

ELECTRICAL  
INTERCONNECTIONS



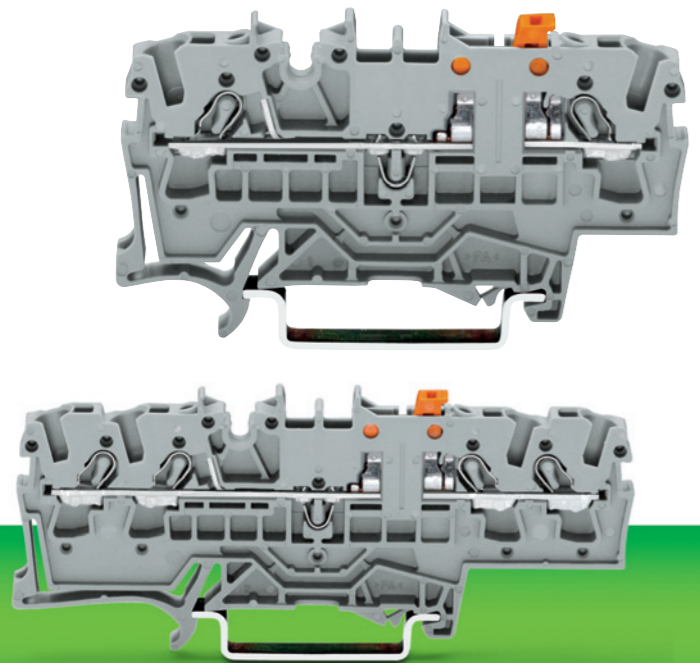
• Fuse, disconnect & test terminal blocks

• 100% spring clamp technology. The safe alternative.

**WAGO**®  
INNOVATIVE CONNECTIONS

# TOPJOB® S Innovations for even greater safety

**NEW**



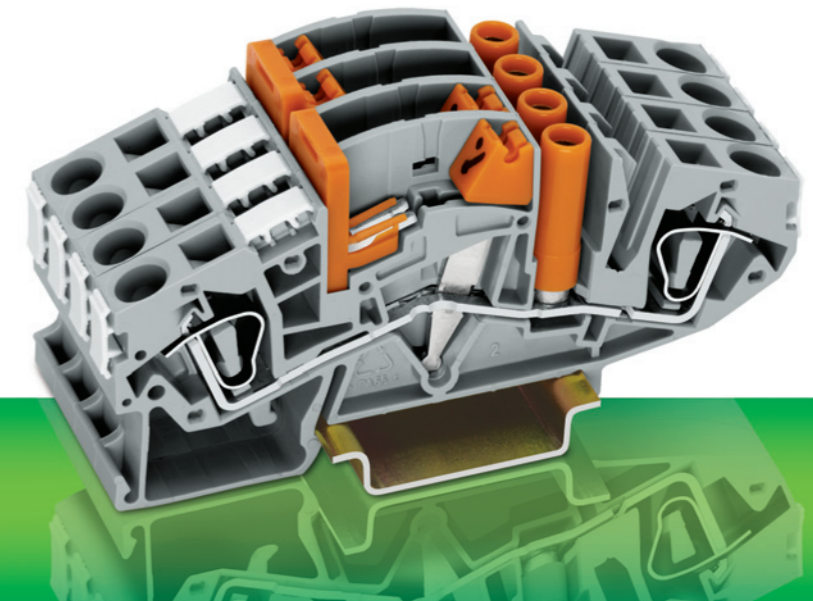
TOPJOB®S disconnect terminal block in 2- and 4-conductor design

**Product profile**  
 TOPJOB®S 2- and 4-conductor disconnect terminal blocks, Series 2002  
 Terminal block width: 5.2 mm  
 Cross-section range: 0.25 mm<sup>2</sup>-2.5 mm<sup>2</sup>/4 mm<sup>2</sup> (with/without ferrule)  
 Rated voltage: 400 V/6 kV/3  
 Rated current: 16 A

