WAGO X-COM[®]-SYSTEM is **fully protected against accidental contact - even when plugs are disconnected**. As a result, considerations on how to plan the power distribution become easier. Furthermore, the whole system is **100 % protected against mismatching**. Coded, without the loss of any poles, prevents mismatching of male connectors and female plugs having the same number of poles.

Base receptacle terminal blocks

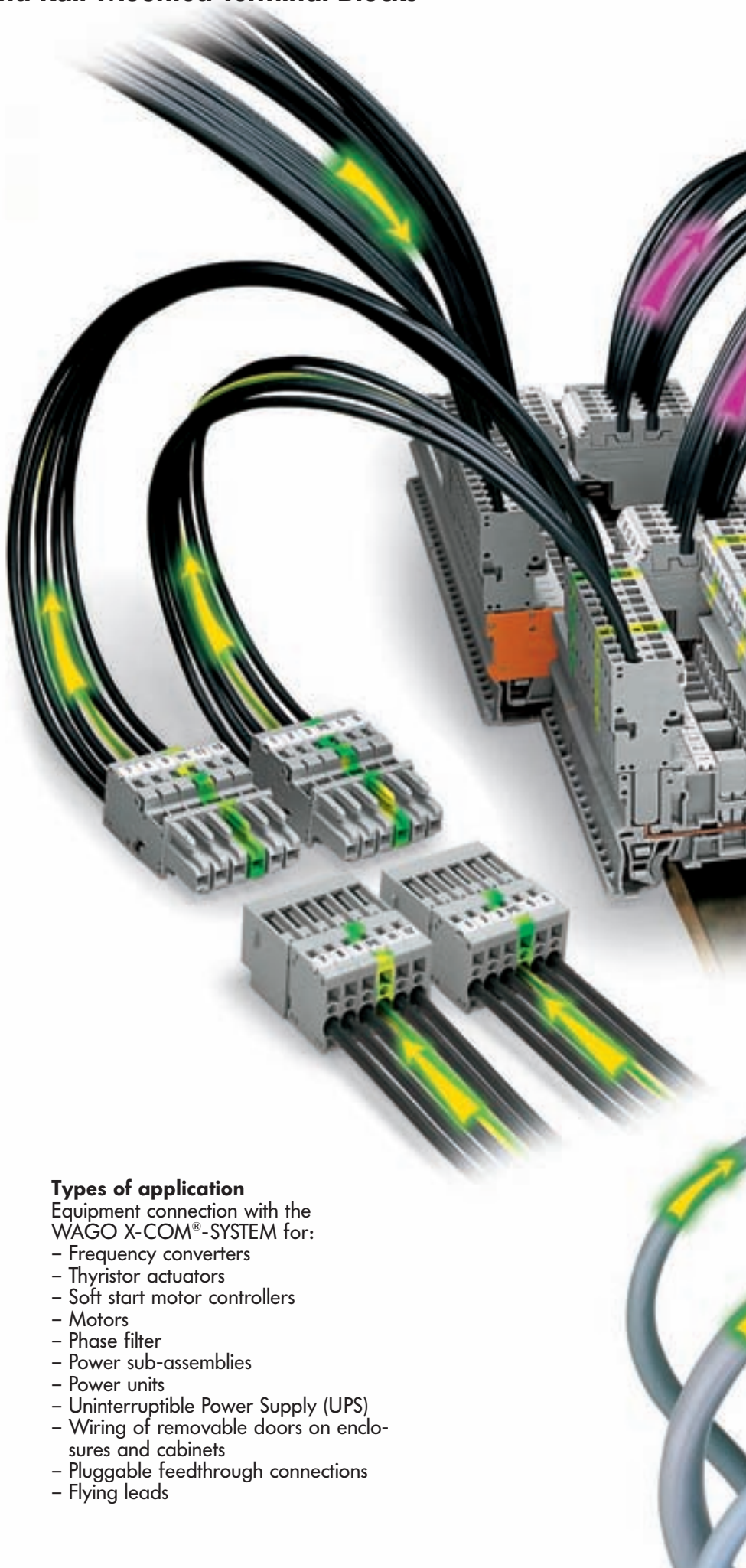
Base receptacle terminal blocks are available as through terminal blocks, double deck terminal blocks as well as ground (earth) conductor terminal blocks with automatic contact to the carrier rail. Base receptacle terminal blocks with special functions are available in disconnect, diode and LED versions. To use all the functions of **pluggable electronic modules** which include a wide range of relays, optocoupler modules and converters, etc., some base receptacle terminal blocks have an additional plug-in slot.

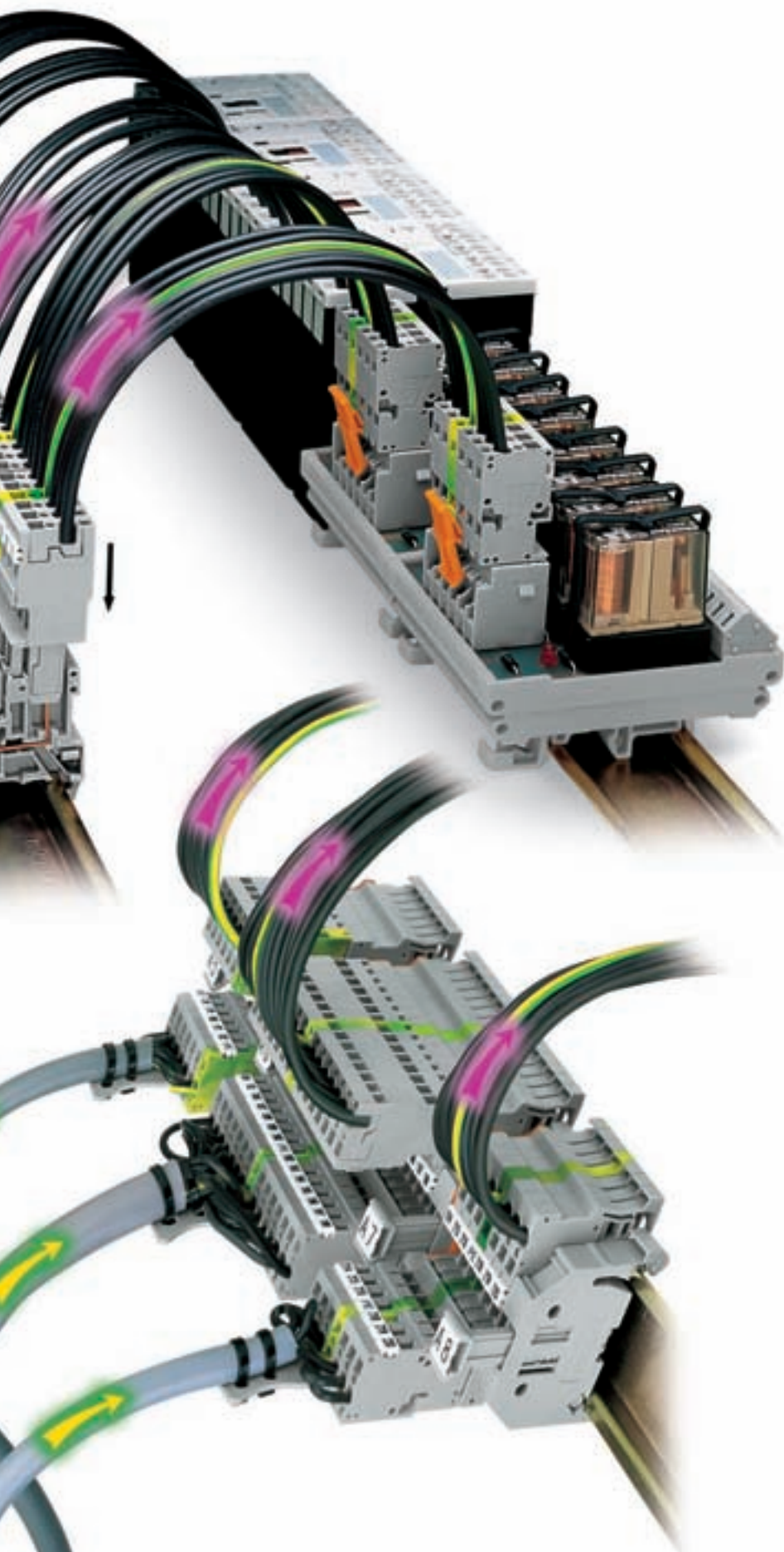
Depending on the type of terminal block, the base receptacle terminal blocks are equipped with one to three jumper positions for commoning of signals using insulated plug-in jumpers.

Types of application

Equipment connection with the WAGO X-COM[®]-SYSTEM for:

- Frequency converters
- Thyristor actuators
- Soft start motor controllers
- Motors
- Phase filter
- Power sub-assemblies
- Power units
- Uninterruptible Power Supply (UPS)
- Wiring of removable doors on enclosures and cabinets
- Pluggable feedthrough connections
- Flying leads





Female plugs

The mating half of the base receptacle terminal blocks are modular 1- to 15-pole, 1-conductor and 2-conductor straight or angled female plugs. Angled female plugs combined with **double deck terminal blocks offer high density wiring** and a reduced overall terminal block height. Using the jumper slot, the distribution of a potential is made simple - even on the female plugs. This makes the commoning of supply lines particularly interesting as the voltage supply of downstream sub-assemblies is maintained even after female plugs have been removed.

1-pole female plugs

Special 1-pole female plugs can carry the full rated current of the terminal blocks allowing many different applications:

- as test adapters,
- as connectors for motor lead tests,
- for all types of patchboard applications,
- for the creation of multi-pole prototypes,
- for phase selection in a three-phase network without interfering with the wiring or
- for one-pole voltage supply in commercial vehicles. The grounding of all electrical components is connected through the chassis.

Male connectors

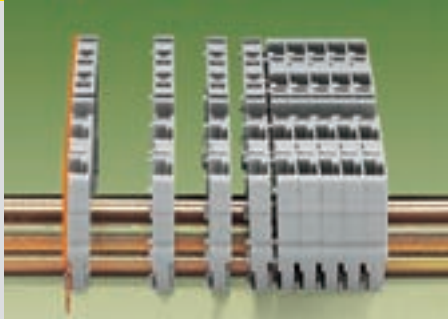
Additional male connectors are available with mounting feet for surface mounting, with fixing flanges for feed-through applications or without mounting elements for flying leads. Strain relief plates are available as accessories. Sub-assemblies on printed circuit boards can be integrated into the system wiring using headers with solder pins. As a result, parts can be exchanged quickly without wiring failures.

Protection degree

mated: IP 20
unmated: IP 20
Temperature range
-35°C to +100°C

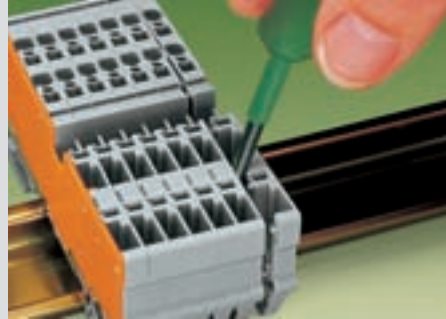
X-COM®-SYSTEM Receptacle Terminal Blocks and Female Plugs Series 769 . . .

Assembly



Snap individual base receptacle terminal blocks onto carrier rail

Removal



Unlock assembly with screwdriver (3.5 x 0.5) mm and remove terminal block via release lever

CAGE CLAMP® connection



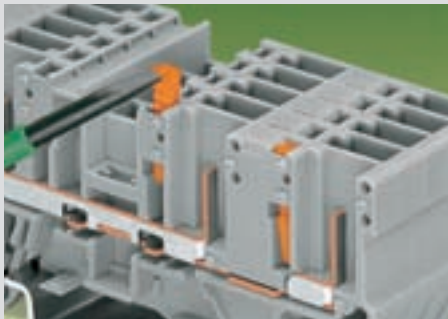
Receptacle terminal block: connection/removal of conductor with screwdriver (3.5 x 0.5) mm

Coding

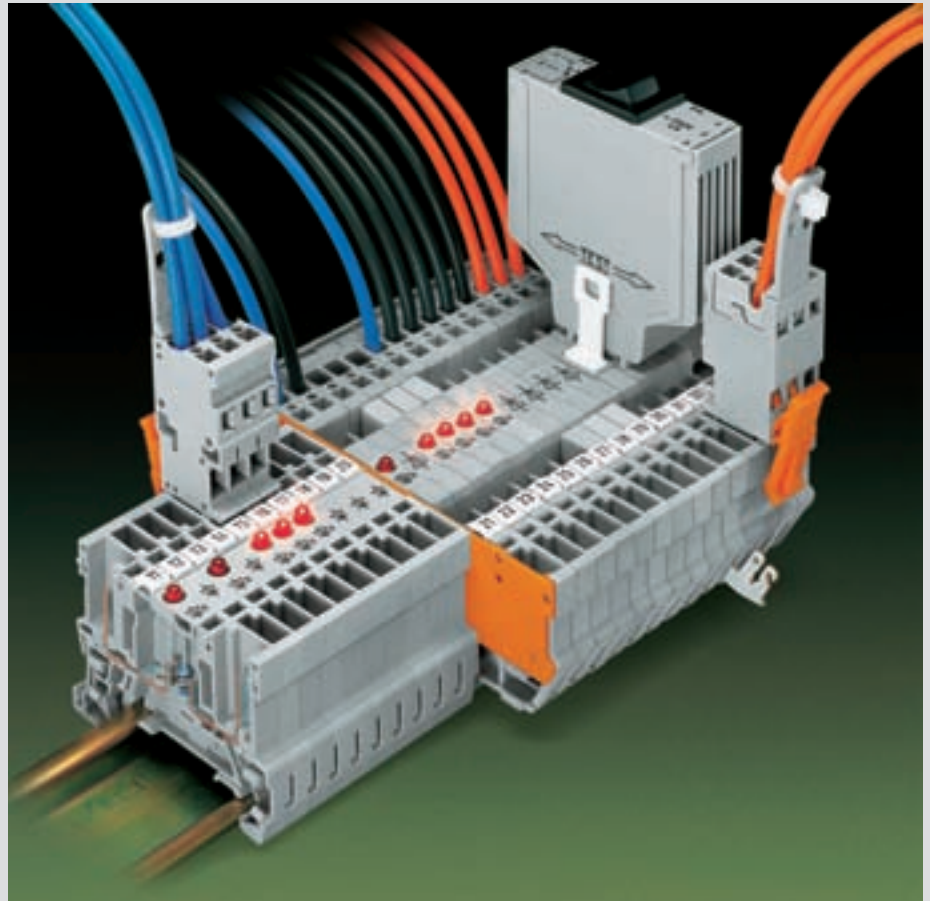


Coding a female plug – removal of coding finger(s). Do not break off the first and last latch position coding finger!

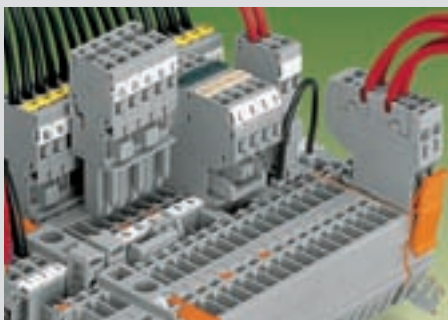
Coding



Snap coding pin in proper direction on receptacle terminal block. Removal of a coding pin from receptacle terminal block



Commoning



Commoning with adjacent jumper, or alternatively with staggered jumper. Push jumper down FIRMLY until FULLY inserted!

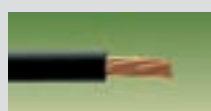


CAGE CLAMP® connects the following copper wires: *

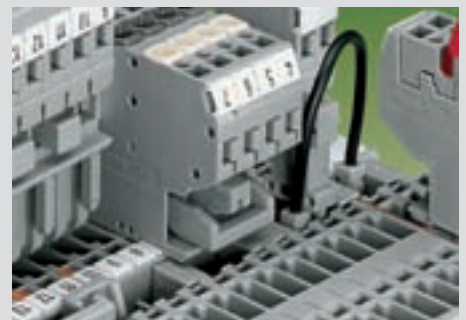
solid



Commoning of receptacle terminal block with staggered jumper



stranded



Commoning of 2-conductor female plug with staggered jumper and commoning of receptacle terminal block with adjacent jumper



fine stranded,
also with tinned
single strands

* For aluminum wire see notes in section 15!

... Description and Handling

Testing

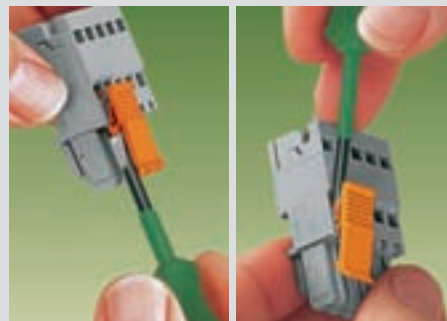


Female plug: connection /removal of conductor. Operation 90° to wire also possible



Testing with test plug Ø 2 mm/0.079 in (red) or Ø 2.3 mm/0.091 in (yellow)

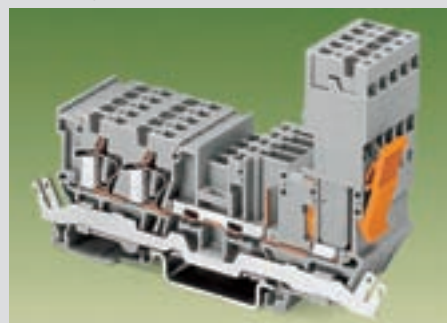
Locking lever



Snapping in /removal of locking lever

Note: Connectors used according to the regulations should not be connected or disconnected under load.

Locking lever

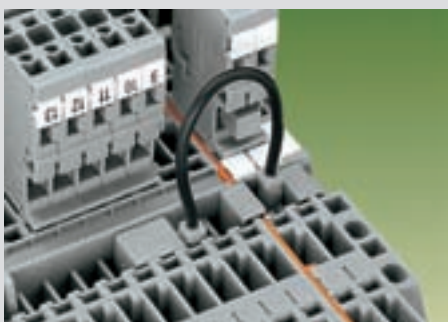


Female plug secured with locking lever in external area of receptacle terminal block

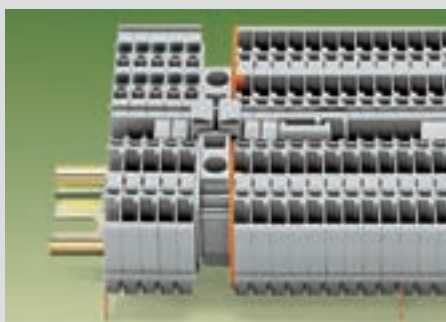
Strain relief



Removal of female plug, wires provided with strain relief plate



Commoning of receptacle terminal blocks with push-in type wire, or adjacent jumpers, also over the intermediate plate



Step-down jumper used for commoning terminal blocks of different sizes (max. 10 mm²/AWG 8)



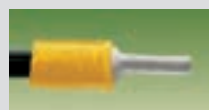
Commoning of 1-conductor female plugs with miniature adjacent jumpers



fine-stranded wire – tip bonded



fine-stranded wire with crimped ferrule ①



fine-stranded wire with crimped pin terminal

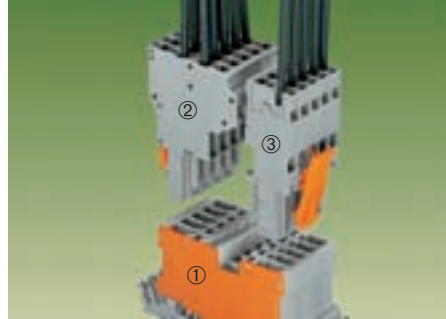
① When using wires with ferrules, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

X-COM®-SYSTEM, Series 769, Product Summary

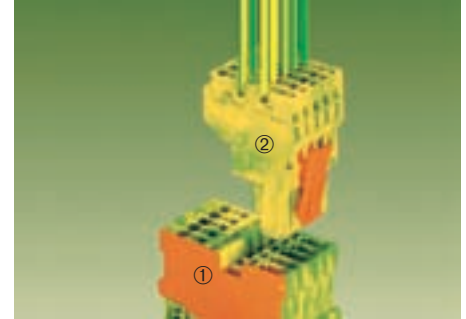
Receptacle Terminal Blocks and Female Connectors



① 1-conductor/1-pin receptacle terminal block
② 1-conductor female plug, straight*

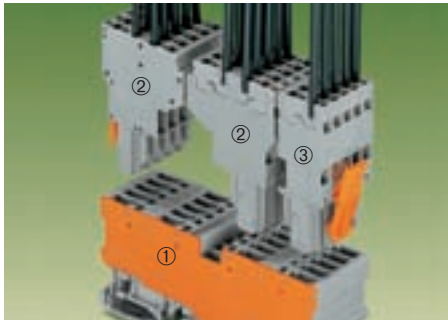


① 2-pin shield (screen) receptacle terminal block
② 2-conductor female plug
③ 1-conductor female plug, straight*

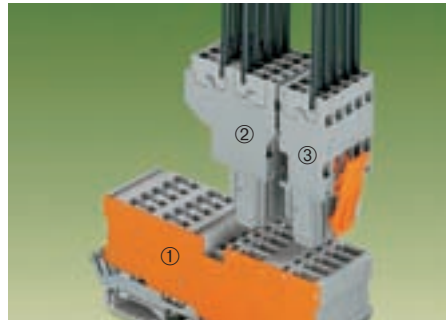


① 1-conductor/1-pin ground (earth) receptacle terminal block
② 2-conductor female plug

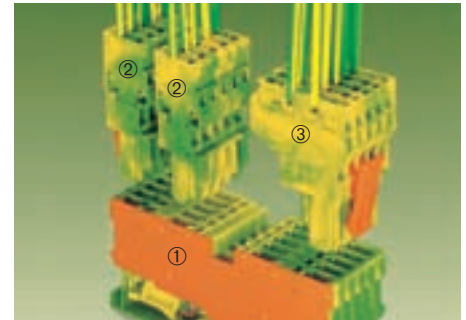
* or 1-conductor female plug, angled



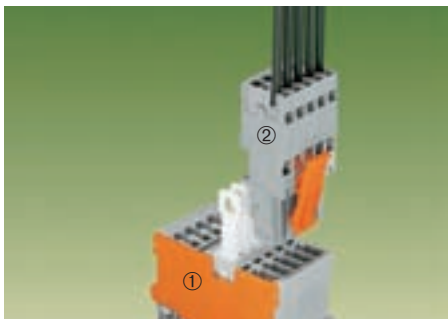
① 4-pin receptacle terminal block
② 2-conductor female plugs
③ 1-conductor female plug, straight



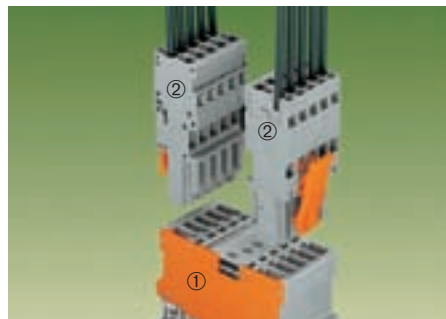
① 2-conductor/2-pin shield (screen) receptacle terminal block
② 2-conductor female plug
③ 1-conductor female plug, straight



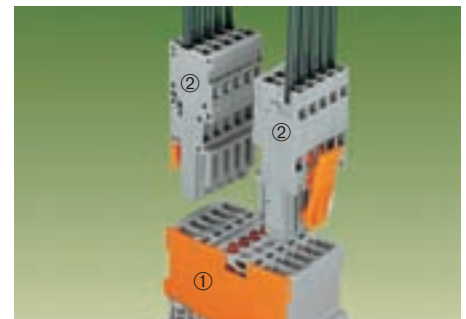
① 4-pin ground (earth) receptacle terminal block
② 1-conductor female plugs
③ 2-conductor female plug



① 1-conductor/1-pin disconnect receptacle terminal block
② 1-conductor female plug, straight*

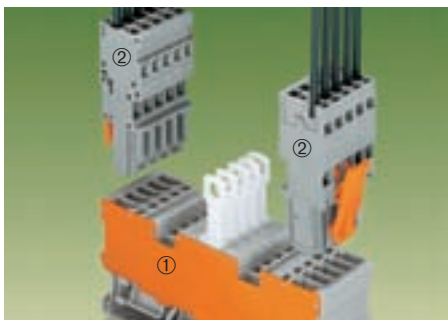


① 2-pin diode receptacle terminal block
② 1-conductor female plugs, straight*

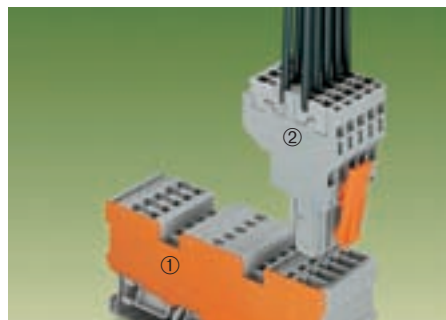


① 2-pin LED receptacle terminal block
② 1-conductor female plugs, straight*

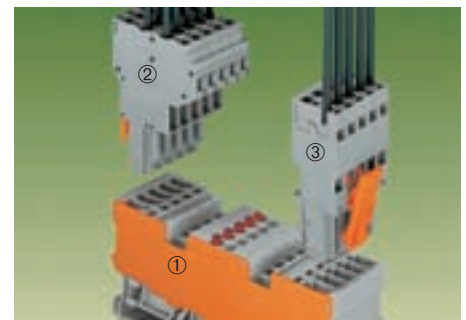
* or 1-conductor female plug, angled



① 2-pin disconnect receptacle terminal block with 2 jumper positions
② 1-conductor female plugs, straight*



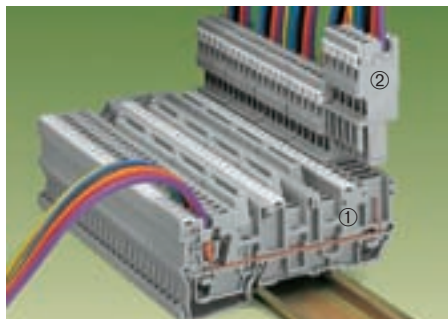
① 1-conductor/1-pin diode receptacle terminal block with 2 jumper positions
② 2-conductor female plug



① 2-pin LED receptacle terminal block with 2 jumper positions
② 2-conductor female plug
③ 1-conductor female plug, straight*

* or 1-conductor female plug, angled

Headers and Male Connectors



- ① 1-conductor/1-pin receptacle terminal block with 3 jumper positions
- ② 1-conductor female plug, straight*

* or 1-conductor female plug, angled



- ① 1-conductor/1-pin receptacle terminal block with 2 jumper positions
- ② 1-conductor female plug, straight*
- ③ Fuse plug, 6 mm/0.236 in wide (every other terminal block)

* or 1-conductor female plug, angled



- ① 2-pin terminal block for pluggable modules* with 2 jumper positions
- ② 1-conductor female plugs, straight**
- ③ Relay plug 25 mm/0.9843 in wide

