

#### X-COM®-SYSTEM

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

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





without/with shield (screen) contact

Ground (earth) terminal block

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Page 9.12

1-conductor/1-pin . . .





Disconnect

Disconnect shield (screen)

ode LED

Page 9.22 Page 9.24

1-conductor/1-pin . . . . . with 2 jumper positions





Disconnect

Disconnect shield (screen)

ode LED

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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



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2-pin . . . . . . with 2 jumper positions





Disconnect

2-pin . . .

Disconnect shield (screen)

Diode LED

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... with 2 jumper positions



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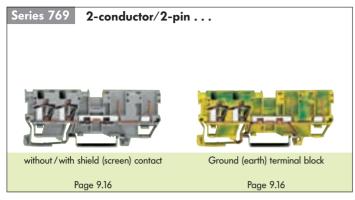


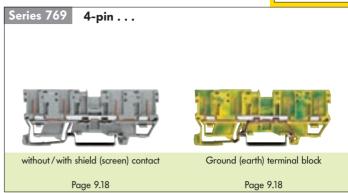


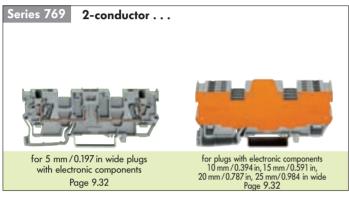
for plugs with electronic components 10 mm / 0.394 in, 15 mm / 0.591 in, 20 mm / 0.787 in, 25 mm / 0.984 in wide Page 9.30

#### ... Receptacle Terminal Blocks

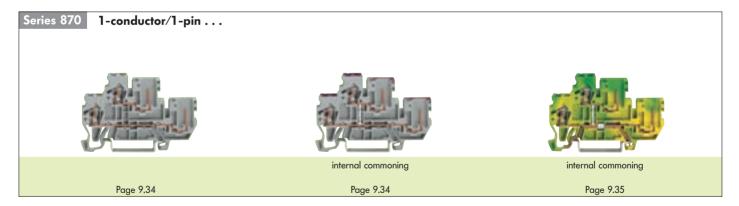








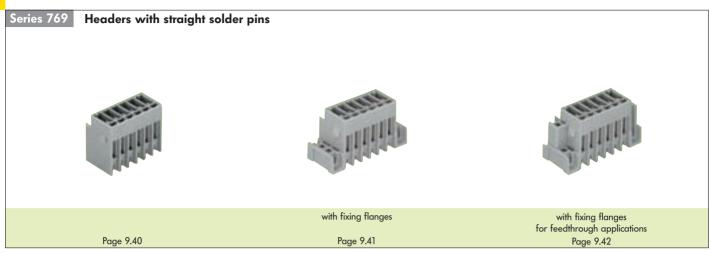
#### ... Double Deck Receptacle Terminal Blocks

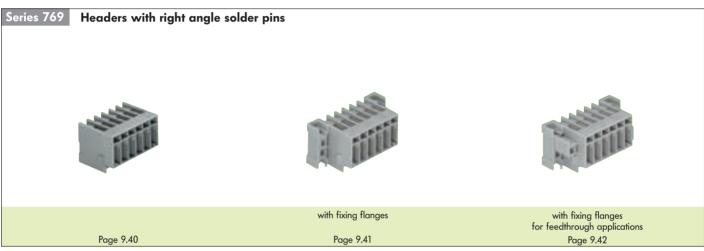




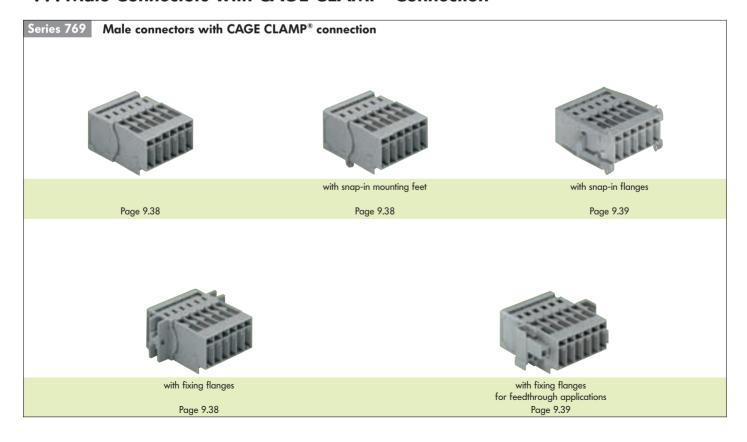
#### X-COM®-SYSTEM

### ... Headers and Male Connectors



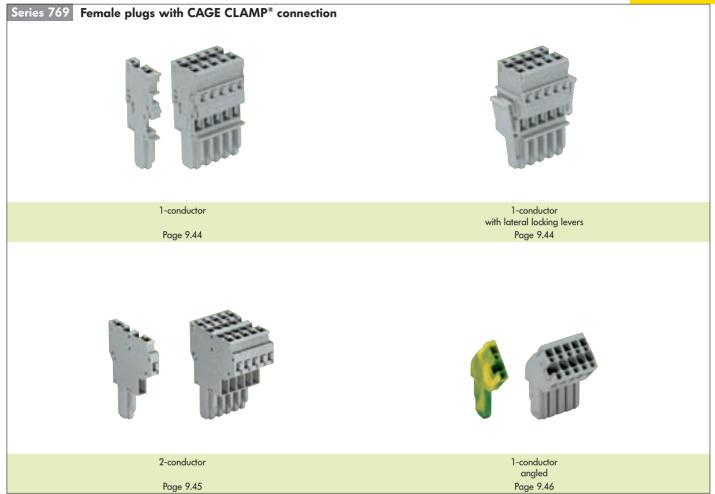


#### ... Male Connectors with CAGE CLAMP® Connection

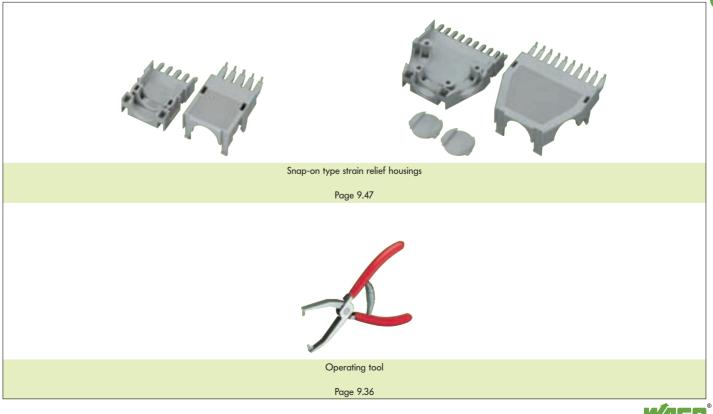


#### ... Female Plugs





#### ... Accessories





### **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 mm<sup>2</sup> 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 mismating 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 mismating 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 mismating. Coded, without the lose of any poles, prevents mismating 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.

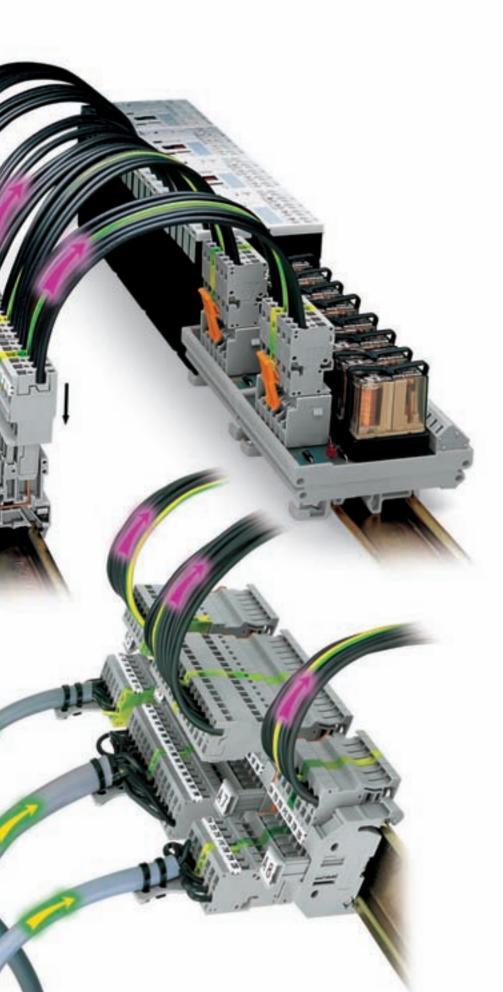
Depending on the type of terminal block, the base receptacle terminal blocks are equipped with one to three jumper positions for commoning of signals using insulated plug-in jumpers.



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 subassemblies 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.

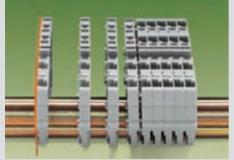
Protection degree

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**



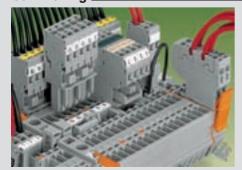
Coding a female plug – removal of coding finger(s). Do <u>not</u> break off the first and last latch position coding finger!

#### **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:\*





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

#### ... Description and Handling

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

#### **Testing**



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

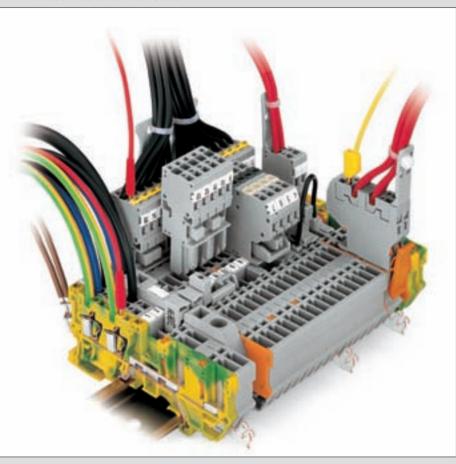
#### Locking lever





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



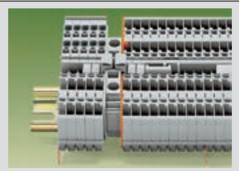
Removal of female plug, wires provided with strain relief plate

Commoning of 1-conductor female plugs with miniature adjacent jumpers



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

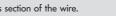
fine-stranded wire -tip bonded



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



fine-stranded wire with crimped pin terminal





## X-COM®-SYSTEM, Series 769, Product Summary Receptacle Terminal Blocks and Female Connectors

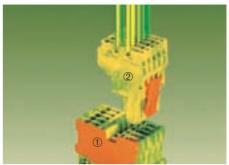


1-conductor/1-pin receptable terminal block
 1-conductor female plug, straight\*



1) 2-pin shield (screen) receptacle terminal block

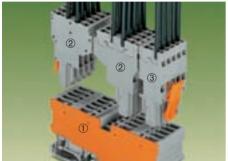
- 2 2-conductor female plug
   3 1-conductor female plug, straight\*



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

2 2-conductor female plug

\* or 1-conductor female plug, angled

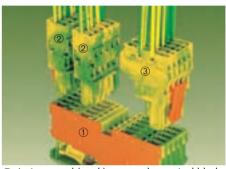


- 1) 4-pin receptacle terminal block
- 2 2-conductor female plugs
- 3 1-conductor female plug, straight



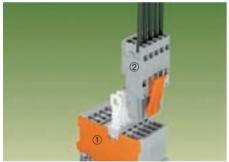
1) 2-conductor/2- pin shield (screen) receptacle

- 2 2-conductor female plug
- 3 1-conductor female plug, straight



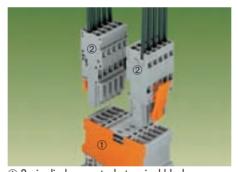
1 4-pin ground (earth) receptacle terminal block

- 2 1-conductor female plugs
- 3 2-conductor female plug



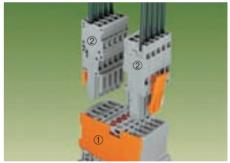
1) 1-conductor/1-pin disconnect receptacle terminal block

② 1-conductor female plug, straight\*



1 2-pin diode receptacle terminal block

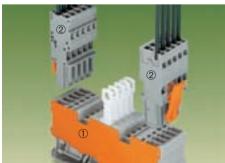
② 1-conductor female plugs, straight\*



1) 2-pin LED receptable terminal block

2 1-conductor female plugs, straight\*

#### \* or 1-conductor female plug, angled

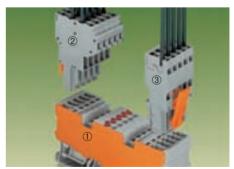


2-pin disconnect receptacle terminal block with 2 jumper positions
 1-conductor female plugs, straight\*

\* or 1-conductor female plug, angled



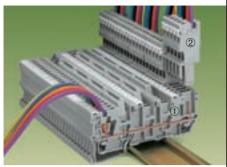
1-conductor/1-pin diode receptacle terminal block with 2 jumper positions
 2-conductor female plug



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

#### **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



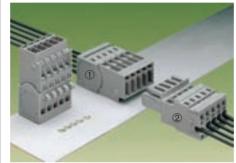
- ① 1 conductor/1 pin double deck terminal block ② 1 conductor female plug, angled\*
- \* or 1-conductor female plug, straight



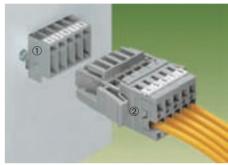
- 1) Male connector with CAGE CLAMP® connec-
- 1-conductor female plug



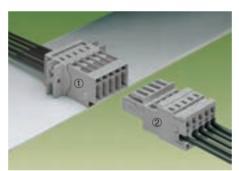
- Header with straight solder pins
   1-conductor female plug



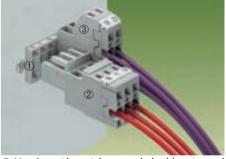
- 1) Male connector with CAGE CLAMP® connection and mounting feet
- 2 1-conductor female plug



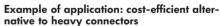
- 1) Header with straight or angled solder pins and fixing flanges
- 2 1-conductor female plug straight with locking



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



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





Cable entry in the base of the switchgear cabinet, with separate strain relief, movable IP54 bottom plates sealed with sponge rubber (e.g. by Rittal)



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



#### X-COM®-SYSTEM 1-Conductor/1-Pin Receptacle Terminal Blocks

0.08 − 4 mm<sup>2</sup>
500 V/6 kV/3 ①
300/600 V, 10/5 A ₹\\
250 V/4 kV/3 ①
300 V, 10 A ⑥
32 A\*\*

