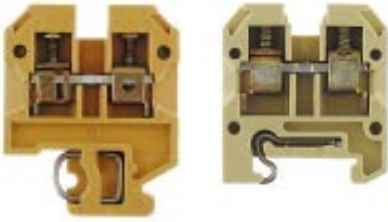


## System advantages

### SAK/AKZ series



#### Stripping length

The required stripping length for all Weidmüller products is specified in mm. These lengths must be observed so that the creepage and clearance paths are not reduced due to improper connection.

#### Mounting

Mounting is carried out on TS 32 mounting rails according to EN 50 035 or TS 15 according to EN 50 045.

#### End plate

The last terminal of a mounted terminal row must be closed with an end plate. The end plate is held in place by the end bracket.

#### Partition

Depending on the operating voltage, a partition must be placed between neighbouring cross-connection groups. This is necessary to maintain the necessary creepage and clearance paths.

#### Small partition

After assembly, small partitions can be inserted between cross-connections or sockets for terminal blocks with a max. width of 12 mm.

#### Cover plates

Several VDE regulations require that the supply connection terminals are labelled. For this purpose, Weidmüller provides a range of cover plates printed with a warning arrow and the international danger symbol. A warning arrow is printed on the reverse side with the words „Danger Voltage“. The cover plates are attached to the terminals blocks with plastic screws. The cover plates are designed to cover 3 or 4-pole terminal blocks.

#### Cross-connections

Cross-connection systems from the SAK and AKZ series, type Q, QL or VL or other freely accessible live components, must be protected with appropriate covers ADP 1 to 4 or TSK 31.5 as long as they are to be inserted safe from contact.

Frequently, several terminals blocks must be electrically interconnected in order to create supply pick-offs. Because the terminal point usually needs to remain free for the conductor connection, a cross-connection bridge is placed in the middle. For adjacent cross-connections with varying potentials, partitions, end plates or small partitions must be inserted to maintain the nominal voltage. Cross-connection bridges can normally carry half of the rated terminal block current.

Weidmüller distinguishes between the following cross-connection units:

- type Q pre-assembled cross-connections
- type QL permanent cross-connections
- type VL removeable cross-connection straps
- type QS removeable cross-connection plugs

#### Sockets

In place of cross-connections, sockets can be attached to accept test or short-circuit plugs.

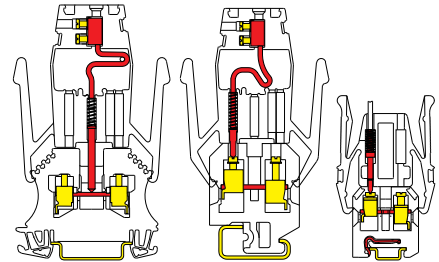
#### Test plugs

2.3 or 4 mm ø test plugs are available for measurement and test operations .

#### Designation

Incoming and outgoing cables can be labelled using various marking systems, e.g. dekafix, snap-on tags, etc.

#### Test adapters



Safe testing of wired terminal blocks is a basic requirement for fault-free functional sequences. The WTA..., STA..., ATA... test adapter systems for individual terminal block ranges are not only characterised by their quick and easy handling, but also offer other advantages:

- „conductor decoupling“ between the test probe and the test conductor prevents that the test probe is pulled out when the cable is pulled (except for WTA /5... and ATA)
  - spring-loaded test contacts ensure reliable connection and a low contact impedance
  - locating hooks on both sides ensure firm seating, even when cross-connections are fitted
  - the modular concept enables the construction of individual „test units“
  - single-pole test adapters can be interconnected; strain relief and clear marking options complement the systems
- Naturally, customary **sockets** can also be used whose test pick-off is performed by spring-loaded **test plugs**. This option applies even when cross-connections are fitted.

## Feed-through terminals

(See page 3/14 for test adapter systems)

### SAKD 2.5 N

### SAK 2.5

### SAK 4

### DK 4 Q\*



#### Dimensions

Width/length/height (mm)	With TS 32	5/32.5/43.5	6/36.5/46.5	6.5/40/51.5	6/54/60
Wire strip length/terminal screw/blade dimension		10/M 2.5/3.5 x 0.6	10/M 2.5/3.5 x 0.6	12/M 3/3.5 x 0.6	9/M 3/3.5 x 0.6

#### Rated data VDE 0611 Part 1/8.92/IEC 947-7-1

Rated voltage/current/cross-section	500 V/24 A/2.5 mm <sup>2</sup>	800 V/24 A/2.5 mm <sup>2</sup>	800 V/32 A/4 mm <sup>2</sup>	500 V/2 x 32 A/4 mm <sup>2</sup>
Rated impulse voltage/pollution severity	6 kV/3	8 kV/3	8 kV/3	6 kV/3