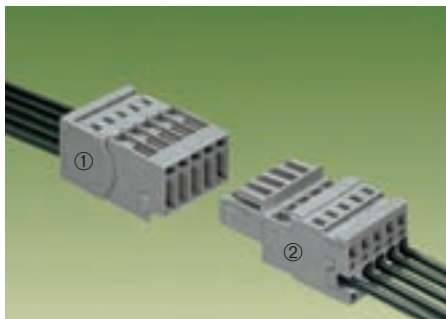
* with separator plate

** or 1-conductor female plug, angled

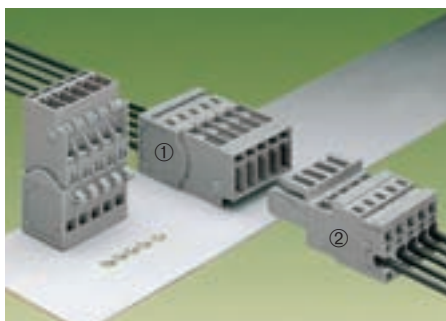


- ① 1 conductor/1 pin double deck terminal block
- ② 1 conductor female plug, angled*

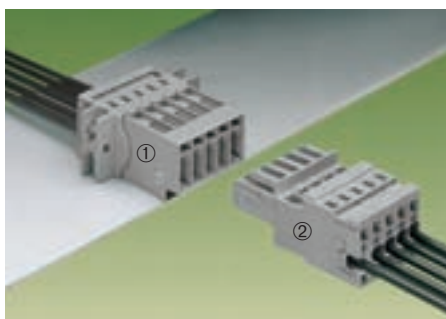
* or 1-conductor female plug, straight



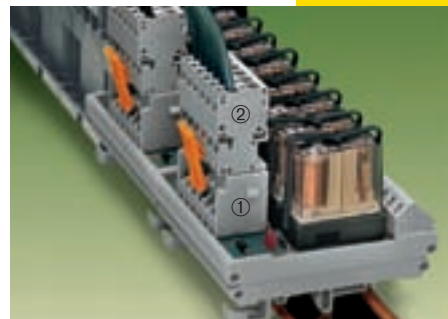
- ① Male connector with CAGE CLAMP® connection
- ② 1-conductor female plug



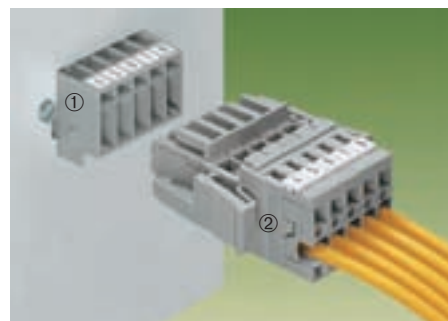
- ① Male connector with CAGE CLAMP® connection and mounting feet
- ② 1-conductor female plug



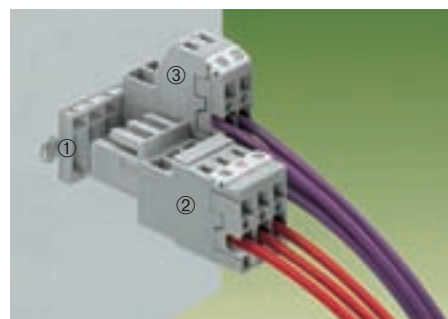
- ① Male connector with CAGE CLAMP® connection and fixing flanges
- ② 1-conductor female plug



- ① Header with straight solder pins
- ② 1-conductor female plug

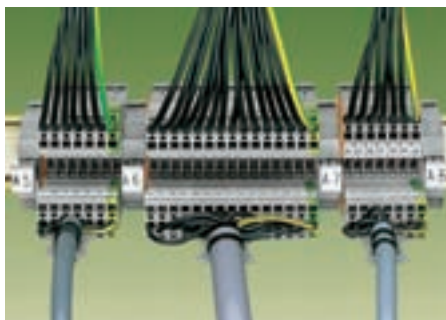


- ① Header with straight or angled solder pins and fixing flanges
- ② 1-conductor female plug straight with locking levers



- ① Header with straight or angled solder pins and fixing flanges for feedthrough applications
- ② 1-conductor female plug
- ③ 2-conductor female plug

Example of application: cost-efficient alternative to heavy connectors



Introduction of the cables in the switchboard cabinet. The cables are introduced in the switchboard cabinet **with** the connected female plugs and are directly plugged in the receptacle terminal blocks.



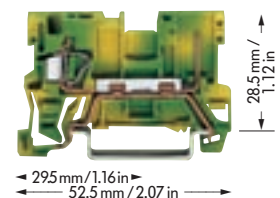
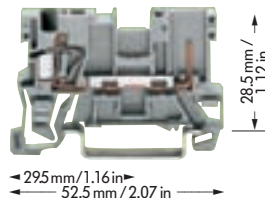
Cable entry in the base of the switchgear cabinet, with separate strain relief, movable IP 54 bottom plates sealed with sponge rubber (e.g. by Rittal)

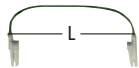
X-COM®-SYSTEM

1-Conductor/1-Pin Receptacle Terminal Blocks

0.08 – 4 mm² 500 V/6 kV/3 ① 250 V/4 kV/3 ① 32 A** Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in * VDE CCA IEC LR	AWG 28 – 12 300/600 V, 10/5 A V 300 V, 10 A Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in * VDE CCA IEC LR
--	---

- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage with shield (screen) contact (see also section 15)
② See application notes on pages 2.43 – 2.45



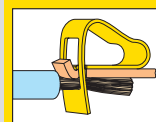
Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715	1-conductor/1-pin receptacle terminal block		1-conductor/1-pin ground (earth) receptacle terminal block	
grey	769-176	100	green-yellow	769-237 100
	1-conductor/1-pin receptacle terminal block with shield (screen) contact, (no picture)			
grey	769-231	50		
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	grey	769-307	grey	769-307 100 (4 x 25)
	orange	769-308	orange	769-308 100 (4 x 25)
	Screwless end stop	6 mm / 0.236 in wide 249-116	6 mm / 0.236 in wide 249-116	100 (4 x 25)
		10 mm / 0.394 in wide 249-117	10 mm / 0.394 in wide 249-117	50 (2 x 25)
	Insulation stop ②, white	0.08 – 0.2 mm ² 769-470	0.08 – 0.2 mm ² 769-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ² 769-471	0.25 – 0.5 mm ² 769-471	200 strips
	dark grey	0.75 – 1 mm ² 769-472	0.75 – 1 mm ² 769-472	200 strips
	Adjacent jumper, I _N 24 A	grey 280-402	grey 280-402	200 (8 x 25)
	insulated			
	Alternate jumper	grey 280-409	grey 280-409	100 (4 x 25)
	Staggered jumper ②, from 1 to 2	I _N 24 A 780-452	I _N 24 A 780-452	100 (4 x 25)
	insulated, from 1 to 3	780-453	780-453	100 (4 x 25)
	width 5 mm / 0.197 in from 1 to 4	780-454	780-454	100 (4 x 25)
	from 1 to 5	780-455	780-455	50 (2 x 25)
	:	:	:	:
	Push-in type wire jumper ②,	L = 60 mm / 2.362 in 249-125	L = 60 mm / 2.362 in 249-125	10
	insulated, 9 A – conductor	L = 110 mm / 4.331 in 249-126	L = 110 mm / 4.331 in 249-126	10
	cross section 0.75 mm ² /AWG 18	L = 250 mm / 9.843 in 249-127	L = 250 mm / 9.843 in 249-127	10
	Coding pin, for coding of female plugs	orange 769-435	orange 769-435	100 (4 x 25)
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow 280-415		100 (4 x 25)
	Test plug, w. cable 500 mm / 1.77"			
	2 mm / 0.079 in Ø red 210-136	50 (5 x 10)	red 210-136	50 (5 x 10)
	2.3 mm / 0.091 in Ø yellow 210-137	50 (5 x 10)	yellow 210-137	50 (5 x 10)
	Test plug module, for test using jumper position in current bar or cond. wire opening	Application notes and part numbers see pages 2.38 – 2.40	Application notes and part numbers see pages 2.38 – 2.40	
	Test plug adapter, see also pages 2.38 – 2.40	5 mm / 0.197 in wide 280-404	5 mm / 0.197 in wide 280-404	100 (4 x 25)
		or test plug 210-137 (2.3 mm / 0.091 in Ø)	or test plug 210-137 (2.3 mm / 0.091 in Ø)	
	1-conductor female plug, straight or angled	see pages 9.44/9.46	see pages 9.44/9.46	
	2-conductor female plug	see page 9.45	see page 9.45	

* For further approvals with corresponding ratings see section 15.

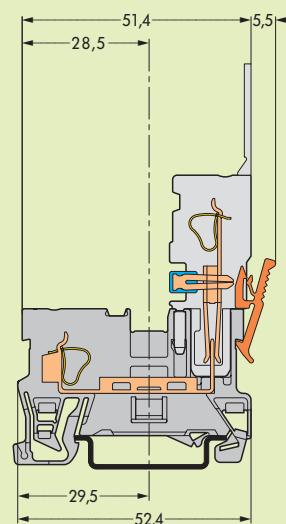
** Current-carrying capacity curve see page 9.48 and www.wago.com

Types of Assembly

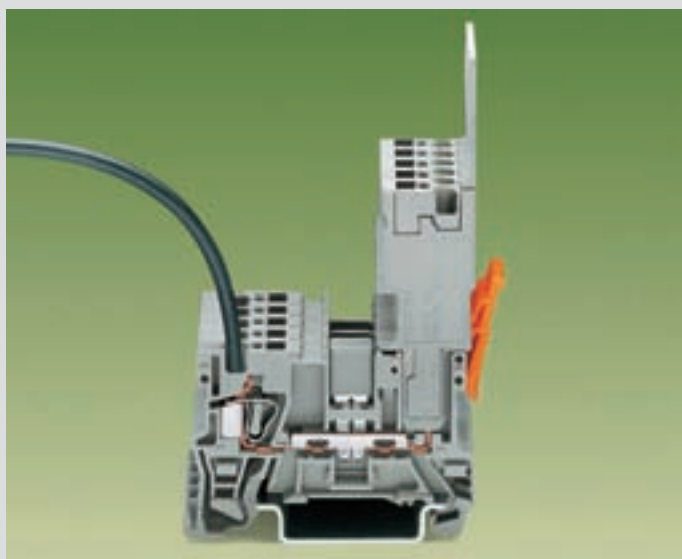
1-Conductor/1-Pin Receptacle Terminal Blocks and 1-/2-Conductor Female Plugs



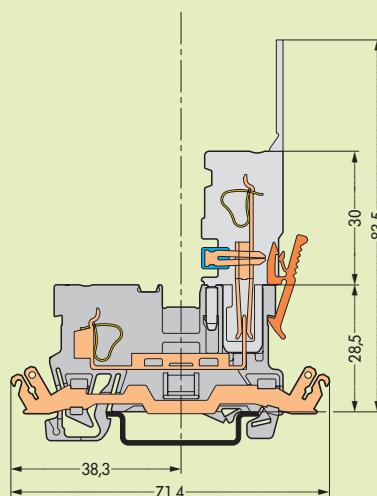
9
13



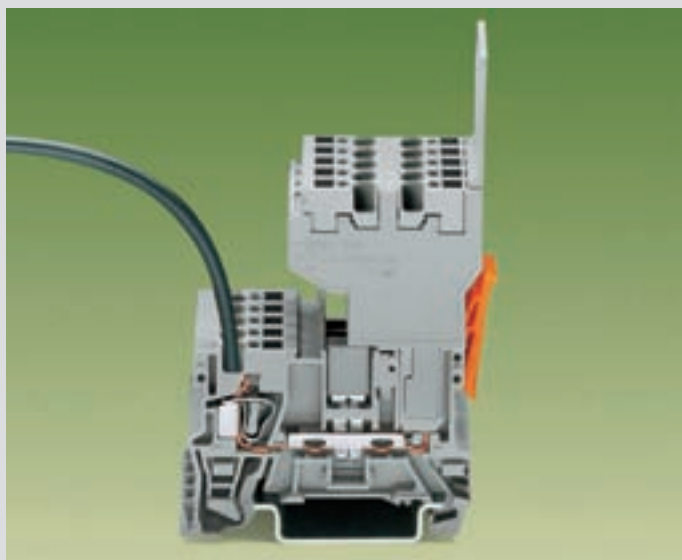
Receptacle terminal block



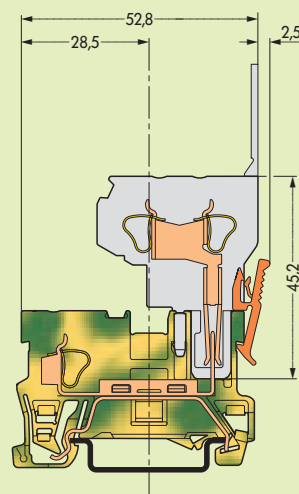
1-conductor female plug
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



Receptacle terminal block with shield (screen) contact



2-conductor female plug
Commoning possibility of receptacle terminal blocks only with adjacent jumpers and alternate jumpers, series 280



Ground (earth) receptacle terminal block

X-COM®-SYSTEM

2-Pin Receptacle Terminal Blocks

500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
250 V/4 kV/3 ① | 300 V, 10 A ③
32 A**

Terminal block width 5 mm / 0.197 in

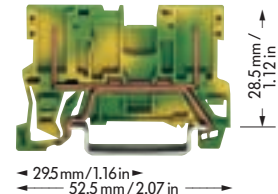
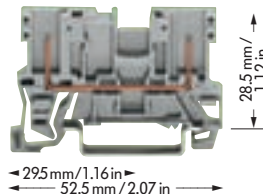
* ② CCA ③ LR

Terminal block width 5 mm / 0.197 in

* ② CCA ③ LR

- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage
with shield (screen) contact
(see also section 15)

② See application notes on page 2.45



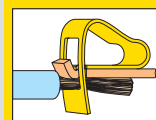
Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
2-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715	2-pin receptacle terminal block		2-pin ground (earth) receptacle terminal block	
	grey 769-156	100	green-yellow 769-227	100
	2-pin receptacle terminal block with shield (screen) contact, (no picture)			
	grey 769-221	50		
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	grey 769-305	100 (4 x 25)	grey 769-305	100 (4 x 25)
	orange 769-306	100 (4 x 25)	orange 769-306	100 (4 x 25)
	Screwless end stop	6 mm / 0.236 in wide 249-116	6 mm / 0.236 in wide 249-116	100 (4 x 25)
		10 mm / 0.394 in wide 249-117	10 mm / 0.394 in wide 249-117	50 (2 x 25)
	Adjacent jumper, I _N 24 A insulated	grey 280-402	grey 280-402	200 (8 x 25)
	Alternate jumper	grey 280-409	grey 280-409	100 (4 x 25)
	Staggered jumper ②, from 1 to 2 insulated, from 1 to 3 width 5 mm / 0.197 in from 1 to 4 from 1 to 5 : from 1 to 8	I _N 24 A 780-452	I _N 24 A 780-452	100 (4 x 25)
		780-453	780-453	100 (4 x 25)
		780-454	780-454	100 (4 x 25)
		780-455	780-455	50 (2 x 25)
		780-458	780-458	50 (2 x 25)
	Push-in type wire jumper ②, insulated, 9 A – conductor cross section 0.75 mm ² /AWG 18	L = 60 mm / 2.362 in 249-125	L = 60 mm / 2.362 in 249-125	10
		L = 110 mm / 4.331 in 249-126	L = 110 mm / 4.331 in 249-126	10
		L = 250 mm / 9.843 in 249-127	L = 250 mm / 9.843 in 249-127	10
	Coding pin, for coding of female plugs	orange 769-435	orange 769-435	100 (4 x 25)
	Test plug, with cable 500 mm / 1'7.7" 2.3 mm / 0.091 in Ø	yellow 210-137	yellow 210-137	50 (5 x 10)
	Test plug module, for test using jumper position in current bar or cond. wire opening	Application notes and part numbers see pages 2.39 – 2.40	Application notes and part numbers see pages 2.39 – 2.40	
	Test plug adapter, see also pages 2.39 – 2.40	5 mm / 0.197 in wide 280-404	5 mm / 0.197 in wide 280-404	100 (4 x 25)
		or test plug 210-137 (2.3 mm / 0.091 in Ø)	or test plug 210-137 (2.3 mm / 0.091 in Ø)	
	1-conductor female plug, straight	see page 9.44	see page 9.44	
	1-conductor female plug, angled	see page 9.46	see page 9.46	
	2-conductor female plug	see page 9.45	see page 9.45	

* For further approvals with corresponding ratings see section 15.

** Current-carrying capacity curve see page 9.48 and www.wago.com

Types of Assembly

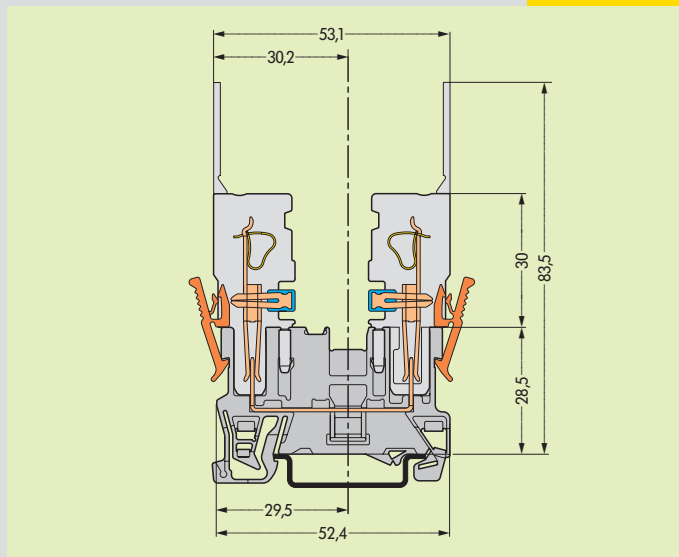
2-Pin Receptacle Terminal Blocks and 1-/2-Conductor Female Plugs



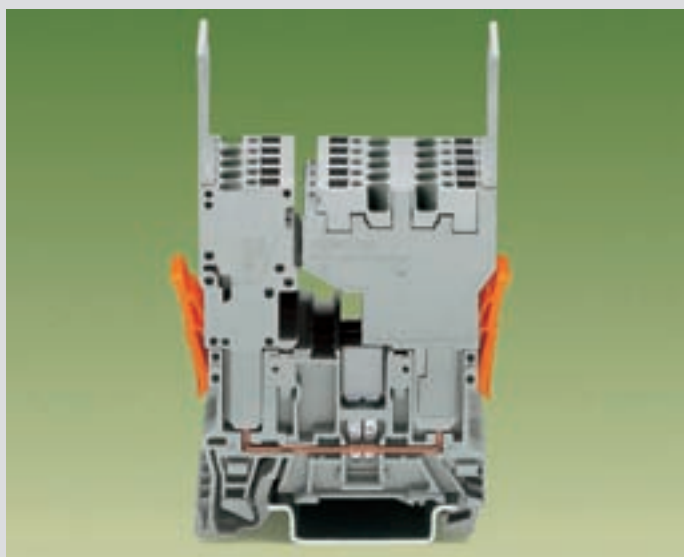
9
15



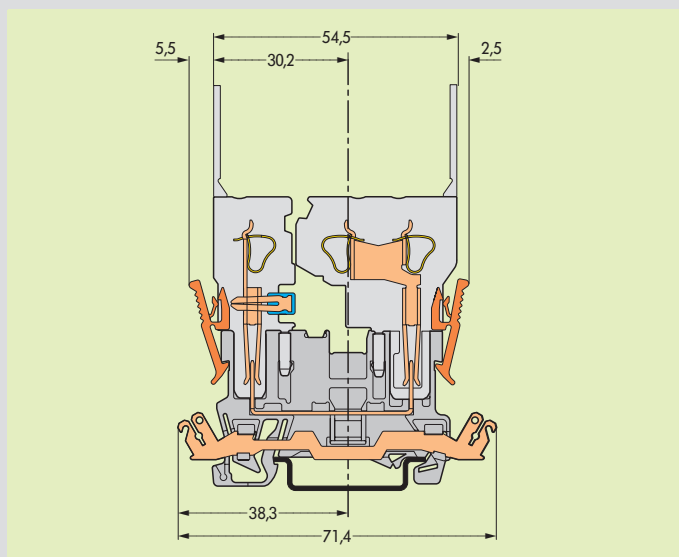
2 x 1-conductor female plugs
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



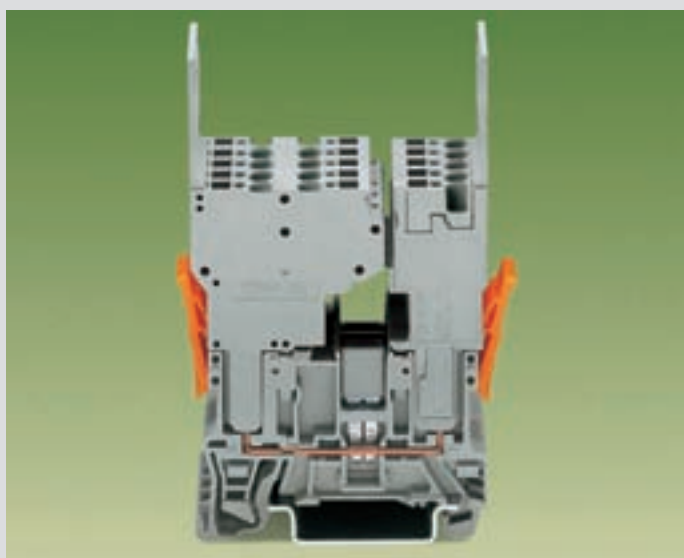
Receptacle terminal block



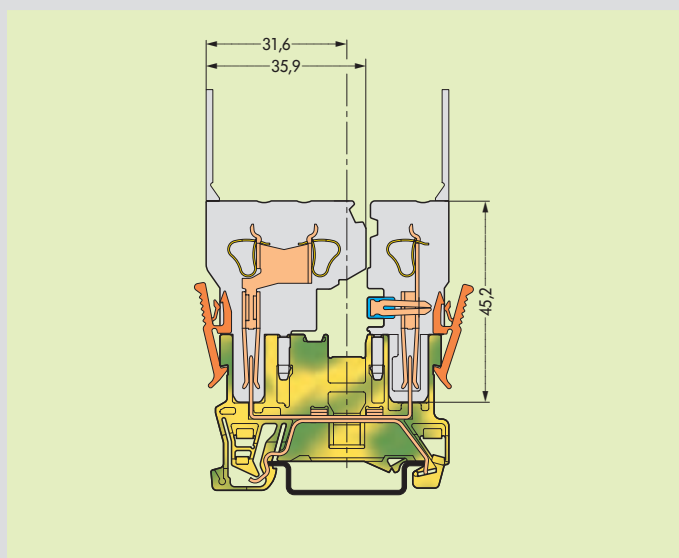
1-conductor female plug left
2-conductor female plug right
Commoning possibility of receptacle terminal blocks only with adjacent jumpers and alternate jumpers, series 280



Receptacle terminal block with shield (screen) contact



2-conductor female plug left
1-conductor female plug right
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



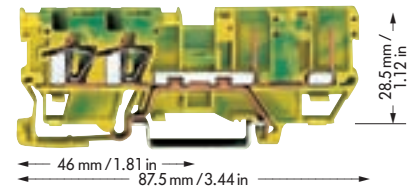
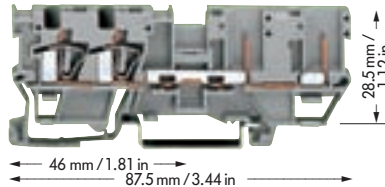
Ground (earth) receptacle terminal block

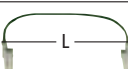
X-COM®-SYSTEM

2-Conductor/ 2-Pin Receptacle Terminal Blocks

0.08 – 4 mm² 500 V/6 kV/3 ① 250 V/4 kV/3 ① 32 A** Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in *    	AWG 28 – 12 300/600 V, 10/5 A  300 V, 10 A  Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in *    
---	--

- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage with shield (screen) contact (see also section 15)
② See application notes on pages 2.43 – 2.45



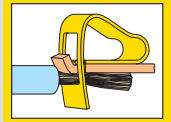
Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
2-conductor/2-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715	2-conductor/2-pin receptacle terminal block		2-conductor/2-pin ground (earth) receptacle terminal block	
	grey 769-171	50	green-yellow 769-217	50
	2-conductor/2-pin receptacle terminal block with shield (screen) contact, (no picture)			
	grey 769-211	50		
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	grey 769-303	100 (4 x 25)	grey 769-303	100 (4 x 25)
	orange 769-304	100 (4 x 25)	orange 769-304	100 (4 x 25)
	Screwless end stop	6 mm / 0.236 in wide 249-116	6 mm / 0.236 in wide 249-116	100 (4 x 25)
		10 mm / 0.394 in wide 249-117	10 mm / 0.394 in wide 249-117	50 (2 x 25)
	Insulation stop ②, white	0.08 – 0.2 mm ² 769-470	0.08 – 0.2 mm ² 769-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ² 769-471	0.25 – 0.5 mm ² 769-471	200 strips
	dark grey	0.75 – 1 mm ² 769-472	0.75 – 1 mm ² 769-472	200 strips
	Adjacent jumper, I _N 24 A insulated	grey 280-402	grey 280-402	200 (8 x 25)
	Alternate jumper	grey 280-409	grey 280-409	100 (4 x 25)
	Staggered jumper ②, from 1 to 2 insulated, I _N 24 A	grey 780-452	grey 780-452	100 (4 x 25)
	from 1 to 3	780-453	780-453	100 (4 x 25)
	width 5 mm / 0.197 in from 1 to 4	780-454	780-454	100 (4 x 25)
	from 1 to 5	780-455	780-455	50 (2 x 25)
	:	:	:	:
	Push-in type wire jumper ②, L = 60 mm / 2.362 in insulated, 9 A – conductor	249-125	L = 60 mm / 2.362 in 249-125	10
	cross section 0.75 mm ² /AWG 18	249-126	L = 110 mm / 4.331 in 249-126	10
		249-127	L = 250 mm / 9.843 in 249-127	10
	Coding pin, for coding of female plugs	orange 769-435	orange 769-435	100 (4 x 25)
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow 280-415		100 (4 x 25)
	Test plug, w. cable 500 mm / 17.7"			
	2 mm / 0.079 in Ø red 210-136	50 (5 x 10)	red 210-136	50 (5 x 10)
	2.3 mm / 0.091 in Ø yellow 210-137	50 (5 x 10)	yellow 210-137	50 (5 x 10)
	Test plug module, for test using jumper position in current bar or cond. wire opening	Application notes and part numbers see pages 2.38 – 2.40	Application notes and part numbers see pages 2.38 – 2.40	
	Test plug adapter, see also pages 2.38 – 2.40	5 mm / 0.197 in wide 280-404	5 mm / 0.197 in wide 280-404	100 (4 x 25)
		or test plug 210-137 (2.3 mm / 0.091 in Ø)	or test plug 210-137 (2.3 mm / 0.091 in Ø)	
	1-conductor female plug, straight	see page 9.44	see page 9.44	
	angled – cannot be used		angled – cannot be used	
	2-conductor female plug	see page 9.45	see page 9.45	

* For further approvals with corresponding ratings see section 15.