Terminal block width 5 mm / 0.197 in

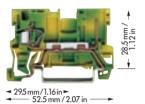
■ 8 − 9 mm / 0.33 in

\* ₹\\ ⑥ (((A)KE)) ♥ |R ⑥

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



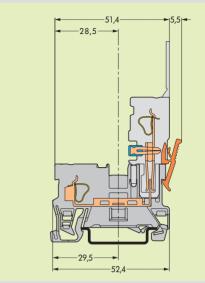


escription				Item No.	Pack. unit pcs		Item No.	Pack. unit pcs
-conductor/1-pin	receptacle terminal block,	,	1-conductor/1-pin	receptacle termi	nal block	1-conductor/1-pi	n ground (earth) re	ceptacle
uitable for DIN 35	rail acc. to EN 60715		grey	769-176	100	terminal block		
			1-conductor/1-pin	receptacle termi	nal block	green-yellow	769-237	100
			with shield (screen	) <b>contact,</b> (no pict	ure)			
			grey	769-231	50			
Accessories		Α	ppropriate marking s	ystem Mini-WS	<b>B</b> (see section 14)			
	End and		1.1 mm / 0.043 in this	ck		1.1 mm / 0.043 in th	ick	
	intermediate plate		grey	769-307	100 (4 x 25)	grey	769-307	100 (4 x 2
			orange	769-308	100 (4 x 25)	orange	769-308	100 (4 x 2
Arth	Screwless							
11110	end stop		6 mm / 0.236 in wide	249-116	100 (4 x 25)	6 mm / 0.236 in wid	e <b>249-116</b>	100 (4 x 2
			10 mm / 0.394 in wide	249-117	50 (2 x 25)	10 mm / 0.394 in wid	e <b>249-117</b>	50 (2 x 2
	Insulation stop 2,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips
0000	5 pcs/strip ligh	nt grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips
		k grey	0.75 - 1 mm <sup>2</sup>	769-472	200 strips	0.75 - 1 mm <sup>2</sup>	769-472	200 strips
D 100		24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x 2
4 44	insulated		5 - 7		,	3 - 7		
W	Alternate jumper		grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x 2
	Staggered jumper 2, from	1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x 2
		1 to 3	IN Z I / I	780-453	100 (4 x 25)	IN Z I / C	780-453	100 (4 x 2
	width 5 mm/0.197 in from			780-454	100 (4 x 25)		780-454	100 (4 x :
N N		1 to 5		780-455	50 (2 x 25)		780-455	50 (2 x :
	ITOIII			:	30 (2 X 23)		:	JU (2 X 2
4))		1 to 8		780-458	50 (2 x 25)		780-458	50 /2
			L = 60 mm/2.362 in		10	L = 60 mm / 2.362 ir		50 (2 x 2
	Push-in type wire jumper	r <b>Ø</b> ,	L = 80  mm / 2.382  m L = 110  mm / 4.331  in		10	L = 110  mm / 4.331  in		
	insulated, 9 A – conductor	C 10			10			10
<del>п</del> п	cross section 0.75 mm²/AW0	G 18	L = 250  mm / 9.843  in	247-12/	10	L = 250  mm / 9.843  in	247-12/	10
	Coding pin,			7/0 /05	100 (4 05)		7/0 /05	100 /4 /
	for coding of female plugs		orange	769-435	100 (4 x 25)	orange	769-435	100 (4 x 2
	Protective warning mark	er,						
	for 5 terminal blocks,		yellow	280-415	100 (4 x 25)			
	fits into screwdriver slot							
	Test plug, w. cable 500 mm/	/1'7.7"						
	2 mm / 0.079	9 in Ø	red	210-136	50 (5 x 10)	red	210-136	50 (5 x
	2.3 mm / 0.09	1 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x 1
	Test plug module,		Application notes an	d part numbers		Application notes a	nd part numbers	
	for test using jumper position	n in	see pages 2.38 – 2.4	40		see pages 2.38 - 2	.40	
י וון	current bar or cond. wire op	pening						
	Test plug adapter,		5 mm/0.197 in wide			5 mm/0.197 in wide	9	
	see also pages 2.38 - 2.40			280-404	100 (4 x 25)		280-404	100 (4 x 2
T			or test plug 210-137	(2.3 mm/0.091 in	Ø)	or test plug 210-137	7 (2.3 mm / 0.091 in s	
h A	1-conductor female plug	,						
	straight or angled		see pages 9.44/9.46	3		see pages 9.44/9.4	6	
lb-	2-conductor female plug							
			see page 9.45			see page 9.45		

<sup>\*</sup>For further approvals with corresponding ratings see section 15.

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

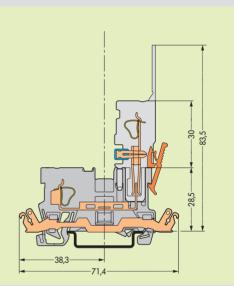




Receptacle terminal block



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..

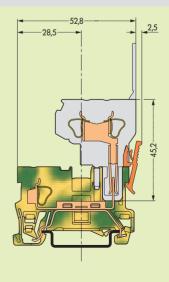


Receptacle terminal block with shield (screen) contact



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** 250 V/4 kV/3 **①** 32 A\*\*

300/600 V, 10/5 A **9\** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in

\* 🗫 @ CCAKETA 💖 LR

Terminal block width 5 mm / 0.197 in

\* 🗫 🍪 CCAKEDA 💖 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





**329.5** mm/1.16 in **52.5** mm/2.07 in 29.5 mm/1.16 in ► 52.5 mm/2.07 in

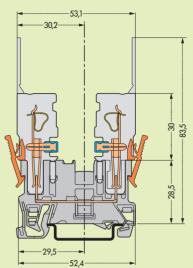
Description			ltem No.	Pack. unit pcs		Item No.	Pack. unit pcs
2-pin receptacle t	terminal block,	2-pin receptacle	terminal block		2-pin ground	d (earth) receptacle te	rminal block
suitable for DIN 35	rail acc. to EN 60715	grey	769-156	100	green-yellow	769-227	100
		2-pin receptacle	terminal block		,		
		with shield (scre	en) contact, (no pic	ture)			
		grey	769-221	50			
Accessories		Appropriate marking	system Mini-WS	<b>B</b> (see section 14)			
	End and	1.1 mm/0.043 in t		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1.1 mm/0.043	B in thick	
	intermediate plate	grey	769-305	100 (4 x 25)	grey	769-305	100 (4 x 2
The second second		orange	769-306	100 (4 x 25)	orange	769-306	100 (4 x 2
	Screwless						
. 11.	end stop	6 mm / 0.236 in w	ida 249-116	100 (4 x 25)	6 mm /0 236	in wide <b>249-116</b>	100 (4 x 2
-	end slop	10 mm / 0.394 in w		50 (2 x 25)		in wide <b>249-117</b>	50 (2 x 2
	Adjacent jumper, I <sub>N</sub> 24 A		280-402	200 (8 x 25)		280-402	200 (8 x 2
II 17		grey	200-402	200 (6 X 23)	grey	200-402	200 (6 X 2
	insulated		000 400	100 // 05\		000 400	100 // 6
W	Alternate jumper	grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x 2
	Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x 2
	insulated, from 1 to 3		780-453	100 (4 x 25)		780-453	100 (4 x 2
	width 5 mm / 0.197 in from 1 to 4		780-454	100 (4 x 25)		780-454	100 (4 x 2
	from 1 to 5		780-455	50 (2 x 25)		780-455	50 (2 x 2
an an	:		:			:	
40	from 1 to 8		780-458	50 (2 x 25)		780-458	50 (2 x 2
	Push-in type wire jumper 2,	L = 60 mm/2.362	in <b>249-125</b>	10	L = 60 mm/2	.362 in <b>249-125</b>	10
L	insulated, 9 A – conductor	L = 110  mm / 4.331	in <b>249-126</b>	10	L = 110 mm/4	.331 in <b>249-126</b>	10
	cross section 0.75 mm <sup>2</sup> /AWG 18	L = 250 mm/9.843	in <b>249-127</b>	10	L = 250  mm / 9	.843 in <b>249-127</b>	10
	Coding pin,						
	for coding of female plugs	orange	769-435	100 (4 x 25)	orange	769-435	100 (4 x 2
	in the same programmer			( ==,			
	Test plug,						
	with cable 500 mm/1'7.7"						
	2.3 mm/0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x 1
		Application notes		30 (3 X 10)	,	otes and part numbers	30 (3 X I
1000	Test plug module,	• • •				•	
797	for test using jumper position in	see pages 2.39 -	2.40		see pages 2.3	7 - 2.40	
111 .	current bar or cond. wire opening	- (0.107····	1		5 (0.107)	• 1	
	Test plug adapter,	5 mm / 0.197 in wi		100 (4 05)	5 mm / 0.197 i		100 // 0
T	see also pages 2.39 - 2.40		280-404	100 (4 x 25)		280-404	100 (4 x 2
		or test plug 210-13	37 (2.3 mm / 0.091 ir	n Ø)	or test plug 2	10-137 (2.3 mm/0.091 i	n Ø)
	1-conductor female plug,						
W	straight	see page 9.44			see page 9.44	1	
	1-conductor female plug,						
2	angled	see page 9.46			see page 9.46	5	
- V	2-conductor female plug						
		see page 9.45			see page 9.45	;	
r							

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





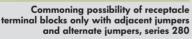
2 x 1-conductor female plugs Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4...

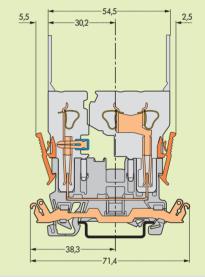


Receptacle terminal block



1-conductor female plug left 2-conductor female plug right

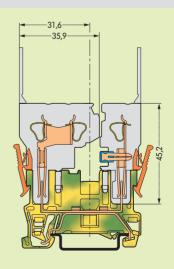




Receptacle terminal block with shield (screen) contact



2-conductor female plug left
1-conductor female plug right
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 mm<sup>2</sup>
500 V/6 kV/3 ①
300/600 V, 10/5 A 7\\
250 V/4 kV/3 ①
300 V, 10 A @
32 A\*\*

Terminal block width 5 mm / 0.197 in

8 - 9 mm / 0.33 in

\* 7\\ @ \text{ (AKE) } \ G \ L \R \\

\* 7\\ @ \text{ (AKE) } \ G \ L \R \\

\* 7\\ @ \text{ (AKE) } \ G \ L \R \\

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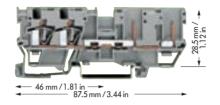
\* 7\\

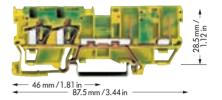
\* 7\\

\* 7\\

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

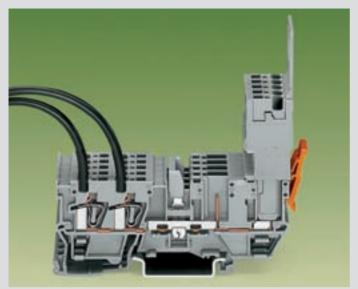




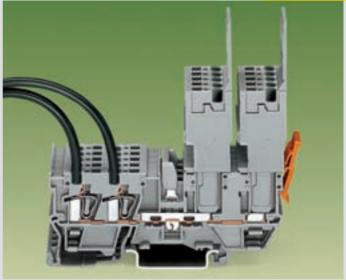
Description			Item No.	Pack. unit pcs		Item No.	Pack. unit pcs
2-conductor/2-pi	in receptacle terminal block,	2-conductor/2-pir	receptacle termi	nal block	2-conductor/2-p	in ground (earth) rec	eptacle
uitable for DIN 35	rail acc. to EN 60715	grey	769-171	50	terminal block		
		2-conductor/2-pin	receptacle termin	al block	green-yellow	769-217	50
		with shield (screer	) contact, (no pictu	re)			
		grey	769-211	50			
Accessories		Appropriate marking s	ystem Mini-WSE	3 (see section 14)			
	End and	1.1 mm / 0.043 in thi	ck		1.1 mm / 0.043 in t	hick	
	intermediate plate	grey	769-303	100 (4 x 25)	grey	769-303	100 (4 x
		orange	769-304	100 (4 x 25)	orange	769-304	100 (4 x
Arth	Screwless						
	end stop	6 mm / 0.236 in wide	249-116	100 (4 x 25)	6 mm / 0.236 in wi	de <b>249-116</b>	100 (4 x
		10 mm / 0.394 in wide	249-117	50 (2 x 25)	10 mm / 0.394 in wi	de <b>249-117</b>	50 (2 x
	Insulation stop 2, white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strip
0000	5 pcs/strip light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strip
100	dark grey	0.75 - 1 mm <sup>2</sup>	769-472	200 strips	0.75 - 1 mm <sup>2</sup>	769-472	200 strip
B 10	Adjacent jumper, I <sub>N</sub> 24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x
44	insulated	,		` ′	,		`
	Alternate jumper	grey	280-409	100 (4 x 25)	grey	280-409	100 (4 >
	Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x
	insulated, from 1 to 3	-N =	780-453	100 (4 x 25)	-14 =	780-453	100 (4 >
	width 5 mm/0.197 in from 1 to 4		780-454	100 (4 x 25)		780-454	100 (4 x
ar m	from 1 to 5		780-455	50 (2 x 25)		780-455	50 (2 x
	1101111103		:	30 (2 X 23)		:	30 (Z X
40	from 1 to 8		780-458	50 (2 x 25)		780-458	50 (2 x
	Push-in type wire jumper 2,	L = 60 mm / 2.362 in		10	L = 60 mm/2.362		10
	insulated, 9 A – conductor	L = 110  mm / 4.331  in		10	L = 110  mm / 4.331		10
1 1	cross section 0.75 mm <sup>2</sup> /AWG 18	L = 250  mm / 9.843  in		10	L = 250  mm / 9.843		10
	Coding pin,	L — 250 IIIII 77.040 III	247-127	10	L — 250 IIIII / 7.040	III Z47-127	10
			769-435	100 (4 × 25)		769-435	100 /4 ×
	for coding of female plugs	orange	707-433	100 (4 x 25)	orange	707-433	100 (4 x
	Protective warning marker,						
	for 5 terminal blocks,	yellow	280-415	100 (4 x 25)			
	fits into screwdriver slot						
	<b>Test plug,</b> w. cable 500 mm/1'7.7"						
	2 mm / 0.079 in Ø	red	210-136	50 (5 x 10)	red	210-136	50 (5 x
	2.3 mm / 0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x
and the same of th	Test plug module,	Application notes ar	d part numbers		Application notes	and part numbers	
	for test using jumper position in	see pages 2.38 – 2.	40		see pages 2.38 -	2.40	
י וון	current bar or cond. wire opening						
	Test plug adapter,	5 mm/0.197 in wide			5 mm/0.197 in wid	de	
T T	see also pages 2.38 - 2.40		280-404	100 (4 x 25)		280-404	100 (4 x
П		or test plug 210-137	(2.3 mm/0.091 in 9		or test plug 210-13	37 (2.3 mm / 0.091 in Ø	5)
Īb	1-conductor female plug,						
19	straight	see page 9.44			see page 9.44		
The state of		angled – cannot be	used		angled – cannot b	e used	
lb.	2-conductor female plug						
		see page 9.45			see page 9.45		
The same		1 3			1 0		

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

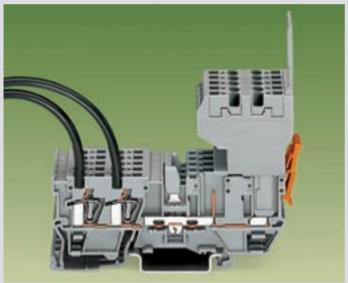




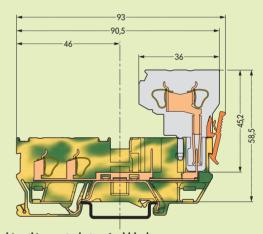
1-conductor female plug Commoning possibility of receptacle terminal blocks with jumper contact systems, series 280 and 780, and testing possibility with test plug adapter 280-4...



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..

