



Al and AlCu terminals and connectors 16 - 1200 mm²

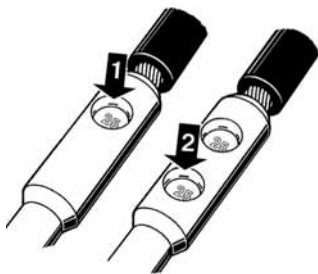
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Terminals and connectors

Elpress terminals and connectors are made from pure aluminium 99.7% and, in case of bi-metal types, also from electrolytic copper. The standard range size is 16 to 1200 mm² but a variety of customer specified types also exists.

The Elpress Crimp System fits compacted/un-compacted stranded as well as solid Al conductors in accordance with IEC 60228. Note that in case of solid conductors one area step down is used as marked on the barrel. In case of sector-shaped conductors, pre-rounding is required and performed with tools within the Crimp System. This makes it possible to crimp the terminal in such a position that twisting is minimised when connecting to the bus bar or apparatus. Two indents are always made in the order shown in the picture below.



Crimp sequence when making indent crimping on aluminium.

Marking of Al and AlCu terminals

Elpress System for marking of Al and AlCu terminals and connectors shows the stranded and solid metric conductor size and reference to the id-numbers of the appropriate Elpress pre-rounding and crimp tools. Do not use other crimp tools! The T2-mark is a reference to an earlier Finnish standard. On bi-metal connectors there is also a tool id-reference to the hexagonal die to be used for the Cu-crimp.

TERMINALS:
Markings on Al and AlCu terminals
Barrel marking, example: ALU185-R18-P32 (Elpress logotype) T2 SOLID 240
ALU185 = Al-conductor, mm ²
R18 = id-no. for punch and matrix for pre-rounding
P32 = id-no. for punch and matrix for crimping
T2 = Finnish temperature class
SOLID 240 = suitable size on solid conductor
Palm marking: (Elpress logotype) 16 = M-screw size

THROUGH CONNECTORS:
Markings on Al and AlCu connectors
Copper side of AlCu type Example: Cu240 - 30 (Elpress logotype)
Cu240 = Cu conductor, mm ²
30 = id-no. for hexagonal crimp die
Al connector or Al side of AlCu connector Example: ALU300-R21-P36 (Elpress logotype) T2
ALU300 = Al conductor, mm ²
R21 = id-no. of punch and matrix for pre-rounding
P36 = id-no. of punch and matrix for crimping
T2 = Finnish temperature class

All Al or AlCu types

Al terminals **type AK** are mainly used for connection to Al bus bars, apparatus terminals or such.

Bi-metal terminals **type AKK** are mainly used for connection to Cu busbars, apparatus terminals or such.

Al connectors **type AS** are used to connect two Al conductors, also of different sizes.

Bi-metal connectors **type AKS** are used to connect an Al and a Cu conductor also of different sizes.

Bi-metal pin connectors **type AKP** are used to connect Al conductors to mechanical clamp type connections for round Cu pins.

Palm holes to ISO 273

Screw dimension	Palm hole tol H13 (Ø mm)
M 3	3,2
M 4	4,3
M 5	5,3
M 6	6,4
M 8	8,4
M 10	10,5
M 12	13
M 16	17
M 20	21
M 24	25



Al terminals 16 - 1200 mm²

- used to terminate Al-conductors to Al busbars
- two adjacent crimps are necessary - crimp sequence see picture
- other designs, see page 5:5



Crimp sequence.