** Current-carrying capacity curve see page 9.49 and www.wago.com

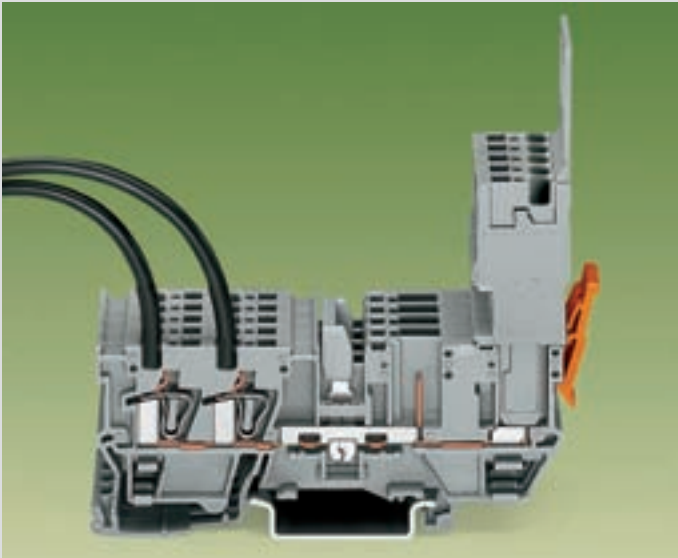
Types of Assembly

2-Conductor/2-Pin Receptacle Terminal Blocks and 1-/2-Conductor Female Plugs

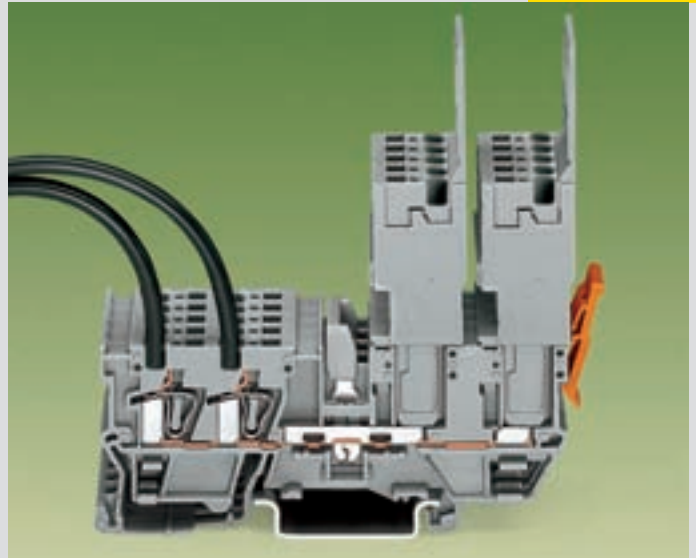


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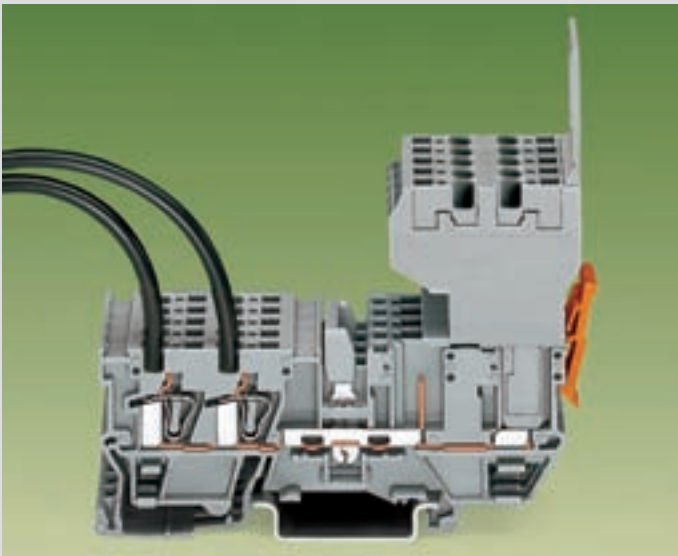
17



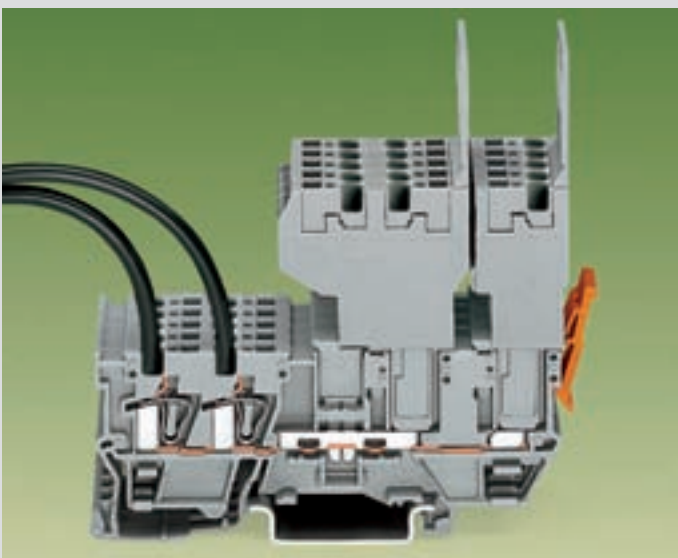
1-conductor female plug
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



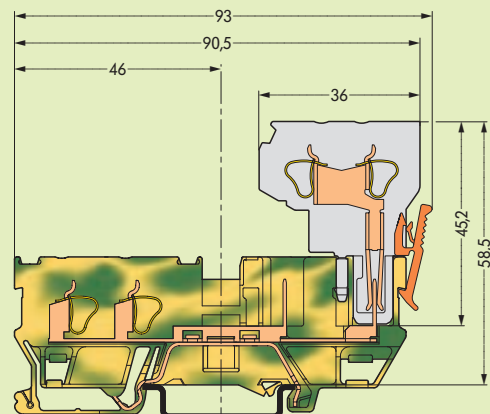
2 x 1-conductor female plugs
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



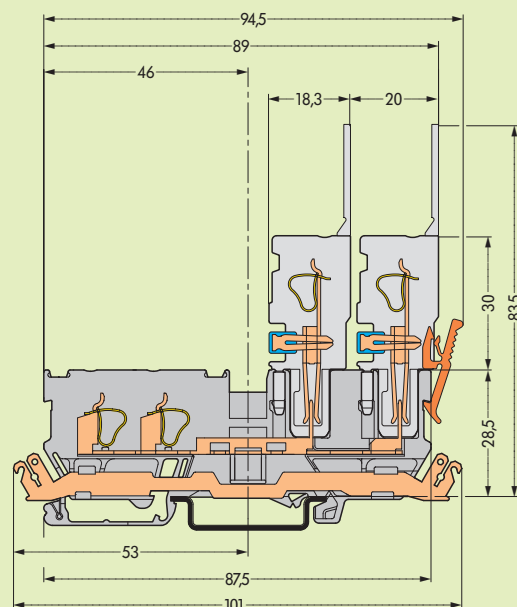
2-conductor female plug
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



1-conductor female plug and 2-conductor female plug
Commoning possibility of receptacle terminal blocks only with adjacent jumpers and alternate jumpers, series 280



Ground (earth) receptacle terminal block



Receptacle terminal block with shield (screen) contact

9 X-COM®-SYSTEM

18 4-Pin Receptacle Terminal Blocks

500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
250 V/4 kV/3 ① | 300 V, 10 A ③
32 A**

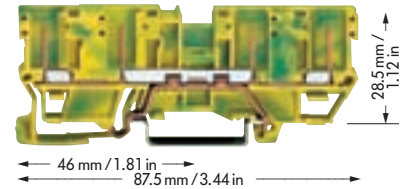
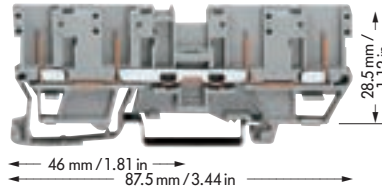
Terminal block width 5 mm / 0.197 in

* ① ② ③ CCA KEMA GL LR

Terminal block width 5 mm / 0.197 in

* ① ② ③ CCA KEMA GL LR

- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage
with shield (screen) contact
(see also section 15)
② See application notes on page 2.45

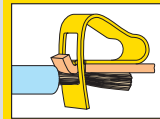


Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
4-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715	4-pin receptacle terminal block		4-pin ground (earth) receptacle terminal block	
	grey 769-151	50	green-yellow 769-207	50
	4-pin receptacle terminal block with shield (screen) contact, (no picture)			
	grey 769-201	50		
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	grey 769-301	100 (4 x 25)	grey 769-301	100 (4 x 25)
	orange 769-302	100 (4 x 25)	orange 769-302	100 (4 x 25)
	Screwless end stop	6 mm / 0.236 in wide 249-116	6 mm / 0.236 in wide 249-116	100 (4 x 25)
		10 mm / 0.394 in wide 249-117	10 mm / 0.394 in wide 249-117	50 (2 x 25)
	Adjacent jumper, I _N 24 A insulated	grey 280-402	grey 280-402	200 (8 x 25)
	Alternate jumper	grey 280-409	grey 280-409	100 (4 x 25)
	Staggered jumper ②, from 1 to 2 insulated, from 1 to 3 width 5 mm / 0.197 in from 1 to 4 from 1 to 5 : from 1 to 8	I _N 24 A 780-452	I _N 24 A 780-452	100 (4 x 25)
		780-453	780-453	100 (4 x 25)
		780-454	780-454	100 (4 x 25)
		780-455	780-455	50 (2 x 25)
		780-458	780-458	50 (2 x 25)
	Push-in type wire jumper ②, insulated, 9 A – conductor cross section 0.75 mm ² /AWG 18	L = 60 mm / 2.362 in 249-125	L = 60 mm / 2.362 in 249-125	10
		L = 110 mm / 4.331 in 249-126	L = 110 mm / 4.331 in 249-126	10
		L = 250 mm / 9.843 in 249-127	L = 250 mm / 9.843 in 249-127	10
	Coding pin, for coding of female plugs	orange 769-435	orange 769-435	100 (4 x 25)
	Test plug, with cable 500 mm / 1.77" 2.3 mm / 0.091 in Ø	yellow 210-137	yellow 210-137	50 (5 x 10)
	Test plug module, for test using jumper position in current bar or cond. wire opening	Application notes and part numbers see pages 2.39 – 2.40	Application notes and part numbers see pages 2.39 – 2.40	
	Test plug adapter, see also pages 2.39 – 2.40	5 mm / 0.197 in wide 280-404	5 mm / 0.197 in wide 280-404	100 (4 x 25)
		or test plug 210-137 (2.3 mm / 0.091 in Ø)	or test plug 210-137 (2.3 mm / 0.091 in Ø)	
	1-conductor female plug, straight	see page 9.44 angled – cannot be used	see page 9.44 angled – cannot be used	
	2-conductor female plug	see page 9.45	see page 9.45	

* For further approvals with corresponding ratings see section 15.

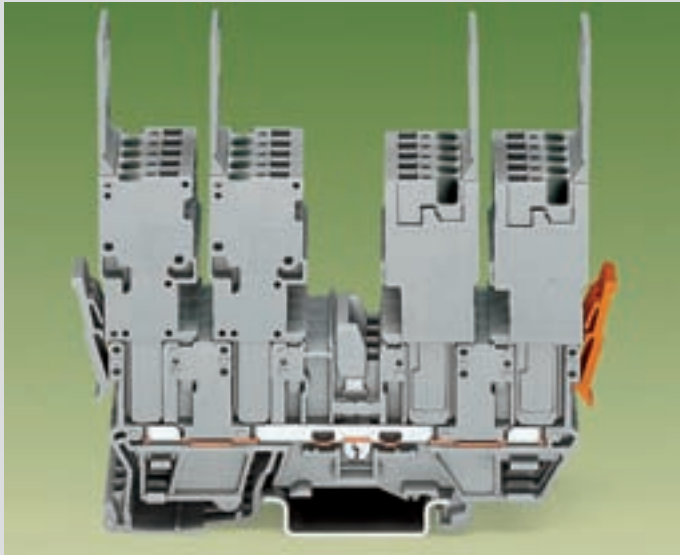
** Current-carrying capacity curve see page 9.49 and www.wago.com

Types of Assembly 4-Pin Receptacle Terminal Blocks and 1-/2-Conductor Female Plugs

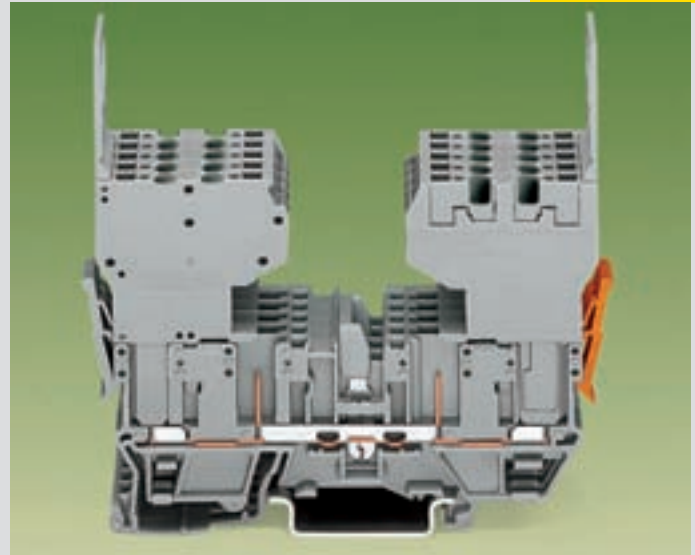


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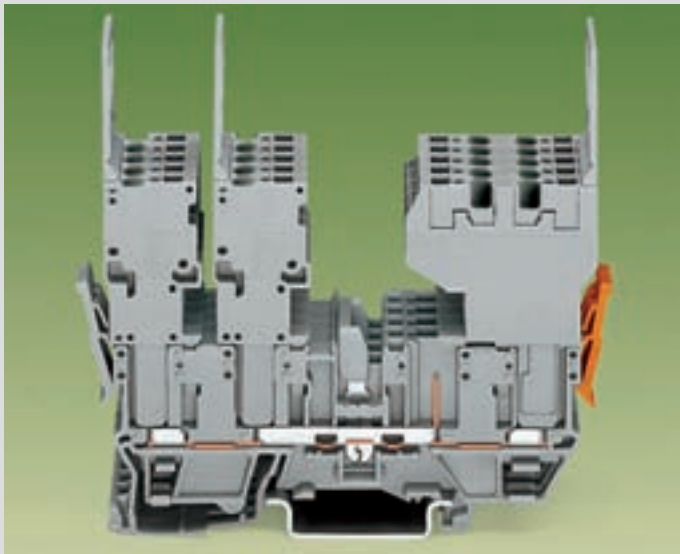
19



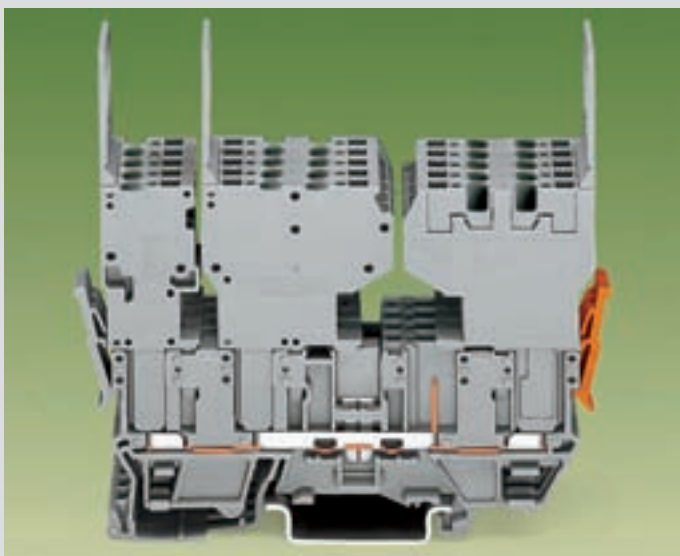
4 x 1-conductor female plugs
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



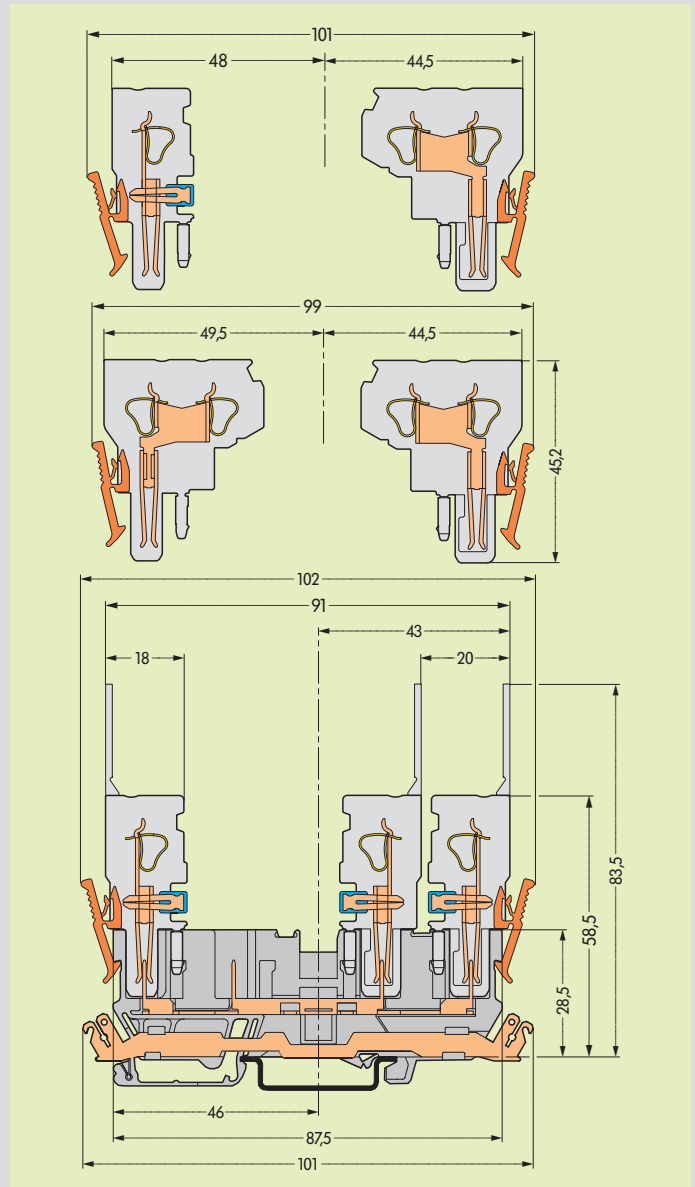
2 x 2-conductor female plugs
Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



2 x 1-cond. fem. plugs left
1 x 2-cond. female plug right
Commoning possibility of receptacle terminal blocks w. jumper contact systems, series 280 a. 780, Also possible the other way round a. testing possibility w. test plug adapter 280-4..



1-conductor and 2-conductor female plugs left
2-conductor female plug right
Commoning possibility of receptacle terminal blocks only with adjacent jumpers and alternate jumpers, series 280



Receptacle terminal block with shield (screen) contact

X-COM®-SYSTEM

1-Conductor/1-Pin Receptacle Terminal Blocks with 3 Jumper Positions

0.08 – 4 mm² | AWG 28 – 12
 500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
 32 A**

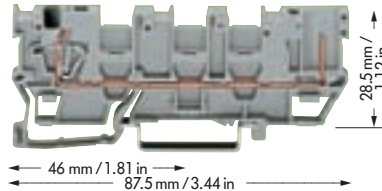
Terminal block width 5 mm / 0.197 in
 8 – 9 mm / 0.33 in

*

Types of assembly
 with 1-/2-conductor female plugs

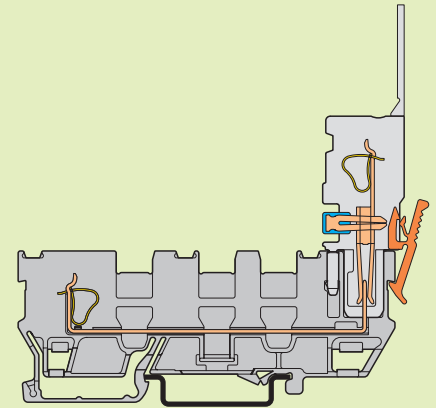
- ① 500 V = rated voltage
 6 kV = rated surge voltage
 3 = pollution degree
 (see also section 15)

- ② See application notes on pages 2.43 – 2.45

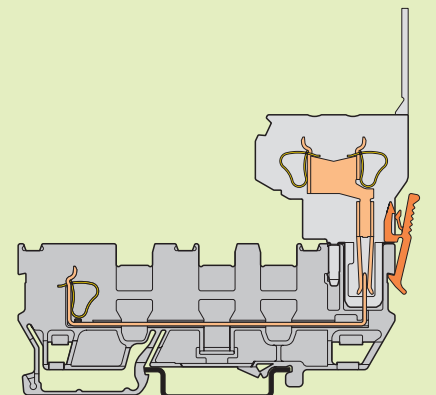


Description	Item No.	Pack. unit pcs
1-conductor/1-pin receptacle terminal block with 3 jumper positions, suitable for DIN 35 rail acc. to EN 60715	1-conductor/1-pin receptacle terminal block with 3 jumper positions grey 769-214	50
Accessories Appropriate marking system Mini-WSB (see section 14)		
End and intermediate plate	1.1 mm / 0.043 in thick grey 769-315 orange 769-316	100 (4 x 25) 100 (4 x 25)
Screwless end stop	6 mm / 0.236 in wide 249-116 10 mm / 0.394 in wide 249-117	100 (4 x 25) 50 (2 x 25)
Insulation stop ② , white 5 pcs/strip	0.08 – 0.2 mm ² 769-470 0.25 – 0.5 mm ² 769-471 0.75 – 1 mm ² 769-472	200 strips 200 strips 200 strips
Adjacent jumper , I _N 24 A, insulated	grey 280-402	200 (8 x 25)
Alternate jumper	grey 280-409	100 (4 x 25)
Staggered jumper ② , from 1 to 2, insulated, from 1 to 3, width 5 mm / 0.197 in from 1 to 4, from 1 to 5, from 1 to 8	I _N 24 A 780-452 780-453 780-454 780-455 : 780-458	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) : 50 (2 x 25)
Push-in type wire jumper ② , L = 60 mm / 2.362 in, insulated, 9 A – conductor, cross section 0.75 mm ² /AWG 18	249-125 249-126 249-127	10 10 10
Coding pin , for coding of female plugs	orange 769-435	100 (4 x 25)
Protective warning marker , for 5 terminal blocks, fits into screwdriver slot	yellow 280-415	100 (4 x 25)
Test plug , w. cable 500 mm / 17.7", 2 mm / 0.079 in Ø, 2.3 mm / 0.091 in Ø	red 210-136 yellow 210-137	50 (5 x 10) 50 (5 x 10)
Test plug module , for test using jumper position in current bar or cond. wire opening	Application notes and part numbers see pages 2.38 – 2.40	
Test plug adapter , see also pages 2.38 – 2.40	5 mm / 0.197 in wide 280-404 or test plug 210-137 (2.3 mm / 0.091 in Ø)	100 (4 x 25)
1-conductor female plug , straight or angled	see pages 9.44/9.46	
2-conductor female plug	see page 9.45	

Dimensions see page 9.17

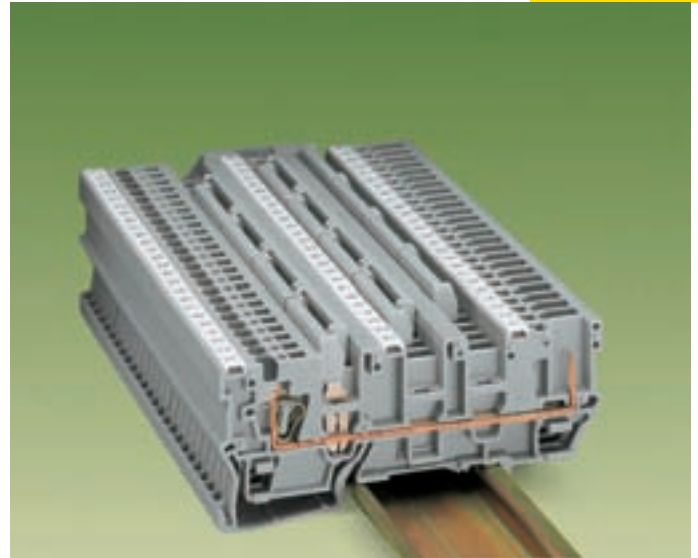
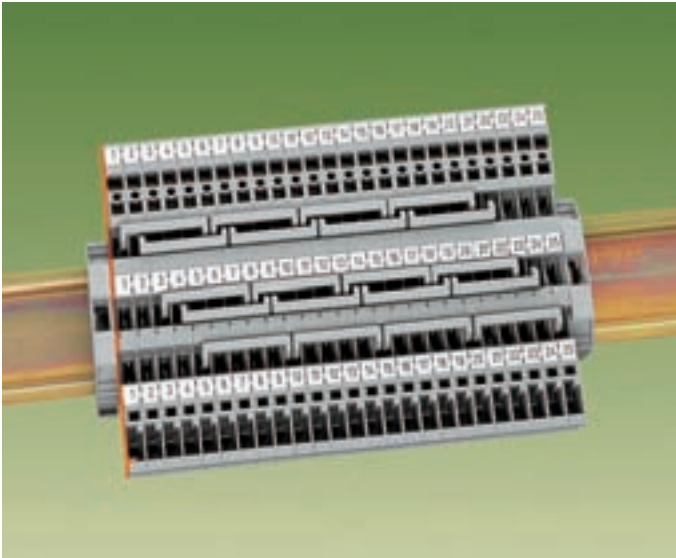


Dimensions see page 9.17



* For further approvals with corresponding ratings see section 15.