## Transverse disconnect terminal blocks for current transformer circuits

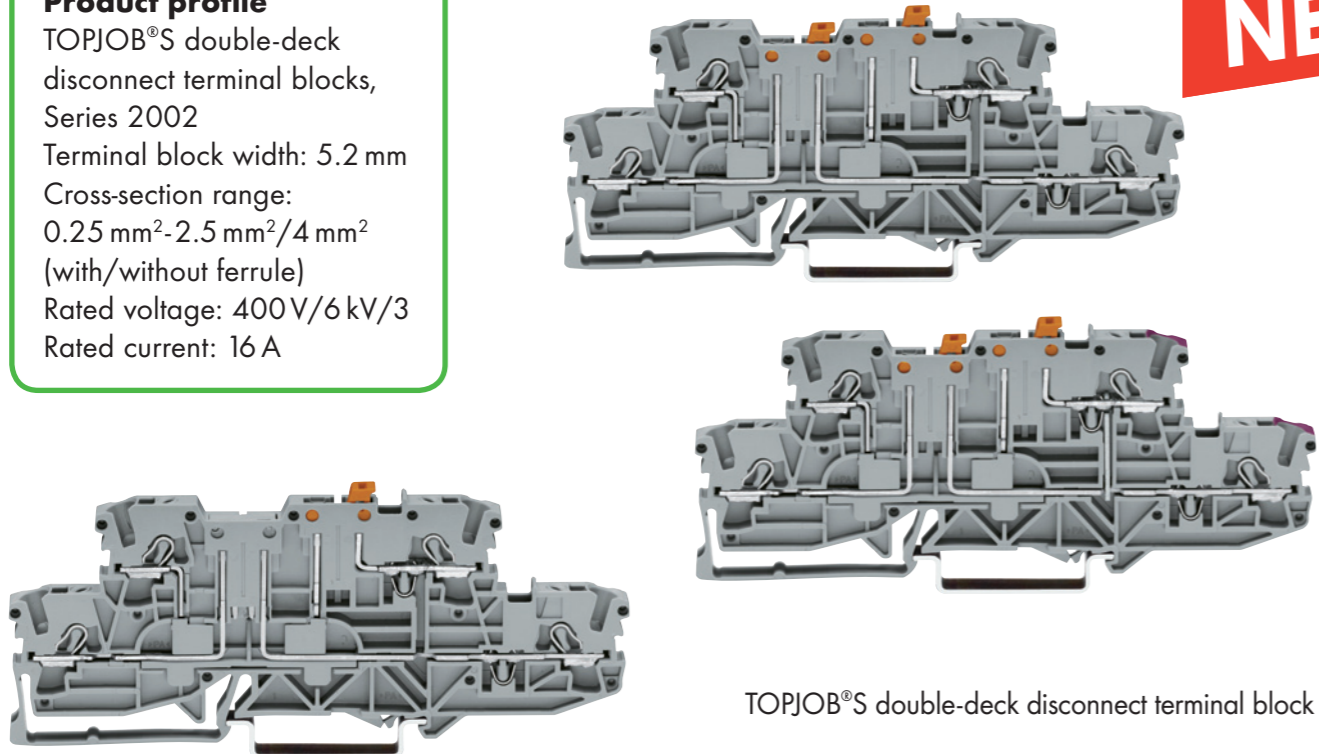
### Functional and safe

With a depth of only 89 mm, the transverse disconnect terminal block is currently the most compact screwless terminal block of its kind. It can be used, in particular, to provide clear and cost-effective short-circuiting of current transformers.



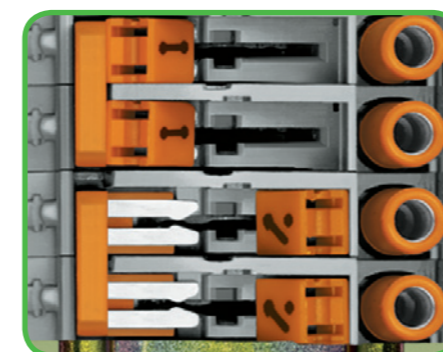
**Product profile**  
 TOPJOB®S double-deck disconnect terminal blocks, Series 2002  
 Terminal block width: 5.2 mm  
 Cross-section range: 0.25 mm<sup>2</sup>-2.5 mm<sup>2</sup>/4 mm<sup>2</sup> (with/without ferrule)  
 Rated voltage: 400 V/6 kV/3  
 Rated current: 16 A

**NEW**



TOPJOB®S double-deck disconnect terminal block

- Insulated circuit jumpers for linking several terminal blocks depending on circuit requirements
- Recessed switch lever prevents accidental operation
- Integral insulated test sockets for Ø 4 mm test plugs on the transformer side
- Coupling device for simultaneous operation of several switch levers
- Three marking options
- Dimensions: 8 x 37.5 x 89 mm (W x H x D)