Cat. no. stranded, mm ²	Solid	mm W	d	N	N ₁	L	Pcs/ pack	Note	Crimp tools page			
AK 16-6	25(16)	16,0	5,9	8,5	9,0	57	48		9:7	9:11	9:16	9:27-33
AK16-8	25 (16)	16,0	5,9	8,5	9,0	57	48		↓			
AK 25-6	35	16,0	6,8	8,5	9,0	57	48					
AK 25-8	35	16,0	6,8	8,5	9,0	57	48					
AK 35-6	50	22	8,5	11,0	14,0	85	24					
AK 35-8	50	22	8,5	11,0	14,0	85	24					
AK 50-8	70	22	9,6	11,0	14,0	85	24					
AK 50-10	70	22	9,6	11,0	14,0	85	24					
AK 50-12	70	27	9,6	14,0	15,0	90	24					
AK 70-8	95	22	11,3	11,0	14,0	85	24					
AK 70-10	95	22	11,3	11,0	14,0	85	24					
AK 70-12	95	27	11,3	14,0	15,0	90	24					
AK 95-8	120	27	12,5	14,0	15,0	104	24					
AK 95-10	120	27	12,5	14,0	15,0	104	24					
AK 95-12	120	27	12,5	14,0	15,0	104	24					
AK 120-10	150	27	14,0	14,0	15,0	104	24					
AK 120-12	150	27	14,0	14,0	15,0	104	24					
AK 150-10	185	27	15,8	14,0	15,0	104	24					
AK 150-12	185	27	15,8	14,0	15,0	104	24					
AK 150-16	185	35	15,8	21	23	119	12					
AK 185-10	240	35	17,6	16,0	19,0	112	12					
AK 185-12	240	35	17,6	16,0	19,0	112	12					
AK 185-16	240	35	17,6	16,0	19,0	112	12					
AK 240-12		35	19,8	16,0	19,0	112	12					
AK 240-16		35	19,8	16,0	19,0	112	12					
AK 300-12 SOLID		41	20	18,0	25	155	6	3				
AK 300-16 SOLID		41	20	18,0	25	155	6	3				
AK 300-12		41	22	18,0	25	155	6					
AK 300-16		41	22	18,0	25	155	6					
AK 300-20		41	22	20	23	155	6					
AK 400-12		41	25	18,0	25	155	6					
AK 400-16		41	25	18,0	25	155	6					
AK 400-20		41	25	20	23	155	6					
AK 500A-16		55	28	26	29	225	3	4				
AK 500A-20		55	28	26	29	225	3	4				
AK 500A/1		55	28	80*		250	3	2,4				
AK 500A/2		70	28	80*		250	3	2,4				
AK 500B-16		44	28	22	22	174	3	5				
AK 500B-20		44	28	22	22	174	3	5				
AK 500B-1		44	28	80*		210	3	5				
AK 500B-2		70	28	80*		210	3	5				
AK 630A/1		55	32	80*		250	3	1,2				
AK 630A/2		70	32	80*		250	3	1,2				
AK 800/1		60	36	80*		267	1	1,2			9:36	
AK 800/2		75	36	80		275	1	1,2			↓	
AK 1000/1		60	40	80*		267	1	1,2			↓	
AK 1000/2		75	40	80*		375	1	1,2			↓	
AK 1200		75	44	80*		291	1	1,2			↓	

Note

- 1 Stranded, compacted conductor
- 2 Unholed palm
- 3 For solid conductors only
- 4 Outer barrel diam. 52 mm.
- 5 Outer barrel diam. 44 mm.

* corresponds to the full palm length.

** Outer diameter 52 mm. Also available with outer diameter 44 mm - see AK500B-xx.

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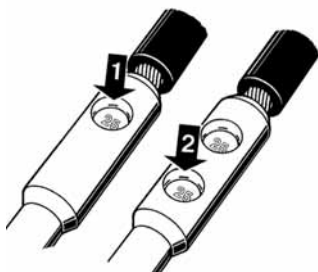


Through connectors with partition 16 - 1200 mm²

- used mainly for connecting two Al-conductors of the same size to each other
- two crimps on each side are necessary, crimp sequence see picture
- partition in the middle to prevent fluid flow



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Crimp sequence.

Cat. no. stranded, mm ²	Solid mm ²	mm d	D	L	Pcs/ pack	Crimp tools page				Note
						9:7	9:11	9:16	9:27-33	
AS 16	25 (+16)	5,9	13,0	67	48	9:7	9:11	9:16	9:27-33	
AS 25	35	6,8	13,0	67	48	9:7				
AS 35	50	8,5	20	100	24					
AS 50	70	9,6	20	100	24					
AS 70	95	11,3	20	100	24					
AS 95	120	12,5	25	130	12					
AS 120	150	14,0	25	130	12					
AS 150	185	15,8	25	130	12					
AS 185	240	17,6	32	131	9					
AS 240		19,8	32	131	9					
AS 300 SOLID	300	20	36	179	6					3
AS 300		22	36	179	3					
AS 400		25	40	179	3					
AS 500A		28	52	250	3					4
AS 500B		28	44	184	3					5
AS 630A /1		32	52	250						1
AS 630 /1		32	60	288						1
AS 800 /1		36	60	288		9:36				1
AS 1000 /1		40	60	288						1
AS 1200		44	70	320						1

If other combinations are needed, contact Elpress.