** Current-carrying capacity curve see www.wago.com



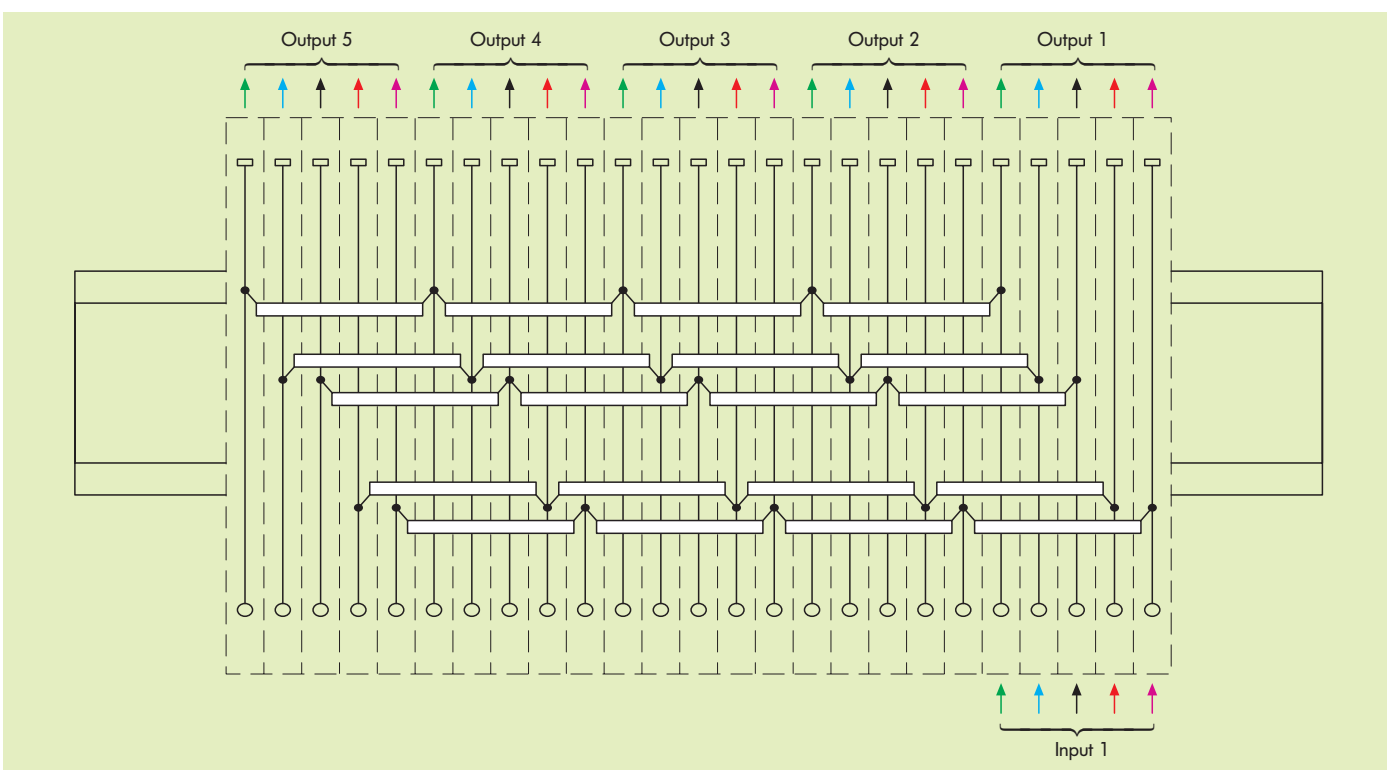
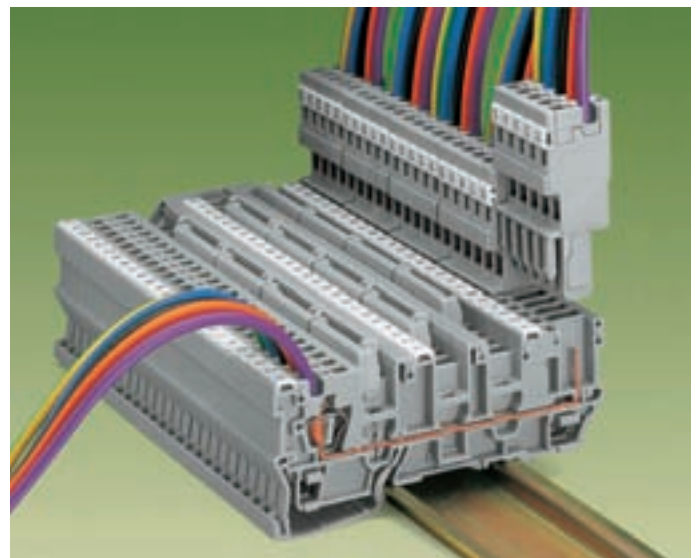
1-conductor/1-pin receptacle terminal blocks with 3 jumper positions

The 3 jumper positions allow up to six jumpering possibilities for staggered jumpers.

The pictures opposite and the wiring scheme demonstrate the supply of a 5-wire input to 5 identical pluggable outputs.

Application examples:

- Multiplication of three-phase circuits L1-L2-L3-N-PE with pluggable outputs; for example, use with motors, frequency converters, power units, etc.
- voltage supplies to multiple locations
± 15 V, 0 V, + 5 V, + 12 V, + 24 V
- Various wire-to-wire interfacing possibilities

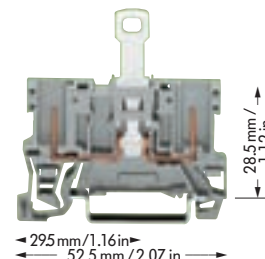
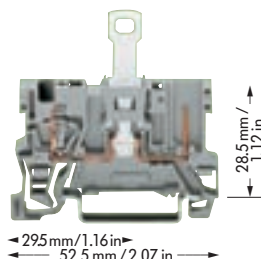


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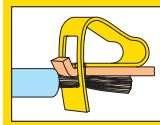
1-Conductor/1-Pin and 2-Pin Disconnect Receptacle Terminal Blocks

	0.08 – 4 mm² AWG 28 – 12 400 V/6 kV/3 ① 300/600 V, 10/5 A  250 V/4 kV/3 ① 300 V, 10 A  16 A** Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in *     LR	400 V/6 kV/3 ① 300/600 V, 10/5 A  250 V/4 kV/3 ① 300 V, 10 A  16 A** Terminal block width 5 mm / 0.197 in *     LR
--	--	--

- 1 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage
with shield (screen) contact
(see also section 15)
- 2 See application notes on page 2.43

[illegible]

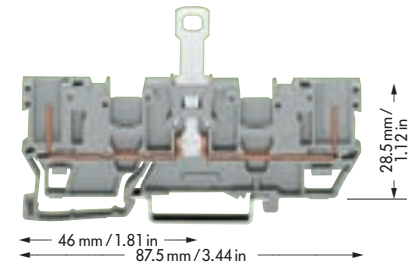
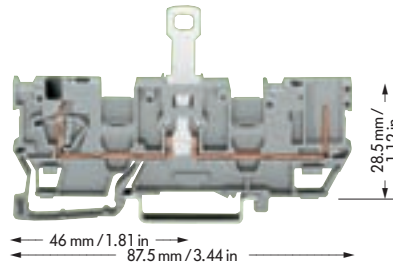
1-Conductor/1-Pin and 2-Pin Disconnect Receptacle Terminal Blocks with 2 Jumper Positions

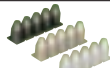
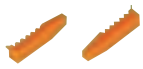
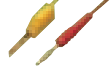


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23

0.08 – 4 mm² 400 V/6 kV/3 ① 250 V/4 kV/3 ① 16 A** Terminal block width 5 mm / 0.197 in  8 – 9 mm / 0.33 in *    LR	AWG 28 – 12 300/600 V, 10/5 A  300 V, 10 A 	400 V/6 kV/3 ① 250 V/4 kV/3 ① 16 A** Terminal block width 5 mm / 0.197 in *    LR
--	--	---

- ① 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
250 V/4 kV/3 = rated voltage with shield (screen) contact (see also section 15)
② See application notes on pages 2.43 – 2.45



Description		Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-pin and 2-pin disconnct receptacle terminal block		1-cond./1-pin disconnect receptacle term. block		2-pin disconnect receptacle terminal block	
without/with shield (screen) contact, suitable for DIN 35 rail acc. to EN 60715		grey 769-212	50	grey 769-202	50
		1-conductor/1-pin disconnect receptacle terminal block with shield (screen) contact (no picture)		2-pin disconnect receptacle terminal block with shield (screen) contact (no picture)	
		grey 769-213	50	grey 769-203	50
Accessories					
Appropriate marking system Mini-WSB (see section 14)					
	End and intermediate plate	1.1 mm / 0.043 in thick		1.1 mm / 0.043 in thick	
		grey 769-311	100 (4 x 25)	grey 769-309	100 (4 x 25)
	Separator plate, oversized	1.1 mm / 0.043 in thick		1.1 mm / 0.043 in thick	
		orange 769-312	100 (4 x 25)	orange 769-310	100 (4 x 25)
	Screwless end stop	1.1 mm / 0.043 in thick		1.1 mm / 0.043 in thick	
		orange 769-314	100 (4 x 25)	orange 769-313	100 (4 x 25)
	Insulation stop ②, 5 pcs/strip	6 mm / 0.236 in wide 249-116		6 mm / 0.236 in wide 249-116	
		white 249-116	100 (4 x 25)	white 249-116	100 (4 x 25)
	Adjacent jumper, insulated	10 mm / 0.394 in wide 249-117		10 mm / 0.394 in wide 249-117	
		light grey 249-117	50 (2 x 25)	light grey 249-117	50 (2 x 25)
	Staggered jumper ②, from 1 to 2 insulated, from 1 to 3 width 5 mm / 0.197 in from 1 to 4 from 1 to 5 : from 1 to 8	0.08 – 0.2 mm² 769-470		0.08 – 0.2 mm² 769-470	
		200 strips		200 strips	
	Coding pin, for coding of female plugs	0.25 – 0.5 mm² 769-471		0.25 – 0.5 mm² 769-471	
		200 strips		200 strips	
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	0.75 – 1 mm² 769-472		0.75 – 1 mm² 769-472	
		200 strips		200 strips	
	Test plug, w. cable 500 mm / 1'7.7" 2 mm / 0.079 in Ø 2.3 mm / 0.091 in Ø	grey 280-402		grey 280-402	
		200 (8 x 25)		200 (8 x 25)	
	Test plug module, see also pages 2.38 – 2.40	grey 280-409		grey 280-409	
		100 (4 x 25)		100 (4 x 25)	
	1-conductor female plug, straight or angled	I _N 24 A 780-452		I _N 24 A 780-452	
		100 (4 x 25)		100 (4 x 25)	
	2-conductor female plug	780-453		780-453	
		100 (4 x 25)		100 (4 x 25)	
	Disconnect lock, for disconnecting tab of disconnect term. blocks	780-454		780-454	
		100 (4 x 25)		100 (4 x 25)	
		780-455		780-455	
		50 (2 x 25)		50 (2 x 25)	
		780-458		780-458	
		50 (2 x 25)		50 (2 x 25)	
		orange 769-435		orange 769-435	
		100 (4 x 25)		100 (4 x 25)	
		yellow 280-415		yellow 280-415	
		100 (4 x 25)		100 (4 x 25)	
		red 210-136		red 210-136	
		50 (5 x 10)		50 (5 x 10)	
		yellow 210-137		yellow 210-137	
		50 (5 x 10)		50 (5 x 10)	
		5 mm / 0.197 in wide 280-404		5 mm / 0.197 in wide 280-404	
		100 (4 x 25)		100 (4 x 25)	
		or test plug 210-137 (2.3 mm / 0.091 in Ø)		or test plug 210-137 (2.3 mm / 0.091 in Ø)	
		see pages 9.44/9.46		see pages 9.44/9.46	
		see page 9.45		see page 9.45	
		see also page 7.13		see also page 7.13	
		red 709-170	200 (8 x 25)	red 709-170	200 (8 x 25)
Dimensions and types of assembly (see page 9.27)					

Dimensions and types of assembly (see page 9.27)

* For further approvals with corresponding ratings see section 15.

**16 A, temperature limit of 85°C

WAGO

X-COM®-SYSTEM

1-Conductor/1-Pin and 2-Pin Diode and LED Receptacle Terminal Blocks

0.08 – 4 mm² | AWG 28 – 12

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

*

Terminal block width 5 mm / 0.197 in

*

Technical data

Diode

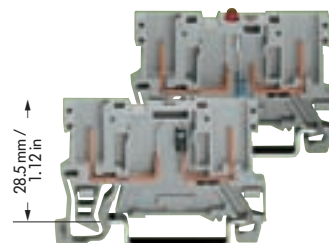
U_N 250 V; U_{RM} 1000 V 300/600 V, 10/5 A
1 N 4007 – 0.5 A constant current 300 V, 10 A

LED

DC 24 V 300/600 V, 10/5 A
IF 25 mA max. 300 V, 10 A



29.5 mm / 1.16 in
52.5 mm / 2.07 in



29.5 mm / 1.16 in
52.5 mm / 2.07 in

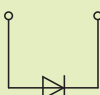
❶ For information on use of insulation stops and wire range, see page 2.43

Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-pin diode receptacle terminal block,	1-cond./1-pin diode receptacle term. blocks, grey		2-pin diode receptacle terminal blocks, grey	
2-pin diode receptacle terminal block,	Anode left	769-238/281-410 100	Anode left	769-228/281-410 100
	Anode right	769-238/281-411 100	Anode right	769-228/281-411 100
1-conductor/1-pin LED receptacle terminal block,	1-cond./1-pin LED receptacle term. blocks, grey		2-pin LED receptacle terminal blocks, grey	
2-pin LED receptacle terminal block	Anode right	769-239/281-413 100	Anode right	769-229/281-413 100
	Anode left	769-239/281-434 100	Anode left	769-229/281-434 100
suitable for DIN 35 rail acc. to EN 60715				
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
		grey 769-307 100 (4 x 25)	grey 769-305 100 (4 x 25)	
		orange 769-308 100 (4 x 25)	orange 769-306 100 (4 x 25)	
	Screwless end stop	6 mm / 0.236 in wide 249-116 100 (4 x 25)	6 mm / 0.236 in wide 249-116 100 (4 x 25)	
		10 mm / 0.394 in wide 249-117 50 (2 x 25)	10 mm / 0.394 in wide 249-117 50 (2 x 25)	
	Insulation stop ❶, 5 pcs/strip	white 0.08 – 0.2 mm ² 769-470 200 strips		
		light grey 0.25 – 0.5 mm ² 769-471 200 strips		
		dark grey 0.75 – 1 mm ² 769-472 200 strips		
	Coding pin, for coding of female plugs	orange 769-435 100 (4 x 25)	orange 769-435 100 (4 x 25)	
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow 280-415 100 (4 x 25)		
	Test plug, w. cable 500 mm / 1'7.7"	2 mm / 0.079 in Ø red 210-136 50 (5 x 10)		
		2.3 mm / 0.091 in Ø yellow 210-137 50 (5 x 10)	yellow 210-137 50 (5 x 10)	
	1-conductor female plug, straight or angled	see pages 9.44/9.46	see pages 9.44/9.46	
	2-conductor female plug	cannot be used	cannot be used	

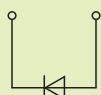
Dimensions and types of assembly (see page 9.26)

Connection schemes

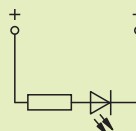
Diode
Anode left



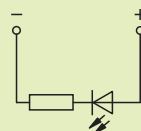
Diode
Anode right



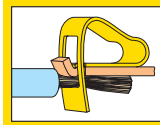
LED
Anode left



LED
Anode right



1-Conductor/1-Pin and 2-Pin Diode and LED Receptacle Terminal Blocks with 2 Jumper Positions



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25

	0.08 – 4 mm ² AWG 28 – 12	
	Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in	Terminal block width 5 mm / 0.197 in
	*	*

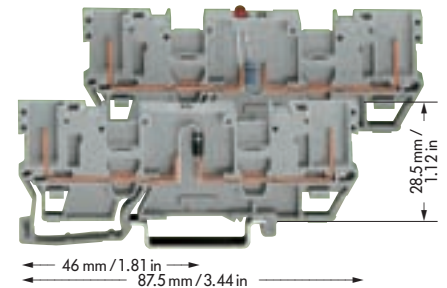
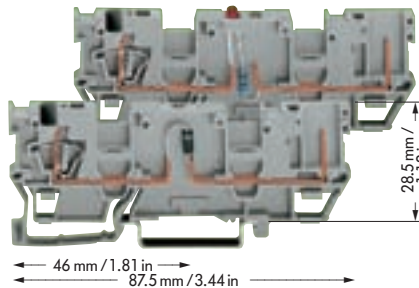
Technical data

Diode

U_N 250 V; U_{RM} 1000 V 300/600 V, 10/5 A
1 N 4007 – 0.5 A constant current 300 V, 10 A

LED

DC 24 V 300/600 V, 10/5 A
IF 25 mA max. 300 V, 10 A



① See application notes on pages 2.43 – 2.45

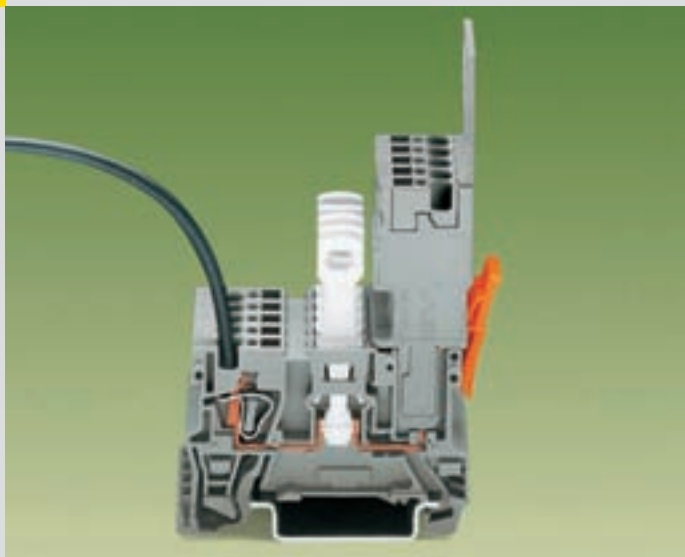
Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-pin diode receptacle terminal block,	1-cond./1-pin diode receptacle term. blocks, grey		2-pin diode receptacle terminal blocks, grey	
2-pin diode receptacle terminal block,	Anode left 769-218/281-410	50	Anode left 769-208/281-410	50
	Anode right 769-218/281-411	50	Anode right 769-208/281-411	50
1-conductor/1-pin LED receptacle terminal block,	1-cond./1-pin LED receptacle term. blocks, grey		2-pin LED receptacle terminal blocks, grey	
2-pin LED receptacle terminal block	Anode right 769-219/281-413	50	Anode right 769-209/281-413	50
	Anode left 769-219/281-434	50	Anode left 769-209/281-434	50
suitable for DIN 35 rail acc. to EN 60715				
Accessories	Appropriate marking system Mini-WSB (see section 14)			
End and intermediate plate	1.1 mm/0.043 in thick		1.1 mm/0.043 in thick	
	grey 769-311	100 (4 x 25)	grey 769-309	100 (4 x 25)
	orange 769-312	100 (4 x 25)	orange 769-310	100 (4 x 25)
Separator plate, oversized	1.1 mm/0.043 in thick		1.1 mm/0.043 in thick	
	orange 769-314	100 (4 x 25)	orange 769-313	100 (4 x 25)
Screwless end stop	6 mm/0.236 in wide 249-116	100 (4 x 25)	6 mm/0.236 in wide 249-116	100 (4 x 25)
	10 mm/0.394 in wide 249-117	50 (2 x 25)	10 mm/0.394 in wide 249-117	50 (2 x 25)
Insulation stop ②, white	0.08 – 0.2 mm ² 769-470	200 strips		
5 pcs/strip light grey	0.25 – 0.5 mm ² 769-471	200 strips		
dark grey	0.75 – 1 mm ² 769-472	200 strips		
Adjacent jumper, insulated	grey 280-402	200 (8 x 25)	grey 280-402	200 (8 x 25)
Alternate jumper	grey 280-409	100 (4 x 25)	grey 280-409	100 (4 x 25)
Staggered jumper ②, from 1 to 2	I _N 24 A 780-452	100 (4 x 25)	I _N 24 A 780-452	100 (4 x 25)
insulated, from 1 to 3	780-453	100 (4 x 25)	780-453	100 (4 x 25)
width 5 mm/0.197 in from 1 to 4	780-454	100 (4 x 25)	780-454	100 (4 x 25)
from 1 to 5	780-455	50 (2 x 25)	780-455	50 (2 x 25)
:	:		:	
from 1 to 8	780-458	50 (2 x 25)	780-458	50 (2 x 25)
Coding pin,				
for coding of female plugs	orange 769-435	100 (4 x 25)	orange 769-435	100 (4 x 25)
Protective warning marker,				
for 5 terminal blocks, fits into screwdriver slot	yellow 280-415	100 (4 x 25)		
Test plug, w. cable 500 mm/17.7"				
2 mm/0.079 in Ø	red 210-136	50 (5 x 10)		
2.3 mm/0.091 in Ø	yellow 210-137	50 (5 x 10)	yellow 210-137	50 (5 x 10)
Test plug adapter,	5 mm/0.197 in wide		5 mm/0.197 in wide	
see pages 2.38 – 2.40	280-404	100 (4 x 25)	280-404	100 (4 x 25)
	or test plug 210-137 (2.3 mm/0.091 in Ø)		or test plug 210-137 (2.3 mm/0.091 in Ø)	
1-conductor female plug,				
straight or angled	see pages 9.44/9.46		see pages 9.44/9.46	
2-conductor female plug				
	see page 9.45		see page 9.45	

Dimensions and types of assembly (see page 9.27)

* For further approvals with corresponding ratings see section 15.

Types of Assembly

1-Conductor/1-Pin and 2-Pin Receptacle Terminal Blocks and 1-Conductor Female Plugs



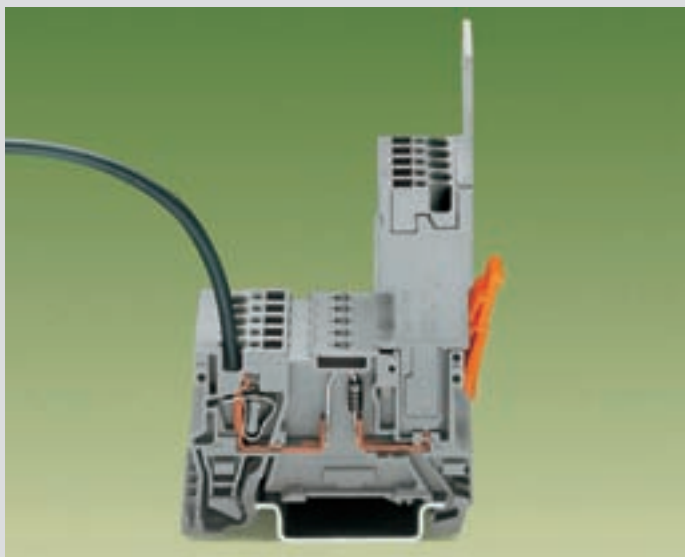
1-conductor female plug

The commoning of disconnect receptacle terminal blocks is not possible



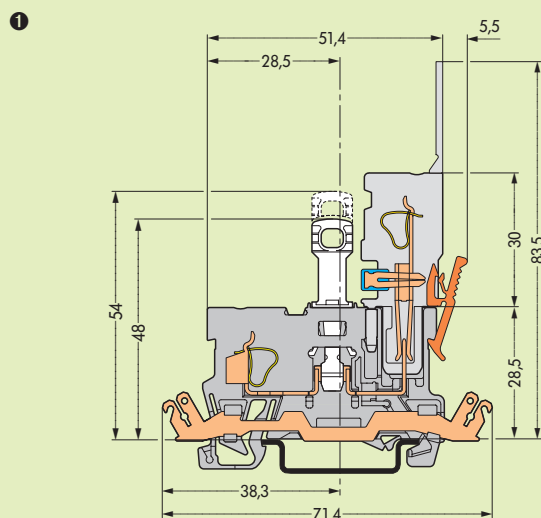
2 x 1-conductor female plugs

The commoning of disconnect receptacle terminal blocks is not possible



1-conductor female plug

The commoning of diode receptacle terminal blocks is not possible



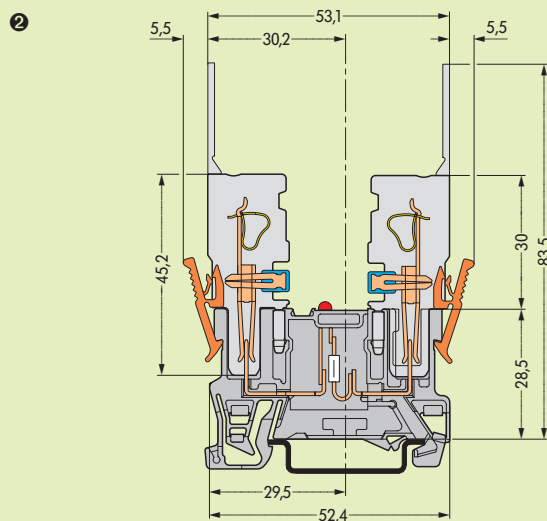
Disconnect receptacle terminal block with shield (screen) contact

① Please see also page 9.13 for further dimensions.



2 x 1-conductor female plugs

The commoning of LED receptacle terminal blocks is not possible

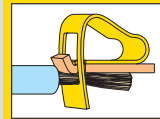


LED receptacle terminal block

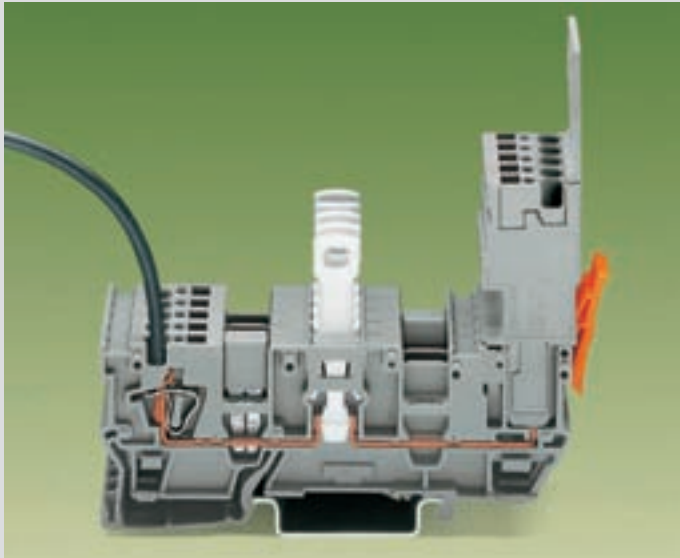
② Please see also page 9.15 for further dimensions

Types of Assembly

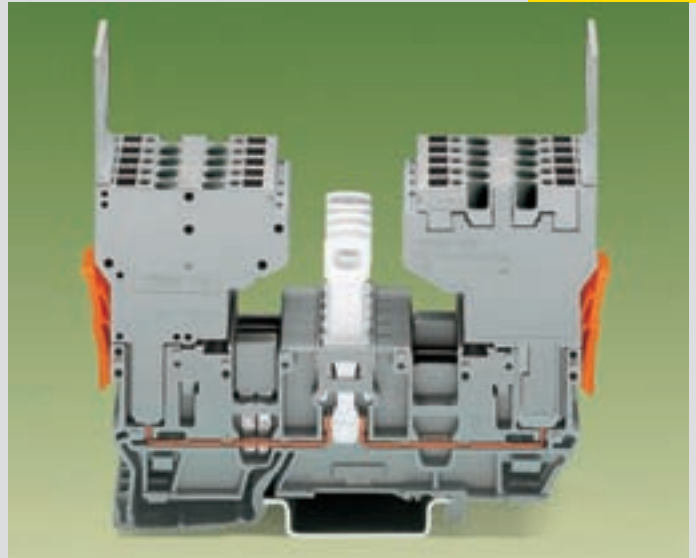
1-Conductor/1-Pin and 2-Pin Receptacle Terminal Blocks with 2 Jumper Positions and 1-/2-Conductor Female Plugs



9
27

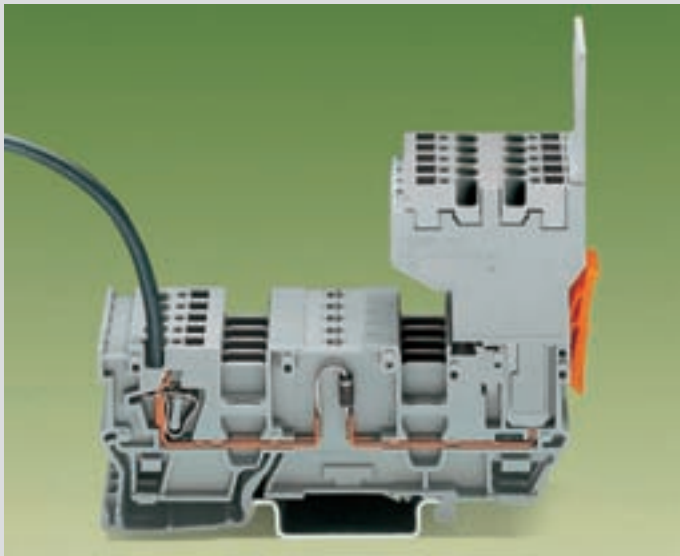


1-conductor female plug Commoning possibility of disconnect receptacle terminal block with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..