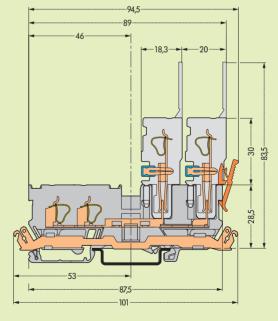


Ground (earth) receptacle terminal block



1-conductor female plug and 2-conductor female plug

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 4-Pin Receptacle Terminal Blocks

500 V/6 kV/3 **0** 250 V/4 kV/3 **0** 32 A\*\*

300/600 V, 10/5 A **%** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in

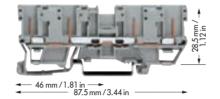
\* 🗫 🏽 KEUR CCAKEUR 💝 GL LR

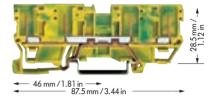
Terminal block width 5 mm / 0.197 in

\* 👊 🍪 KEUR CCAKEUR 🐨 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





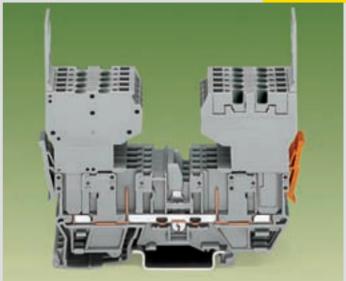
Description			Item No.	Pack. unit pcs		ltem No.	Pack. unit pcs
4-pin receptacle t	terminal block,	4-pin receptacle	terminal block	-	4-pin ground	(earth) receptacle termin	al block
	rail acc. to EN 60715	grey	769-151	50	green-yellow	769-207	50
		4-pin receptacle	terminal block		<b>3</b> ,		
		with shield (scree	en) contact, (no pict	ture)			
		grey	769-201	50			
Accessories		Appropriate marking	system Mini-WS	<b>B</b> (see section 14)			
	End and	1.1 mm / 0.043 in th			1.1 mm / 0.043 i	in thick	
	intermediate plate	grey	769-301	100 (4 x 25)	grey	769-301	100 (4 x
		orange	769-302	100 (4 x 25)	orange	769-302	100 (4 x
Al-	Screwless	-					
ST US	end stop	6 mm / 0.236 in wid	de <b>249-116</b>	100 (4 x 25)	6 mm / 0.236 in	wide <b>249-116</b>	100 (4 x
		10 mm / 0.394 in wid	de <b>249-117</b>	50 (2 x 25)	10 mm / 0.394 in	wide <b>249-117</b>	50 (2 x
	Adjacent jumper, I <sub>N</sub> 24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x
77	insulated						
<b>,</b>	Alternate jumper	grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x
	Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 × 25)	I <sub>N</sub> 24 A	780-452	100 (4 x
	insulated, from 1 to 3		780-453	100 (4 x 25)		780-453	100 (4 x
	width 5 mm / 0.197 in from 1 to 4		780-454	100 (4 x 25)		780-454	100 (4 ×
K III	from 1 to 5		780-455	50 (2 x 25)		780-455	50 (2 ×
111 00	:		:	, ,		:	•
11)	from 1 to 8		780-458	50 (2 x 25)		780-458	50 (2 x
	Push-in type wire jumper 2,	L = 60 mm / 2.362 ii	n <b>249-125</b>	10	L = 60 mm/2.3	62 in <b>249-125</b>	10
L	insulated, 9 A - conductor	L = 110 mm / 4.331 ii	n <b>249-126</b>	10	L = 110  mm / 4.3	31 in <b>249-126</b>	10
	cross section 0.75 mm²/AWG 18	L = 250 mm / 9.843 ii	n <b>249-127</b>	10	L = 250 mm/9.8	43 in <b>249-127</b>	10
	Coding pin,						
	for coding of female plugs	orange	769-435	100 (4 x 25)	orange	769-435	100 (4 x
	3				3		,
	Test plug,						
	with cable 500 mm/1'7.7"						
	2.3 mm / 0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x
-	Test plug module,	Application notes a	ınd part numbers		Application note	es and part numbers	
	for test using jumper position in	see pages 2.39 - 2	2.40		see pages 2.39	- 2.40	
111	current bar or cond. wire opening						
	Test plug adapter,	5 mm/0.197 in wid	le		5 mm / 0.197 in	wide	
	see also pages 2.39 - 2.40		280-404	100 (4 x 25)		280-404	100 (4 x
T	. 0	or test plug 210-132	7 (2.3 mm / 0.091 in	Ø)	or test plug 210	1-137 (2.3 mm / 0.091 in Ø)	
În	1-conductor female plug,						
19	straight	see page 9.44			see page 9.44		
T T		angled – cannot be	e used		angled – canno	ot be used	
lb.	2-conductor female plug	-					
100		see page 9.45			see page 9.45		
ľ							

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





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

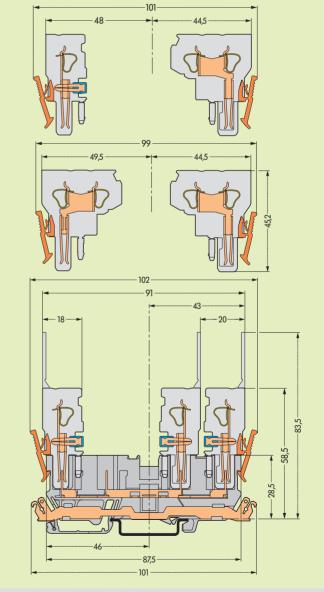
Commoning possibility of receptacle term.

1 x 2-cond. female plug right

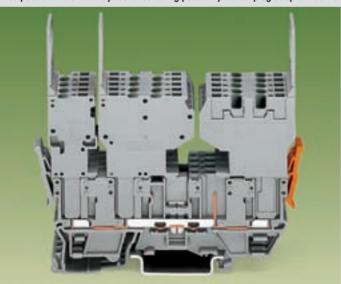
blocks w. jumper contact systems, series 280 a. 780,

Also possible the other way round

a. testing possibility w. test plug adapter 280-4...



Receptacle terminal block with shield (screen) contact



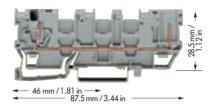
1-conductor and 2-conductor female plugs left Commoning possibility of 2-conductor female plug right receptacle terminal blocks only with adjacent Also possible the other way round jumpers and alternate jumpers, series 280

# X-COM®-SYSTEM 1-Conductor/1-Pin Receptacle Terminal Blocks with 3 Jumper Positions

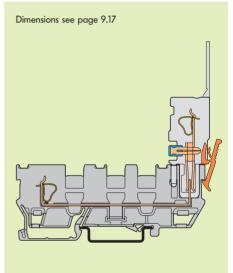
0.08 - 4 mm<sup>2</sup> 500 V/6 kV/3 **0** 32 A\*\* Types of assembly with 1-/2-conductor female plugs AWG 28 - 12 300/600 V, 10/5 A **9**\(\sqrt{2}\) 300 V, 10 A @ Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in \* 🗫 @ CCAKETA 💖 LR

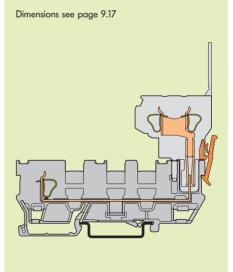
1 500 V = rated voltage 6 kV = rated surge voltage 3 = pollution degree (see also section 15)





Adjacent jumper,  Appropriate Marking Specific S	ng system Mini-WS  1.1 mm/0.043 in th grey orange  6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 - 0.2 mm² 0.25 - 0.5 mm² 0.75 - 1 mm² grey	769-214  B (see section 14)  ick 769-315 769-316  e 249-116	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) 200 strips
Appropriate marking and and intermediate plate  Screwless and stop  nsulation stop ②, white light grey dark grey  Adjacent jumper, I <sub>N</sub> 24 A insulated	grey  1.1 mm/0.043 in th grey orange  6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 - 0.2 mm² 0.25 - 0.5 mm² 0.75 - 1 mm²	769-214  B (see section 14)  ick 769-315 769-316  e 249-116 e 249-117 769-470 769-471	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) 200 strips
Appropriate marking and and intermediate plate  Screwless and stop  Insulation stop (a), white light grey dark grey  Adjacent jumper, insulated	1.1 mm/0.043 in the grey orange  6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	B (see section 14) ick 769-315 769-316 e 249-116 e 249-117 769-470 769-471	100 (4 x 25) 100 (4 x 25) 100 (4 x 25) 50 (2 x 25) 200 strips
ind and intermediate plate  Screwless end stop  insulation stop ②, white in poss/strip light grey dark grey Adjacent jumper, I, 24 A insulated	1.1 mm/0.043 in the grey orange  6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	rick 769-315 769-316 e 249-116 e 249-117 769-470 769-471	100 (4 × 25) 100 (4 × 25) 50 (2 × 25) 200 strips
ind and intermediate plate  Screwless end stop  insulation stop ②, white in poss/strip light grey dark grey Adjacent jumper, I, 24 A insulated	1.1 mm/0.043 in the grey orange  6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	rick 769-315 769-316 e 249-116 e 249-117 769-470 769-471	100 (4 × 25) 100 (4 × 25) 50 (2 × 25) 200 strips
intermediate plate  Screwless and stop  insulation stop ②, white in poss/strip light grey dark grey  Adjacent jumper, insulated	grey orange 6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 – 0.2 mm <sup>2</sup> 0.25 – 0.5 mm <sup>2</sup> 0.75 – 1 mm <sup>2</sup>	769-315 769-316 e 249-116 e 249-117 769-470 769-471	100 (4 × 25) 100 (4 × 25) 50 (2 × 25) 200 strips
insulation stop 2, white light grey dark grey Adjacent jumper, insulated	orange  6 mm / 0.236 in wid 10 mm / 0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	769-316 e 249-116 e 249-117 769-470 769-471	100 (4 × 25) 100 (4 × 25) 50 (2 × 25) 200 strips
nsulation stop 2, white 5 pcs/strip light grey dark grey Adjacent jumper, nsulated	6 mm/0.236 in wid 10 mm/0.394 in wid 0.08 – 0.2 mm <sup>2</sup> 0.25 – 0.5 mm <sup>2</sup> 0.75 – 1 mm <sup>2</sup>	e 249-116 e 249-117 769-470 769-471	100 (4 x 25) 50 (2 x 25) 200 strips
nsulation stop 2, white 5 pcs/strip light grey dark grey Adjacent jumper, nsulated	10 mm/0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	e 249-117 769-470 769-471	50 (2 x 25) 200 strips
nsulation stop 2, white 5 pcs/strip light grey dark grey Adjacent jumper, nsulated	10 mm/0.394 in wid 0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	e 249-117 769-470 769-471	50 (2 x 25) 200 strips
o pcs/strip light grey dark grey  Adjacent jumper, nsulated	0.08 - 0.2 mm <sup>2</sup> 0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	769-470 769-471	200 strips
o pcs/strip light grey dark grey  Adjacent jumper, nsulated	0.25 - 0.5 mm <sup>2</sup> 0.75 - 1 mm <sup>2</sup>	769-471	
dark grey Adjacent jumper, I <sub>N</sub> 24 A nsulated	0.75 – 1 mm <sup>2</sup>		000 .
Adjacent jumper, I <sub>N</sub> 24 Ansulated		760_472	200 strips
nsulated	grey	107-4/2	200 strips
		280-402	200 (8 x 25)
Mtornato iumnor			
Allernale jumper	grey	280-409	100 (4 x 25)
Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)
nsulated, from 1 to 3		780-453	100 (4 x 25)
width 5 mm/0.197 in from 1 to 4		780-454	100 (4 x 25)
from 1 to 5		780-455	50 (2 x 25)
:		:	
from 1 to 8		780-458	50 (2 x 25)
Push-in type wire jumper <b>2</b> ,	L = 60 mm / 2.362 ir	249-125	10
nsulated, 9 A – conductor	L = 110 mm / 4.331 ir	249-126	10
cross section 0.75 mm²/AWG 18	L = 250  mm / 9.843  ir	249-127	10
or coding of female plugs	orange	769-435	100 (4 x 25)
Protective warning marker,			
or 5 terminal blocks,	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)
est plug module,		nd part numbers	
or test using jumper position in			
	5 mm/0.197 in wide	e	
ee also pages 2.38 - 2.40		280-404	100 (4 x 25)
1 0	or test plug 210-137		( 20)
l-conductor female plug,	1 10 1 11		
traight or angled	see pages 9.44/9.4	6	
2-conductor female plug			
· ·	see page 9.45		
n it it	idth 5 mm/0.197 in from 1 to 4 from 1 to 5  if from 1 to 8  ush-in type wire jumper 2, sulated, 9 A - conductor oss section 0.75 mm²/AWG 18 oding pin, or coding of female plugs  retective warning marker, or 5 terminal blocks, so into screwdriver slot 2 mm/0.079 in 2 2.3 mm/0.091 in 2 2.3 mm/0.091 in 2 2.5 test plug module, or test using jumper position in orderent bar or cond. wire opening est plug adapter, or ealso pages 2.38 - 2.40  -conductor female plug, regist or angled	from 1 to 4 from 1 to 5  is from 1 to 8  ush-in type wire jumper ②, sulated, 9 A - conductor oss section 0.75 mm²/AWG 18  ush-in type wire jumper ②, sulated, 9 A - conductor oss section 0.75 mm²/AWG 18  ush-in type wire jumper ②, sulated, 9 A - conductor oss section 0.75 mm²/AWG 18  ush-in type wire jumper ②, sulated, 9 A - conductor oss section 0.75 mm²/AWG 18  ush coding pin, orange  ust plug madule, orange  ust plug, w. cable 500 mm/1'7.7" 2 mm/0.079 in Ø 2.3 mm/0.091 in Ø yellow  ust plug module, oratest using jumper position in see pages 2.38 - 2  ust plug adapter, oratest using jumper position in see pages 2.38 - 2  ust plug adapter, oratest using jumper position in see pages 2.38 - 2  ust plug adapter, oratest plug adapter, see also pages 2.38 - 2.40  ust plug adapter, see also pages 9.44/9.4  ust plug adapter, see pages 9.44/9.4	fidth 5 mm/0.197 in from 1 to 4

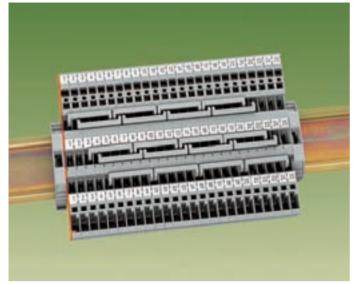


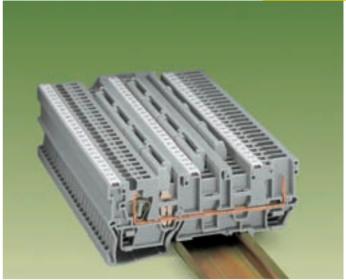


<sup>\*</sup>For further approvals with corresponding ratings see section 15.

#### **Applications**







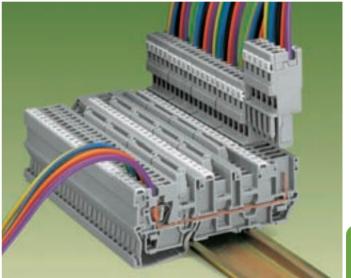
### 1-conductor/1-pin receptacle terminal blocks with 3 jumper positions

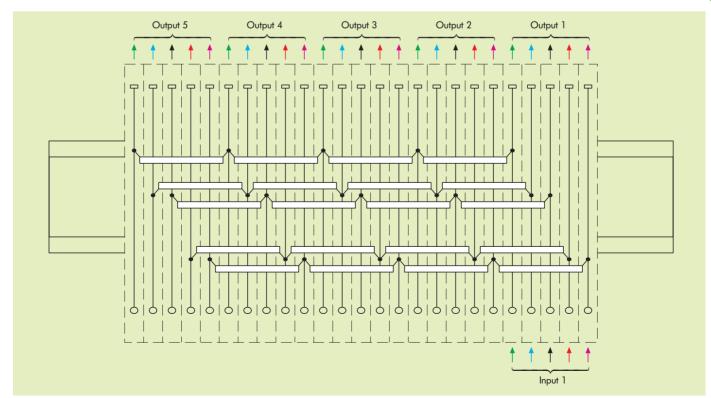
The 3 jumper positions allow up to six jumpering possibilities for staggered jumpers.