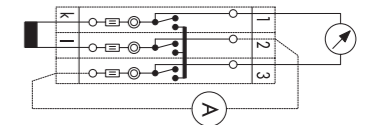


Short-circuit jumper

Normal operation



Measurement testing



Transformer short-circuit

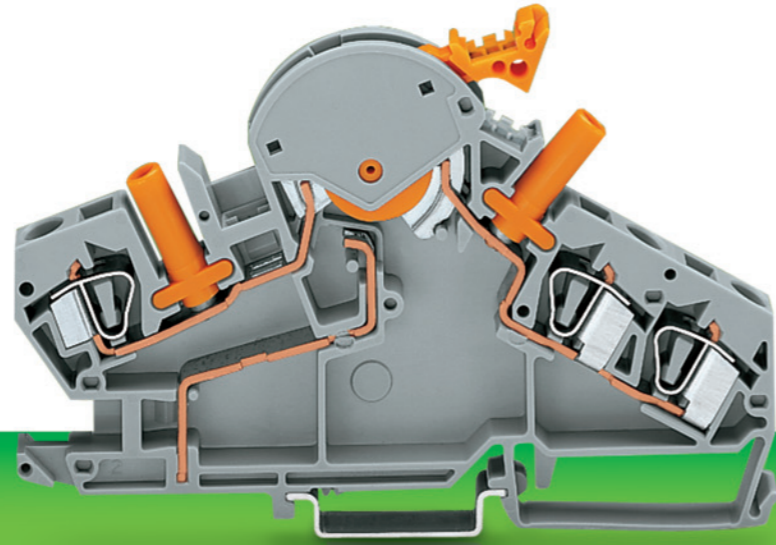




## Longitudinal disconnect terminal blocks for current transformer circuits

# Automatically and safely shorted

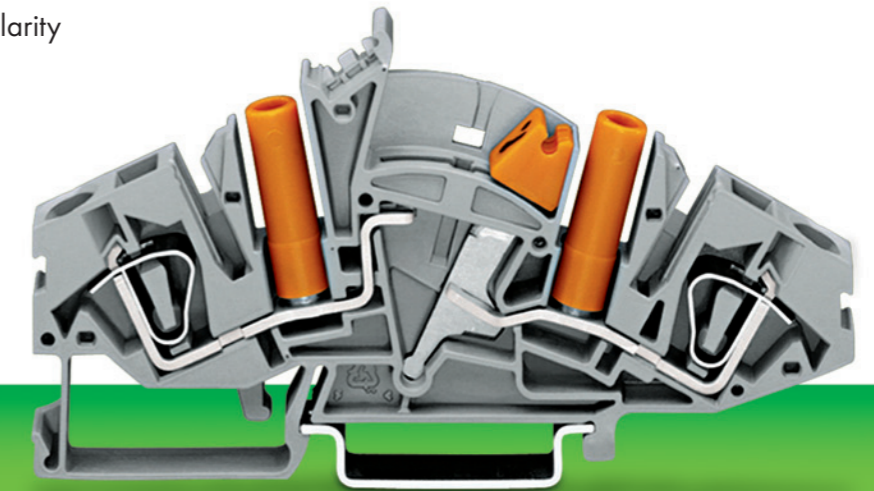
With these disconnect and test terminal blocks for current transformer circuits, the transformer secondary winding is automatically short-circuited when the screwless, pivoting disconnect link is switched over. There are no undefined intermediate positions. The terminal blocks are prepared for short-circuiting the transformer - once and for all - by the single action of plugging in a short-circuit jumper.



## Longitudinal disconnect terminal blocks for current transformer circuits

# Compact and economic

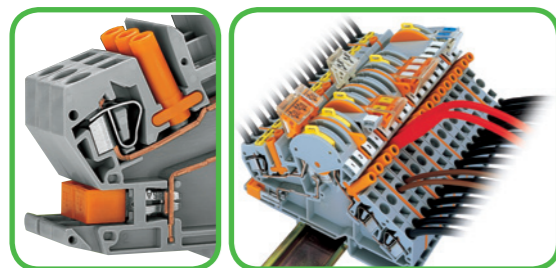
Transformer test circuits (reference measurement, transformer short-circuit and relay testing) can be implemented particularly in a cost-effective way with just two longitudinal disconnect terminal blocks - without loss of clarity and safety.