Note

- | | | |
|---------------------------------|---|---------------------------|
| 1 Stranded, compacted conductor | 4 | Barrel outer diam. 52 mm. |
| 2 Unholed palm | 5 | Barrel outer diam. 44 mm. |
| 3 For solid conductors only | | |

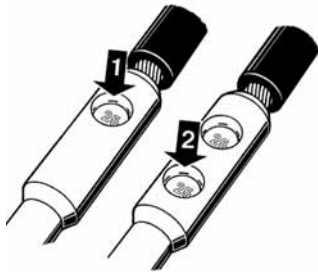


Through connectors without partition 50 - 240 mm²

- used mainly for connecting two Al-conductors of the same size to each other
- two crimps on each side are necessary, crimp sequence see picture
- no partition in the middle



Cat. no. stranded, mm ²	Solid mm ²	mm d	D	L	Pcs/ pack	Crimp tools page	
AS 50H	70	9,6	20	100	24	9:11	9:16-33
AS 70H	95	11,3	20	100	24	↓	↓
AS 95H	120	12,5	25	130	12		
AS 120H	150	14,0	25	130	12	↓	↓
AS 150H	185	15,8	25	130	12		
AS 185H	240	17,6	32	131	9		
AS 240H		19,8	32	131	9		↓



Crimp sequence.

Other designs of Al and AlCu terminals and connectors

In cases where other hole patterns, palm sizes, assembly angles, etc. are needed, a broad variety of customer specified items may be produced.

Some examples are indicated here: AKK500A/2-16-12x4-35 resp. AK185-14x2-40.





Through connectors with partition and for different areas 16 - 400 mm²

- used mainly for connecting two Al-conductors of different sizes to each other
- two crimps on each side are necessary, crimp sequence see picture
- partition in the middle to prevent fluid flow

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Crimp sequence.

Cat. no. stranded, mm ²	Solid mm ²	mm L	d ₁	D ₁	d	D	Pcs/ pack	Crimp tools page		
								9:11	9:16	9:27-33
AS 25-16	35-25	67	5,9	13,0	6,8	13,0	48			
AS 35-25	50-35	85	6,8	13,0	8,5	20	24			
AS 50-25	70-35	85	6,8	13,0	9,6	20	24			
AS 50-35	70-50	100	8,5	20	9,6	20	24			
AS 70-50	95-70	100	9,6	20	11,3	20	24			
AS 95-25	120-35	101	6,8	13,0	12,5	25	24			
AS 95-35	120-50	116	8,5	20	12,5	25	24			
AS 95-50	120-70	116	9,6	20	12,5	25	24			
AS 95-70	120-95	116	11,3	20	12,5	25	24			
AS 120-95	150-120	130	12,5	25	14	25	12			
AS 150-50	185-70	116	9,6	20	15,8	25	12	↓		
AS 150-70	185-95	116	11,3	20	15,8	25	24			
AS 150-95	185-120	130	12,5	25	15,8	25	12			
AS 150-120	185-150	130	14,0	25	15,8	25	12			
AS 185-95	240-120	132	12,5	25	17,6	32	12			
AS 185-150	240-185	132	15,8	25	17,6	32	12			
AS 240-95	-120	132	12,5	25	19,8	32	12			
AS 240-120	-150	132	14,0	25	19,8	32	12			
AS 240 -150	-185	132	15,8	25	19,8	32	12			
AS 240-185	-240	131	17,6	32	19,8	32	12			
AS 300-240		156	19,8	32	22	36	6			
AS 400-300		179	22	36	25	40	3			↓

Other measures, see corresponding connector on previous pages.
If other combinations are needed, contact Elpress.



AlCu, bi-metallic terminals 16 - 1200 mm²

- used primarily to terminate Al-conductors to Cu appliance studs, Cu bus bars, etc.
- two adjacent crimps are necessary - crimp sequence, see picture



Crimp sequence.