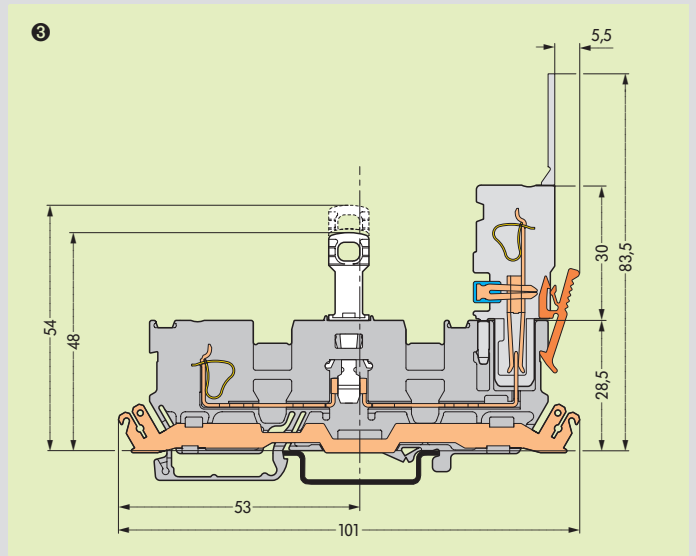


2-conductor female plug, left
2-conductor female plug, right

Commoning possibility of disconnect receptacle terminal blocks with jumper contact systems, series 280 and 780

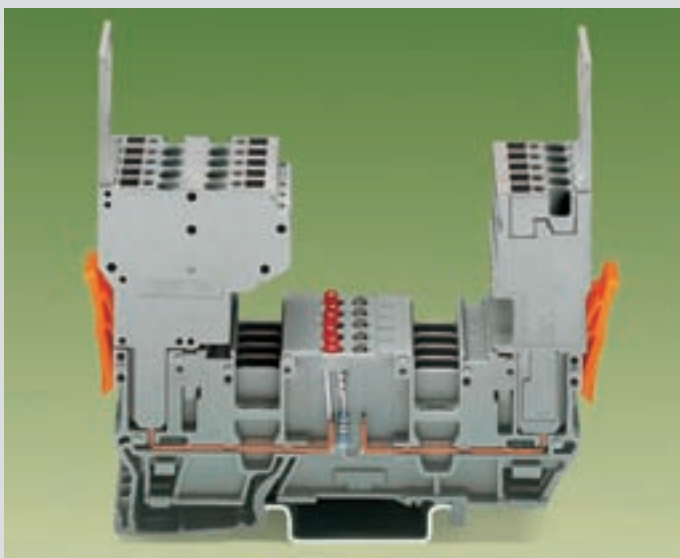


2-conductor female plug Commoning possibility of disconnect receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4..



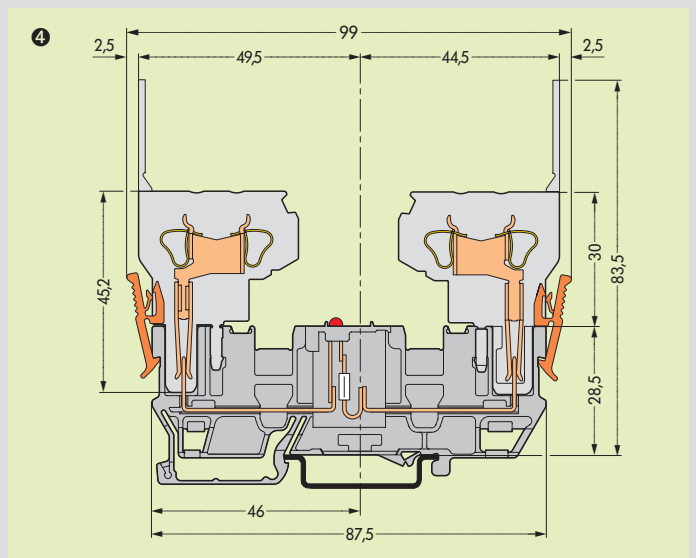
Disconnect receptacle terminal block with shield (screen) contact

③ Please see also page 9.17 for further dimensions.



2-conductor female plug, left
1-conductor female plug, right
Vice versa possible too

Commoning possibility of LED receptacle term. bl. w. jumper contact systems, series 280 and 780, and testing possibility w. test plug adapter 280-4..



LED receptacle terminal block

④ Please see also page 9.19 for further dimensions

X-COM®-SYSTEM**Receptacle Terminal Blocks with 2 Jumper Positions Used for Pluggable Modules, Series 280 and 281**

0.08 – 4 mm²
400 V/6 kV/3 ①
16 A**

AWG 28 – 12
300/600 V, 10/5 A ②
300 V, 10 A ③

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

*

400 V/6 kV/3 ①
16 A**

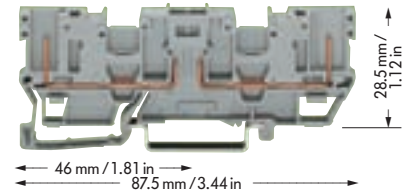
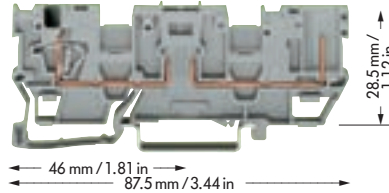
300/600 V, 10/5 A ②
300 V, 10 A ③

Terminal block width 5 mm / 0.197 in

*

- ① 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

- ② See application notes on pages 2.43 – 2.45

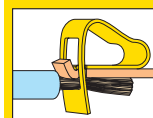


Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-pin receptacle terminal block and 2-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715	1-conductor/1-pin receptacle terminal block, grey 2 poles 769-181	50	2-pin receptacle terminal block, grey 2 poles 769-161	50
Accessories Appropriate marking system Mini-WSB (see section 14)				
	End and intermediate plate	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	grey 769-311 100 (4 x 25) orange 769-312 100 (4 x 25)		grey 769-309 100 (4 x 25) orange 769-310 100 (4 x 25)	
	Separator plate, oversized	1.1 mm / 0.043 in thick	1.1 mm / 0.043 in thick	
	orange 769-314 100 (4 x 25)		orange 769-313 100 (4 x 25)	
	Screwless end stop	6 mm / 0.236 in wide 249-116 100 (4 x 25) 10 mm / 0.394 in wide 249-117 50 (2 x 25)	6 mm / 0.236 in wide 249-116 100 (4 x 25) 10 mm / 0.394 in wide 249-117 50 (2 x 25)	
	Insulation stop ② , white 0.08 – 0.2 mm ² 769-470 200 strips light grey 0.25 – 0.5 mm ² 769-471 200 strips dark grey 0.75 – 1 mm ² 769-472 200 strips			
	Adjacent jumper, insulated , I _N 24 A grey 280-402 200 (8 x 25)		grey 280-402 200 (8 x 25)	
	Alternate jumper grey 280-409 100 (4 x 25)		grey 280-409 100 (4 x 25)	
	Staggered jumper ② , from 1 to 2 I _N 24 A 780-452 100 (4 x 25)		I _N 24 A 780-452 100 (4 x 25)	
	insulated, from 1 to 3 780-453 100 (4 x 25)		780-453 100 (4 x 25)	
	width 5 mm / 0.197 in from 1 to 4 780-454 100 (4 x 25)		780-454 100 (4 x 25)	
	from 1 to 5 780-455 50 (2 x 25)		780-455 50 (2 x 25)	
	from 1 to 8 780-458 50 (2 x 25)		780-458 50 (2 x 25)	
	Push-in type wire jumper ② , L = 60 mm / 2.362 in 249-125 10		L = 60 mm / 2.362 in 249-125 10	
	insulated, 9 A – conductor L = 110 mm / 4.331 in 249-126 10		L = 110 mm / 4.331 in 249-126 10	
	cross section 0.75 mm ² /AWG 18 L = 250 mm / 9.843 in 249-127 10		L = 250 mm / 9.843 in 249-127 10	
	Coding pin , for coding of female plugs orange 769-435 100 (4 x 25)		orange 769-435 100 (4 x 25)	
	Protective warning marker , for 5 terminal blocks, fits into screwdriver slot yellow 280-415 100 (4 x 25)			
	Test plug , w. cable 500mm/17.7" 2 mm / 0.079 in Ø red 210-136 50 (5 x 10)			
	2.3 mm / 0.091 in Ø yellow 210-137 50 (5 x 10)		yellow 210-137 50 (5 x 10)	
	1-conductor female plug, straight see page 9.44		see page 9.44	
	1-conductor female plug, angled see page 9.46		see page 9.46	
	2-conductor female plug cannot be used		cannot be used	

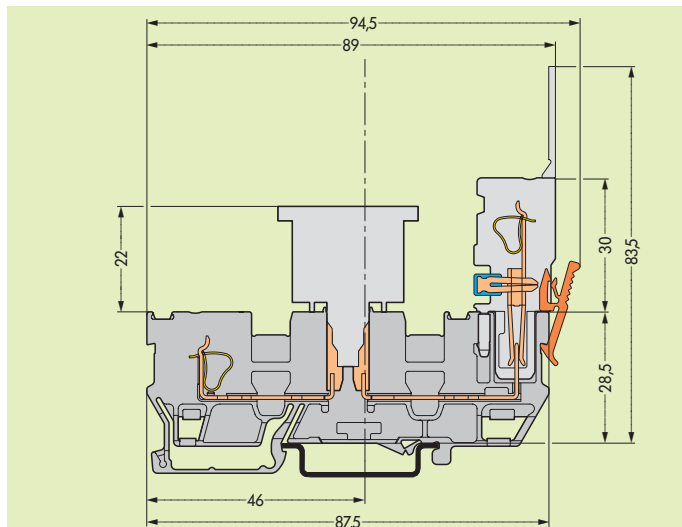
* For further approvals with corresponding ratings see section 15.

**16 A, temperature limit of 85°C

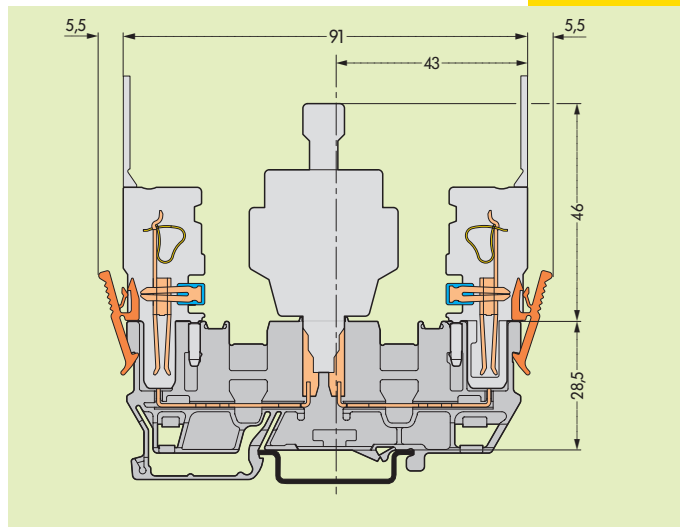
Types of Assembly with 1-Conductor Female Plugs and Selection of Pluggable Modules (see also Full Line Catalog W4, Volume 3)



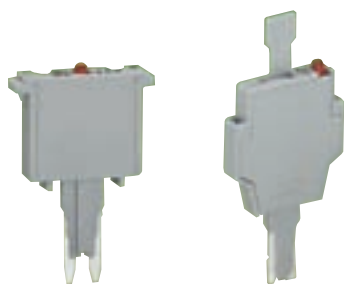
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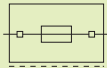
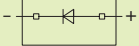
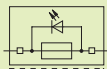
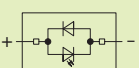
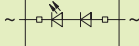
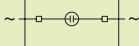
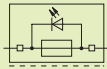
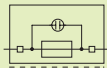


See also page 9.17 for dimensions



See also page 9.19 for dimensions



Open side of term. block	Item No.	Pack. unit pcs	Open side of term. block	Item No.	Pack. unit pcs	Open side of term. block	Item No.	Pack. unit pcs
Fuse plug, 5 mm / 0.197 in wide, 	with soldered miniature fuse		Diode module, 5 mm / 0.197 in wide, 	Diode 1N4007 280-801/281-411	100	LED modules, 5 mm / 0.197 in wide, 	with red LED	
250 mA FF	280-850	100				DC 24 V	280-801/281-413	100
500 mA FF	280-852	100				DC 48 V	280-801/281-414	100
1 A FF	280-854	100						
2 A FF	280-856	100						
Fuse plug, 5 mm / 0.197 in wide, 	additionally with LED, DC 15 – 30 V		Diode module, 5 mm / 0.197 in wide, 	Diode 1N4007, as a recovery diode, LED additionally		LED modules, 5 mm / 0.197 in wide, 	with red LED	
Residual current in case of defective fuse LED 5 – 20 mA			DC 24 V	280-801/281-420	100	AC/DC 24 V	280-801/281-415	100
250 mA FF	280-850/281-413	100	DC 48 V	280-801/281-421	100	AC/DC 48 V	280-801/281-416	100
500 mA FF	280-852/281-413	100						
1 A FF	280-854/281-413	100				Neon lamp modules, 5 mm / 0.197 in wide, 		
2 A FF	280-856/281-413	100				AC/DC 120 V	280-801/281-418	100
Fuse plug with pull-tab, 6 mm / 0.236 in wide, for miniature metric fuse 5 x 20 mm and 5 x 25 mm						AC/DC 230 V	280-801/281-417	100
	281-511	50						
	LED (self assembly)							
	281-512	50						
Fuse plug with pull-tab, 6 mm / 0.236 in wide, additionally with LED								
	AC/DC 24 V							
Residual current in case of defective fuse LED 5 – 20 mA, neon lamp < 0.4 mA								
	281-512/281-501	50						
	Use in both switching directions							
	Neon lamps							
	AC/DC 120 V							
	281-512/281-418	50						
	AC/DC 230 V							
	281-512/281-417	50						

Adjacent assembly of receptacle terminal blocks for fuse plugs requires that the width of the fuse plugs (6 mm/0.236 in) compared to that of the terminal blocks (5 mm/0.197 in) be compensated for by using intermediate plates (1.1 mm/0.043 in).
The use of intermediate plates requires adjacent jumpers from series 280 to be used when commoning adjacent terminal blocks.



Electrical data are determined by the electronic components.

X-COM®-SYSTEM**Receptacle Terminal Blocks with 2 Jumper Positions
for Pluggable Modules, Series 286 (Relay Modules, Optocoupler Modules etc.)**

0.08 – 4 mm²
400 V/6 kV/3 ①
16 A**

AWG 28 – 12
300/600 V, 10/5 A ②
300 V, 10 A ③

Terminal block width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* ② ③

400 V/6 kV/3 ①
16 A**

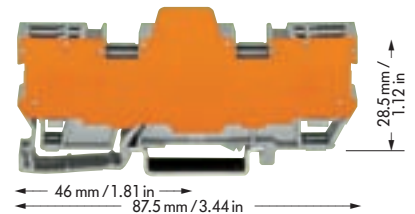
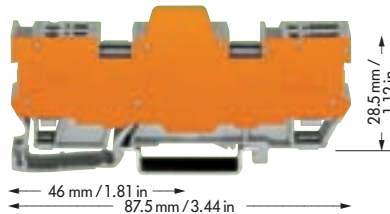
300/600 V, 10/5 A ②
300 V, 10 A ③

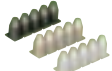
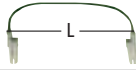
Terminal block width 5 mm / 0.197 in

* ② ③ CCAIKC LR

- ① 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

- ② See application notes on pages 2.43 – 2.45

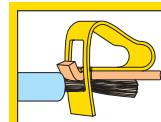


Description		Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor /1-pin receptacle terminal block and		1-cond./1-pin receptacle terminal blocks, grey with orange separator plate		2-pin receptacle terminal blocks, grey with orange separator plate	
	width	4 poles	769-182/769-314 10	4 poles	769-162/769-313 10
2-pin receptacle terminal block,	11.1 mm	6 poles	769-183/769-314 5	6 poles	769-163/769-313 5
suitable for DIN 35 rail acc. to EN 60715	16.1 mm	8 poles	769-184/769-314 5	8 poles	769-164/769-313 5
	21.1 mm	10 poles	769-185/769-314 5	10 poles	769-165/769-313 5
	26.1 mm				
Accessories					
Appropriate marking system Mini-WSB (see section 14)					
	End and intermediate plate	1.1 mm /0.043 in thick		1.1 mm /0.043 in thick	
		grey	769-311 100 (4 x 25)	grey	769-309 100 (4 x 25)
		orange	769-312 100 (4 x 25)	orange	769-310 100 (4 x 25)
	Separator plate, oversized	1.1 mm /0.043 in thick		1.1 mm /0.043 in thick	
		orange	769-314 100 (4 x 25)	orange	769-313 100 (4 x 25)
	Screwless end stop	6 mm /0.236 in wide	249-116 100 (4 x 25)	6 mm /0.236 in wide	249-116 100 (4 x 25)
		10 mm /0.394 in wide	249-117 50 (2 x 25)	10 mm /0.394 in wide	249-117 50 (2 x 25)
	Insulation stop ②,	0.08 – 0.2 mm²	769-470 200 strips		
	5 pcs/strip	light grey	769-471 200 strips		
		dark grey	769-472 200 strips		
	Adjacent jumper,	I _N 24 A	grey 280-402 200 (8 x 25)	grey 280-402	200 (8 x 25)
	insulated				
	Alternate jumper	grey	280-409 100 (4 x 25)	grey 280-409	100 (4 x 25)
	Staggered jumper ②,	I _N 24 A	780-452 100 (4 x 25)	I _N 24 A 780-452	100 (4 x 25)
	insulated,	from 1 to 2	780-453 100 (4 x 25)	780-453	100 (4 x 25)
	width 5 mm /0.197 in	from 1 to 3	780-454 100 (4 x 25)	780-454	100 (4 x 25)
		from 1 to 4	780-455 50 (2 x 25)	780-455	50 (2 x 25)
		from 1 to 5	780-458 50 (2 x 25)	780-458	50 (2 x 25)
		:	:	:	:
	from 1 to 8	780-458 50 (2 x 25)		780-458	50 (2 x 25)
	Push-in type wire jumper ②,	L = 60 mm /2.362 in	249-125 10	L = 60 mm /2.362 in	249-125 10
	insulated, 9 A – conductor	L = 110 mm /4.331 in	249-126 10	L = 110 mm /4.331 in	249-126 10
	cross section 0.75 mm²/AWG 18	L = 250 mm /9.843 in	249-127 10	L = 250 mm /9.843 in	249-127 10
	Coding pin,				
	for coding of female plugs	orange	769-435 100 (4 x 25)	orange 769-435	100 (4 x 25)
	Protective warning marker,				
	for 5 terminal blocks,	yellow	280-415 100 (4 x 25)		
	fits into screwdriver slot				
	Test plug, w. cable 500 mm /17.7"				
	2 mm /0.079 in Ø	red	210-136 50 (5 x 10)		
	2.3 mm /0.091 in Ø	yellow	210-137 50 (5 x 10)	yellow 210-137	50 (5 x 10)
	1-conductor female plug,				
	straight or angled	see pages 9.44/9.46		see pages 9.44/9.46	
	2-conductor female plug				
		cannot be used		cannot be used	

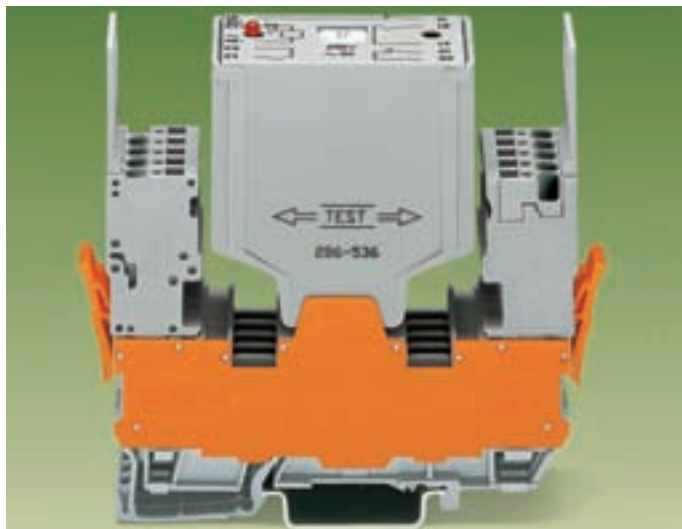
* For further approvals with corresponding ratings see section 15.

**16 A, temperature limit of 85°C

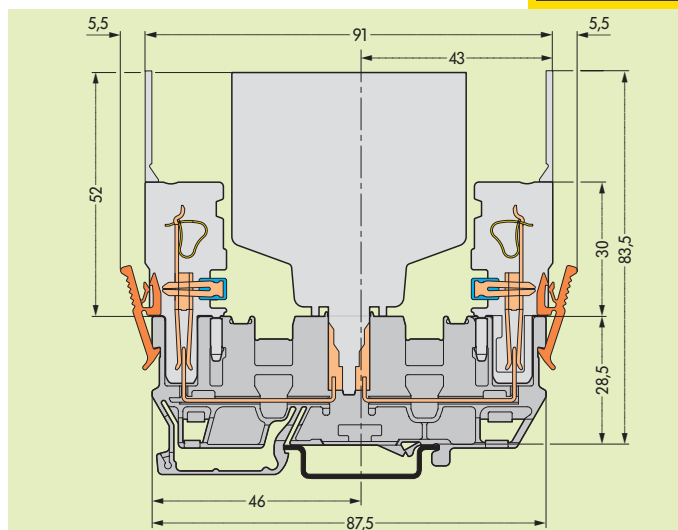
Types of Assembly with 1-Conductor Female Plugs and Selection of Pluggable Modules (see also Full Line Catalog W4, Volume 3)



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See also pages 9.17 and 9.19 for dimensions



Item No.	Pack. unit pcs	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
	Switching relay module 286-364 24 V DC, 1 make contact Module width 10 mm		Pulse relay modules, 286-570 230 V AC 1 286-571 24 V DC 1 1 break contact, 1 make contact Module width 20 mm		Optocoupler module Input 24 V DC, Output 24 V DC / 500 mA 286-752 1 Module width 15 mm
	Switching relay module 286-304 24 V DC, 1 change-over contact Module width 15 mm				Optocoupler module Input 24 V DC, Output 24 V DC / 4 A 286-723 1 Module width 15 mm
	Switching relay module 286-312 24 V DC, 2 change-over contacts Module width 20 mm				Optocoupler module Input 24 V DC, Output 230 V AC / 50 mA-1A 286-734 1 Module width 15 mm
	Switching relay module 286-516 230 V AC, 2 change-over contacts Module width 20 mm		Transient suppression module 230 V DC ± 10 % 286-842 1 Module width 25 mm		Temperature transducer modules with wire break controlling (4-20 mA), Thermocouple J: 0-750 °C 286-867 1 Thermocouple K: 0-1000 °C 286-868 1 Module width 20 mm
	Switching relay module 286-336 24 V DC, 2 break contacts and 2 make contacts Module width 25 mm		Transient suppression module 230 V AC 286-835 1 Module width 15 mm completely with special receptacle terminal block		Temperature transducer modules from -30 °C to +150 °C (PT 100) 286-862/150-030 1 from 0 °C to + 300 °C (PT 100) 286-862/000-300 1 from 0 °C to + 100 °C (PT 1000) 286-875 1 Module width 20 mm
	Switching relay module 286-375 24 V DC 1 286-578 110/120 VAC 1 286-579 230 V AC 1 4 change-over contacts Module width 35 mm			for PT 100 and PT 1000 elements	

Electrical data are determined by the electronic components.

X-COM®-SYSTEM

1-Conductor/1-Conductor Receptacle Terminal Blocks with 2 Jumper Positions for Pluggable Modules (Fuse Plugs, Relay Modules, Optocoupler Modules etc.)