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

#### Application examples:

- Muliplication 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







# X-COM®-SYSTEM 1-Conductor/1-Pin and 2-Pin Disconnect Receptacle Terminal Blocks

0.08 - 4 mm<sup>2</sup> 400 V/6 kV/3 **0** 250 V/4 kV/3 **0** 16 A\*\*

AWG 28 - 12 300/600 V, 10/5 A **93** 300 V, 10 A ®

400 V/6 kV/3 **①** 250 V/4 kV/3 **①** 16 A\*\* 300/600 V, 10/5 A **%** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in

\* 🗫 🍪 CCAKEDA 💖 LR

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





Description	cription			ltem No.	Pack. unit pcs		ltem No.	Pack. unit pcs
1-conductor/1-pi	n and 2-pin disconnet	t receptacle	1-cond./1-pin d	sconnect recep	tacle term. block	2-pin discon	nect receptacle termi	nal block
terminal block			grey	769-232	50	grey	769-222	50
without/with shie	eld (screen) contact,		1-conductor/1-p	in disconnect re	eceptacle terminal	2-pin discon	nect receptacle termi	nal block with
suitable for DIN 35	rail acc. to EN 60715		block with shield	l (screen) conta	ct (no picture)	shield (scree	n) contact (no picture)	
			grey	769-233	50	grey	769-223	50
Accessories			Appropriate marking	system Mini-\	<b>VSB</b> (see section 14)			
	End and		1.1 mm/0.043 in t	hick		1.1 mm/0.043	3 in thick	
	intermediate plate		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 w	de <b>249-116</b>	100 (4 x 25)	6 mm / 0.236	in wide <b>249-116</b>	100 (4 x 25)
			10 mm / 0.394 in w	de <b>249-117</b>	50 (2 x 25)	10 mm / 0.394	in wide <b>249-117</b>	50 (2 x 25)
~40 ·	Insulation stop 2,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips			
0000	5 pcs/strip	light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips			
COL		dark grey	0.75 - 1 mm <sup>2</sup>	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)
	<b>3</b> · · · ·	1 0.	J			3.		,
	Protective warning	marker,						
	for 5 terminal blocks,		yellow	280-415	100 (4 x 25)			
200	fits into screwdriver s		7		( ==,			
	Test plug, w. cable 50							
		/0.079 in Ø	red	210-136	50 (5 x 10)			
		/0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x 10)
fin.	1-conductor female		y clio ii	210 107	50 (6 X 10)	yellett	210 107	30 (5 X 10)
	straight	s piog,	see page 9.44			see page 9.44	4	
1	3 1 . ( 1							
<b>A</b>	1-conductor female	e plug,	0.47			0.44	,	
	angled		see page 9.46			see page 9.46	b .	
lin.	2-conductor female	e plug						
P			cannot be used			cannot be use	ed	
	Disconnect lock,		see also page 7.13			see also page	7.13	
	for disconnecting tab	of	red	709-170	200 (8 x 25)	red	709-170	200 (8 x 25)
	disconnect terminal b	locks						
Dimensions a	nd types of asser	mbly (see po	age 9.26)					

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



0.08 - 4 mm<sup>2</sup> 400 V/6 kV/3 **0** 250 V/4 kV/3 **0** 16 A\*\*

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 \* 🗫 @ CCAKETA 🐨 LR

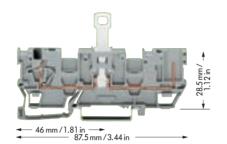
400 V/6 kV/3 **0** 250 V/4 kV/3 **0** 16 A\*\*

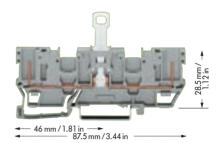
300/600 V, 10/5 A **%** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in

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)







Description				ltem No.	Pack. unit pcs		ltem No.	Pack. unit pcs
1-conductor/1-pir	n and 2-pin disconnet	receptacle	1-cond./1-pin o	disconnect recepto	acle term. block	2-pin discon	nect receptacle term	inal block
terminal block			grey	769-212	50	grey	769-202	50
without/with shie	eld (screen) contact,		1-conductor/1-	pin disconnect re	ceptacle terminal	2-pin discon	nect receptacle term	inal block with
suitable for DIN 35	rail acc. to EN 60715		block with shiel	d (screen) contac	t (no picture)	shield (scree	<ul><li>n) contact (no picture)</li></ul>	
			grey	769-213	50	grey	769-203	50
Accessories			Appropriate markin	g system <b>Mini-W</b>	<b>/SB</b> (see section 14)			
	End and		1.1 mm / 0.043 in	thick		1.1 mm / 0.043	3 in thick	
	intermediate plate		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,		1.1 mm / 0.043 in	thick	, ,	1.1 mm / 0.043	3 in thick	•
	oversized		orange	769-314	100 (4 x 25)	orange	769-313	100 (4 x 25
			3.			3.		
Arth	Screwless							
	end stop		6 mm / 0.236 in v	vide <b>249-116</b>	100 (4 x 25)	6 mm / 0.236	in wide <b>249-116</b>	100 (4 x 2
			10 mm / 0.394 in v	vide <b>249-117</b>	50 (2 x 25)	10 mm / 0.394	in wide <b>249-117</b>	50 (2 x 2
	Insulation stop 2,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips			
0000	5 pcs/strip	light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips			
		dark grey	0.75 - 1 mm <sup>2</sup>	769-472	200 strips			
B (S)	Adjacent jumper,	I <sub>N</sub> 24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x 2
9 97	insulated	N	5 7		( ,	3 1		(
	Alternate jumper		grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x 2
* *	Staggered jumper 2,	from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x 2
	insulated.	from 1 to 3	-N	780-453	100 (4 x 25)	N = · · ·	780-453	100 (4 x 2
	width 5 mm/0.197 in			780-454	100 (4 x 25)		780-454	100 (4 x 2
		from 1 to 5		780-455	50 (2 x 25)		780-455	50 (2 x 2
				:	00 (= 11 = 0)		:	- (- 11 -
N)		from 1 to 8		780-458	50 (2 x 25)		780-458	50 (2 x 2
	Coding pin,				33 (2 11 25)			
	for coding of female	nluas	orange	769-435	100 (4 x 25)	orange	769-435	100 (4 x 2
I I I I I I I I I I I I I I I I I I I	for coding of female	piogs	orango .	707 100	100 (1 × 20)	5. dg5	707 100	100 (1 X 2
	Protective warning	marker,						
	for 5 terminal blocks,	-	yellow	280-415	100 (4 x 25)			
	fits into screwdriver sl		,		,			
	Test plug, w. cable 50							
		/0.079 in Ø	red	210-136	50 (5 x 10)			
		/0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x 1
	Test plug module,		5 mm/0.197 in w			5 mm/0.197 i	n wide	(-
	see also pages 2.38 -	- 2.40		280-404	100 (4 x 25)		280-404	100 (4 x 2
T	pg		or test plug 210-1	137 (2.3 mm/0.091	, ,	or test plug 2	10-137 (2.3 mm/0.091	
h A	1-conductor female	e plua.	progre	(=10 1111111 010111		21 1231  2129 2	(=10 1111111 01011	
9 (6)	straight or angled	p.eg,	see pages 9.44/9	9.46		see pages 9.4	4/9.46	
1 1			F900 / 1. 1/			18 //		
lb.	2-conductor female	e plua						
100	_ toattion formation	P9	see page 9.45			see page 9.45	5	
The same						18		
₩	Disconnect lock, for	disconnec-	see also page 7.1.	3		see also page	7.13	
	ting tab of disconnect		red	709-170	200 (8 x 25)	red	709-170	200 (8 x 2
	iling tab of disconnect	Terrii. Diocks	ige 9.27)	707-170	200 (0 X 23)	reu	707-170	200 (0





# X-COM®-SYSTEM 1-Conductor/1-Pin and 2-Pin Diode and LED Receptacle Terminal Blocks

0.08 - 4 mm<sup>2</sup> | AWG 28 - 12

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

\* 71.6\*

Terminal block width 5 mm / 0.197 in

\* 71.6\*

\* 71.6\*

#### Technical data

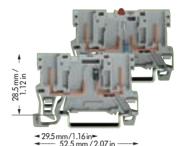
Diode

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

LED

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

29.5 mm/1.16in-



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

range, see page 1	2.43		J	2.5 mm / 2.07 in			3	2.5 mm / 2.07 in		
Description				Item No.	Pack. u pcs	nit			Pack. unit pcs	
1-conductor/1-pin	diode receptacle terr	minal block,	1-cond./1-pin di	iode receptacle	term. blocks,	grey	2-pin diode rece	ptacle terminal blocks	s, grey	
2-pin diode recept	acle terminal block,		Anode left	769-238/28	<b>1-410</b> 100		Anode left	769-228/281-410	100	
			Anode right	769-238/28	<b>1-411</b> 100		Anode right	769-228/281-411	100	
1-conductor/1-pin	LED receptacle termi	inal block,								
2-pin LED receptor	le terminal block		1-cond./1-pin Ll	ED receptacle te	rm. blocks, gr	еу	2-pin LED receptacle terminal blocks, grey			
			Anode right	769-239/28	<b>1-413</b> 100		Anode right	769-229/281-413	100	
suitable for DIN 35 r	suitable for DIN 35 rail acc. to EN 60715			769-239/28	<b>1-434</b> 100		Anode left	769-229/281-434	100	
Accessories			Appropriate marking	· ·	VSB (see section	on 14)				
End and intermedia	End and		1.1 mm / 0.043 in t	hick			1.1 mm/0.043 in t	hick		
	intermediate plate		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)	
1110	Screwless									
	end stop		6 mm / 0.236 in wi	ide <b>249-116</b>	100 (4	x 25)	6 mm / 0.236 in wi	de <b>249-116</b>	100 (4 x 25)	
			10 mm / 0.394 in wi	ide <b>249-117</b>	50 (2	x 25)	10 mm / 0.394 in wi	de <b>249-117</b>	50 (2 x 25)	
	Insulation stop <b>1</b> ,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 str	ips				
	5 pcs/strip	light grey	$0.25 - 0.5 \text{ mm}^2$	769-471	200 str	ips				
- Miller		dark grey	0.75 – 1 mm <sup>2</sup>	769-472	200 str	ips				
	Coding pin,									
	for coding of female	plugs	orange	769-435	100 (4	x 25)	orange	769-435	100 (4 x 25)	
	Protective warning	marker,								

280-415

210-136

210-137

yellow

yellow

see pages 9.44/9.46

cannot be used

Dimensions and types of assembly (see page 9.26)

for 5 terminal blocks,

fits into screwdriver slot

Test plug, w. cable 500 mm/1'7.7"

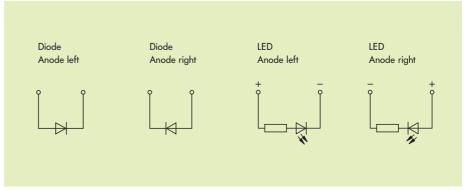
1-conductor female plug, straight or angled

2-conductor female plug

2 mm / 0.079 in Ø

2.3 mm/0.091 in Ø

#### **Connection schemes**



100 (4 x 25)

50 (5 x 10)

50 (5 x 10)

yellow

see pages 9.44/9.46

cannot be used

210-137

50 (5 x 10)

<sup>\*</sup>For further approvals with corresponding ratings see section 15.

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



 $0.08 - 4 \text{ mm}^2$ 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

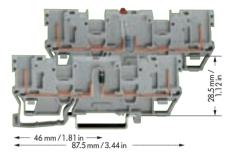
U<sub>N</sub> 250 V; U<sub>RM</sub> 1000 V 300/600 V, 10/5 A **NA** 1 N 4007 – 0.5 A constant current 300 V, 10 A **©** 

LED

DC 24 V IF 25 mA max. 300/600 V, 10/5 A 🕦 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 dio	de receptacle term	. blocks, grey	2-pin diode recep	tacle terminal block	s, grey
2-pin diode recept	tacle terminal block,	Anode left	769-218/281-41	<b>o</b> 50	Anode left	769-208/281-410	50
		Anode right	769-218/281-41	<b>1</b> 50	Anode right	769-208/281-411	50
1-conductor/1-pin	LED receptacle terminal block,						
2-pin LED receptor	cle terminal block	1-cond./1-pin LED	receptacle term. l	olocks, grey	2-pin LED recepto	icle terminal blocks,	grey
		Anode right	769-219/281-41	<b>3</b> 50	Anode right	769-209/281-413	50
suitable for DIN 35	rail acc. to EN 60715	Anode left	769-219/281-43	<b>4</b> 50	Anode left	769-209/281-434	50
Accessories		Appropriate marking s	ystem <b>Mini-WSB</b>	(see section 14)			
	End and	1.1 mm/0.043 in thi	ck		1.1 mm/0.043 in th	ick	
	intermediate plate	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,	1.1 mm / 0.043 in thi	ck		1.1 mm / 0.043 in th	ick	
	oversized	orange	769-314	100 (4 x 25)	orange	769-313	100 (4 x 25
		· ·		. ,	· ·		
	Screwless						
	end stop	6 mm / 0.236 in wide	e <b>249-116</b>	100 (4 x 25)	6 mm / 0.236 in wid	e <b>249-116</b>	100 (4 x 25
		10 mm / 0.394 in wide	e 249-117	50 (2 x 25)	10 mm / 0.394 in wid	e <b>249-117</b>	50 (2 x 25
~~	Insulation stop 2, white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips			
0000	5 pcs/strip light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips			
	dark grey	0.75 – 1 mm <sup>2</sup>	769-472	200 strips			
	Adjacent jumper, I <sub>N</sub> 24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x 25
W 17	insulated	9.07	200 .02	200 (0 x 20)	9.07	200 102	200 (0 % 20
	Alternate jumper	grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x 25
4. 4.4	Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x 25
	insulated, from 1 to 3	I <sub>N</sub> Z-7 / (	780-453	100 (4 x 25)	I <sub>N</sub> Z-T / C	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
	110111 1 10 3		:	30 (2 X 23)		:	JU (2 X 2
W -	from 1 to 8		780-458	50 (2 x 25)		780-458	50 12 2 21
			700-430	30 (2 X 23)		700-430	50 (2 x 25
	Coding pin,		769-435	100 (4 x 25)		769-435	100 /4 0/
10000	for coding of female plugs	orange	767-433	100 (4 X Z5)	orange	707-435	100 (4 x 25
	Protective warning marker,						
	for 5 terminal blocks,	yellow	280-415	100 (4 x 25)			
	fits into screwdriver slot						
	<b>Test plug,</b> 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
	Test plug adapter,	5 mm/0.197 in wide	•		5 mm/0.197 in wide	е	
W.	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	5)	or test plug 210-137	7 (2.3 mm/0.091 in Ø)	
h A	1-conductor female plug,						
	straight or angled	see pages 9.44/9.4	6		see pages 9.44/9.4	6	
The Control of the Co	2-conductor female plug						
	2 Conductor remaie plug	see page 9.45			see page 9.45		
100		see page 7.43			see puge 7.43		
-							
Dimensions ar	nd types of assembly (see po	ige 9.27)					

<sup>\*</sup>For further approvals with corresponding ratings see section 15.



# Types of Assembly 1-Conductor/1-Pin and 2-Pin Receptable Terminal Blocks and 1-Conductor Female Plugs



1-conductor female plug

The commoning of disconnect receptacle terminal blocks is not possible



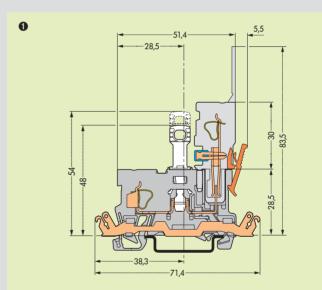
2 x 1-conductor female plugs

The commoning of disconnect receptacle terminal blocks is not possible



1-conductor female plug

The commoning of diode receptacle terminal blocks is not possible



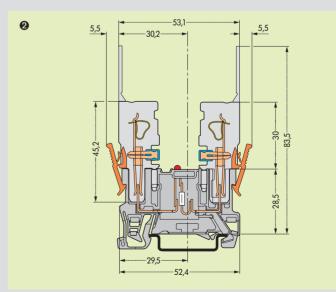
Disconnect receptacle terminal block with shield (screen) contact

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

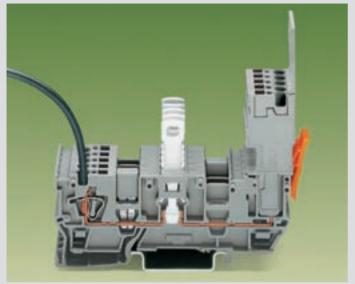


LED receptacle terminal block

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





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..