Cat. no. stranded, mm ²	Solid	mm W	d	N	N ₁	L	Pcs/ pack	Crimp tools page				Note
								9:7	9:11	9:16	9:27-33	
AKK 16-8	25 (16)	16,0	5,9	8,5	10,0	66	48					
AKK 25-8	35	16,0	6,8	8,5	10,0	66	48	↓				
AKK 25-12	35	22	10,0	11,5	15,5	75	24					
AKK 35-8	50	25	8,5	12,5	12,5	89	24					
AKK 50-8	70	25	9,6	12,5	12,5	89	24					
AKK 50-10	70	25	9,6	12,5	12,5	89	24					
AKK 50-12	70	25	9,6	12,5	12,5	89	24					
AKK 70-8	95	25	11,3	12,5	12,5	89	24					
AKK 70-10	95	25	11,3	12,5	12,5	89	24					
AKK 70-12	95	25	11,3	12,5	12,5	89	24					
AKK 95-8	120	30	12,5	15,0	15,0	114	24					
AKK 95-10	120	30	12,5	15,0	15,0	114	24					
AKK 95-12	120	30	12,5	15,0	15,0	114	24					
AKK 95-16	120	30	12,5	15,0	15,0	115	24					
AKK 120-10	150	30	14,0	15,0	15,0	114	12					
AKK 120-12	150	30	14,0	15,0	15,0	114	12					
AKK 120-16	150	30	14,0	15,0	15,0	114	12					
AKK 150-10	185	30	15,8	15,0	15,0	114	12					
AKK 150-12	185	30	15,8	15,0	15,0	114	12					
AKK 150-16	185	30	15,8	15,0	15,0	114	12					
AKK 185-10	240	30	17,6	15,0	15,0	116	12					
AKK 185-12	240	30	17,6	15,0	15,0	116	12					
AKK 185-16	240	30	17,6	15,0	15,0	116	12					
AKK 240-10		30	19,8	15,0	15,0	116	12					
AKK 240-12		30	19,8	15,0	15,0	116	12					
AKK 240-16		30	19,8	15,0	15,0	116	12					
AKK 300-12		37	22	18,5	18,5	155	6					
AKK 300-16		37	22	18,5	18,5	155	6					
AKK 300-20		37	22	18,5	18,5	155	6					
AKK 300-12 Solid		37	20	18,5	18,5	155	6					
AKK 300-16 Solid		37	20	18,5	18,5	155	6					
AKK 300-20 Solid		37	20	18,5	18,5	155	6					
AKK 400-12		37	25	18,5	18,5	155	6					
AKK 400-16		37	25	18,5	18,5	155	6					
AKK 400-20		37	25	18,5	18,5	155	6					
AKK 500A-16		55	28	26	29	224	3					4
AKK 500A-20		55	28	26	29	224	3					4
AKK 500A/1		55	28	70*		239						2
AKK 500A/2		70	28	70*		239						2
AKK 500B-16		42	28	21	21	174	3					5
AKK 500B-20		42	28	21	21	174	3					5
AKK 500B-1		42	28	70*		202	3					2
AKK 500B-2		70	28	70*		211						2
AKK 630A/1		55	32	70*		239						1,2
AKK 630A/2		70	32	70*		239						1,2
AKK 800/1		62	36	70*		263		9:36				1,2
AKK 800/2		75	36	75*		275						1,2
AKK 1000/1		62	40	70*		263						1,2
AKK 1000/2		75	40	75*		275						1,2
AKK 1200		75	44	75*		310						1,2

* the full palm length

Note

- 1 Stranded, compacted conductor
- 2 Unholed palm
- 3 For solid conductors only
- 4 Outer barrel diam. 52 mm.
- 5 Outer barrel diam. 44 mm.

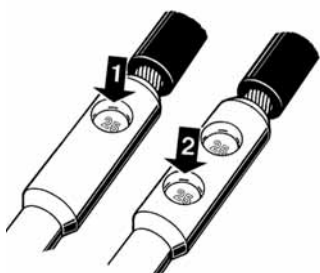
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AlCu bi-metallic pin terminals, 16 - 300 mm²

- used to connect Al conductors to mechanical clamp type connections for round Cu pins.
- two adjacent crimps are necessary - crimp sequence, see picture



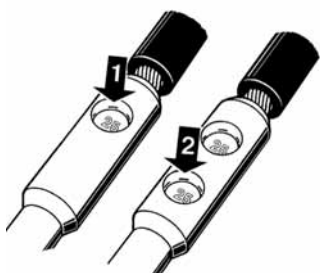
Crimp sequence.