0.08 – 4 mm² | AWG 28 – 12
400 V/6 kV/3 ① | 300/600 V, 10/5 A ②
16 A** | 300 V, 10 A ③

Terminal block width 5 mm / 0.197 in

8 – 9 mm / 0.33 in

* ② ③

0.08 – 4 mm² | AWG 28 – 12
400 V/6 kV/3 ① | 300/600 V, 10/5 A ②
16 A** | 300 V, 10 A ③

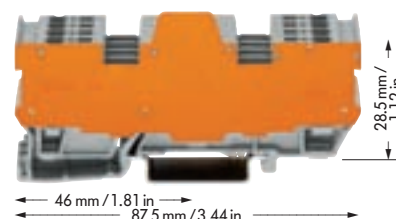
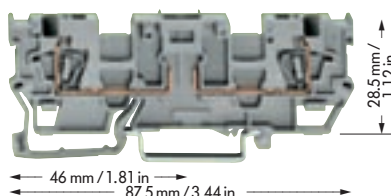
Terminal block width 5 mm / 0.197 in

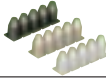
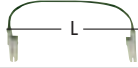
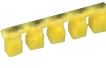
8 – 9 mm / 0.33 in

* ② ③

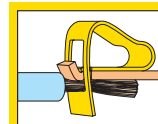
- ① 400 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

- ② See application notes on pages 2.43 – 2.45

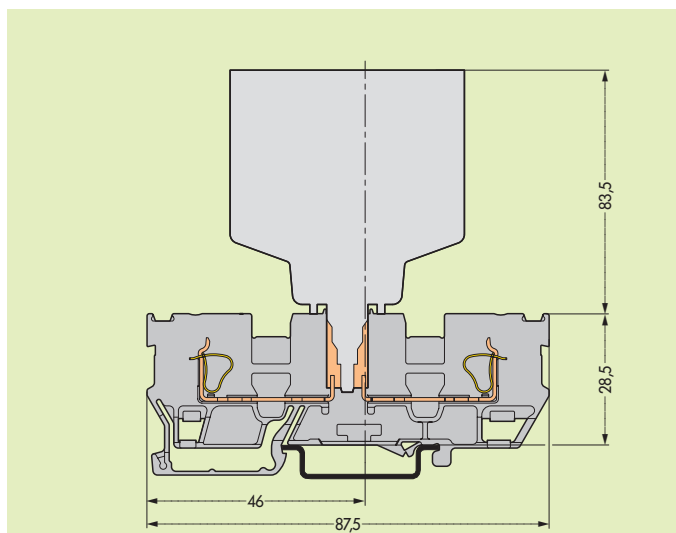
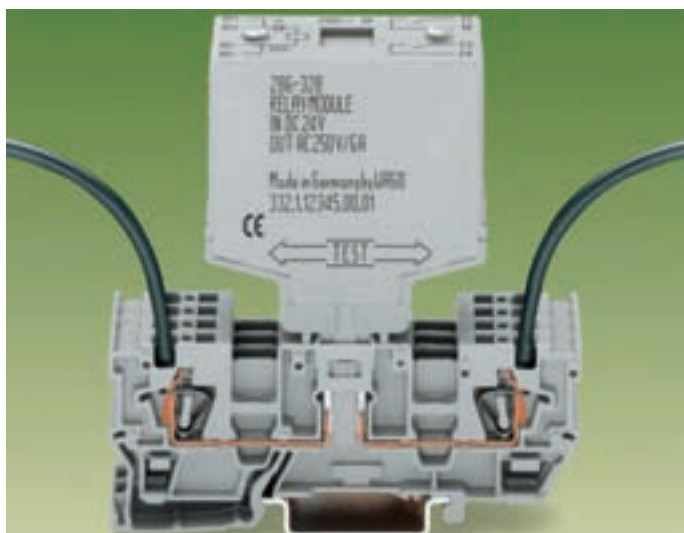
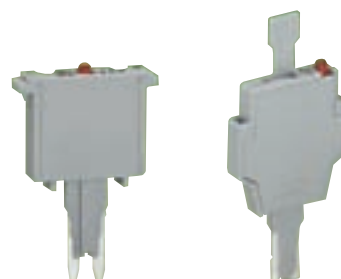
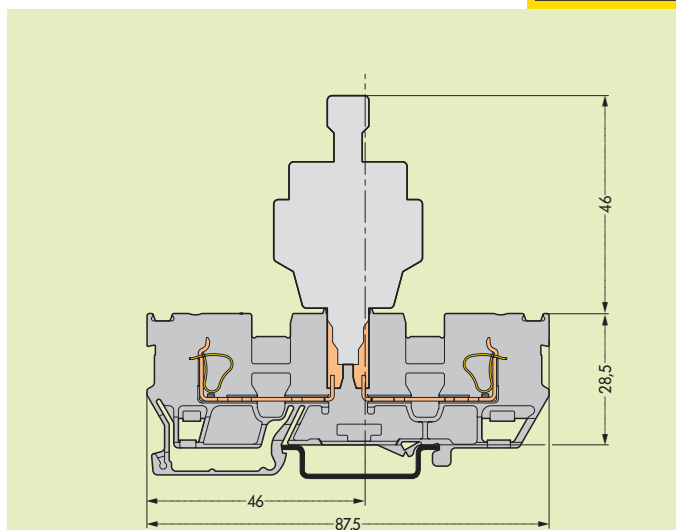
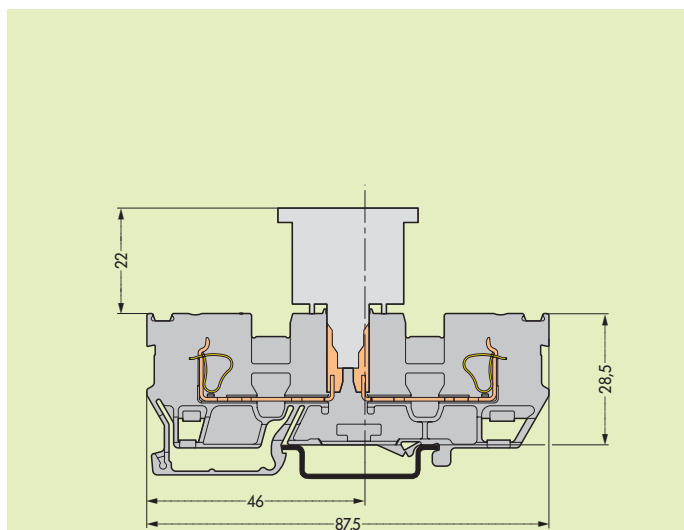


Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-conductor/1-conductor receptacle terminal block and 1-conductor/1-conductor receptacle terminal block for pluggable modules, suitable for DIN 35 rail acc. to EN 60715	1-conductor/1-conductor receptacle terminal block, grey 2 poles 769-191	50	1-conductor/1-conductor receptacle terminal blocks for pluggable modules, grey with orange separator plate 4 poles, 11.1 mm 769-192/769-319 6 poles, 16.1 mm 769-193/769-319 8 poles, 21.1 mm 769-194/769-319 10 poles, 26.1 mm 769-195/769-319	10 5 5 5
Accessories Appropriate marking system Mini-WSB (see section 14)				
 End and intermediate plate	1.1 mm / 0.043 in thick grey 769-317 orange 769-318	100 (4 x 25)	1.1 mm / 0.043 in thick grey 769-317 orange 769-318	100 (4 x 25)
 Separator plate, oversized	1.1 mm / 0.043 in thick orange 769-319	100 (4 x 25)	1.1 mm / 0.043 in thick orange 769-319	100 (4 x 25)
 Screwless end stop	6 mm / 0.236 in wide 249-116 10 mm / 0.394 in wide 249-117	100 (4 x 25) 50 (2 x 25)	6 mm / 0.236 in wide 249-116 10 mm / 0.394 in wide 249-117	100 (4 x 25) 50 (2 x 25)
 Insulation stop ②, 5 pcs/strip white light grey dark grey	0.08 – 0.2 mm ² 769-470 0.25 – 0.5 mm ² 769-471 0.75 – 1 mm ² 769-472	200 strips 200 strips 200 strips	0.08 – 0.2 mm ² 769-470 0.25 – 0.5 mm ² 769-471 0.75 – 1 mm ² 769-472	200 strips 200 strips 200 strips
 Adjacent jumper , I _N 24 A, insulated	grey 280-402	200 (8 x 25)	grey 280-402	200 (8 x 25)
 Alternate jumper	grey 280-409	100 (4 x 25)	grey 280-409	100 (4 x 25)
 Staggered jumper ②, from 1 to 2 insulated, from 1 to 3 width 5 mm / 0.197 in from 1 to 4 from 1 to 5 : from 1 to 8	I _N 24 A 780-452 780-453 780-454 780-455 : 780-458	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) : 50 (2 x 25)	I _N 24 A 780-452 780-453 780-454 780-455 : 780-458	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) : 50 (2 x 25)
 Push-in type wire jumper ②, L = 60 mm / 2.362 in insulated, 9 A – conductor cross section 0.75 mm ² /AWG 18	249-125 249-126 249-127	10 10 10	L = 60 mm / 2.362 in 249-125 L = 110 mm / 4.331 in 249-126 L = 250 mm / 9.843 in 249-127	10 10 10
 Protective warning marker , for 5 terminal blocks, fits into screwdriver slot	yellow 280-415	100 (4 x 25)	yellow 280-415	100 (4 x 25)
 Test plug , w. cable 500 mm / 17.7" 2 mm / 0.079 in Ø 2.3 mm / 0.091 in Ø	red 210-136 yellow 210-137	50 (5 x 10) 50 (5 x 10)	red 210-136 yellow 210-137	50 (5 x 10) 50 (5 x 10)

Types of Assembly with Selection of Pluggable Modules (see also Full Line Catalog W4, Volume 3)



9
33



9



Electrical data are determined by the electronic components.

X-COM®-SYSTEM

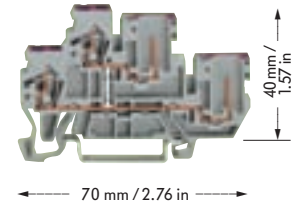
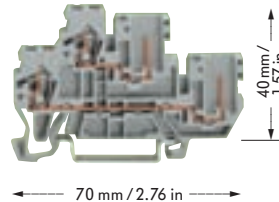
1-Conductor/1-Pin Double Deck Receptacle Terminal Blocks

Series 870

	0.08 – 2.5 mm²/4 mm²"f-st" AWG 28 – 12 500 V/6 kV/3 ① 300/600 V, 16 A 20/5 A Terminal block width 5 mm / 0.197 in  6 – 7 mm / 0.26 in *    	0.08 – 2.5 mm²/4 mm²"f-st" AWG 28 – 12 500 V/6 kV/3 ① 300/600 V, 16 A 20/5 A Terminal block width 5 mm / 0.197 in  6 – 7 mm / 0.26 in *    
--	---	---

You can find double deck terminal blocks of series 870 in section 3

- ① 500 V = rated voltage
 6 kV = rated surge voltage
 3 = pollution degree
 (see also section 15)
- ② Suitable for Ex i applications
- ③ See application notes on page 2.43



Description	Item No.	Pack. unit pcs	Item No.	Pack. unit pcs
1-cond./1-pin double deck receptacle terminal block, suitable for DIN 35 rail Printing 1 st lev. 2 nd lev.	Through/through terminal blocks, housing color grey		2-conductor/2-pin through terminal block, internal commoning, housing color grey, conductor entry position colored in violet	
– –	L/L 870-101	50	L 870-108	50
blue –	N/L 870-102	50		
– blue	L/N 870-103	50		
	housing color blue		2-conductor/2-pin through terminal block, internal commoning, housing color blue, conductor entry position colored in violet	
– –	N/N 870-104 ②	50	N 870-109	50

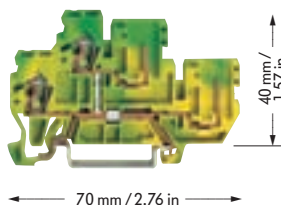
Accessories

Appropriate marking system **WMB/Mini-WSB** (see section 14)

	End and intermediate plate	1 mm/0.039 in thick		1 mm/0.039 in thick	
		grey 870-118	100 (4 x 25)	grey 870-118	100 (4 x 25)
		orange 870-119	100 (4 x 25)	orange 870-119	100 (4 x 25)
	Insulation stop ③, white	0.08 – 0.2 mm ² 280-470	200 strips	0.08 – 0.2 mm ² 280-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ² 280-471	200 strips	0.25 – 0.5 mm ² 280-471	200 strips
	dark grey	0.75 – 1 mm ² 280-472	200 strips	0.75 – 1 mm ² 280-472	200 strips
	Push-in type jumper bars, light grey, insulated, I _N 18 A	2-way 870-402	200 (8 x 25)	2-way 870-402	200 (8 x 25)
		3-way 870-403	200 (8 x 25)	3-way 870-403	200 (8 x 25)
		4-way 870-404	200 (8 x 25)	4-way 870-404	200 (8 x 25)
		5-way 870-405	100 (4 x 25)	5-way 870-405	100 (4 x 25)
		: :		: :	
		10-way 870-410	100 (4 x 25)	10-way 870-410	100 (4 x 25)
	Push-in type jumper bars, light grey, insulated, I _N 18 A	from 1 to 3 870-433	200 (8 x 25)	from 1 to 3 870-433	200 (8 x 25)
		from 1 to 4 870-434	200 (8 x 25)	from 1 to 4 870-434	200 (8 x 25)
		from 1 to 5 870-435	100 (4 x 25)	from 1 to 5 870-435	100 (4 x 25)
		: :		: :	
		from 1 to 10 870-440	100 (4 x 25)	from 1 to 10 870-440	100 (4 x 25)
	WAGO WMB multi-marking system, fits in all miniature WSB receptacles	see section 14		see section 14	
	Miniature WSB quick marking card, 10 strips with 10 markers each, white with black printing	see section 14		see section 14	
	1-connector female plug, straight	see page 9.44		see page 9.44	
	1-connector female plug, angled	see page 9.46		see page 9.46	
	2-connector female plug	cannot be used		cannot be used	

* For further approvals with corresponding ratings see section 15.

Types of assembly



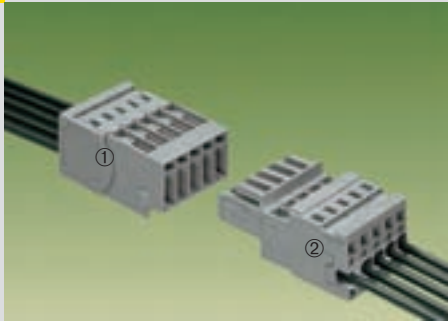
Technical drawing of the bottom view of a mold. The drawing shows a complex shape with several internal features and a central rectangular opening. Dimensions are indicated: a horizontal dimension of 80,4 and a vertical dimension of 59,4. The drawing is labeled 'B' for bottom view.

Technical drawing of a mechanical part, likely a bracket or support, showing dimensions in millimeters. The drawing includes a side view and a top view. The side view shows a vertical dimension of 71,4 mm and a horizontal dimension of 25 mm. The top view shows a vertical dimension of 39,9 mm and a horizontal dimension of 30,9 mm. The overall width of the part is 67,1 mm. The part features a central vertical slot and a horizontal slot. A blue component is visible in the center, and a red component is visible on the right side.

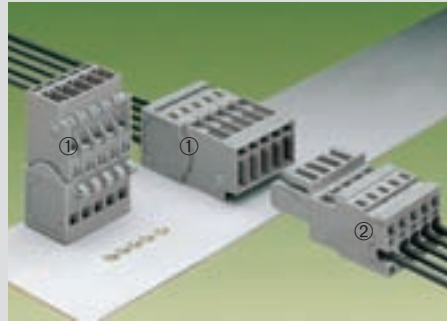
X-COM®-SYSTEM Male Connectors, Headers and Female Plugs

Series 769 . . .

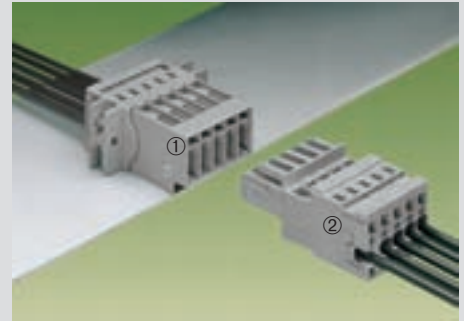
Male connectors with CAGE CLAMP® connection



① Male connector with CAGE CLAMP® connection
② 1-conductor female plug



① Male connector with CAGE CLAMP® connection and mounting feet
② 1-conductor female plug



① Male connector with CAGE CLAMP® connection and fixing flanges
② 1-conductor female plug

Male connectors with CAGE CLAMP® connection and snap-in flanges



Snap-in mounting without tools:
Male connectors with snap-in flanges



Operating tool

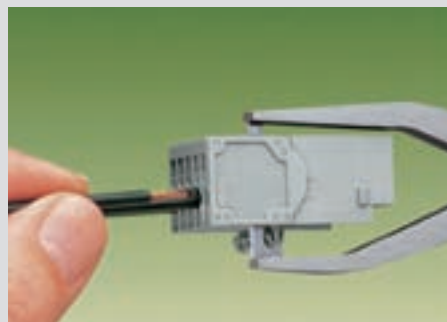


Connection of the conductor – lateral wiring
with operating tool

Operating tool



Connection of the conductor with operating tool
Item No. 210-490

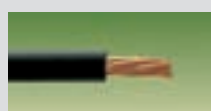


Connection of the conductor with operating tool
(which can also be used with male connectors with
CAGE CLAMP® connection and mounting feet)



CAGE CLAMP®
connects the following
copper wires: *

solid



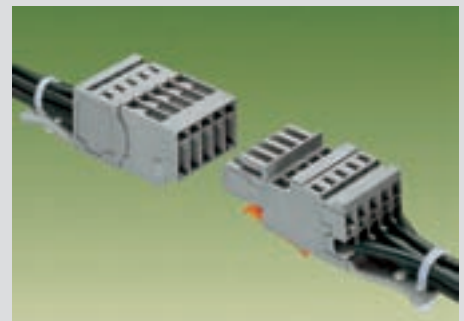
stranded



fine stranded,
also with tinned
single strands

* For aluminum wire see notes in section 15!

Strain relief plates



Strain relief plates, can be snapped in male
connectors with CAGE CLAMP® connection

1 pole	769-410	100 (4 x 25)
2 to 3 poles	769-411	100 (4 x 25)
4 to 5 poles	769-412	100 (4 x 25)
6 to 9 poles	769-413	100 (4 x 25)
10 to 15 poles	769-414	100 (4 x 25)

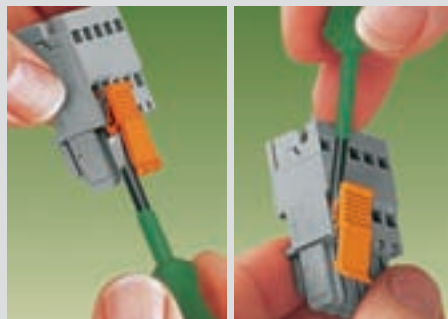
... Description and Handling

Coding



Coding a female plug – removal of coding finger(s). Do not break off the first and last latch position coding finger! (see also page 9.8)

Locking lever



Snapping in /removal of locking lever

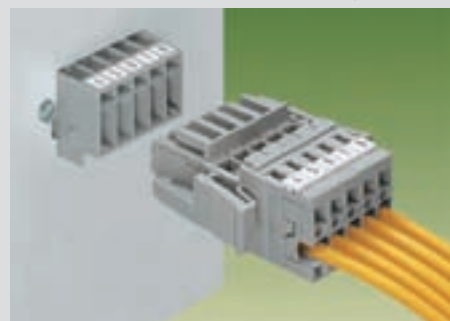
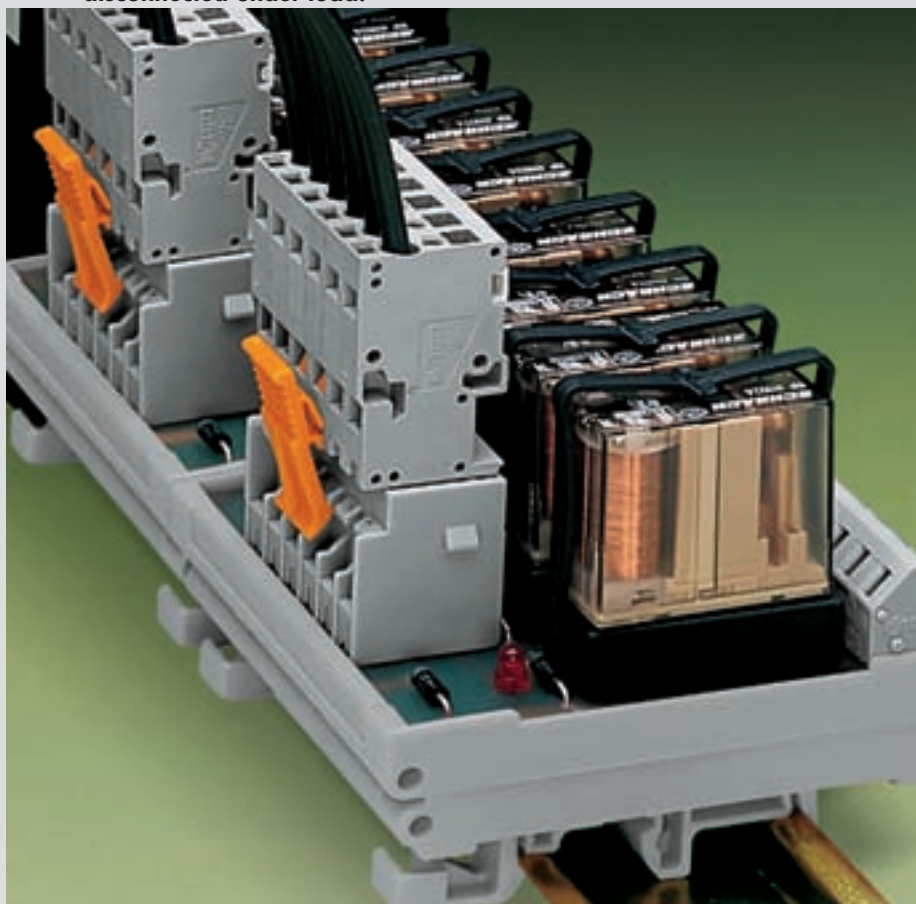
Commoning



Commoning of 1-conductor female plugs with miniature adjacent jumpers

Note: Connectors used according to the regulations should not be connected or disconnected under load.

Connection of a female plug

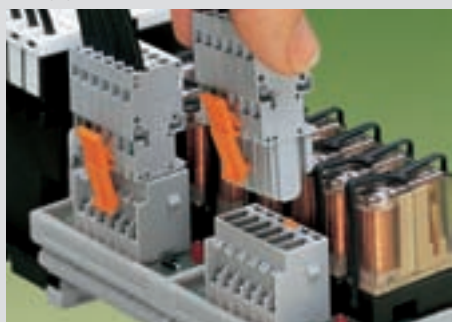


Header and 1-conductor female plug with lateral locking levers

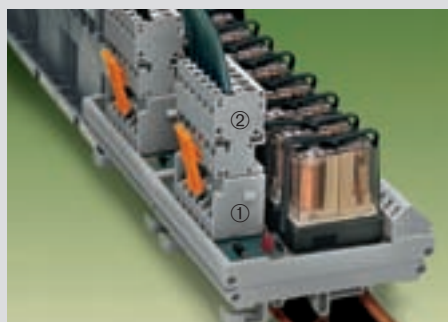


Headers with solder pins for printed circuit boards

Pluggable PCB connection



Connection to a relay module inside the switchgear cabinet



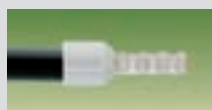
Example of application using a relay module
① Headers with straight solder pins
② 1-conductor female plugs



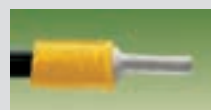
Headers with solder pins:
Integration of PCB sub-assemblies into the system wiring



fine-stranded wire –
tip bonded



fine-stranded wire
with crimped ferrule ①



fine-stranded wire
with crimped pin terminal

① When using wires with ferrules, it is necessary to use a terminal block one size larger than the nominal cross section of the wire.

X-COM®-SYSTEM

Male Connectors with CAGE CLAMP® Connection

Pin Spacing 5 mm / 0.197 in

Pin spacing 5 mm / 0.197 in, grey
0.08 – 4 mm² | AWG 28 – 12
500 V / 6 kV/3 | 300/600V, 10/5 A 
32 A** | 300 V, 10 A 

 8 – 9 mm / 0.33 in

*  

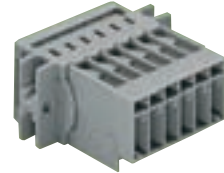
Pin spacing 5 mm / 0.197 in, grey
0.08 – 4 mm² | AWG 28 – 12
500 V / 6 kV/3 | 300/600V, 10/5 A 
32 A** | 300 V, 10 A 

 8 – 9 mm / 0.33 in

*  

Pin spacing 5 mm / 0.197 in, grey
0.08 – 4 mm² | AWG 28 – 12
500 V / 6 kV/3 | 300/600V, 10/5 A 
32 A** | 300 V, 10 A 

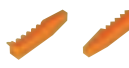
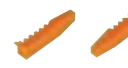
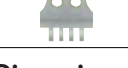
 8 – 9 mm / 0.33 in

*  

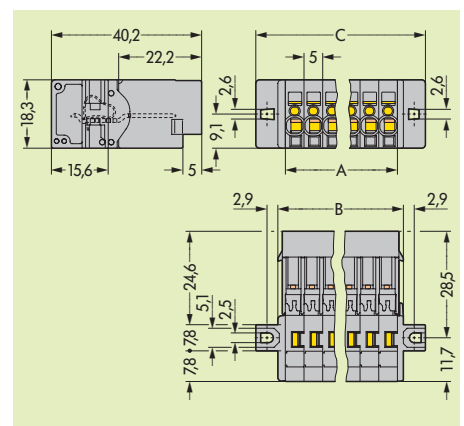
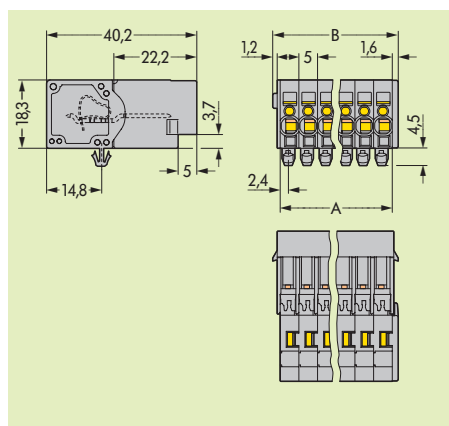
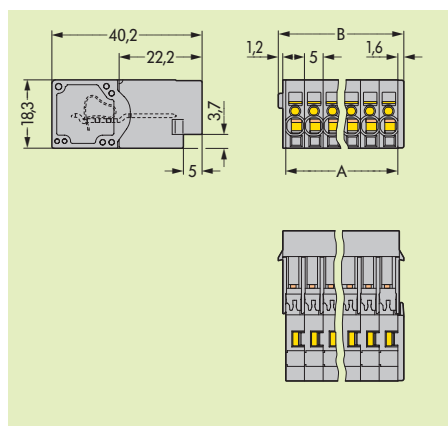
No. of poles	Item No.	Pack.-unit pcs	No. of poles	Item No.	Pack.-unit pcs	No. of poles	Item No.	Pack.-unit pcs
Male connectors with CAGE CLAMP® connection, grey			Male connectors with CAGE CLAMP® connection and snap-in mounting feet, f. plate thickness 0.6 – 1.2 mm, fixing hole Ø 3.5 mm, w. mounting adapter 209-137			Male connectors with CAGE CLAMP® connection and fixing flanges, for screw or similar types of fixing, for vertical or horizontal fixing, grey		
2	769-602	100	2	769-602/001-000	100	2	769-602/002-000	100
3	769-603	100	3	769-603/001-000	100	3	769-603/002-000	50
4	769-604	100	4	769-604/001-000	100	4	769-604/002-000	50
5	769-605	50	5	769-605/001-000	50	5	769-605/002-000	50
6	769-606	50	6	769-606/001-000	50	6	769-606/002-000	50
7	769-607	25	7	769-607/001-000	25	7	769-607/002-000	25
8	769-608	25	8	769-608/001-000	25	8	769-608/002-000	25
9	769-609	25	9	769-609/001-000	25	9	769-609/002-000	25
10	769-610	25	10	769-610/001-000	25	10	769-610/002-000	25
11	769-611	25	11	769-611/001-000	25	11	769-611/002-000	25
12	769-612	25	12	769-612/001-000	25	12	769-612/002-000	25
13	769-613	15	13	769-613/001-000	15	13	769-613/002-000	15
14	769-614	15	14	769-614/001-000	15	14	769-614/002-000	10
15	769-615	10	15	769-615/001-000	10	15	769-615/002-000	10

Accessories

Appropriate marking system **Mini-WSB** (see section 14)

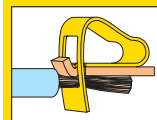
	For female plugs see pages 9.44 – 9.46		For female plugs see pages 9.44 – 9.46		For female plugs see pages 9.44 – 9.46
	Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)		Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)		Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)
	Operating tool 210-490 1		Operating tool 210-490 1		Operating tool 210-490 1
	Strain relief plate see page 9.36		Mounting adapter for DIN 35 rail, width 6.5 mm 209-137 25		Fixing screw, M 2.5 x 16 and hexagon nut M 2.5 769-499 100 (4 x 25)

Dimensions (in mm)



* For further approvals with corresponding ratings see section 15.