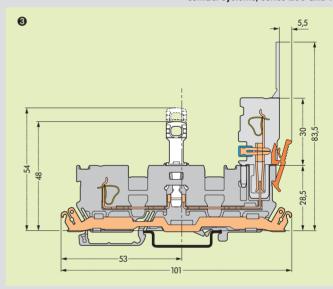


2-conductor female plug, left 2-conductor female plug, right

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



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



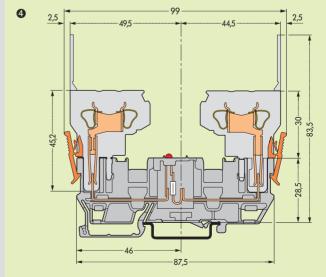
Disconnect receptacle terminal block with shield (screen) contact

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

◆ 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 mm<sup>2</sup> 400 V/6 kV/3 **0** 16 A\*\*

AWG 28 - 12 300/600 V, 10/5 A **9** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in  $\boxed{\phantom{0}}$  8 - 9 mm / 0.33 in

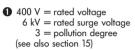
\* 🗫 @ CCAKETA 💖 LR

400 V/6 kV/3 **①** 

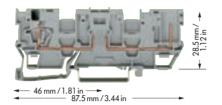
300/600 V, 10/5 A **%** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in

\* SN @ CCAKEDA 💖 LR



2 See application notes on pages 2.43 – 2.45

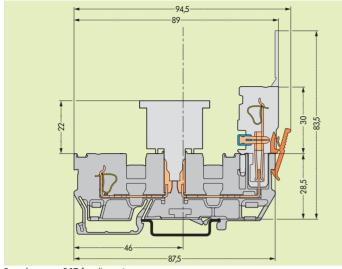


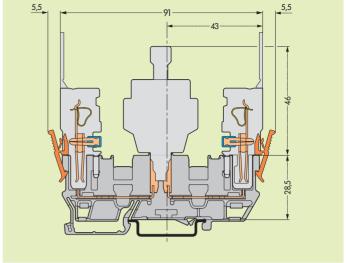


1-conductor/1-pin receptacle terminal block, grey and 2 poles 769-181 50 2 poles 769-161  2-pin receptacle terminal block, suitable for DIN 35 rail acc. to EN 60715  Accessories  Appropriate marking system Mini-WSB (see section 14)  End and 1.1 mm/0.043 in thick grey 769-311 100 (4 x 25) grey 769-309 orange 769-312 100 (4 x 25) orange 769-310  Separator plate, oversized orange 769-314 100 (4 x 25) orange 769-313  Screwless	100 (4 × 2 100 (4 × 2 100 (4 × 2
Appropriate marking system   Mini-WSB   (see section 14)	100 (4 × 2 100 (4 × 2
Accessories  Appropriate marking system Mini-WSB (see section 14)  End and intermediate plate grey 769-311 100 (4 x 25) orange 769-310  Separator plate, oversized  Screwless  Appropriate marking system Mini-WSB (see section 14)  1.1 mm/0.043 in thick grey 769-311 100 (4 x 25) orange 769-310  1.1 mm/0.043 in thick orange 769-314 100 (4 x 25) orange 769-313	100 (4 x 2
Accessories  Appropriate marking system Mini-WSB (see section 14)  End and intermediate plate grey 769-311 100 (4 x 25) grey 769-309 orange 769-312 100 (4 x 25) orange 769-310  Separator plate, oversized  Screwless  Appropriate marking system Mini-WSB (see section 14)  1.1 mm / 0.043 in thick grey 769-311 100 (4 x 25) orange 769-310 1.1 mm / 0.043 in thick orange 769-314 100 (4 x 25) orange 769-313	100 (4 x 2
End and   1.1 mm/0.043 in thick   1.1 mm/0.043 in thick   grey   769-311   100 (4 x 25)   grey   769-309   orange   769-312   100 (4 x 25)   orange   769-310	100 (4 x 2
End and   1.1 mm/0.043 in thick   1.1 mm/0.043 in thick   grey   769-311   100 (4 x 25)   grey   769-309   orange   769-312   100 (4 x 25)   orange   769-310	100 (4 x 2
intermediate plate         grey         769-311 por ange         100 (4 x 25) por ange         grey         769-309 por ange         769-310 por ange         769-310 por ange         769-310 por ange         769-310 por ange         1.1 mm / 0.043 in thick por ange         769-313 por ange         769-	100 (4 x 2
orange         769-312         100 (4 x 25)         orange         769-310           Separator plate,         1.1 mm/0.043 in thick         1.1 mm/0.043 in thick           oversized         orange         769-314         100 (4 x 25)         orange         769-313	100 (4 x 2
Separator plate,   1.1 mm/0.043 in thick   1.1 mm/0.043 in thick   oversized   orange   769-314   100 (4 x 25)   orange   769-313	,
oversized orange <b>769-314</b> 100 (4 x 25) orange <b>769-313</b> Screwless	100 (4 x 2
Screwless	100 (4 x 2
end stop 6 mm/0.236 in wide <b>249-116</b> 100 (4 x 25) 6 mm/0.236 in wide <b>249-116</b>	100 (4 x 2
10 mm / 0.394 in wide <b>249-117</b> 50 (2 x 25) 10 mm / 0.394 in wide <b>249-117</b>	50 (2 x 2
Insulation stop 2, white 0.08 – 0.2 mm <sup>2</sup> 769-470 200 strips	
5 pcs/strip light grey 0.25 – 0.5 mm <sup>2</sup> <b>769-471</b> 200 strips	
dark grey 0.75 – 1 mm² <b>769-472</b> 200 strips	
Adjacent jumper, I <sub>N</sub> 24 A grey 280-402 200 (8 x 25) grey 280-402	200 (8 x 2
insulated	
Alternate jumper grey 280-409 100 (4 x 25) grey 280-409	100 (4 x 2
Staggered jumper ❷, from 1 to 2         I <sub>N</sub> 24 A         780-452         100 (4 x 25)         I <sub>N</sub> 24 A         780-452	100 (4 x 2
insulated, from 1 to 3 780-453 100 (4 x 25) 780-453	100 (4 x 2
width 5 mm/0.197 in from 1 to 4 780-454 100 (4 x 25) 780-454	100 (4 x 2
from 1 to 5 780-455 50 (2 × 25) 780-455	50 (2 x 2
from 1 to 8 780-458 50 (2 × 25) 780-458	50 (2 x 2
Push-in type wire jumper 20, L = 60 mm/2.362 in 249-125 10 L = 60 mm/2.362 in 249-125	10
L = 110 mm/4.331 in 249-126 10 L = 110 mm/4.331 in 249-126	10
cross section 0.75 mm <sup>2</sup> /AWG 18 $L = 250$ mm/9.843 in <b>249-127</b> 10 $L = 250$ mm/9.843 in <b>249-127</b>	10
Coding pin,	
for coding of female plugs orange <b>769-435</b> 100 (4 x 25) orange <b>769-435</b>	100 (4 x 2
Frotective warning marker, for 5 terminal blocks, yellow 280-415 100 (4 x 25) 100 (4 x 25)	
for 5 terminal blocks, yellow <b>280-415</b> 100 (4 x 25)	
fits into screwdriver slot	
Test plug, w. cable 500 mm/1'7.7"	
2 mm / 0.079 in Ø red <b>210-136</b> 50 (5 x 10)	
2.3 mm / 0.091 in Ø yellow <b>210-137</b> 50 (5 x 10) yellow <b>210-137</b>	50 (5 x 1
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	

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







See also page 9.17 for dimensions

See also page 9.19 for dimensions









Open side of term. block	Item Po No. po	ack. unit s	Open side of term. block		ack. unit	Open side of term. block	Item Pacl No. pcs	c. unit
Fuse plug, 5 mm / 0.197	in wide,		Diode module, 5 mm/0	0.197 in wide,		LED modules, 5 mm/0.	197 in wide,	
	with soldered			Diode 1N 4007		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	with red LED	
0 0	miniature fuse		- + - +	280-801/281-4	<b>11</b> 100	- + +		
						DC 24 V	280-801/281-413	100
250 mA FF	280-850	100				DC 48 V	280-801/281-414	100
500 mA FF	280-852	100	Diode module, 5 mm/0	0.197 in wide,		LED modules, 5 mm/0.	197 in wide,	
1 A FF	280-854	100		Diode 1N 4007, as a	recovery		with red LED	
2 A FF	280-856	100	++0+17+0+-	diode, LED addition	ally	~ <del> 0      0  </del> ~		
Fuse plug, 5 mm / 0.197	· · · · · · · · · · · · · · · · · · ·		DC 24 V	280-801/281-4		AC/DC 24 V	280-801/281-415	100
	additionally with LE	D,	DC 48 V	280-801/281-4	<b>21</b> 100	AC/DC 48 V	280-801/281-416	100
	DC 15 – 30 V					Neon lamp modules, 5	mm / 0.197 in wide,	
Residual current in case of defective fuse						~ +		
LED 5 - 20 mA								
250 mA FF	280-850/281-41					AC/DC 120 V	280-801/281-418	100
500 mA FF	280-852/281-41					AC/DC 230 V	280-801/281-417	100
1 A FF	280-854/281-41							
2 A FF	280-856/281-41							
Fuse plug with pull-tak								
for miniature metric fuse	5 x 20 mm and 5 x 25	5 mm						
	281-511	50						
0 0	LED (self assembly)							
	281-512	50						
			Adjacent assembly of				-site	
Fuse plug with pull-tak	6 mm /0 236 in wid	0	hlocks for fuse plugs r	equires that the wi	dth			

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

AC/DC 24 V
281-512/281-501 5
Use in both switching directions
Neon lamps
AC/DC 120 V
281-512/281-418 5
AC/DC 230 V

281-512/281-417

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.





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

0.08 - 4 mm<sup>2</sup> 400 V/6 kV/3 **0** 16 A\*\*

AWG 28 - 12 300/600 V, 10/5 A **9** 300 V, 10 A ®

Terminal block width 5 mm / 0.197 in ■ 8 - 9 mm / 0.33 in

\* 👊 🗈

400 V/6 kV/3 **①** 

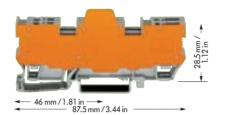
300/600 V, 10/5 A **%** 300 V, 10 A ®

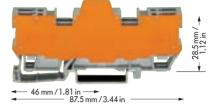
Terminal block width 5 mm / 0.197 in

\* 🗫 🍪 CCAIKEDA 🐨 LR

■ 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



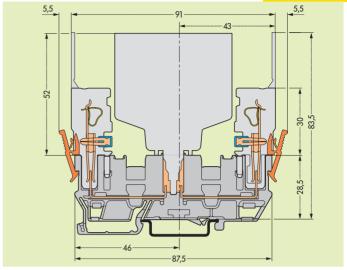


Description 1-conductor /1-pin receptacle terminal block			Item No.	Pack. unit pcs		Item No.	Pack. unit pcs	
		1-cond./1-pin receptacle terminal blocks, grey			2-pin receptacle terminal blocks, grey			
and		width	with orange sep	arator plate		with orange sep	parator plate	
2-pin receptacle to	erminal block,	11.1 mm	4 poles	769-182/769-314	<b>I</b> 10	4 poles	769-162/769-313	10
suitable for DIN 35	rail acc. to EN 60715	16.1 mm	6 poles	769-183/769-314	<b>.</b> 5	6 poles	769-163/769-313	5
		21.1 mm	8 poles	769-184/769-314	<b>5</b>	8 poles	769-164/769-313	5
		26.1 mm	10 poles	769-185/769-314	5	10 poles	769-165/769-313	5
Accessories			Appropriate marking	g system <b>Mini-WSB</b>	(see section 14)			
	End and		1.1 mm / 0.043 in t	thick		1.1 mm/0.043 in	thick	
	intermediate plate		grey	769-311	100 (4 x 25)	grey	769-309	100 (4 x 2
			orange	769-312	100 (4 x 25)	orange	769-310	100 (4 x 2
	Separator plate,		1.1 mm / 0.043 in	thick		1.1 mm/0.043 in	thick	
البراياة	oversized		orange	769-314	100 (4 x 25)	orange	769-313	100 (4 x 2
	Screwless							
	end stop		6 mm / 0.236 in w	ide <b>249-116</b>	100 (4 x 25)	6 mm / 0.236 in w	ride <b>249-116</b>	100 (4 x
			10 mm / 0.394 in w	ide <b>249-117</b>	50 (2 x 25)	10 mm / 0.394 in w	vide <b>249-117</b>	50 (2 x 1
- MARIN	Insulation stop <b>②</b> ,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips			
00000	5 pcs/strip	light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips			
0000		dark grey	0.75 - 1 mm <sup>2</sup>	769-472	200 strips			
	Adjacent jumper,	I <sub>N</sub> 24 A	grey	280-402	200 (8 x 25)	grey	280-402	200 (8 x
	insulated							
W UU	Alternate jumper		grey	280-409	100 (4 x 25)	grey	280-409	100 (4 x
	Staggered jumper 2	, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x
	insulated,	from 1 to 3		780-453	100 (4 x 25)		780-453	100 (4 x
	width 5 mm/0.197 in	from 1 to 4		780-454	100 (4 x 25)		780-454	100 (4 x
		from 1 to 5		780-455	50 (2 x 25)		780-455	50 (2 x
ll as		:		:			:	
40		from 1 to 8		780-458	50 (2 x 25)		780-458	50 (2 x
	Push-in type wire j	jumper <b>②</b> ,	L = 60 mm/2.362	in <b>249-125</b>	10	L = 60 mm/2.362	in <b>249-125</b>	10
L	insulated, 9 A - cond	ductor	L = 110  mm / 4.331	in 249-126	10	L = 110 mm / 4.331	in <b>249-126</b>	10
T T	cross section 0.75 mn	n²/AWG 18	L = 250  mm / 9.843	in <b>249-127</b>	10	L = 250 mm/9.843	in <b>249-127</b>	10
	Coding pin,							
	for coding of female	plugs	orange	769-435	100 (4 x 25)	orange	769-435	100 (4 x
	Protective warning	marker,						
	for 5 terminal blocks,		yellow	280-415	100 (4 x 25)			
	fits into screwdriver slot							
	<b>Test plug,</b> w. cable 500 mm/1'7.7"							
		n/0.079 in Ø	red	210-136	50 (5 x 10)			
		n/0.091 in Ø	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x
h A	1-conductor female	e plug,						
FP	straight or angled		see pages 9.44/9	.46		see pages 9.44/9	2.46	
lhs.	2-conductor female	e plua						
	2 conductor remain	c piog	cannot be used			cannot be used		