#### Further technical data

Tightening torque range	Nm	0.4...0.7	0.4...0.8	0.5...1.0	0.5...1.0
Torque setting with DMS 2 electric screwdriver		1	1	2	2

#### Crimpable conductor

„e“ solid H07V-U	mm <sup>2</sup>	0.5...2.5	0.5...6	0.5...6	0.5...4
„m“ stranded H07V-R	mm <sup>2</sup>	0.5...2.5	0.5...2.5	0.5...4	1.5...4
„f“ flexible H07V-K	mm <sup>2</sup>	0.5...2.5	0.5...4	0.5...4	0.5...4
„f“ flexible H07V-K and AEH DIN 46 228/1	mm <sup>2</sup>	0.5...2.5	0.5...4	0.5...4	0.5...4
Plug gauge according to 947-1	Size	A 2	A 3	A 4	A 4
Continuous current of terminal block for conductor size		26 A/2.5 mm <sup>2</sup>			27 A/4 mm <sup>2</sup>
Continuous current of cross-connection 2...5-pole	A	20	24	32	20
Continuous current of cross-connection 6...10-pole	A	20			20

#### Technical data

Voltage/current/conductor size	UL	300 V/20 A/28...12 AWG	600 V/20 A/22...12 AWG	600 V/20 A/22...12 AWG	300 V/27 A/22...12 AWG
Voltage/current/conductor size	CSA	300 V/20 A/22...12 AWG	600 V/25 A/26...10 AWG	600 V/36 A/26...10 AWG	300 V/10 A/26...12 AWG

#### Ordering information

Version	Cat. No.	Qty.	Version	Cat. No.	Qty.	Version	Cat. No.	Qty.	Version	Cat. No.	Qty.	
	KrG			027962	100		012832	100				
	Blue KrG			027967	100		012837	100				
	KrS			027963	100		012833	100				
	PA	021556	100	026966 <sup>1)3)</sup>	100	027966 <sup>1)2)</sup>	100	012836 <sup>1)</sup>	100	059006 <sup>1)</sup>	100	
	Blue PA	021558	100	026968 <sup>1)3)</sup>	100	027968 <sup>1)2)</sup>	100	012838 <sup>1)</sup>	100	059008 <sup>1)</sup>	100	
	Orange PA			026964 <sup>1)3)</sup>	100	132636 <sup>1)2)</sup>	100	010506 <sup>1)</sup>	100			
Terminal block with marking PA		040106	10	032256 <sup>1)</sup>	10			032266 <sup>1)</sup>	10		132386 <sup>1)</sup>	10
Terminal block without marking PA		040116	10	032286 <sup>1)</sup>	10			030886 <sup>1)</sup>	10			

#### End plate (thickness mm)

Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.		
	KrG		AP (1.5)	027952	20	AP (1.5)	011792	20					
	Blue KrG		AP (1.5)	027957	20	AP (1.5)	011797	20					
	KrS		AP (1.5)	027953	20	AP (1.5)	011793	20					
	PA	AP (1.5)	015096	20	AP (1.5) 6	046056	20	AP (1.5)	011796	20	AP (1.5)	139716	20
	Blue PA	AP (1.5)	019188	20	AP (1.5) 6	046058	20	AP (1.5)	011798	20	AP (1.5)	139718	20
	PA				AP (1.5) 8	027956	20						
	Blue PA				AP (1.5) 8	027958	20						

#### Partition (thickness mm)

Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.		
	KrG		TW (2.5)	030282	20	TW (2.5)	013012	20					
	Blue KrG		TW (2.5)	030287	20	TW (2.5)	013017	20					
	KrS		TW (2.5)	030283	-	TW (2.5)	013013	20					
	PA	TW (1.5)	019186	20	TW (1.5)	030286	20	TW (1.5)	013016	20	WTW (Ex)	105880	20
	Blue PA	TW (1.5)	019188	20	TW (1.5)	030288	20	TW (1.5)	013018	20			
	HP	TW (1.5)	030750	20	TW (1.0)	029710	20	TW (1.0)	019710	20	TW (2.0)	060700	20

#### Small partition

TSch 3	036686	100	TSch 1	031916	100	TSch 1	031916	100	TSch 6	019026	100
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#### Cross-connection

Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	
	Q 2	036780	50	Q 2	033700	50	Q 2	033670	50	Q 2	033640	50
	Q 3	036790	50	Q 3	033710	50	Q 3	033680	50	Q 3	033650	50
	Q 4	036800	50	Q 4	033720	50	Q 4	033690	50	Q 4	033660	50
	Q 10	036810	20	Q 10	036870	20	Q 10	036880	20	Q 10	036860	20
	2-pole									QB 2	048270**	100
	3-pole									QB 3	048280**	50
	4-pole									QB 4	048290**	50