## Switchable rail-mounted terminal blocks for current transformer secondary circuits

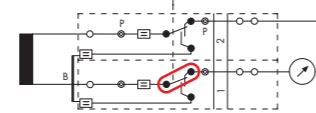
### All the advantages and safety-related features in brief:

- Automatic short-circuiting of the transformer secondary winding
- Jumper position at bottom of terminal block for preparing to short-circuit transformer
- Latching switch lock prevents accidental opening/disconnection in both switch positions
- Simultaneous switching of up to 4 terminal blocks by means of transparent cover clipped to disconnect link
- Jumper position on transformer side for circuit-related cross-bridging
- Touchproof test sockets for Ø 4 mm test plugs
- One CAGE CLAMP® connection on the transformer side, two on the measuring side

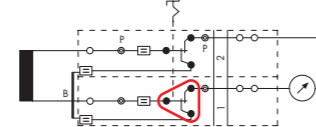


Short-circuit jumper position

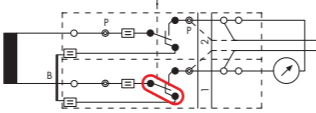
Normal operation



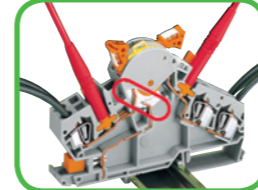
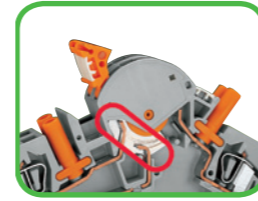
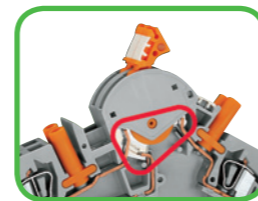
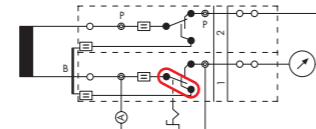
Transformer short-circuit



Relay testing

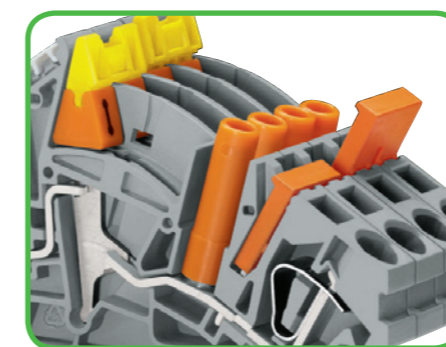


Measurement testing



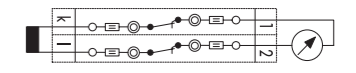
### The advantages in detail:

- Captive storage of short-circuit jumper in pre-latching position
- Integral insulated test sockets for Ø 4 mm test plugs on the transformer and measuring side
- Coupling device for simultaneous operation of several switch levers
- Recessed switch lever prevents accidental operation
- Switch lock safeguards the current switching state
- Three marking options
- Dimensions: only 8 x 46.5 x 98 mm (W x H x D)

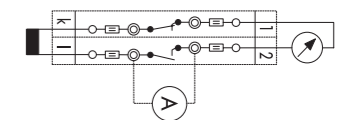


Jumpers

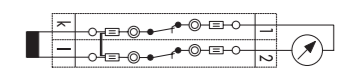
Normal operation



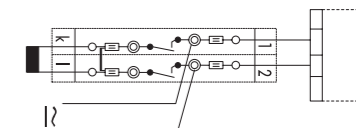
Measurement testing



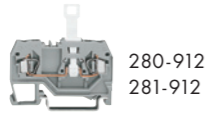

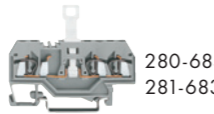

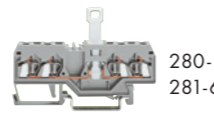

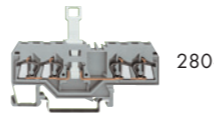



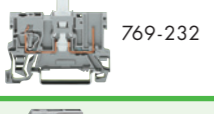


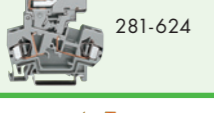
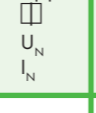