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







See also pages 9.17 and 9.19 for dimensions







	Item Pack. unit		Item Pack. unit		Item Pack. unit
A1	Switching relay module	A1	Pulse relay modules,	A11	Optocoupler module
13 - 13 - 13	<b>286-364</b> 1	ÃI 12	<b>286-570</b> 230 V AC 1	+ 🗖 🗼 🛣 +	Input 24 V DC,
▲宀\	24 V DC,	<del> </del>	<b>286-571</b> 24 V DC 1	A2	Output 24 V DC/500 mA
	1 make contact	A2 +	1 break contact,		<b>286-752</b>
A214	Module width 10 mm	A2	1 make contact	~2 L	Module width 15 mm
A1 NINI -11	Switching relay module		Module width 20 mm		
+ HM	<b>286-304</b> 1	Al		<sup>A1</sup> ←1 ┌──-!	Optocoupler module
│	24 V DC,	AI AII		+ -     +	Input 24 V DC,
A2 $A2$ $A2$ $A2$ $A2$	1 change-over contact	10 A D C 12		A2 V= 1	Output 24 V DC / 4 A
A2	Module width 15 mm	AZ + \			<b>286-723</b> 1
A1 [ ] # [1]	Switching relay module	A2 \14		<u></u>	Module width 15 mm
	<b>286-508</b> 1				
	230 V AC/DC,	Lin +24V	Current flow	A1-01 [= ++-1-1	Optocoupler module
A2 A2	1 change-over contact	<b>→</b> 1	monitoring module	+ 3 4 7 8 7	Input 24 V DC,
Ã2 J	Module width 15 mm	AC OUT	24 V AC	A <sup>2</sup> ¬ ▼= (  =   →   -2	Output 230 V AC / 50 mA-1A
12 // 11	Switching relay module	put put	80 mA – 6 A		<b>286-734</b> 1
41 <del>HI   1</del> 1	<b>286-312</b> 1	Lout V	<b>286-661</b>	V <sub>2</sub> → V <sub>2</sub> → V <sub>3</sub> · · · · · · · · · · · · · · · · · · ·	Module width 15 mm
4 - 21	24 V DC,		Module width 20 mm		
A2 \	2 change-over contacts			L+UB	Temperature transduce
24	Module width 20 mm			- OUT	modules with wire break
12 A1	Switching relay module			-ERROR	controlling (4-20 mA),
2 14	<b>286-516</b> 1			U,1 -0V	Thermocouple J: 0-750 °C
<b>%</b> ▼ □ □21	230 V AC,				<b>286-867</b> 1
A2	2 change-over contacts				Thermocouple K: 0-1000 °C
	Module width 20 mm	LIN + LOUT	Transient suppression		<b>286-868</b> 1
1211	Switching relay module	., † <b>\( \frac{1}{2} \)</b> \( \frac{1}{2} \)	module		Module width 20 mm
A1 13	<b>286-336</b> 1		230 V DC ± 10 %		
A2 14	24 V DC, 2 break contacts	原	<b>286-842</b> 1		_
2321	and 2 make contacts	PE PE	Module width 25 mm	-+24V	Temperature transducer
24 ————————————————————————————————————	Module width 25 mm			-OUT	modules
12	Switching relay module	L <sub>IN</sub>	Transient suppression	-ERROR	from -30 °C to +150 °C (PT 100)
32 -14	<b>286-375</b> 24 V DC 1	η γ γ	module	U,1 -0V	<b>286-862/150-030</b> 1
$31 \longrightarrow 22$	286-578 110/120 V AC 1	N N	230 V AC		from 0 °C to + 300 °C (PT 100)
4224	<b>286-579</b> 230 V AC 1	— Ü б	<b>286-835</b> 1	6 PT-100	<b>286-862/000-300</b> 1
41 — 44	4 change-over contacts	PEPE	Module width 15 mm	for PT 100 and	from 0 °C to + 100 °C (PT 1000)
	Module width 35 mm		completely with special	PT 1000 elements	<b>286-875</b> 1
			receptacle terminal block		Module width 20 mm

#### 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 mm<sup>2</sup> 400 V/6 kV/3 **0** 16 A\*\* AWG 28 - 12 300/600 V, 10/5 A **93** 300 V, 10 A ®

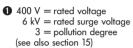
Terminal block width 5 mm / 0.197 in 8 – 9 mm / 0.33 in

\* 👊 🗈

0.08 - 4 mm<sup>2</sup> 400 V/6 kV/3 **①** 16 A\*\* AWG 28 - 12 300/600 V, 10/5 A **A** 300 V, 10 A ®

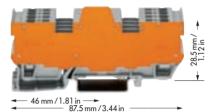
Terminal block width 5 mm / 0.197 in  $\boxed{\phantom{0}}$  8 - 9 mm / 0.33 in

\* **91** @



2 See application notes on pages 2.43 – 2.45

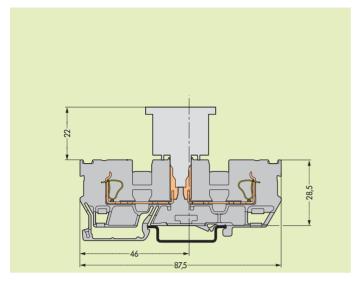


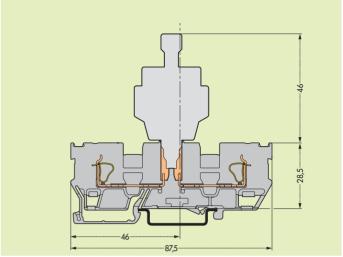


Description			Item No.	Pack. unit pcs		Item No.	Pack. unit pcs
	nductor receptacle terminal blo	ck 1-conductor/1-co	onductor recept	acle terminal			
and		block, grey					
	nductor receptacle terminal bloo	k 2 poles	769-191	50		nductor receptacle to	erminal
for pluggable mod					blocks for pluggable modules, grey		
suitable for DIN 35	rail acc. to EN 60715				with orange sepa		
					4 poles, 11.1 mm		
					6 poles, 16.1 mm		
					8 poles, 21.1 mm	769-194/769-319	
					10 poles, 26.1 mm	769-195/769-319	5
Accessories		Appropriate marking		VSB (see section 14)			
	End and	1.1 mm / 0.043 in th	nick		1.1 mm/0.043 in th	ick	
	intermediate plate	grey	769-317	100 (4 x 25)	grey	769-317	100 (4 x 25
		orange	769-318	100 (4 x 25)	orange	769-318	100 (4 x 25
	Separator plate,	1.1 mm/0.043 in th	nick		1.1 mm / 0.043 in th	ick	
	oversized	orange	769-319	100 (4 x 25)	orange	769-319	100 (4 x 25
-	Screwless						
	end stop	6 mm / 0.236 in wid	de <b>249-116</b>	100 (4 x 25)	6 mm / 0.236 in wid	e <b>249-116</b>	100 (4 x 25
		10 mm / 0.394 in wid	de <b>249-117</b>	50 (2 x 25)	10 mm / 0.394 in wid	e <b>249-117</b>	50 (2 x 25
	Insulation stop <b>2</b> , whit	e 0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips
0000	5 pcs/strip light gre	y 0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips
COL	dark gre	y 0.75 – 1 mm²	769-472	200 strips	0.75 – 1 mm²	769-472	200 strips
<b>F I</b> 7	Adjacent jumper, I <sub>N</sub> 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, from 1 to	2 I <sub>N</sub> 24 A	780-452	100 (4 x 25)	I <sub>N</sub> 24 A	780-452	100 (4 x 25
	insulated, from 1 to		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
X II	from 1 to	5	780-455	50 (2 x 25)		780-455	50 (2 x 25
W AB	:		:			:	
40	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 i	in <b>249-125</b>	10	L = 60 mm / 2.362 in	249-125	10
<b>←</b> L →	insulated, 9 A – conductor	L = 110 mm / 4.331 i	n <b>249-126</b>	10	L = 110 mm / 4.331 in	249-126	10
1 1	cross section 0.75 mm²/AWG 18	L = 250 mm / 9.843 i		10	L = 250 mm / 9.843 in		10
	Protective warning marker,						
	for 5 terminal blocks,	yellow	280-415	100 (4 x 25)	yellow	280-415	100 (4 x 25
	fits into screwdriver slot						
	<b>Test plug,</b> w. cable 500 mm/1'7.7	"					
	2 mm / 0.079 in 9		210-136	50 (5 x 10)	red	210-136	50 (5 x 10
	2.3 mm / 0.091 in @	yellow	210-137	50 (5 x 10)	yellow	210-137	50 (5 x 10
				, ,	•		· · ·

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



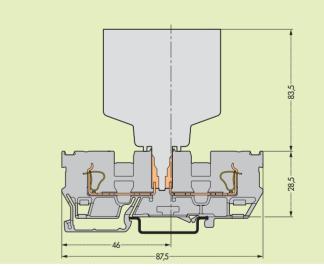






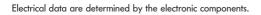












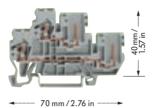


#### X-COM®-SYSTEM 1-Conductor/1-Pin Double Deck Receptacle Terminal Blocks Series 870

0.08 **− 2.5** mm<sup>2</sup>/4 mm<sup>2</sup>"f-st" AWG 28 − 12 500 V/6 kV/3 **①** 300/600 V, 16 A 20/5 A 0.08 **– 2.5** mm<sup>2</sup>/4 mm<sup>2</sup>"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 Terminal block width 5 mm / 0.197 in 6 – 7 mm / 0.26 in 6 – 7 mm / 0.26 in \* c911us CCAKEDA 💝 GL LR \* cSN us CCAKEDA 💖 GL LR

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

- 500 V = rated voltage6 kV = rated surge voltage 3 = pollution degree (see also section 15)
- Suitable for Ex i applications





See application notes on page 2.43

Description  1-cond./1-pin double deck receptacle terminal block, suitable for DIN 35 rail Printing 1st lev. 2nd lev.				ltem No.	Pack. unit pcs		ltem No.	Pack. unit pcs
			Through/through terminal blocks,			2-conductor/2-pin through terminal block,		
			housing color grey			internal commoning, housing color grey,		
	-	-	L/L	870-101	50	conductor entry p	osition colored in v	iolet
	blue	-	N/L	870-102	50	L	870-108	50
	-	blue	L/N	870-103	50			
			housing color blue	<del>)</del>		2-conductor/2-p	in through termin	al block,
	-	-	N/N	870-104 🕗	50	-	ng, housing color b	
							osition colored in v	
						N	870-109	50
				14/4AD /A4: 1	MCD	- "		
Accessories		Appr	opriate marking syst	em WMB/Mini-	-WSB (see section	n 14)		
	End and		1 mm / 0.039 in th	ick		1 mm/0.039 in th	ick	
	intermediate plate		grey	870-118	100 (4 x 25)	grey	870-118	100 (4 x
			orange	870-119	100 (4 × 25)	orange	870-119	100 (4 x
- 44	Insulation stop 10,	white	0.08 - 0.2 mm <sup>2</sup>	280-470	200 strips	0.08 - 0.2 mm <sup>2</sup>	280-470	200 strips
40000	5 pcs/strip	light grey	0.25 - 0.5 mm <sup>2</sup>	280-471	200 strips	0.25 - 0.5 mm <sup>2</sup>	280-471	200 strips
	о резилир	dark grey	0.75 – 1 mm <sup>2</sup>	280-472	200 strips	0.75 – 1 mm <sup>2</sup>	280-472	200 strips
	Push-in type jumpe	<u> </u>	2-way	870-402	200 (8 x 25)	2-way	870-402	200 (8 x
_	light grey, insulated,	r burs,	3-way	870-403	200 (8 x 25)	3-way	870-403	200 (8 x
100 100 100	0 0 /-		4-way	870-404	200 (8 x 25)	4-way	870-404	200 (8 x
	I <sub>N</sub> 18 A		5-way	870-405	100 (4 x 25)	5-way	870-405	
N N N					100 (4 X 23)	,		100 (4 x
0 0 0			:	: 870-410	100 (4 25)	:	: 870-410	100 /4
	Doob to tone tone	. l	10-way	0/0-410	100 (4 x 25)	10-way	0/0-410	100 (4 x
	Push-in type jumpe	r bars,	from 1 to 3	870-433	200 (8 × 25)	from 1 to 3	870-433	200 /0
	light grey, insulated,		from 1 to 3	870-434	, ,	from 1 to 3	870-434	200 (8 x :
mound	I <sub>N</sub> 18 A				200 (8 x 25)			200 (8 x )
Magazzzzz II			from 1 to 5	870-435	100 (4 x 25)	from 1 to 5	870-435	100 (4 x
•			: 1. 10	: 870-440	100 (4 05)	:	: 870-440	100 /4
	WACO WAR I:	1.	from 1 to 10	0/0-440	100 (4 x 25)	from 1 to 10	670-440	100 (4 x
STREET STREET	WAGO WMB multi	_						
DESCRIPTION OF THE PARTY OF THE	system, fits in all mini	lature VVSB	see section 14			see section 14		
-	receptacles	1 1:						
	Miniature WSB quick marking		r 14			1. 14		
	card, 10 strips with 10 markers		see section 14			see section 14		
Bank Bank Bank Bank Bank Bank Bank Bank	each, white with black printing							
	1-connector female	plug,	0.44			0.44		
- 4	straight		see page 9.44			see page 9.44		
•	1-connector female	plug,	0.44			0.44		
	angled		see page 9.46			see page 9.46		
	2-connector female	plug	cannot be used			cannot be used		

<sup>\*</sup>For further approvals with corresponding ratings see section 15.



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

\* c 👊 us CCA KETA 🐨 GL LR

 $0.08 - 2.5 \text{ mm}^2/4 \text{ mm}^2 \text{ "f-st"} \mid AWG 28 - 12$ 

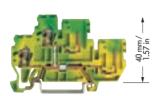
Terminal block width 5 mm / 0.197 in 6 – 7 mm / 0.26 in

\* cales CCAKEDA 🐨 GL LR

Types of assembly







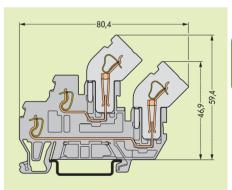
**→** 70 mm / 2.76 in —

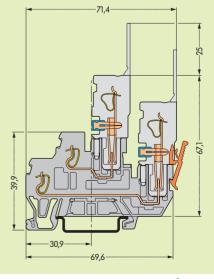
	ltem No.	Pack. unit pcs		Item No.	Pack. unit pcs
	onductor/through	terminal blocks,	-	oin ground (earth)	conductor
housing color grey	/		terminal block,		
PE/N	E/N <b>870-117</b> 50		internal commonir	ng, housing color gr	een-yellow
PE/L	870-127	50	PE	870-107	50
	A		B/Mini-WSB (s	14\	
		arking system <b>vvivi</b>			
1 mm / 0.039 in th			1 mm/0.039 in th		
grey	870-118	100 (4 x 25)	grey	870-118	100 (4 × 25
orange	870-119	100 (4 x 25)	orange	870-119	100 (4 x 25
0.08 - 0.2 mm <sup>2</sup>	280-470	200 strips	0.08 - 0.2 mm <sup>2</sup>	280-470	200 strips
0.25 - 0.5 mm <sup>2</sup>	280-471	200 strips	0.25 - 0.5 mm <sup>2</sup>	280-471	200 strips
0.75 – 1 mm <sup>2</sup>	280-472	200 strips	0.75 – 1 mm <sup>2</sup>	280-472	200 strips
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
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
see section 14			see section 14		
see section 14			see section 14		
see page 9.44			see page 9.44		
see page 9.46			see page 9.46		
cannot be used			cannot be used		



Using a push-in type jumper bar with double deck terminal block 870-501 and 1-conductor/1-pin double deck terminal block 870-101









### X-COM®-SYSTEM Male Connectors, Headers and Female Plugs Series 769 . . .

#### Male connectors with CAGE CLAMP® connection



Male connector with CAGE CLAMP<sup>®</sup> connection
 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