** See current-carrying capacity curve page 9.51 and www.wago.com

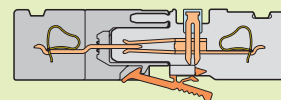


Pin spacing 5 mm / 0.197 in, grey
0.08 – 4 mm² | **AWG 28 – 12**
500 V/6 kV/3 | **300/600V, 10/5 A**
32 A** | **300 V, 10 A**
8 – 9 mm / 0.33 in

*

Pin spacing 5 mm / 0.197 in, grey
0.08 – 4 mm² | **AWG 28 – 12**
500 V/6 kV/3 | **300/600V, 10/5 A**
32 A** | **300 V, 10 A**
8 – 9 mm / 0.33 in

Male connectors with CAGE CLAMP® connection

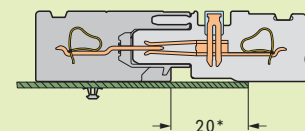


No. of poles	Item No.	Pack.-unit pcs	No. of poles	Item No.	Pack.-unit pcs
Male connectors with CAGE CLAMP® connection for feedthrough applications, for screw or similar types of fixing, for vertical or horizontal fixing, grey			Male connectors with CAGE CLAMP® connection and snap-in flanges, for mounting without tools, grey		
2	769-602/004-000	100	2	769-602/005-000	50
3	769-603/004-000	50	3	769-603/005-000	50
4	769-604/004-000	25	4	769-604/005-000	25
5	769-605/004-000	25	5	769-605/005-000	25
6	769-606/004-000	25	6	769-606/005-000	25
7	769-607/004-000	25	7	769-607/005-000	25
8	769-608/004-000	25	8	769-608/005-000	20
9	769-609/004-000	25	9	769-609/005-000	20
10	769-610/004-000	25	10	769-610/005-000	20
11	769-611/004-000	25	11	769-611/005-000	15
12	769-612/004-000	15	12	769-612/005-000	15
13	769-613/004-000	15	13	769-613/005-000	15
14	769-614/004-000	10	14	769-614/005-000	10
15	769-615/004-000	10	15	769-615/005-000	10

Appropriate marking system **Mini-WSB** (see section 14)

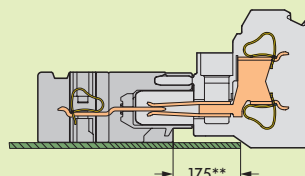
	For female plugs see pages 9.44 – 9.46		For female plugs see pages 9.44 – 9.46
	Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)		Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)
	Operating tool 210-490 1		Operating tool 210-490 1

Male connectors with CAGE CLAMP® connection and mounting feet



* Maximum dimensions when using 1-conductor female plugs

Male connectors with CAGE CLAMP® connection and fixing flanges



** Maximum dimensions when using 2-conductor female plugs

A = No. of poles x pin spacing
B = A + 3.6 mm
C = A + 15.4 mm **E** = A + 4.9 mm
D = A + 21.3 mm **F** = A + 8.1 mm
L = (No. of poles - 1) x pin spacing + 6.2 mm
L1 = L + 2.4 mm
L2 = L + 7 mm
L3 = L + 13.5 mm

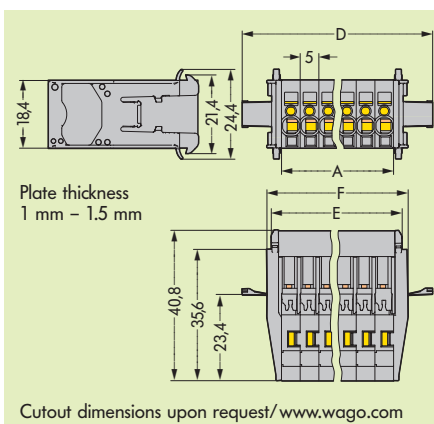
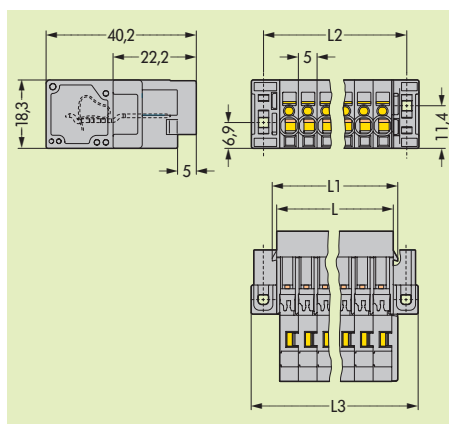


Plate thickness 1 mm – 1.5 mm
 Cutout dimensions upon request/ www.wago.com

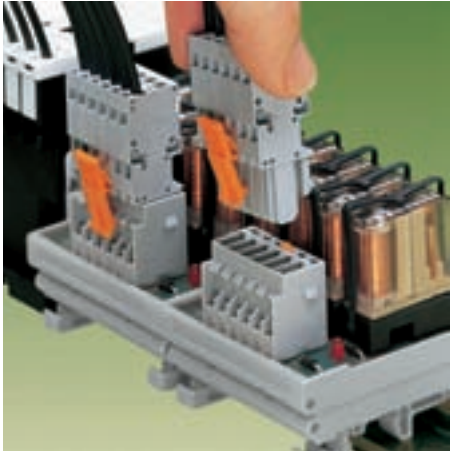
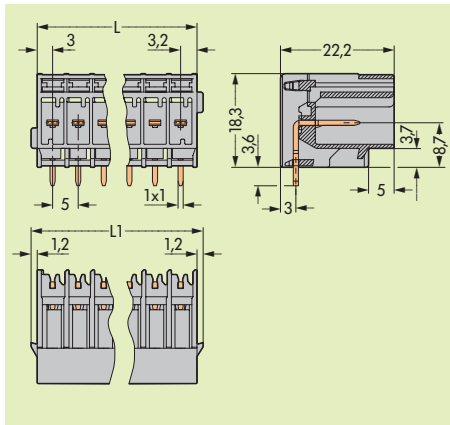
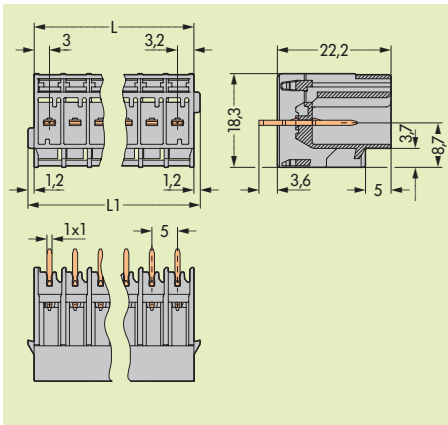
X-COM®-SYSTEM Headers with Solder Pins Pin Spacing 5 mm / 0.197 in

Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**		Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**	
300/600V, 10/5 A  300 V, 10 A 		300/600V, 10/5 A  300 V, 10 A 	
*  		*  	

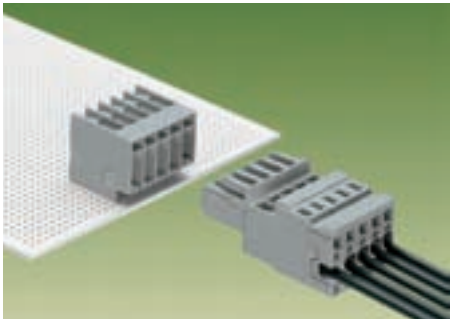
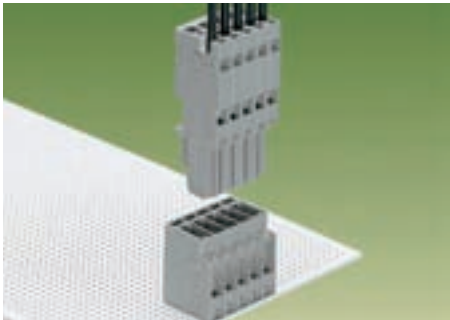


No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
Headers with straight solder pins, grey, solder pin 1 x 1 mm			Headers with right angle solder pins, grey, solder pin 1 x 1 mm		
2	769-632	200	2	769-662	200
3	769-633	100	3	769-663	100
4	769-634	50	4	769-664	50
5	769-635	50	5	769-665	50
6	769-636	50	6	769-666	50
7	769-637	50	7	769-667	50
8	769-638	25	8	769-668	25
9	769-639	25	9	769-669	25
10	769-640	25	10	769-670	25
11	769-641	25	11	769-671	25
12	769-642	25	12	769-672	25
13	769-643	25	13	769-673	25
14	769-644	25	14	769-674	25
15	769-645	25	15	769-675	25
Accessories					
		For female plugs see pages 9.44 – 9.46			For female plugs see pages 9.44 – 9.46
		Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)			Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)
Dimensions (in mm) Diameter of drilled hole: 1.4 ^{+0.1} mm					

$L = (\text{No. of poles} - 1) \times \text{pin spacing} + 6.2 \text{ mm}$
 $L1 = L + 2.4 \text{ mm}$



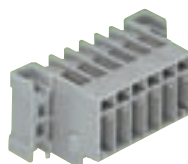
Connection to a relay module inside the switchgear cabinet



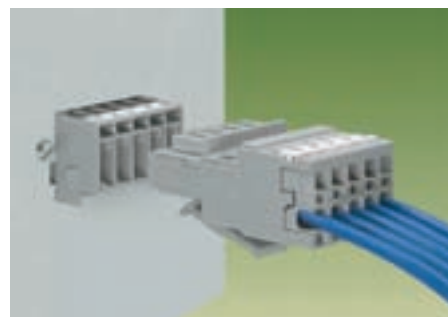
* For further approvals with corresponding ratings see section 15. ** See current-carrying capacity curves page 9.50 and www.wago.com

Headers with Solder Pins and Fixing Flanges Pin Spacing 5 mm / 0.197 in

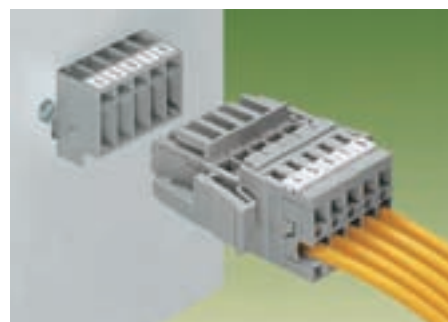
Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**	Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**	Examples of application
* 	* 	



No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
Headers with straight solder pins			Headers with right angle solder pins		
with fixing flanges, grey, solder pin 1 x 1 mm			with fixing flanges, grey, solder pin 1 x 1 mm		
2	769-632/003-000	100	2	769-662/003-000	100
3	769-633/003-000	100	3	769-663/003-000	100
4	769-634/003-000	50	4	769-664/003-000	50
5	769-635/003-000	50	5	769-665/003-000	50
6	769-636/003-000	25	6	769-666/003-000	25
7	769-637/003-000	25	7	769-667/003-000	25
8	769-638/003-000	25	8	769-668/003-000	25
9	769-639/003-000	25	9	769-669/003-000	25
10	769-640/003-000	25	10	769-670/003-000	25
11	769-641/003-000	25	11	769-671/003-000	25
12	769-642/003-000	25	12	769-672/003-000	25
13	769-643/003-000	15	13	769-673/003-000	15
14	769-644/003-000	15	14	769-674/003-000	15
15	769-645/003-000	15	15	769-675/003-000	15

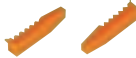


Header and 1-conductor female plug with locking levers



Header and 1-conductor female plug with lateral locking levers

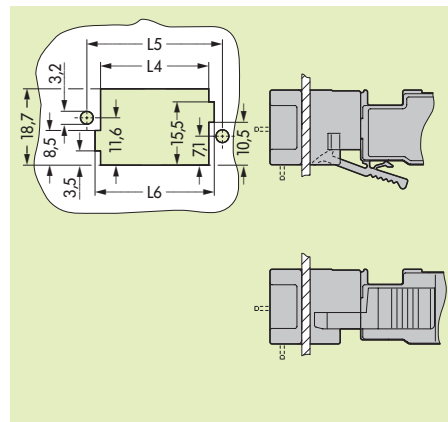
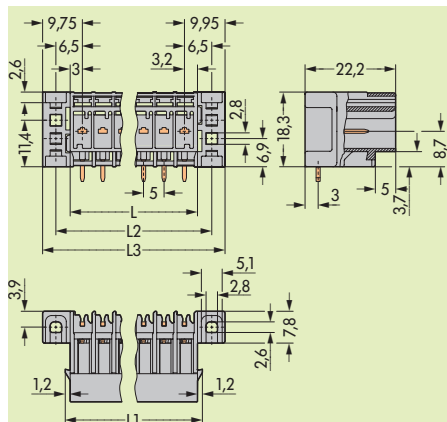
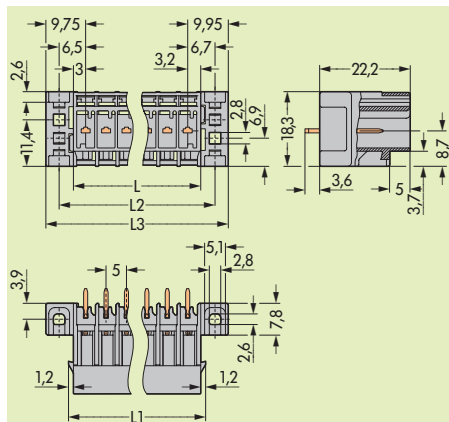
Accessories

 For female plugs see pages 9.44 – 9.46		 For female plugs see pages 9.44 – 9.46	
 Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)		 Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)	

Dimensions (in mm) Diameter of drilled hole: 1.4 ^{+0.1} mm

$L = (\text{No. of poles} - 1) \times \text{pin spacing} + 6.2 \text{ mm}$
 $L1 = L + 2.4 \text{ mm}$
 $L2 = L + 7 \text{ mm}$
 $L3 = L + 13.5 \text{ mm}$

$L4 = \text{No. of poles} \times \text{pin spacing} + 1.7 \text{ mm}$
 $L5 = L4 + 6.6 \text{ mm}$
 $L6 = L4 + 2.6 \text{ mm}$



* For further approvals with corresponding ratings see section 15.

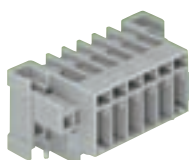
** See current-carrying capacity curves page 9.50 and www.wago.com

X-COM®-SYSTEM

Headers with Solder Pins and Fixing Flanges for Feedthrough Applications

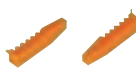
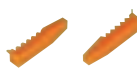
Pin Spacing 5 mm / 0.197 in

Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**	300/600V, 10/5 A  300 V, 10 A 	Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 500 V/4 kV/2 32 A**	300/600V, 10/5 A  300 V, 10 A 	Examples of application
*  		*  		

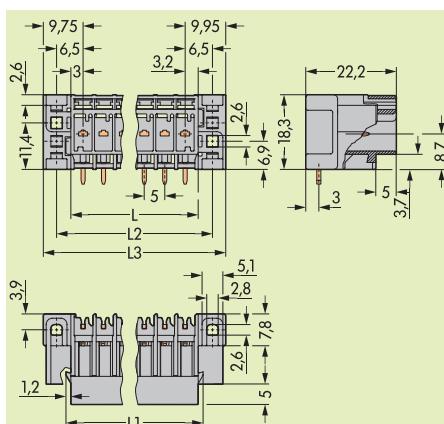
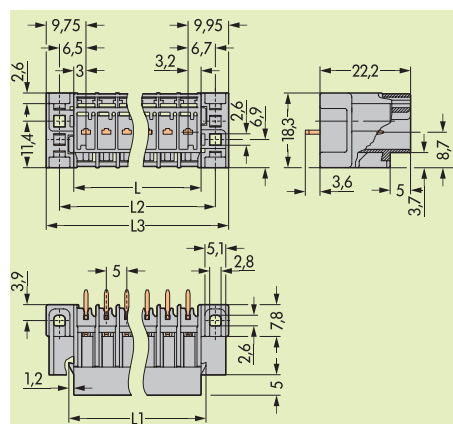


No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
Headers with straight solder pins with fixing flanges for feedthrough applications, grey, solder pin 1 x 1 mm			Headers with right angle solder pins with fixing flanges for feedthrough applications, grey, solder pin 1 x 1 mm		
2	769-632/004-000	100	2	769-662/004-000	100
3	769-633/004-000	100	3	769-663/004-000	100
4	769-634/004-000	50	4	769-664/004-000	50
5	769-635/004-000	50	5	769-665/004-000	50
6	769-636/004-000	25	6	769-666/004-000	25
7	769-637/004-000	25	7	769-667/004-000	25
8	769-638/004-000	25	8	769-668/004-000	25
9	769-639/004-000	25	9	769-669/004-000	25
10	769-640/004-000	25	10	769-670/004-000	25
11	769-641/004-000	25	11	769-671/004-000	25
12	769-642/004-000	25	12	769-672/004-000	25
13	769-643/004-000	15	13	769-673/004-000	15
14	769-644/004-000	15	14	769-674/004-000	15
15	769-645/004-000	15	15	769-675/004-000	15

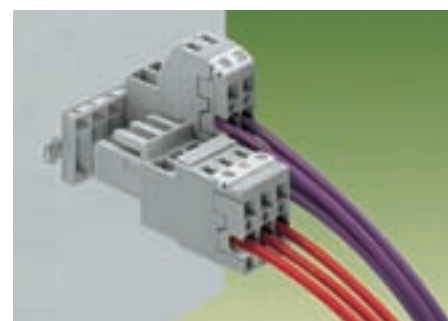
Accessories

 For female plugs see pages 9.44 – 9.46		 For female plugs see pages 9.44 – 9.46	
 Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)		 Code pin, orange, for coding the female plugs 769-435 100 (4 x 25)	

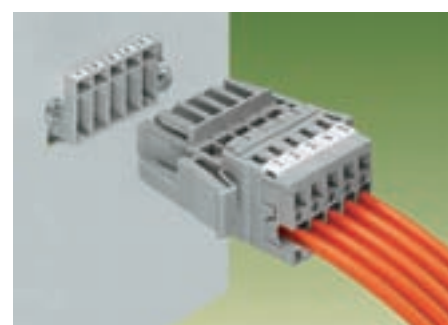
Dimensions (in mm) Diameter of drilled hole: 1.4^{+0.1} mm



$L = (\text{No. of poles} - 1) \times \text{pin spacing} + 6.2 \text{ mm}$
 $L1 = L + 2.4 \text{ mm}$
 $L2 = L + 7 \text{ mm}$
 $L3 = L + 13.5 \text{ mm}$



Header and 1-and 2-conductor female plugs



Header and 1-conductor female plug with lateral locking levers

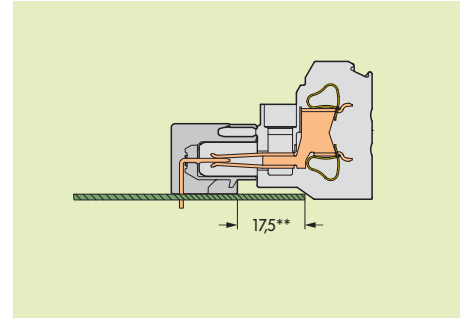
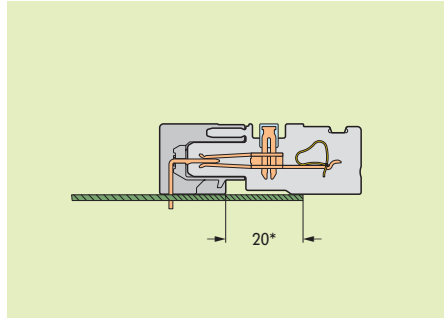
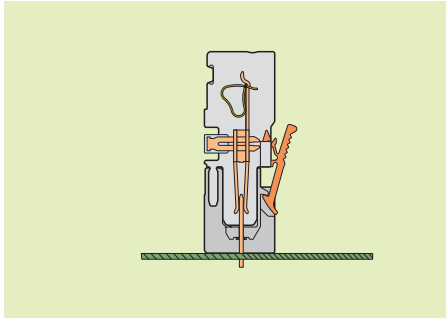
* For further approvals with corresponding ratings see section 15.

** See current-carrying capacity curves page 9.50 and www.wago.com

Types of Application

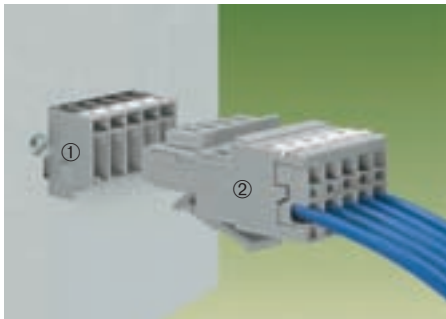
Headers with Solder Pins with 1-/2-Conductor Female Plugs

Headers with straight solder pins	Headers with right angle solder pins	Headers with right angle solder pins

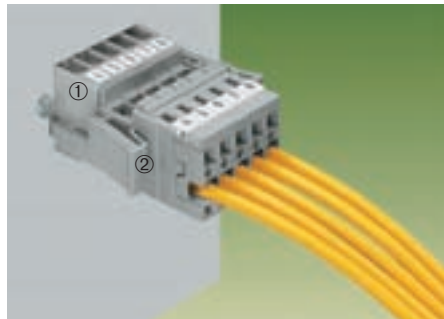


* Maximum dimension when using 1-conductor female plugs

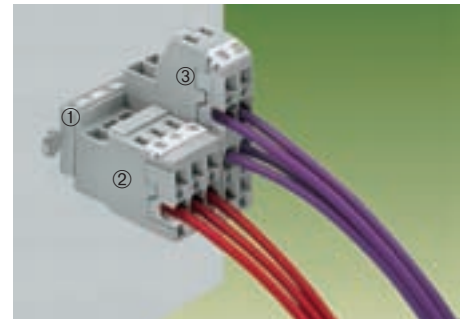
** Maximum dimension when using 2-conductor female plugs



- ① Header with fixing flanges
- ② 1-conductor female plug with **bottom-mounted** locking levers



- ① Header with fixing flanges
- ② 1-conductor female plug with **lateral** locking levers

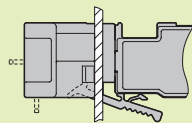


- ① Header with fixing flanges for feedthrough application
- ② 1-conductor female plug
- ③ 2-conductor female plug

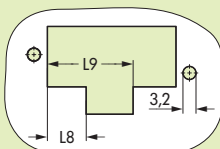
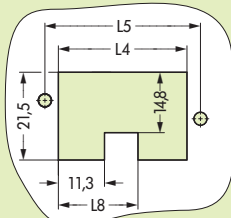
Dimensions (in mm)

Cutouts for headers with fixing flanges for feedthrough applications and locking levers

Female plugs with **bottom-mounted** locking levers



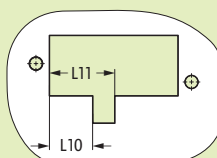
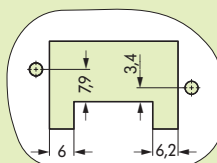
Cutouts for **2-pole** locking levers
(2- to 15-pole female plugs)



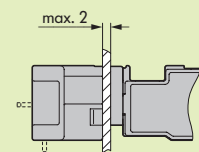
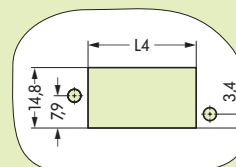
Layout for locking levers outer ...

... inner

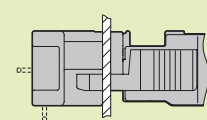
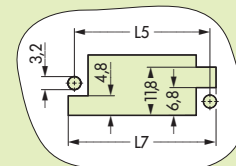
Cutouts for **single pole** locking levers



Female plug **without** locking levers



Female plug with **lateral** locking levers



- $L\ 4 = \text{No. of poles} \times \text{pin spacing} + 1.7\ \text{mm}$
- $L\ 5 = L\ 4 + 6.6$
- $L\ 7 = L\ 4 + 9.4$
- $L\ 8 = \text{No. of poles} \times \text{pin spacing} - 0.3\ \text{mm}$
- $L\ 9 = L\ 8 + 11.6$
- $L\ 10 = \text{No. of poles} \times \text{pin spacing} + 0.6\ \text{mm}$
- $L\ 11 = L\ 10 + 5.4\ \text{mm}$
- No. of poles V: Number of poles before the pole with the locking lever attached

X-COM®-SYSTEM

1-Conductor Female Plugs

Female Plugs with Locking Levers

0.08 – 4 mm² | AWG 28 – 12
500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
32 A** | 300 V, 10 A ③

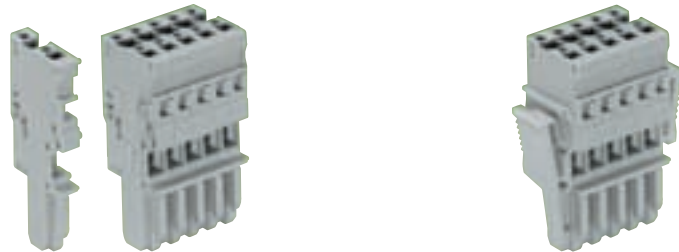
Module width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* ① ② ③ CCA KCC GL LR

0.08 – 4 mm² | AWG 28 – 12
500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
32 A** | 300 V, 10 A ③

Module width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* ① ②



- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)
- ② See application notes on page 2.43

Description	No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
1-conductor female plug, to be fixed on receptacle terminal blocks or male connectors	1-conductor female plugs, with coding fingers, grey, commoning possibility with miniature adjacent jumpers			1-conductor female plugs with lateral locking levers, with coding fingers, grey, commoning possibility with miniature adjacent jumpers – only to be used for male connectors –		
	1 pole	769-101	200	2 poles	769-102/021-000	50
	2 poles	769-102	100	3 poles	769-103/021-000	25
	3 poles	769-103	50	4 poles	769-104/021-000	25
	:	:		:	:	
	14 poles	769-114	10	9 poles	769-109/021-000	20
	15 poles	769-115	10	:	:	
1-conductor female plug, green-yellow Higher number of poles and/or mixed (grey/green-yellow) on request	1-conductor female plug, with coding fingers, green-yellow, commoning possibility with miniature adjacent jumpers			14 poles	769-114/021-000	10
	1 pole	769-101/000-016	200	15 poles	769-115/021-000	10

Accessories

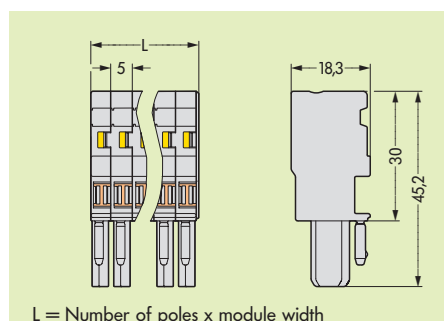
Appropriate marking system **Mini-WSB** (see section 14)

	Insulation stop ②, white	0.08 – 0.2 mm ²	769-470	200 strips	0.08 – 0.2 mm ²	769-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ²	769-471	200 strips	0.25 – 0.5 mm ²	769-471	200 strips
	dark grey	0.75 – 1 mm ²	769-472	200 strips	0.75 – 1 mm ²	769-472	200 strips
	Miniature adjacent jumper, insulated, suitable for 1-conductor female plugs	I _N 24 A grey	769-402	100 (4 x 25)	I _N 24 A grey	769-402	100 (4 x 25)
	Locking levers, can be snapped on female plugs	Female plugs with 1 pole 2 poles and more grey 769-428 769-430 orange 769-429 769-431		100 (4 x 25) 100 (4 x 25)			
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	280-415	100 (4 x 25)	yellow	280-415	100 (4 x 25)
	Test plug, w. cable 500 mm/17.7" 2 mm / 0.079 in Ø 2.3 mm / 0.091 in Ø	red yellow	210-136 210-137	50 (5 x 10) 50 (5 x 10)	red yellow	210-136 210-137	50 (5 x 10) 50 (5 x 10)
	Strain relief plate, snap-on typ, for 1-conductor female plugs	grey 1 pole 2 to 3 poles 4 to 5 poles 6 to 9 poles 10 to 15 poles	769-410 769-411 769-412 769-413 769-414	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 100 (4 x 25)	grey 1 pole 2 to 3 poles 4 to 5 poles 6 to 9 poles 10 to 15 poles	769-410 769-411 769-412 769-413 769-414	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 100 (4 x 25)

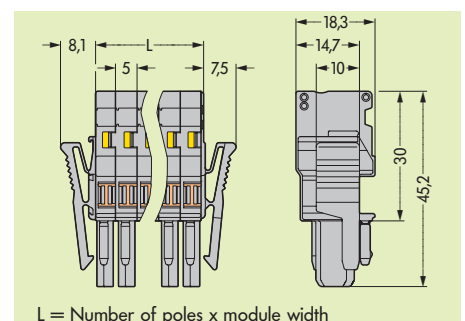
Dimensions (in mm)

1-pole female plug
for example

- for phase selection in three-phase network
- as a test plug with rated current capability
- simplified circuit expansion – addition of base circuits requires only female plugs to be plugged in



L = Number of poles x module width



L = Number of poles x module width

* For further approvals with corresponding ratings see section 15.