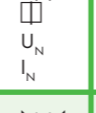

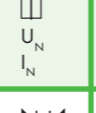

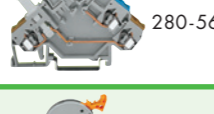





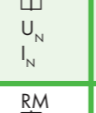




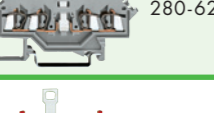

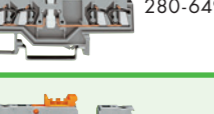
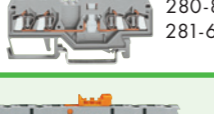
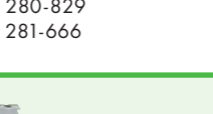
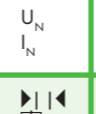
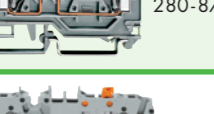









Transformer short-circuit



Relay testing



# Disconnect terminal blocks for test and measurement

<b>Series 280/281</b>	 280-912  281-912	 280-683  281-683	 280-836  281-659	 280-685		5 mm / 6 mm 0.08 - 2.5 mm <sup>2</sup> / 4 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	with disconnect tab		
<b>Series 280</b>	 280-622	 280-612					5 mm 0.08 - 2.5 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	with disconnect tab	
<b>Series 769</b>	 769-232	 769-212					5 mm 0.08 - 4 mm <sup>2</sup> 400 V / 6 kV / 3 <b>16 A</b>	X-COM SYSTEM, DISCONNECT RECEPTACLE TERMINAL BLOCKS	
<b>Series 281</b>	 281-624					8 mm 0.08 - 4 mm <sup>2</sup> 800 V / 8 kV / 3 <b>16 A</b>	with disconnect tab		
<b>Series 282</b>	 282-697					8 mm 0.2 - 6 mm <sup>2</sup> 400 V / 6 kV / 3 <b>30 A</b>			
<b>Series 280</b>	 280-521					5 mm 0.08 - 2.5 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	Double deck		
<b>Series 280</b>	 280-563	 280-562					5 mm 0.08 - 2.5 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	Sensor/actuator terminal blocks	
<b>Series 282</b>	 282-860	 282-870	 282-821	 282-811		8 mm 0.2 - 6 mm <sup>2</sup> 500 V / 6 kV / 3 <b>30 A</b>	e.g. for voltage transformer circuits		
<b>Series 742</b>	 742-101	 742-151	 742-153				RM 	5 mm / 5.08 mm 0.08 - 2.5 mm <sup>2</sup> 250 V / 4 kV / 3 500 V / 4 kV / 2 <b>16 A</b>	PCB terminal blocks
<b>Series 280</b>	 280-627					5 mm 0.08 - 2.5 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	with disconnect tab and test sockets		
<b>Series 280/281</b>	 280-649	 280-829	 281-666					5 mm / 6 mm 0.08 - 2.5 mm <sup>2</sup> / 4 mm <sup>2</sup> 400 V / 6 kV / 3 <b>10 A</b>	with disconnect tab and test sockets
<b>Series 280</b>	 280-870	 280-874					5 mm 0.08 - 2.5 mm <sup>2</sup> 400 V / 6 kV / 3 <b>16 A</b>	with disconnect link and integral test opening	
<b>Series 2002</b>	 2002-1671	 2002-1871					5.2 mm 0.25 - 2.5 mm <sup>2</sup> / 4 mm <sup>2</sup> 400 V / 6 kV / 3 <b>16 A</b>	CAGE CLAMP <sup>®</sup> S connection	
<b>Series 2002</b>	 2002-2951	 2002-2958	 2002-2971					5.2 mm 0.25 - 2.5 mm <sup>2</sup> / 4 mm <sup>2</sup> 400 V / 6 kV / 3 <b>16 A</b>	CAGE CLAMP <sup>®</sup> S connection Double deck

The use of WAGO disconnect terminal blocks or disconnect/test terminal blocks gives you the following advantages:

#### Connection:

- CAGE CLAMP<sup>®</sup> connection for single, stranded and fine-stranded conductors up to 6 mm<sup>2</sup>
- CAGE CLAMP<sup>®</sup>S connection Series 2002 for single, stranded and fine-stranded conductors up to 4 mm<sup>2</sup> enables direct insertion of single and fine-stranded conductors with ferrules
- Single and double connection on the input and/or output side for circuit multiplication without jumpers or additional terminal blocks