#### 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)

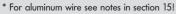
#### **Operating tool**



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



CAGE CLAMP\*
connects the following
copper wires: \*





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



stranded



fine stranded, also with tinned single strands

### ... Description and Handling

#### Coding



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

#### Locking lever



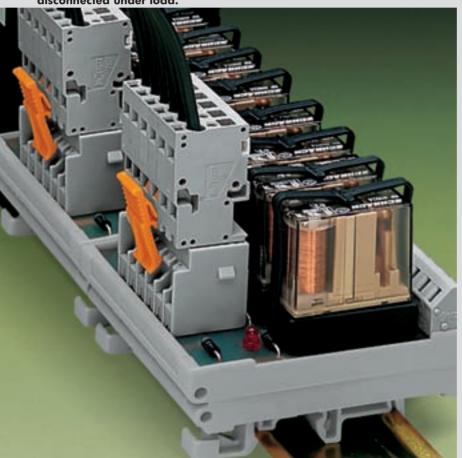
Snapping in /removal of locking lever

#### Commonig

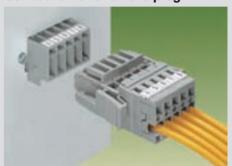


Commoning of 1-conductor female plugs with miniature adjacent jumpers

#### 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



fine-stranded wire with crimped ferrule 1

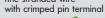


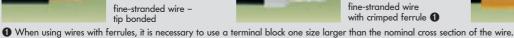
Headers with solder pins: Integration of PCB sub-assemblies into the system wiring



fine-stranded wire









# X-COM®-SYSTEM Male Connectors with CAGE CLAMP® Connection Pin Spacing 5 mm / 0.197 in

8 – 9 mm / 0.33 in

\* 91 @

8 – 9 mm / 0.33 in

k **91** 6

8 – 9 mm / 0.33 in

k **a**v @

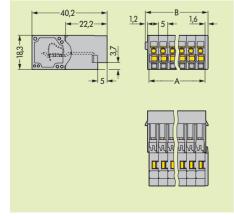




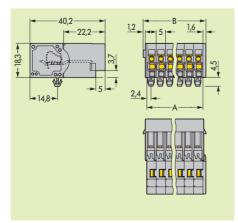


No. of poles	Item No.	Packunit pcs	No. of poles	Item No.	Packunit pcs	No. of poles	Item No.	Packunit pcs
Male con	nectors with CAGE C	LAMP® connection,	Male con	nectors with CAGE CLAMP	* connection and	Male cor	nectors with CAGE (	CLAMP® connection
grey			snap-in n	nounting feet, f. plate thickne	ss 0.6 – 1.2 mm,	and fixin	<b>g flanges,</b> for screw o	r similar types of
			fixing hole	Ø 3.5 mm, w. mounting adap	ter 209-137	fixing, for	vertical or horizontal f	xing, grey
2	769-602	100	2	769-602/001-000	100	2	769-602/002-0	<b>00</b> 100
3	769-603	100	3	769-603/001-000	100	3	769-603/002-0	<b>00</b> 50
4	769-604	100	4	769-604/001-000	100	4	769-604/002-0	<b>00</b> 50
5	769-605	50	5	769-605/001-000	50	5	769-605/002-0	<b>00</b> 50
6	769-606	50	6	769-606/001-000	50	6	769-606/002-0	<b>00</b> 50
7	769-607	25	7	769-607/001-000	25	7	769-607/002-0	<b>00</b> 25
8	769-608	25	8	769-608/001-000	25	8	769-608/002-0	<b>00</b> 25
9	769-609	25	9	769-609/001-000	25	9	769-609/002-0	<b>00</b> 25
10	769-610	25	10	769-610/001-000	25	10	769-610/002-0	<b>00</b> 25
11	769-611	25	11	769-611/001-000	25	11	769-611/002-0	<b>00</b> 25
12	769-612	25	12	769-612/001-000	25	12	769-612/002-0	<b>00</b> 25
13	769-613	15	13	769-613/001-000	15	13	769-613/002-0	<b>00</b> 15
14	769-614	15	14	769-614/001-000	15	14	769-614/002-0	<b>00</b> 10
15	769-615	10	15	769-615/001-000	10	15	769-615/002-0	<b>00</b> 10
Accesso	ories		Appropriate	marking system <b>Mini-WS</b>	<b>B</b> (see section 14)			
h min	For female	plugs	h min	For female plug	gs	h min	For femal	e plugs
V 122	see pages	9.44 – 9.46	17 1207	see pages 9.44 -	- 9.46	1 100	see pages	9.44 - 9.46
	🚣 Code pin,	orange,		Code pin, orang	ge,		Code pin,	orange,
	for coding	the female plugs		for coding the fe				the female plugs
	769-435	100 (4 x 25)		769-435	100 (4 x 25)		769-435	100 (4 x 25
	Operating	tool		Operating tool			Operating	g tool
	210-490	1		210-490	1		210-490	1
00	Strain relie	ef plate		Mounting adap	oter for DIN 35		Fixing scr	<b>ew,</b> M 2.5 x 16

Dimensions (in mm)

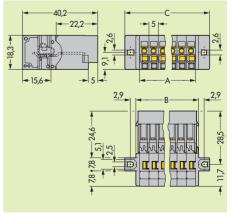


see page 9.36



rail, width 6.5 mm

209-137



and hexagon nut M 2.5

100 (4 x 25)

769-499

■ 8 – 9 mm / 0.33 in

\* 91 @

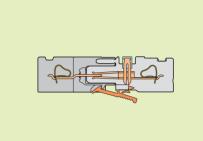
Pin spacing 5 mm / 0.197 in, grey 0.08 – 4 mm<sup>2</sup> 500 V/6 kV/3 32 A\*\*

8 - 9 mm / 0.33 in

Male connectors with CAGE CLAMP® connection



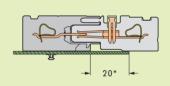




No. of poles	ltem No.	Packunit pcs	No. of poles	ltem No.	Packunit pcs
Male cor	nnectors with CAGE CLAM	P <sup>®</sup> connection	Male co	nnectors with CAGE CLAM	P <sup>®</sup> connection
for feedt	<b>hrough applications,</b> for scr	ew or similar	and sna	p-in flanges,	
types of fi	ixing, for vertical or horizonta	l fixing, grey	for moun	ting 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)

Male connectors with CAGE CLAMP® connection and mounting feet

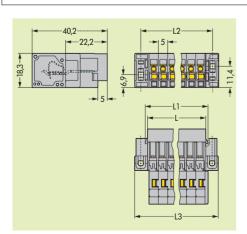


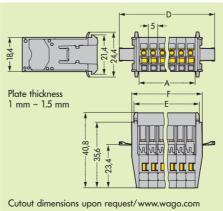
\* Maximum dimensions when using 1-conductor female plugs

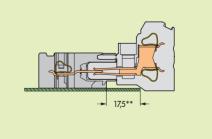
h min min	For female plugs
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	see pages 9.44 -
1	Code pin, orange
	for coding the fem
	769-435
	Operating tool
	210-490

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

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 D = A + 21.3 mm F = A = A + 4.9 mm = A + 8.1 mm
- $L=(No.\ of\ poles\ -\ 1)\times pin\ spacing\ +\ 6.2\ mm$  L 1 = L + 2.4 mm L 2 = L + 7 mm L 3 = L + 13.5 mm





# 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\*\*

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

\*91 ®

\*91 ®





No. of poles	Item No.	Pack. unit pcs	No. of poles	ltem No.	Pack. unit pcs
Headers with str	aight solder pins	, grey,	Headers with	right angle solder p	oins, grey,
solder pin	1 x 1 mm		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					
h 100 100	For female p	ugs		For female pl	ugs
Total Street	see pages 9.44	1 – 9.46		see pages 9.44	1 – 9.46
	Code pin, ord	inge,		Code pin, ord	inge,
_					



Connection to a relay module inside the switchgear cabinet



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

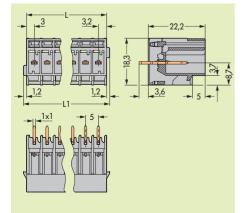
Dimensions (in mm)

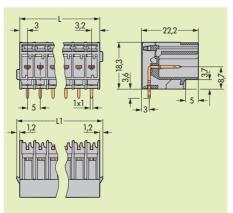
769-435

for coding the female plugs

100 (4 x 25)

Diameter of drilled hole: 1.4 +0.1 mm

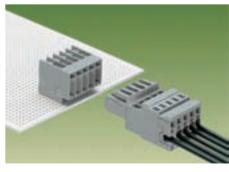




for coding the female plugs

100 (4 x 25)

769-435



<sup>\*</sup>For further approvals with corresponding ratings see section 15.

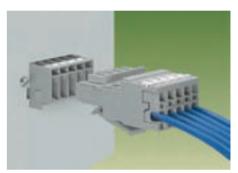
### Headers with Solder Pins and Fixing Flanges Pin Spacing 5 mm/ 0.197 in

Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 300/600V,10/5 A 74 300 V, 10 A ® 300 V, 10 A ® Pin spacing 5 mm / 0.197 in, grey 250 V/4 kV/3 300/600V, 10/5 A 5 300 V/4 kV/2 300 V, 10 A @ **Examples of application** \* 91 @ \* 91 @





No. of poles	ltem No.	Pack. unit pcs	No. of poles	ltem No.	Pack. unit pcs
Headers w	ith straight solder pins		Headers w	rith right angle solder pin	s
with fixing	flanges, grey,		with fixing	flanges, grey,	
solder pin	1 x 1 mm		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

#### **Accessories**

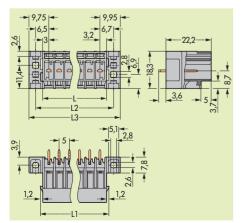
100	For female plugs				For female plugs	
	see pages 9.44 -	- 9.46	V CON LINE		see pages 9.44	- 9.46
	Code pin, orange,				Code pin, orange,	
	for coding the female plugs				for coding the f	emale plugs
	769-435	100 (4 x 25)			769-435	100 (4 x 25)

Dimensions (in mm)

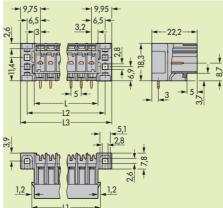
Diameter of drilled hole: 1.4 +0.1 mm

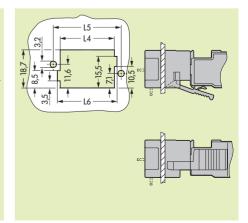
Header and 1-conductor female plug with lateral locking levers

L3 = L + 13.5 mm



L4 = No. of poles x pin spacing + 1.7 mm L5 = L4 + 6.6 mm L6 = L4 + 2.6 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

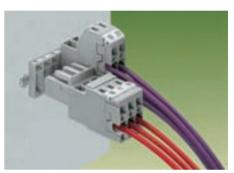
 Pin spacing 5 mm / 0.197 in, grey
 250 V/4 kV/3
 300/600V, 10/5 A 7NL
 250 V/4 kV/3
 300/600V, 10/5 A 7NL
 250 V/4 kV/2
 300 V, 10 A ®
 \*\*\*

 \*\*\*\*\*
 \*\*\*\*
 \*\*\*\*
 \*\*\*\*
 Examples of application



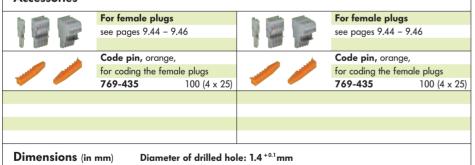


No. of poles	Item No.	Pack. unit pcs	No. of poles	Item No.	Pack. unit pcs
Headers w	rith straight solder pins w	rith fixing	Headers w	rith right angle solder pir	ns with fixing
flanges for	feedthrough application	<b>s,</b> grey,	flanges for	feedthrough application	ı <b>s,</b> grey,
solder pin	1 x 1 mm		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
_					



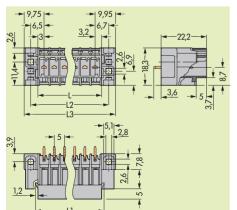
Header and 1-and 2-conductor female plugs

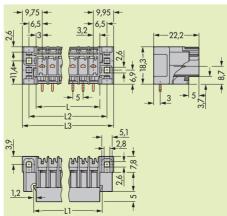






Header and 1-conductor female plug with **lateral** locking levers





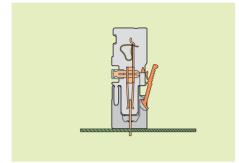
 $L=(No. of poles-1) \times pin spacing+6.2 mm$  L1=L+2.4 mm L2=L+7 mmL3=L+13.5 mm

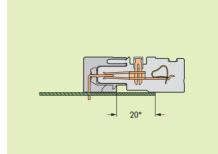
<sup>\*</sup> For further approvals with corresponding ratings see section 15.

<sup>\*\*</sup> See current-carrying capacity curves page 9.50 and www.wago.com

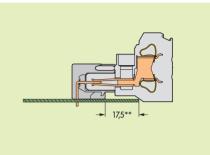
## Types of Application Headers with Solder Pins with 1-/2-Conductor Female Plugs

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





\* Maximum dimension when using 1-conductor female



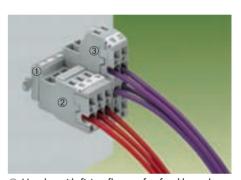
\*\* Maximum dimension when using 2-conductor female



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



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

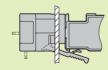


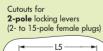
- $\ensuremath{\textcircled{1}}$  Header with fixing flanges for feedthrough application
- 2 1-conductor female plug3 2-conductor female plug

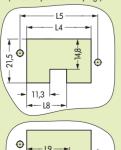
Dimensions (in mm)

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

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

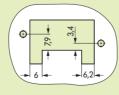






Layout for locking levers

outer...



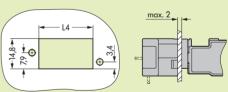
single pole locking levers

Cutouts for

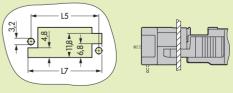


**←**[]] → **(** L10

#### Female plug without locking levers



Female plug with lateral locking levers



L 4 = No. of poles x pin spacing + 1.7 mm

L 5 = L4 + 6.6

L 8 = No. of poles  $V \times pin spacing - 0.3 mm$ 

L 9 = L8 + 11.6

L10 = No. of poles V x pin spacing + 0.6 mm L11 = L10 + 5.4 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 mm<sup>2</sup> 500 V/6 kV/3 **①** 32 A\*\* AWG 28 - 12 300/600 V, 10/5 A **9** 300 V, 10 A ®

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

\* 🗫 🏽 KEDA CCAKEDA 💖 GL LR

0.08 - 4 mm<sup>2</sup> 500 V/6 kV/3 **0** 32 A\*\*

AWG 28 - 12 300/600 V, 10/5 A **9** 300 V, 10 A @

Module width 5 mm / 0.197 in ■ 8 - 9 mm / 0.33 in

\* **9**1 6





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

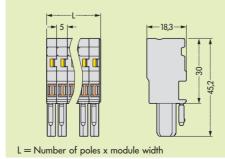
2 See application notes on page 2.43

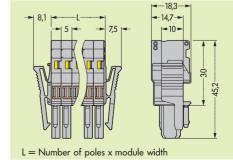
Description			No. of poles	ltem No.		Pack. unit pcs	No. of poles	ltem No.	Pack. unit pcs
1-conductor fem	ale plug,		1-conductor female plugs, with coding fingers, grey,				1-conductor female plugs with lateral locking		
to be fixed on rece	eptacle terminal blocks		commoning possib				levers, with cod	ing fingers, grey,	
or male connectors	S		1 pole	769-101		200	commoning poss	ibility with miniature adjo	cent jumper
			2 poles	769-102		100	– only to be us	ed for male connector	s –
			3 poles	769-103		50	2 poles	769-102/021-000	50
			:	:			3 poles	769-103/021-000	25
			14 poles	769-114		10	4 poles	769-104/021-000	25
			15 poles	769-115		10	:	:	
1-conductor fem	ale plug, green-yellow	,	1-conductor fem	ale plug,			9 poles	769-109/021-000	20
Higher number of	poles and/or mixed		with coding finger	s, green-yell	ow,		:	:	
(grey/green-yellow	v) on request		commoning possib	ility with mir	niature adjac	ent 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		ni-WSB (				
4400	Insulation stop <b>2</b> ,	white	0.08 - 0.2 mm <sup>2</sup>	769-470		200 strips	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strip
00000	5 pcs/strip	light grey	0.25 - 0.5 mm <sup>2</sup>	769-471		200 strips	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strip
-		dark grey	0.75 – 1 mm <sup>2</sup>	769-472		200 strips	0.75 – 1 mm <sup>2</sup>	769-472	200 strip
	Miniature adjacent		I <sub>N</sub> 24 A				I <sub>N</sub> 24 A		
7	insulated, suitable for		grey	769-402		100 (4 x 25)	grey	769-402	100 (4 x
II/4	1-conductor female p	olugs							
	Locking levers,		Female plugs with	•	2 poles an				
2	can be snapped on f	emale plugs	grey	769-428		100 (4 x 25)			
			orange	769-429	769-431	100 (4 x 25)			
	Protective warning								
20000	for 5 terminal blocks,		yellow	280-415		100 (4 x 25)	yellow	280-415	100 (4 x
	fits into screwdriver s								
	Test plug, w. cable 50								
		1/0.079 in Ø	red	210-136		50 (5 x 10)	red	210-136	50 (5 x
		1/0.091 in Ø	yellow	210-137		50 (5 x 10)	yellow	210-137	50 (5 x
	Strain relief plate,		grey				grey		
00	snap-on typ,		1 pole	769-410		100 (4 x 25)	1 pole	769-410	100 (4 x
	for 1-conductor femo	ale plugs	2 to 3 poles	769-411		100 (4 x 25)	2 to 3 poles	769-411	100 (4 x
			4 to 5 poles	769-412		100 (4 x 25)	4 to 5 poles	769-412	100 (4 x
			4 . 0 . 1	769-413		100 (4 x 25)	6 to 9 poles	769-413	100 (4 x
1111			6 to 9 poles	769-413		100 (4 X 23)	o to 9 poies	707-413	100 (4 X

#### 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





<sup>\*</sup> For further approvals with corresponding ratings see section 15.