#### Switchable cross-connection link

	VL 2		VL 2	019700	100	VL 2	044670	50
	BS		VH	028510	50	VH	105650	100
	VH		BS	029250	100	BS	034310	100

#### Marking tags

Print	Cat. No.	Qty.	Print	Cat. No.	Qty.	Print	Cat. No.	Qty.	Print	Cat. No.	Qty.	
	FW 5	047346	-	FW 6	046866	-	FW 6.5	046816	-	FW 6	046866	-
	FS 5	047356	-	FS 6	046876	-	FS 6.5	046826	-	FW 6	046876	-

See section 3 for mounting rails, end brackets, additional marking material and accessories

\* Accepts LS 2.8 shield lugs Cat. No. 105640

\*\* Max. 2.5 mm<sup>2</sup> conductor connection when using QB

<sup>1)</sup> Contact-proof with ADP 4 cover profile (see page 3/21)

<sup>2)</sup> Not suitable for SST 3 safety pin

<sup>3)</sup> Suitable for SST 3 safety pin

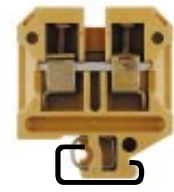
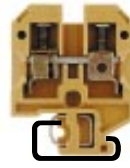
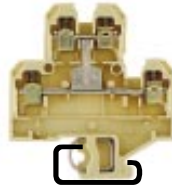
**Feed-through terminals**  
(See page 3/14 for test adapter systems)

**DK4 QV\***

**SAK 6 N**

**SAK 10**

**SAK 16**



**Dimensions**

Width/length/height (mm)	With TS 32	6/54/60	8/40/51.5	10/40/51.5	12/50/57.5
Wire strip length/terminal screw/blade dimension		9 mm/M 3/3.5 x 0.6	12 mm/M 3.5/4.0 x 0.8	12 mm/M 4/5.5 x 1.0	15 mm/M 4/5.5 x 1.0

**Rated data VDE 0611 Part 1/8.92/IEC 947-1**

Rated voltage/current/cross-section	500 V/32 A/4 mm <sup>2</sup>	800 V/41 A/6 mm <sup>2</sup>	800 V/57 A/10 mm <sup>2</sup>	1000 V/76 A/16 mm <sup>2</sup>
Rated impulse voltage/pollution severity	6 kV/3	8 kV/3	8 kV/3	8 kV/3

**Further technical data**

Tightening torque range	Nm	0.5...1.0	0.8...1.6	2.0	2.0...2.4
Torque setting with DMS 2 electric screwdriver		2	3	4	4

**Crimpable conductor**

„e“ solid H07V-U	mm <sup>2</sup>	0.5...6	0.5...10	1.5...10	2.5...10
„m“ stranded H07V-R	mm <sup>2</sup>	1.5...4	0.5...6	2.5...10	4...16
„f“ flexible H07V-K	mm <sup>2</sup>	0.5...4	0.5...10	1.5...16	4...16
„f“ flexible H07V-K and AEH DIN 46 228/1	mm <sup>2</sup>	0.5...4	0.5...6	1.5...10	4...16
Plug gauge according to 947-1	Size	A 3	A 5	B 6	B 6
Continuous current of terminal block for conductor size		35 A/4 mm <sup>2</sup>			
Continuous current of cross-connection	2...5-pole	A	41	57	
Continuous current of cross-connection	6...10-pole	A			

**Rated data according to UL/CSA**

Voltage/current/conductor size	UL	300 V/27 A/22...12 AWG	600 V/40 A/22...8 AWG	600 V/60 A/14...6 AWG	600 V/80 A/12...4 AWG
Voltage/current/conductor size	CSA	300 V/10 A/26...12 AWG	600 V/47 A/20...8 AWG	600 V/65 A/14...6 AWG	600 V/87 A/10...4 AWG

**Ordering information**

Version	Cr	Cat. No.	Qty.	Cr	Cat. No.	Qty.	Cr	Cat. No.	Qty.	Cr	Cat. No.	Qty.
KrG					<b>019322</b>	100		<b>011002<sup>2)</sup></b>	100		<b>027102</b>	50
Blue KrG								<b>011007</b>	100			
KrS					<b>019323</b>	100		<b>011003</b>	100		<b>027103</b>	50
PA		<b>059026<sup>1)</sup></b>	100		<b>019326<sup>1)</sup></b>	100		<b>011006<sup>1)</sup></b>	100		<b>027106<sup>1)</sup></b>	50
Blue PA		<b>059028<sup>1)</sup></b>	100		<b>019328<sup>1)</sup></b>	100		<b>011008<sup>1)</sup></b>	100		<b>027108<sup>1)</sup></b>	50
Orange PA												
Terminal block with marking					<b>032276<sup>1)</sup></b>	10		<b>035326<sup>1)</sup></b>	10			
Terminal block without marking					<b>030896<sup>1)</sup></b>	10		<b>035316<sup>1)</sup></b>	10			