#### Function:

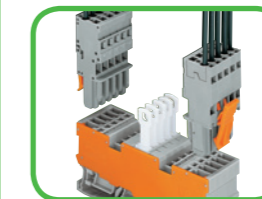
- Screwless disconnect mechanism, easy-to-use pivoting disconnect link or disconnect tab
- Clear switching state indicator
- Rated current up to 30 A, rated voltage up to 800 V

#### Designs:

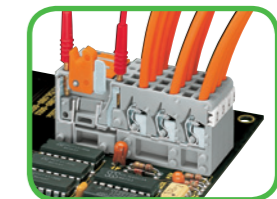
- Disconnect/test terminal blocks for printed circuit boards, i.e. the transposition of rail-mounted terminal block functions to the printed circuit board
- Disconnect function also included in multilevel rail-mounted terminal blocks and terminal blocks for sensors and actuators
- WAGO X-COM-SYSTEM disconnect receptacle terminal blocks enable modules to be pre-assembled with plug-in wiring
- Save space in the lengthwise direction: TOPJOB<sup>®</sup>S double-deck disconnect terminal blocks

#### Extras:

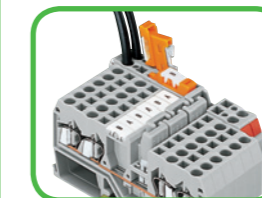
- Disconnectors available in different colours, e.g. to discriminate between different signal groups
- The same shape as corresponding through terminal blocks provide clarity and ease of inspection
- Permanent test sockets or optionally for modules
- Numerous jumper systems for commoning on the input and/or output side for safe and cost-effective implementation of sophisticated circuit requirements



Plug-in wiring to disconnect terminal blocks



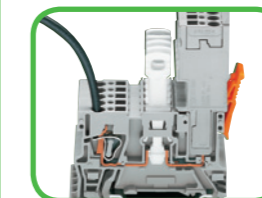
Test, measurement and disconnect terminal block



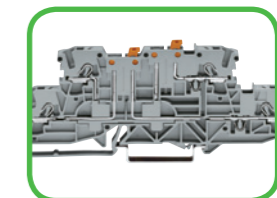
Staggered jumpers for sophisticated circuit requirements



Disconnect link removable by hand




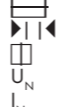


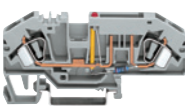
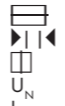



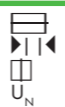








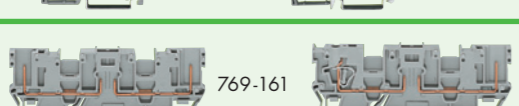





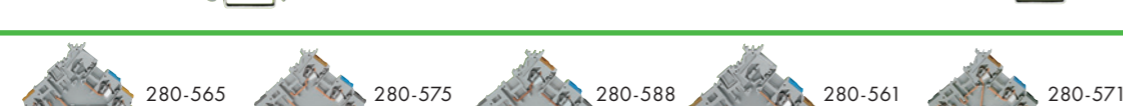



1-conductor female connector, jumpers cannot be fitted to disconnect receptacle terminal blocks