<sup>\*\*</sup> See current-carrying capacity curves pages 9.48 – 9.51 and www.wago.com

### 2-Conductor Female Plugs

0.08 - 4 mm<sup>2</sup> 500 V/6 kV/3 **0** 32 A\*\*

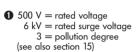
AWG 28 - 12 300/600 V, 10/5 A **%** 300 V, 10 A ®

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

\* 🗫 🍪 CCAKEDA 🐨 GL LR

**Application notes** 

Dimensions of the female plugs









#### 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

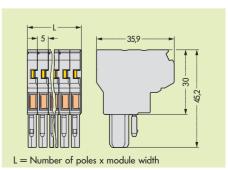
#### Commoning possibility of female plugs

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

Description			No. of poles	ltem No.	Pack. unit pcs	
2-conductor fema	le plug,		2-cond. female	plugs, with coding finger	s, grey,	
to be fixed on rece	otacle terminal blocks		commoning possib	ility w. adjacent jumpers a. s	taggered jumper	
or male connectors			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 fema	le plug, green-yellow		2-conductor female plug,			
Higher number of p	ooles and/or mixed		with coding fingers, green-yellow, commoning possibility			
(grey/green-yellow)	on request		with adjacent jur	mpers and staggered jum	pers	
			1 pole	769-121/000-016	100	
Accessories	Appro	priate markin	ng system Mini-V	VSB (see section 14)		
~~A	Insulation stop <b>Q</b> ,	white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips	
0000	F /-t-:	Parks and	0.05 0.52	740 471	200 -1	

	e plug, green-yellow	2-conductor female plug,			
Higher number of po	oles and/or mixed	with coding fingers, green-yellow, commoning possibility			
(grey/green-yellow)	on request	with adjacent jumpers and staggered jumpers			
		1 pole	769-121/000-016	100	
Accessories	Appropriate markin	ng system <b>Mini-W</b>	<b>SB</b> (see section 14)		
	Insulation stop 2, white	0.08 - 0.2 mm <sup>2</sup>	769-470	200 strips	
00000	5 pcs/strip light grey	0.25 - 0.5 mm <sup>2</sup>	769-471	200 strips	
	dark grey	0.75 – 1 mm <sup>2</sup>	769-472	200 strips	
	Adjacent jumpers, insulated,	<sub>N</sub> 24 A			
T	suitable for 2-conductor female	grey	280-402	200 (8 x 25)	
Ų4	plugs				
	Staggered jumper 2, from 1 to 2	I <sub>N</sub> 24 A	780-452	100 (4 x 25)	
	insulated, from 1 to 3		780-453	100 (4 x 25)	
	width 5 mm/0.197 in, from 1 to 4		780-454	100 (4 x 25)	
	suitable for 2-conduc- from 1 to 5		780-455	50 (2 x 25)	
	tor female plugs :		:		
	from 1 to 8		780-458	50 (2 x 25)	
	Locking levers,	Female plugs with	1 pole 2 poles ar	nd more	
	can be snapped on female plugs	grey		100 (4 x 25)	
		orange	769-429 769-431	100 (4 x 25)	
	Protective warning marker,				
	for 5 terminal blocks,	yellow	280-415	100 (4 x 25)	
	fits into screwdriver slot				
	<b>Test plug,</b> w. cable 500 mm/1'7.7"				
	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,	grey			
	snap-on typ,	1 pole	769-410	100 (4 x 25)	
	for 2-conductor female plugs	2 to 3 poles	769-411	100 (4 x 25)	
		4 to 5 poles	769-412	100 (4 x 25)	
1111		6 to 9 poles	769-413	100 (4 x 25)	

10 to 15 poles **769-414** 



<sup>\*</sup> For further approvals with corresponding ratings see section 15.

<sup>100 (4</sup> x 25) \*\* See current-carrying capacity curves pages 9.48 – 9.51 and www.wago.com

0.08 - 4 mm<sup>2</sup> 500 V/6 kV/3 **0** 32 A\*\*

AWG 28 - 12 300/600 V, 10/5 A **%** 300 V, 10 A ®

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

\* 🗫 🍪 CCAKEDA 💖 LR

No. of

poles

**Examples of application** 

Dimensions of the female plugs



ltem

1-conductor angled female plugs,



Pack. unit

pcs

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

**Description** 

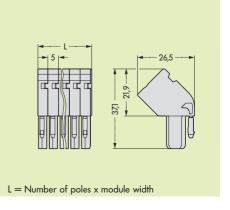
Angled female plug,

2 See application notes on page 2.43

Anglea remale pi	ug,	1-conductor an	igiea remaie piugs,	
for use with receptor	icle terminal blocks of series 769 c	and with coding finge	ers, grey	
870 or male connec	tors	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 pl	ug, green-yellow	1-conductor an	igles female plug,	
Higher number of p		with coding finge		
(grey/green-yellow)		1 pole	769-101/022-016	100
Accessories	Appropriate marking	a system Mini-WSB	/WMB (see section 14	)
and a		nite 0.08 – 0.2 mm <sup>2</sup>	769-470	200 strips
	5 pcs/strip light gr		769-471	200 strips
	dark gi		769-472	200 strips
	Protective warning marker,	0.00 1 111111	707 172	200 011.100
	for 5 terminal blocks,	yellow	280-415	100 (4 x 2
200	fits into screwdriver slot	75511	2000	100 (1 X Z
	Test plug, w. cable 500 mm/17	77"		
	2 mm / 0.079 in		210-136	50 (5 x 1
	2.3 mm / 0.091 in		210-137	50 (5 x 1
	Strain relief plate,	grey	210 107	00 (0 X )
007	snap-on typ,	1 pole	769-410	100 (4 x 2
			7	
	for 1-conductor female pluas	2 to 3 poles	769-411	100 (4 x 2
	for 1-conductor female plugs	2 to 3 poles 4 to 5 poles	769-411 769-412	
	for 1-conductor female plugs	4 to 5 poles	769-412	100 (4 x 2
	for 1-conductor female plugs	4 to 5 poles 6 to 9 poles	769-412 769-413	100 (4 x 2 100 (4 x 2
		4 to 5 poles 6 to 9 poles 10 to 15 poles	769-412	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking	4 to 5 poles 6 to 9 poles 10 to 15 poles	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS	4 to 5 poles 6 to 9 poles 10 to 15 poles	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles	4 to 5 poles 6 to 9 poles 10 to 15 poles  g see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles g SB see section 14	769-412 769-413	100 (4 x 2 100 (4 x 2
	WAGO WMB multi-marking system, fits in all miniature WS receptacles Miniature WSB quick marking card, 10 strips with 10 markers	4 to 5 poles 6 to 9 poles 10 to 15 poles  8 see section 14  see section 14	769-412 769-413	100 (4 × 2 100 (4 × 2 100 (4 × 2 100 (4 × 2







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



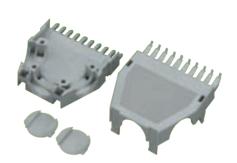
- Snap-on type strain relief housings suitable for 
   straight and angled female plugs 
  with CAGE CLAMP® connection 
   male connectors with CAGE CLAMP® 
  connection

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







No. of poles	ltem No.	Pack. unit pcs	No. of Item poles No.		Pack. unit pcs	
Snap-on type strain relief housings,			Snap-on type strain relief housings,			
pin spacing 5 mm/0.197 in, grey			pin spacing 5 mm/0.197 in, grey			
consisting of: strain relief support			consisting of: strain relief support			
strain relief housing			strain relief housing			
2	769-1602 🛈	25	6	769-1606 🛈	25	
3	769-1603 🛈	25	7	769-1607 🛈	25	
4	769-1604 🛈	25	8	769-1608 🛭	25	
5	769-1605 🛈	25	9	769-1609 2	25	
			10	769-1610 🔞	25	
			11	769-1611 <b>③</b>	25	
			12	769-1612 <b>③</b>	25	
			13	769-1613 🔞	25	
			14	769-1614 <b>③</b>	25	
			15	769-1615 🔞	25	
1 cable out	let rear, 2- to 5-pole only	suitable for				
cable ties (Fa. Hellermann – not offered by WAGO)			1 cable outlet rear			
not for cable clamp			2 cable ou	utlets, 1 cover		
·			3 3 cable outlets, 2 covers			
Accessorie	s (WSB marker cards see	section 14)				
			Cable clamp, for strain relief			
				209-174	25	



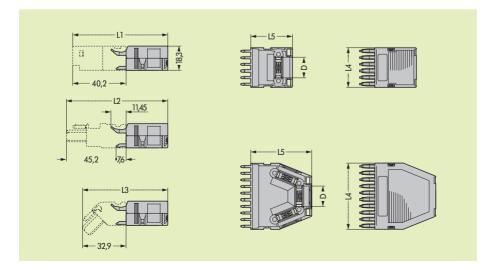
Snapping on strain relief housing





Female connector with strain relief housing



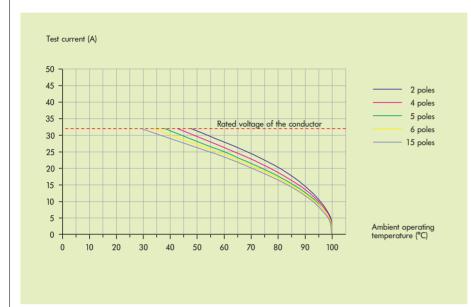


#### Dimensions for strain relief housings

No. of poles	L,	L <sub>2</sub>	L <sub>3</sub>	L <sub>4</sub>	L <sub>5</sub>	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

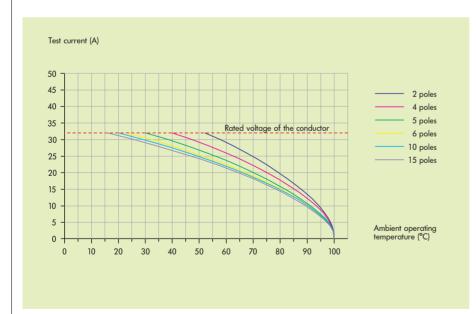




1-conductor/ 1-pin receptacle terminal block Cross section of conductor:

1-conductor female plugs Cross section of conductor: Length of the conductor: 769-176 4 mm²/AWG 12

769-102 to 769-115 4 mm<sup>2</sup>/AWG 12



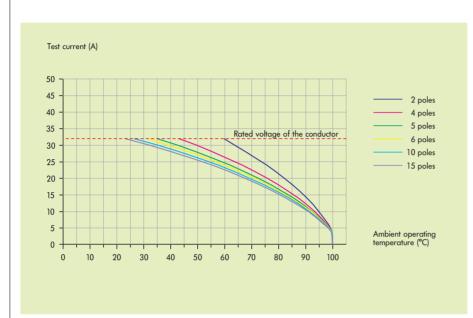


2-pin receptacle terminal block 769-156

1-conductor female plugs Cross section of conductor: Length of the conductor: 769-102 to 769-115 4 mm<sup>2</sup>/AWG 12 1 m

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





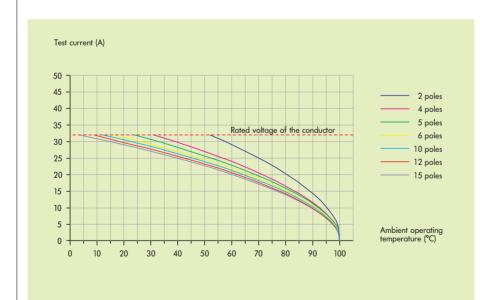


2-conductor/ 2-pin receptacle terminal block Cross section of conductor:

1-conductor female plugs Cross section of conductor: Length of the conductor: 769-171 4 mm²/AWG 12

male plugs 769-102 to 769-115 of conductor: 4 mm²/AWG 12

1 m





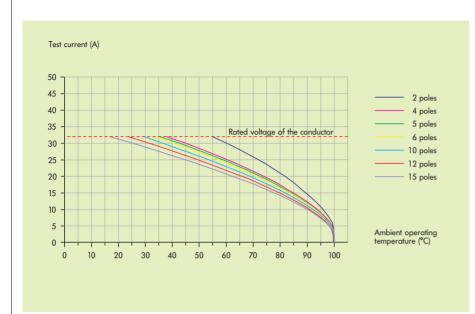
4-pin receptacle terminal block 769-151

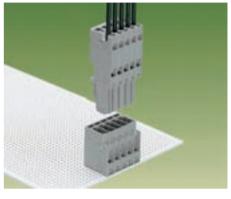
1-conductor female plugs 769-102 to 769-115 Cross section of conductor: 4 mm²/AWG 12 Length of the conductor: 1 m



## X-COM®-SYSTEM

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

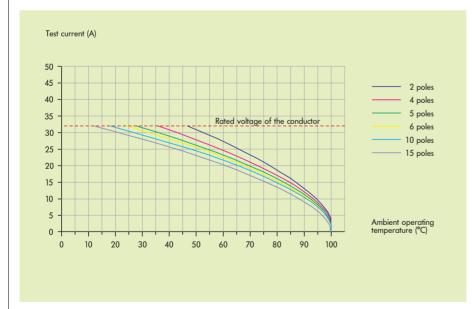


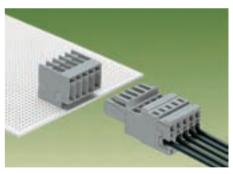


Headers with straight solder pin

1-conductor female plugs Cross section of conductor: Length of the conductor:

769-632 to 769-645 769-102 to 769-115 4 mm<sup>2</sup>/AWG 12





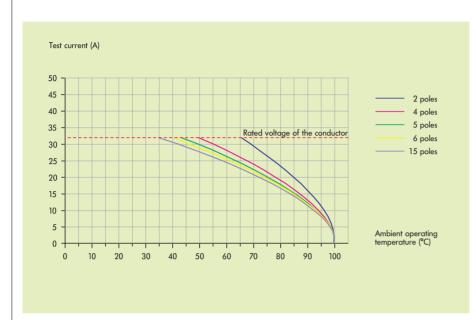
Headers with right angle solder pins

1-conductor female plugs Cross section of conductor: Length of the conductor:

769-662 to 769-675 769-102 to 769-115 4 mm<sup>2</sup>/AWG 12 1 m

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







Male connectors with CAGE CLAMP® connection Cross section of conductor:

1-conductor female plugs Cross section of conductor: Length of the conductor: 769-602 to 769-615 4 mm<sup>2</sup>/AWG 12

769-102 to 769-115 4 mm<sup>2</sup>/AWG 12 1 m