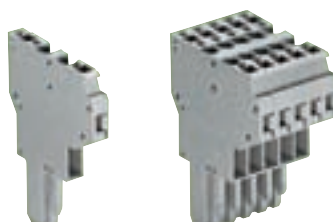
** See current-carrying capacity curves pages 9.48 – 9.51 and www.wago.com

2-Conductor Female Plugs

	0.08 – 4 mm² 500 V/6 kV/3 ① 32 A** Module width 5 mm / 0.197 in  8 – 9 mm / 0.33 in *    GL LR	AWG 28 – 12 300/600 V, 10/5 A  300 V, 10 A 	Application notes Dimensions of the female plugs
--	--	--	---

- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)

② See application notes on pages 2.43/2.45

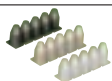
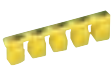


Description	No. of poles	Item No.	Pack. unit pcs
2-conductor female plug, to be fixed on receptacle terminal blocks or male connectors	2-cond. female plugs, with coding fingers, grey, commoning possibility w. adjacent jumpers a. staggered jumpers		
	1 pole	769-121	100
	2 poles	769-122	50
	3 poles	769-123	25
	4 poles	769-124	25
	5 poles	769-125	25
	6 poles	769-126	10
	7 poles	769-127	10
	8 poles	769-128	10
	9 poles	769-129	10
	10 poles	769-130	10
	11 poles	769-131	5
	12 poles	769-132	5
	13 poles	769-133	5
	14 poles	769-134	5
	15 poles	769-135	5
2-conductor female plug, green-yellow Higher number of poles and/or mixed (grey/green-yellow) on request	2-conductor female plug, with coding fingers, green-yellow, commoning possibility with adjacent jumpers and staggered jumpers		
	1 pole	769-121/000-016	100

2-conductor female plugs

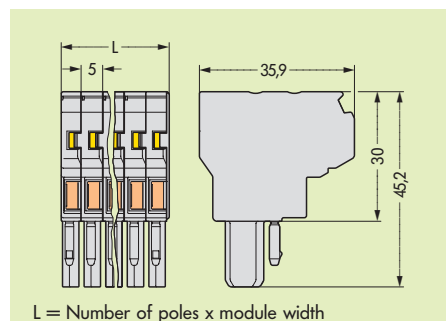
- commoning of signals from one sub-assembly to the other (bus structure)
- use as a T-wire branch tap connection, as for example use in lighting wiring
- higher number of connection possibilities



Accessories		Appropriate marking system Mini-WSB (see section 14)		
	Insulation stop ②, white	0.08 – 0.2 mm ²	769-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ²	769-471	200 strips
	dark grey	0.75 – 1 mm ²	769-472	200 strips
	Adjacent jumpers, insulated, suitable for 2-conductor female plugs	24 A	280-402	200 (8 x 25)
	Staggered jumper ②, from 1 to 2 insulated, from 1 to 3 width 5 mm / 0.197 in, from 1 to 4 suitable for 2-conduc- from 1 to 5 tor female plugs : from 1 to 8	24 A	780-452 780-453 780-454 780-455 : 780-458	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) : 50 (2 x 25)
	Locking levers, can be snapped on female plugs	Female plugs with 1 pole	2 poles and more	
		grey	769-428 769-430	100 (4 x 25)
		orange	769-429 769-431	100 (4 x 25)
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	280-415	100 (4 x 25)
	Test plug, w. cable 500 mm / 1.77"			
	2 mm / 0.079 in Ø	red	210-136	50 (2 x 25)
	2.3 mm / 0.091 in Ø	yellow	210-137	50 (2 x 25)
	Strain relief plate, snap-on typ, for 2-conductor female plugs	grey		
		1 pole	769-410	100 (4 x 25)
		2 to 3 poles	769-411	100 (4 x 25)
		4 to 5 poles	769-412	100 (4 x 25)
		6 to 9 poles	769-413	100 (4 x 25)
		10 to 15 poles	769-414	100 (4 x 25)

Commoning possibility of female plugs

- after de-plugging commoned potentials still remain commoned
- use of the plug jumper instead of additional wired jumpers
- can be used as a "hardware" key for safety lockout
- as a commoning jumper for sensor circuits or machine programming



L = Number of poles x module width

* For further approvals with corresponding ratings see section 15.

** See current-carrying capacity curves pages 9.48 – 9.51 and www.wago.com

X-COM®-SYSTEM Angled Female Plugs

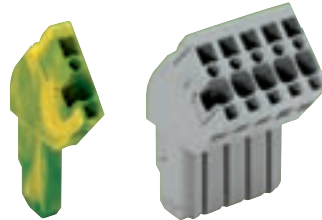
0.08 – 4 mm² | AWG 28 – 12
500 V/6 kV/3 ① | 300/600 V, 10/5 A ②
32 A** | 300 V, 10 A ③

Module width 5 mm / 0.197 in
8 – 9 mm / 0.33 in

* ① ② ③ CCA/KECCO LR

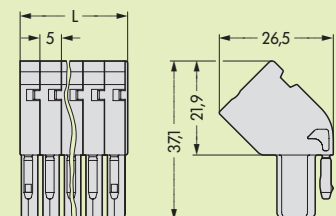
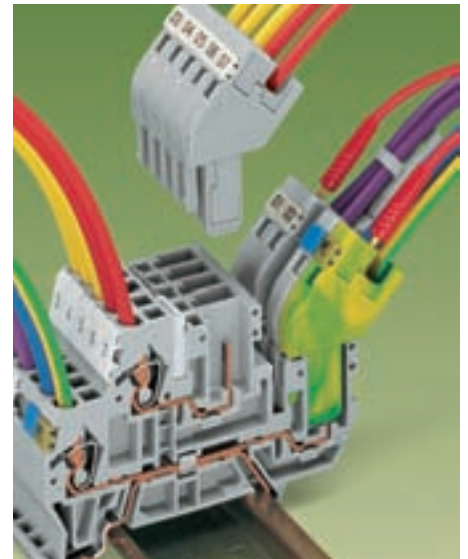
Examples of application

Dimensions of the female plugs



- ① 500 V = rated voltage
6 kV = rated surge voltage
3 = pollution degree
(see also section 15)
- ② See application notes on page 2.43

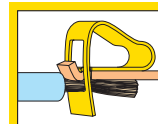
Description	No. of poles	Item No.	Pack. unit pcs	
Angled female plug, for use with receptacle terminal blocks of series 769 and 870 or male connectors	1-conductor angled female plugs, with coding fingers, grey			
	1 pole	769-101/022-000	200	
	2 poles	769-102/022-000	100	
	3 poles	769-103/022-000	50	
	4 poles	769-104/022-000	50	
	5 poles	769-105/022-000	50	
	6 poles	769-106/022-000	25	
	7 poles	769-107/022-000	25	
	8 poles	769-108/022-000	25	
	9 poles	769-109/022-000	25	
	10 poles	769-110/022-000	25	
	11 poles	769-111/022-000	20	
	12 poles	769-112/022-000	20	
	13 poles	769-113/022-000	10	
	14 poles	769-114/022-000	10	
	15 poles	769-115/022-000	10	
Angled female plug, green-yellow Higher number of poles and/or mixed (grey/green-yellow) on request	1-conductor angles female plug, with coding fingers, green-yellow			
	1 pole	769-101/022-016	100	
Accessories Appropriate marking system Mini-WSB/WMB (see section 14)				
	Insulation stop ②, white	0.08 – 0.2 mm ²	769-470	200 strips
	5 pcs/strip light grey	0.25 – 0.5 mm ²	769-471	200 strips
	dark grey	0.75 – 1 mm ²	769-472	200 strips
	Protective warning marker, for 5 terminal blocks, fits into screwdriver slot	yellow	280-415	100 (4 x 25)
	Test plug, w. cable 500 mm/17.7"			
	2 mm / 0.079 in Ø	red	210-136	50 (5 x 10)
	2.3 mm / 0.091 in Ø	yellow	210-137	50 (5 x 10)
	Strain relief plate, snap-on typ, for 1-conductor female plugs	grey		
	1 pole	769-410	100 (4 x 25)	
	2 to 3 poles	769-411	100 (4 x 25)	
	4 to 5 poles	769-412	100 (4 x 25)	
	6 to 9 poles	769-413	100 (4 x 25)	
	10 to 15 poles	769-414	100 (4 x 25)	
	WAGO WMB multi-marking system, fits in all miniature WSB receptacles	see section 14		
	Miniature WSB quick marking card, 10 strips with 10 markers each, white with black printing	see section 14		
		Current-carrying capacity curves see www.wago.com		



L = Number of poles x module width

* For further approvals with corresponding ratings see section 15.

Snap-on Type Strain Relief Housings for Series 769 Female Plugs and Male Connectors with CAGE CLAMP® Connection



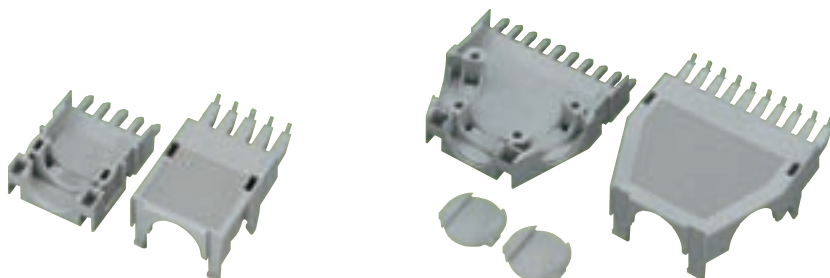
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Snap-on type strain relief housings suitable for
– straight and angled female plugs
with CAGE CLAMP® connection
– male connectors with CAGE CLAMP®
connection

2 – 5 poles

Snap-on type strain relief housings suitable for
– straight and angled female plugs
with CAGE CLAMP® connection
– male connectors with CAGE CLAMP®
connection

6 – 15 poles

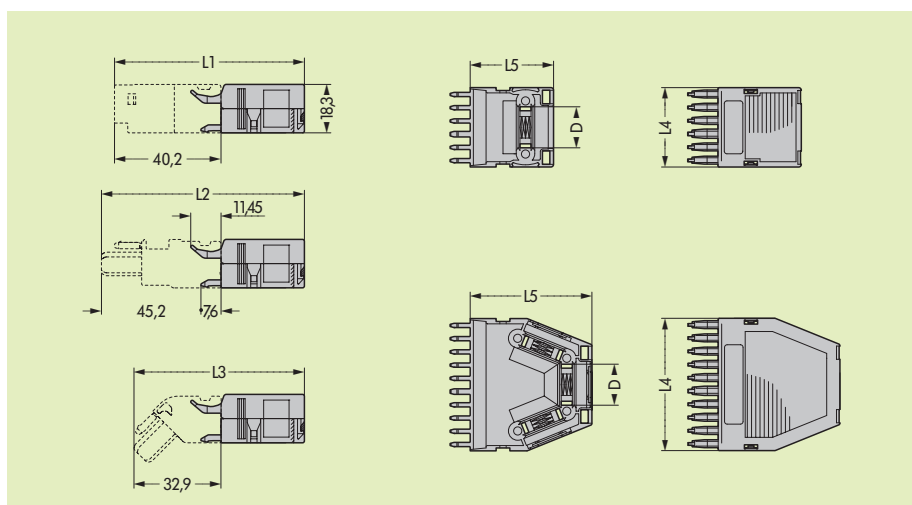


Snapping on strain relief housing



Female connector with strain relief housing

No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
Snap-on type strain relief housings, pin spacing 5 mm/0.197 in, grey			Snap-on type strain relief housings, pin spacing 5 mm/0.197 in, grey		
consisting of: strain relief support strain relief housing			consisting of: strain relief support strain relief housing		
2	769-1602 ❶	25	6	769-1606 ❶	25
3	769-1603 ❶	25	7	769-1607 ❶	25
4	769-1604 ❶	25	8	769-1608 ❷	25
5	769-1605 ❶	25	9	769-1609 ❷	25
			10	769-1610 ❸	25
			11	769-1611 ❸	25
			12	769-1612 ❸	25
			13	769-1613 ❸	25
			14	769-1614 ❸	25
			15	769-1615 ❸	25
❶ 1 cable outlet rear, 2- to 5-pole only suitable for cable ties (Fa. Hellermann – not offered by WAGO) not for cable clamp			❶ 1 cable outlet rear		
			❷ 2 cable outlets, 1 cover		
			❸ 3 cable outlets, 2 covers		
Accessories (WSB marker cards see section 14)					
			Cable clamp, for strain relief		
			 209-174 25		
			Fixing screws, for cable clamp		
			 209-173 50		
Dimensions (in mm)					

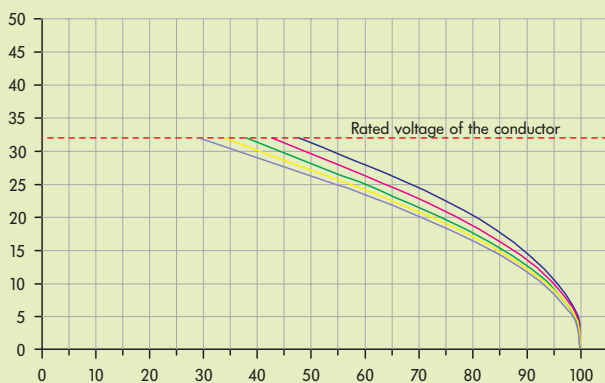


Dimensions for strain relief housings

No. of poles	L ₁	L ₂	L ₃	L ₄	L ₅	D
2	71.7	76.7	64.4	10	31.5	5
3	71.7	76.7	64.4	15	31.5	9.7
4	71.7	76.7	64.4	20	31.5	14
5	71.7	76.7	64.4	25	31.5	14
6	71.7	76.7	64.4	30	31.5	15.5
7	76.7	81.7	69.4	35	36.5	15.5
8	86.2	91.2	78.9	40	46	15.5
9	86.2	91.2	78.9	45	46	15.5
10	86.2	91.2	78.9	50	46	15.5
11	86.2	91.2	78.9	55	46	15.5
12	86.2	91.2	78.9	60	46	15.5
13	86.2	91.2	78.9	65	46	15.5
14	86.2	91.2	78.9	70	46	15.5
15	86.2	91.2	78.9	75	46	15.5

X-COM[®]-SYSTEM**Current-Carrying Capacity Curves for 1-Conductor/1-Pin and 2-Pin Receptacle Terminal Blocks and 1-Conductor Female Plugs**

Test current (A)



— 2 poles
— 4 poles
— 5 poles
— 6 poles
— 15 poles

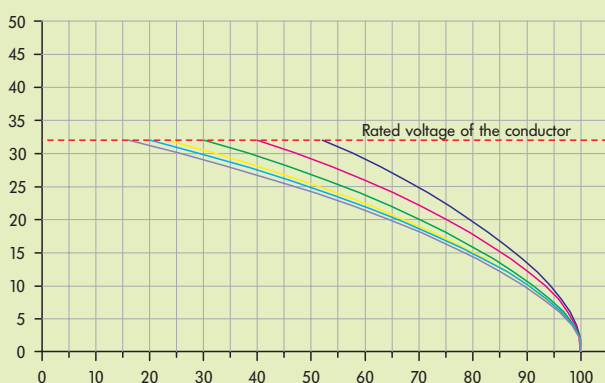
Ambient operating
temperature (°C)



1-conductor/
1-pin receptacle terminal block 769-176
Cross section of conductor: 4 mm²/AWG 12

1-conductor female plugs 769-102 to 769-115
Cross section of conductor: 4 mm²/AWG 12
Length of the conductor: 1 m

Test current (A)



— 2 poles
— 4 poles
— 5 poles
— 6 poles
— 10 poles
— 15 poles

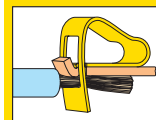
Ambient operating
temperature (°C)



2-pin receptacle terminal block 769-156

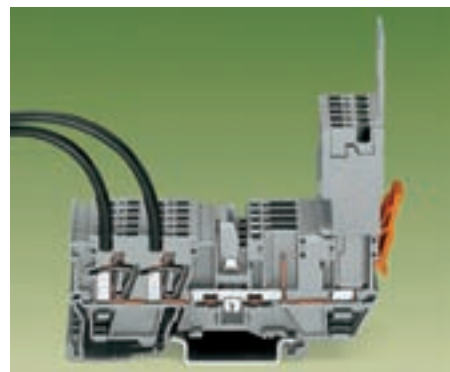
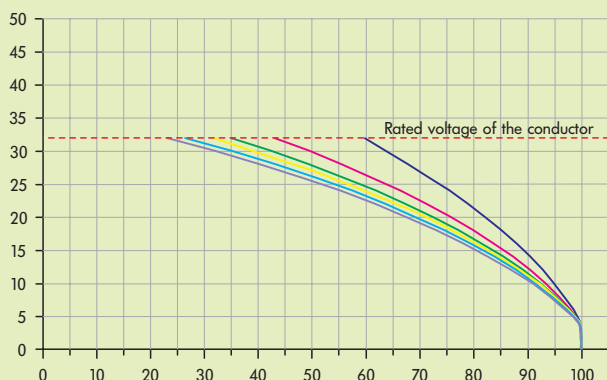
1-conductor female plugs 769-102 to 769-115
Cross section of conductor: 4 mm²/AWG 12
Length of the conductor: 1 m

Current-Carrying Capacity Curves for 2-Conductor/2-Pin and 4-Pin Receptacle Terminal Blocks and 1-Conductor Female Plugs



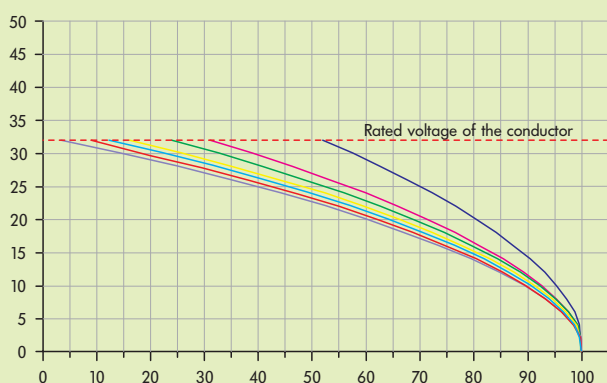
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Test current (A)



2-conductor/
2-pin receptacle terminal block 769-171
Cross section of conductor: 4 mm²/AWG 12
1-conductor female plugs 769-102 to 769-115
Cross section of conductor: 4 mm²/AWG 12
Length of the conductor: 1 m

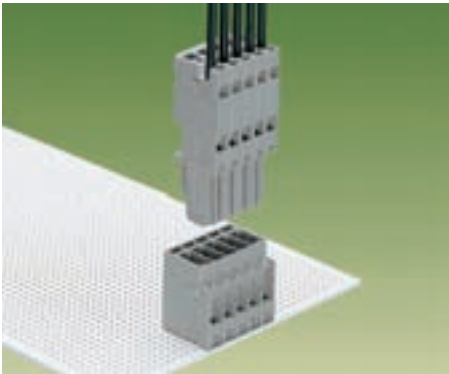
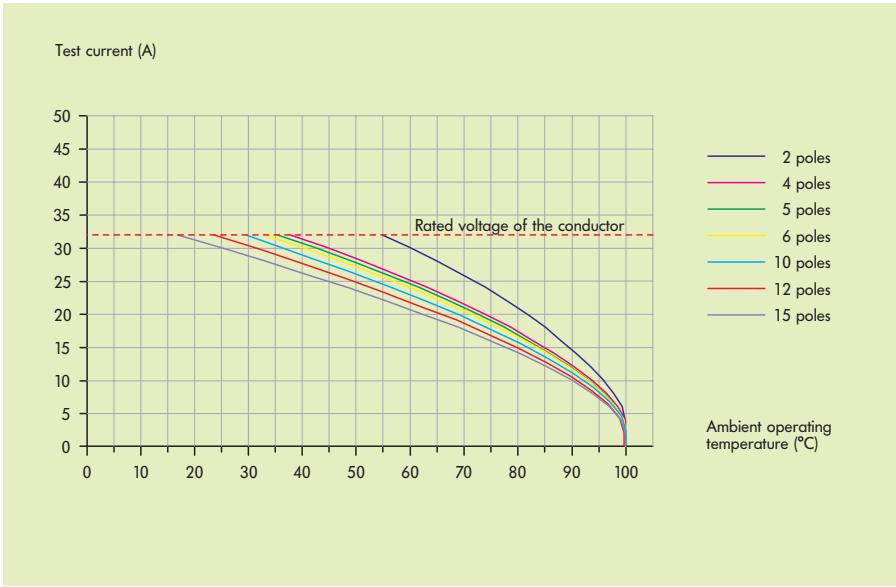
Test current (A)



4-pin receptacle terminal block 769-151
1-conductor female plugs 769-102 to 769-115
Cross section of conductor: 4 mm²/AWG 12
Length of the conductor: 1 m

X-COM®-SYSTEM

Current-Carrying Capacity Curves for Headers with Straight and Right Angle Solder Pins and 1-Conductor Female Plugs

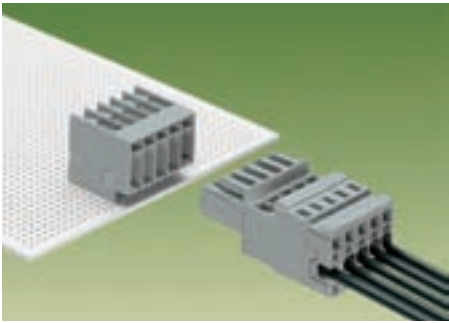
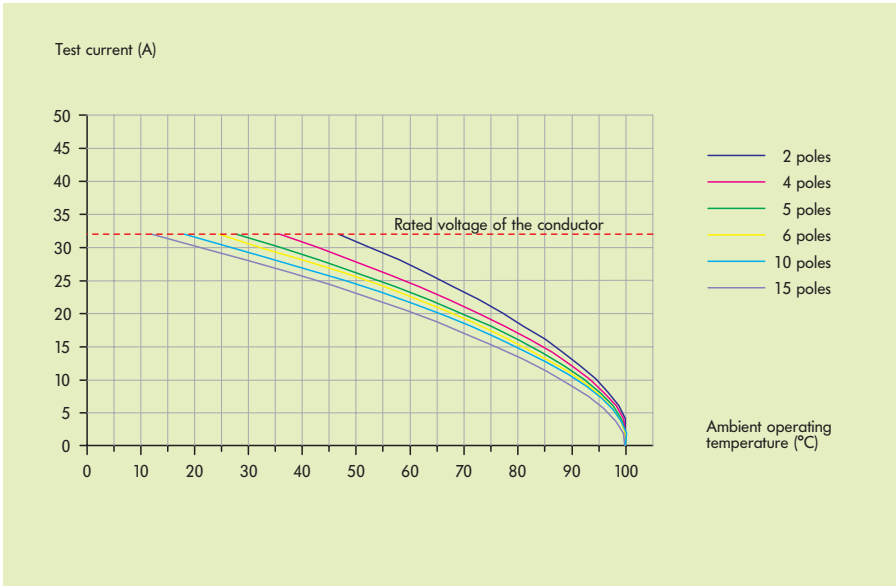


Headers with straight solder pin 769-632 to 769-645

1-conductor female plugs 769-102 to 769-115

Cross section of conductor: 4 mm²/AWG 12

Length of the conductor: 1 m



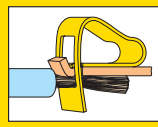
Headers with right angle solder pins 769-662 to 769-675

1-conductor female plugs 769-102 to 769-115

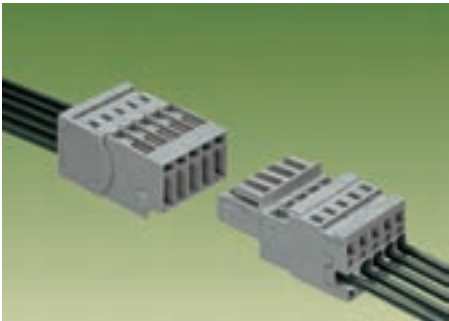
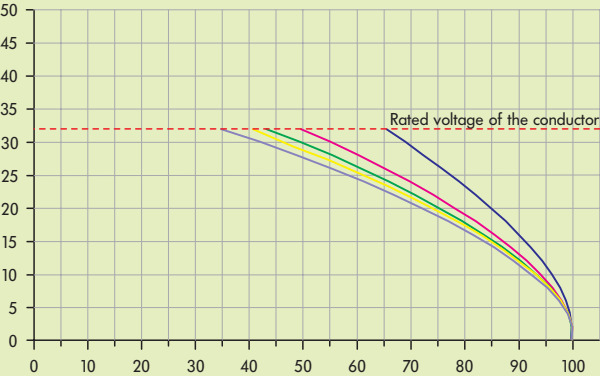
Cross section of conductor: 4 mm²/AWG 12

Length of the conductor: 1 m

Current-Carrying Capacity Curves for Male Connectors with CAGE CLAMP® Connection and 1-Conductor Female Plugs



Test current (A)



Male connectors with CAGE CLAMP® connection	769-602 to 769-615
Cross section of conductor:	4 mm²/AWG 12
1-conductor female plugs	769-102 to 769-115
Cross section of conductor:	4 mm²/AWG 12
Length of the conductor:	1 m