**End plate (thickness mm)**

Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	
KrG			AP (1.5)	<b>011792</b>	20	AP (1.5)	<b>011792</b>	20	AP (3.0)	<b>027112</b>	20	
Blue KrG			AP (1.5)	<b>011797</b>	20	AP (1.5)	<b>011797</b>	20				
KrS			AP (1.5)	<b>011793</b>	20	AP (1.5)	<b>011793</b>	20	AP (3.0)	<b>027113</b>	20	
PA	AP (1.5)	<b>139716</b>	20	AP (1.5)	<b>011796</b>	20	AP (1.5)	<b>011796</b>	20	AP (1.5)	<b>027116</b>	20
Blue PA	AP (1.5)	<b>139718</b>	20	AP (1.5)	<b>011798</b>	20	AP (1.5)	<b>011798</b>	20	AP (1.5)	<b>027118</b>	20

**Partition (thickness mm)**

Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.	Type	Cat. No.	Qty.		
KrG			TW (1.5)	<b>013012</b>	20	TW (1.5)	<b>013012</b>	20	TW (3.0)	<b>028112</b>	20		
Blue KrG						TW (1.5)	<b>013017</b>	20					
KrS			TW (1.5)	<b>013013</b>	20	TW (1.5)	<b>013013</b>	20	TW (3.0)	<b>028113</b>	20		
PA	WTW (Ex)	<b>105880</b>	20	TW (1.5)	<b>013016</b>	20	TW (1.5)	<b>013016</b>	20	TW (1.5)	<b>030366</b>	10	
Blue PA				TW (1.5)	<b>013018</b>	20	TW (1.5)	<b>013018</b>	20	TW (1.5)	<b>030368</b>	10	
	HP	TW (2.0)	<b>060700</b>	20	TW (1.5)	<b>019710</b>	20	TW (1.5)	<b>019710</b>	20	TW (2.0)	<b>060700</b>	20
	Small partition	TSch 6	<b>019026</b>	100	TSch 1	<b>031916</b>	100	TSch 1	<b>031916</b>	100	TSch 1	<b>031916</b>	100

**Cross-connection**

2-pole	Q 2	<b>033640</b>	50	Q 2	<b>045670</b>	50	Q 2	<b>045710</b>	50	Q 2	<b>045750</b>	50
3-pole	Q 3	<b>033650</b>	50	Q 3	<b>045680</b>	50	Q 3	<b>045720</b>	50	Q 3	<b>045760</b>	50
4-pole	Q 4	<b>033660</b>	50	Q 4	<b>045690</b>	50	Q 4	<b>045730</b>	50	Q 4	<b>045770</b>	50
10-pole	Q 10	<b>036860</b>	20	Q 10	<b>045700</b>	20	Q 10	<b>045740</b>	20	Q 10	<b>045780</b>	20
	QB 2	<b>048270**</b>	100									
	QB 3	<b>048280**</b>	50									
	QB 4	<b>048290**</b>	50									

**Cover**

AD 4	<b>030340</b>	50	AD 4	<b>019660</b>	50	AD 4	<b>017860</b>	50	AD 4	<b>051820</b>	50
BSK M 2.5 x18	<b>030330</b>	100	BSK M 3 x 22	<b>012890</b>	100	BSK M 3 x 22	<b>012890</b>	100	BSK M 3 x 22	<b>012890</b>	100

**Switchable cross-connection link**

VL 2	<b>044670</b>	50	VL 2	<b>019470</b>	50	VL 2	<b>013590</b>	50	VL 2	<b>013580</b>	50
VH	<b>105650</b>	100	VH	<b>028510</b>	50	VH	<b>028510</b>	50	VH	<b>028510</b>	50
BS	<b>034310</b>	100	BS	<b>029250</b>	100	BS	<b>029250</b>	100	BS	<b>029250</b>	100

**Marking tags**

Print	Consecutive horizontal	FW 6	FW 8	FW 5	FW 5
	FW 6	<b>046866</b>	<b>127696</b>	<b>047346</b>	<b>047346</b>
	Consecutive vertical	FW 6	<b>128966</b>	<b>047356</b>	<b>047356</b>

**See section 3 for mounting rails, end brackets, additional marking material and accessories**

\*) Accepts LS 2.8 shield lugs Cat. No. 105640

\*\*) Max. 2.5 mm<sup>2</sup> conductor connection when using QB

<sup>1)</sup> Contact-proof with ADP 4 cover profile (see page 3/21)  
<sup>2)</sup> See page 2/73 for ceramic terminals