Two disconnect terminal blocks with different voltages in a width of only 5.2 mm



# Fuse terminal blocks

Series 281	 281-611		5 x 20 mm, 5 x 25 mm, 5 x 30 mm 8 mm 0.08 - 4 mm <sup>2</sup> 800 V/8 kV/3 <sup>①</sup> <b>10 A</b> "T", 6.3 A "FF", "T" <sup>①</sup>	pivoting fuse holder
Series 281	 281-613 281-541		1/4 x 1", 1/4 x 1 1/4" 10 mm 0.08 - 4 mm <sup>2</sup> 800 V/8 kV/3 <b>10 A</b> "T", 6.3 A "FF", "T" <sup>①</sup>	pivoting fuse holder
Series 282	 282-689 281-429		Blade fuse insert for automobile fuses 8 mm 0.2 - 6 mm <sup>2</sup> 400 V/6 kV/3 <sup>①</sup> <b>25 A/30 A</b> <sup>①</sup>	
Series 282	 282-122 282-166		5 x 20 mm, 5 x 25 mm, 1/4 x 1", 1/4 x 1 1/4" 13 mm 0.2 - 6 mm <sup>2</sup> 500 V/6 kV/3 <sup>①</sup> <b>10 A</b> <sup>①</sup>	
Series 742	 742-116 742-166 742-168		Mini-Fuse* blade fuse insert 5 mm (grey), 5.08 mm (orange) 0.08 - 2.5 mm <sup>2</sup> 250 V/4 kV/3 or 500 V/4 kV/2 <sup>①</sup> <b>15 A</b>	PCB terminal blocks
Series 281	 281-511		5 x 20 mm, 5 x 25 mm 6 mm (grey) 250 V max. <sup>①</sup> <b>6.3 A</b> "T", 5 A "FF", "T" <sup>①</sup>	
Series 281	 281-916 281-656		6 mm 0.08 - 4 mm <sup>2</sup>	Carrier terminal blocks
Series 280	 280-532 280-510 280-531		5 mm 0.08 - 2.5 mm <sup>2</sup>	Carrier terminal blocks
Series 280	 280-565 280-575 280-588		5 mm 0.08 - 2.5 mm <sup>2</sup>	Sensor/actuator terminal blocks
Series 769	 769-161 769-181		5 mm 0.08 - 4 mm <sup>2</sup>	X-COM-SYSTEM, disconnect receptacle terminal blocks
Series 280	 280-801		250 mA FF + 2 A FF 5 mm 125 V max. <sup>①</sup> <b>5 A</b> <sup>①</sup>	
Series 280/281	 280-606 280-616 281-656 280-610 281-610 280-616		5 mm 0.08 - 2.5 mm <sup>2</sup>	Receptacle terminal blocks
Series 280	 280-565 280-575 280-588 280-561 280-571		5 mm 0.08 - 2.5 mm <sup>2</sup>	X-COM-SYSTEM, disconnect receptacle terminal blocks
Series 769	 769-161 769-181		5 mm 0.08 - 4 mm <sup>2</sup>	X-COM-SYSTEM, disconnect receptacle terminal blocks

**WAGO fuse terminal blocks are distinguished by the following product features/advantages:**

**Fuse terminal blocks with pivoting fuse holder:**

- Fuse holder with or without blown fuse indication
- Spare fuse storage facility in the case of fuse holders without blown fuse indication
- Various test options
- "Touchproof" protection in all positions of the fuse holder

**Fuse plugs for carrier terminal blocks:**

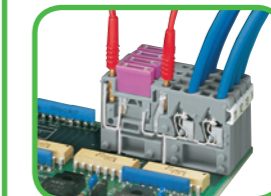
- Fuse plugs with or without blown fuse indication
- No risk of touching live parts when changing fuses
- Fuse plugs can be retained by service personnel during maintenance work avoiding unintentional restarting
- Two test slots
- Can also be used as a disconnect plug with short-circuit jumper
- Fuse plug with soldered miniature fuse only 5 mm wide - enables high packing density

**Fuse terminal blocks for mini-automotive blade-type fuses:**

- For currents up to 30 A
- With or without blown fuse indication
- Separate test slots for touch contact testing
- Also suitable for thermal automotive circuit breakers (e.g. ETA, Type 1170-02, Type 1610-21, Type 1610-22)

**Fuse terminal blocks for printed circuit boards:**

- Transposition of rail-mounted terminal block functions to the printed circuit board
- 2- and 3-conductor terminal blocks for circuit multiplication without jumpers and additional terminal blocks
- Separate test slots



Testing fuse terminal blocks



As a general principle, all WAGO fuse terminal blocks are fitted with CAGE CLAMP® connection for single, stranded and fine-stranded conductors. Multi-conductor terminal blocks or plug-in jumper systems enable input paths to be distributed between several individual fused consumers. Through terminal blocks with the same shape create order and clarity. Receptacle terminal blocks from the WAGO X-COM-SYSTEM are provided for fitting fuse plugs, plug-in diodes and indicator modules right up to multipole interface modules.

<sup>①</sup>The electrical data is defined by the fuse and fuse-blown indicator respectively.  
\* according to DIN 72581-3/ISO 8820

## WAGO Service World Wide

### Austria

WAGO Kontakttechnik Ges.m.b.H.  
1230 Wien  
Phone ++43/1/615 07 80  
Fax ++43/1/615 07 75

### Belgium

WAGO Kontakttechnik  
1930 Zaventem  
Phone ++32/2/717 90 90  
Fax ++32/2/717 90 99

### Brazil

WAGO Eletroeletrônicos Ltda  
São Roque da Chave - Itupeva - SP  
13295-000  
Phone ++55/11/4591 0199  
Fax ++55/11/4591 0190

### China

WAGO ELECTRONIC (TIANJIN) Co. LTD  
Tianjin 301700  
Phone ++86/22/59617688  
Fax ++86/22/59617668

### CIS Countries

WAGO Kontakttechnik  
Moskau Office  
127055 Moskau  
Phone ++7/095/978 66 70  
Fax ++7/095/978 66 90

### Czech Republic

WAGO Elektro spol. sr. o.  
14700 Praha 4 - Hodkovičky  
Phone ++420 261 090 143  
Fax ++420 261 090 144

61400 Brno - Husovice  
Phone ++ 420 545 423 010  
Fax ++ 420 545 211 215

### Denmark

WAGO Danmark  
Filial af WAGO Kontakttechnik  
GmbH & Co. KG  
3500 Værløse  
Phone ++45 /44 35 77 77  
Fax ++45 /44 35 77 87

### Finland

WAGO Kontakttechnik GmbH & Co. KG  
Filial i Finland  
00880 Helsinki  
Phone ++ 358 9 7744 060  
Fax ++ 358 9 7744 0660

### France

WAGO CONTACT S.A.  
Paris Nord 2  
95947-ROISSY CDG CEDEX  
Phone ++33 /148172590  
Fax ++33 /148632520

### Germany

WAGO Kontakttechnik GmbH & Co. KG  
P.O. Box 28 80 · 32385 Minden  
Hansastraße 27 · 32423 Minden  
Phone ++ 49/5 71/8 87 0  
Fax ++ 49/5 71/8 87 169

### Great Britain

WAGO Limited  
RUGBY CV21 1SG  
Phone ++ 44/1788/568008  
Fax ++ 44/1788/568050

### India

WAGO & CONTROLS (INDIA) LTD.  
Noida-201-301  
Phone ++91/120/2 58 04 09/10  
Fax ++91/120/2 58 00 81

### Italy

WAGO ELETTRONICA SRL  
40068 S. Lazzaro di Savena (BO)  
Phone ++39/051/627 21 70  
Fax ++39/051/627 21 74

### Japan

WAGO Co. of JAPAN Ltd.  
Tokyo 136-0071  
Phone ++81/3/5627/2050  
Fax ++81/3/5627/2055

### Malaysia

WAGO Rep. Off. Malaysia  
46150 Petaling Jaya  
Phone ++60-3-7877 1776  
Fax ++60-3-7877 2776

### Netherlands

WAGO Nederland  
3846 CB Harderwijk  
Phone ++31/341/ 439039  
Fax ++31/341/ 439030

### Norway

WAGO NORGE FILIAL AV  
WAGO Kontakttechnik GmbH & Co. KG  
1067 Oslo  
Phone ++47-22 30 94 50  
Fax ++47-22309451

### Poland

WAGO ELWAG sp. z o. o.  
50-506 Wrocław  
Phone ++48/71/3604670/78  
Fax ++48/71/3604699

### Singapore

WAGO Electronic Pte Ltd  
Singapore 367904  
Phone ++65/62866776  
Fax ++65/62842425

### Slovak Republic

WAGO Elektrik spol.s r.o.  
83102 Bratislava  
Phone/Fax ++ 421/2 /44458301

### Sweden

WAGO Sverige  
WAGO Kontakttechnik GmbH & Co. KG  
Tyskland Filial  
17543 Järfälla  
Phone ++46-858410680  
Fax ++46-858410699

### Switzerland

WAGO CONTACT SA  
1564 Domdidier  
Phone ++41/26 /676 75 00  
Fax ++41/26 /676 75 75

### Taiwan R.O.C.

WAGO Taiwan  
Chung-Ho City, 23556,  
Phone ++886/2/2244/2569  
Fax ++886/2/2244/2658

### USA

WAGO CORPORATION  
Germantown, WI 53022  
Phone ++1/262/255-6222  
Fax ++1/262/255-3232

WAGO Kontakttechnik GmbH & Co. KG  
P.O. Box 28 80 · D-32385 Minden  
Hansastraße 27 · D-32423 Minden  
Telefon (0571) 887-0  
Telefax (0571) 887-169  
info@wago.com  
www.wago.com

**WAGO**<sup>®</sup>  
INNOVATIVE CONNECTIONS