Cat. no. stranded, mm ²	Solid mm ²	mm e	d	D	L ₁	L	Pcs/ pack	Crimp tools page			
								9:7	9:11	9:16	9:27-33
AKP 16	25 (16)	6,0	5,9	13,0	25	56	48	9:7	9:11	9:16	9:27-33
AKP 25	35	6,0	6,8	13,0	25	56	48	9:7			
AKP 35	50	9,0	8,5	20	25	78	24				
AKP 50	70	9,0	9,6	20	35	88	24				
AKP 70	95	9,0	11,3	20	35	88	24				
AKP 95	120	12,0	12,5	25	35	103	24				
AKP 120	150	12,0	14,0	25	40	108	24				
AKP 150	185	12,0	15,8	25	40	108	24				
AKP 185	240	14,0	17,6	32	45	113	12				
AKP 240		14,0	19,8	32	45	113	12				
AKP 300		16,0	22	36	50	143	9				

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Transition connectors for Al conductors 16 - 95 mm² to Cu solid conductors 10 mm²

- adapter connector from stranded Al-conductor to solid Cu-conductor 10 mm² (e.g. Excel, Excelett)
- two crimps are necessary for both Al and Cu, crimp sequence see picture (equal order for Cu)



Crimp sequence.

Cat. no., mm ² , Al-Cu	Solid Al mm ²	mm d	d ₁	L	Pcs/ pack	Crimp tools page		Note
AKS 16-10S	25 (16)	5,9	4,5	64	48	9:7	9:11-33	1
AKS 25-10S	35	6,8	4,5	64	48	9:7		1
AKS 35-10S	50	8,5	4,5	86	48			1
AKS 50-10S	70	9,6	4,5	86	24			1
AKS 70-10S	95	11,3	4,5	86	24			1
AKS 95-10S	120	12,5	4,5	101	24			1

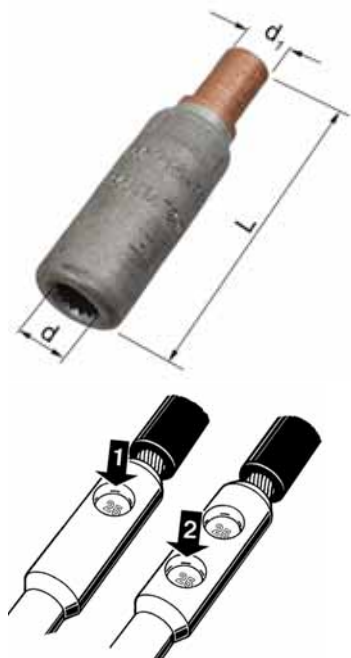
Note

1. Make two crimps also on the Cu-side.



AlCu bimetallic through connectors 16 - 400 mm²

- connect Al-conductors to Cu-conductors
- stranded/solid Al-conductors, stranded/flexible Cu conductor
- two adjacent crimps for Al, see picture; normally one for Cu, see note
- when crimping the Cu-part, place the dies between the circular groove on the Cu-barrel and the edge



Crimp sequence.

Cat. no., mm ² , Al-Cu	Solid Al mm ²	mm d	d ₁	L	Pcs/ pack	Crimp tools page			
						9:7	9:11	9:16	9:27-33
AKS 16-10	25 (16)	5,9	5,0	46	48				
AKS 25-10	35	6,8	5,0	46	48	↓			
AKS 25-16	35	6,8	6,0	46	48				
AKS 35-10	50	8,5	5,0	66	24				
AKS 35-16	50	8,5	6,0	66	24				
AKS 35-25	50	8,5	8,0	69	24				
AKS 50-10	70	9,6	5,0	66	24				
AKS 50-16	70	9,6	6,0	66	24				
AKS 50-25	70	9,6	8,0	69	24				
AKS 50-35	70	9,6	9,0	71	24				
AKS 50-50	70	9,6	11,0	76	24				
AKS 70-35	95	11,3	9,0	71	24				
AKS 70-50	95	11,3	11,0	76	24				
AKS 70-70	95	11,3	13,0	78	24				
AKS 95-10	120	12,5	5,0	81	24				
AKS 95-16	120	12,5	6,0	81	24				
AKS 95-25	120	12,5	8,0	84	24				
AKS 95-35	120	12,5	9,0	86	24				
AKS 95-50	120	12,5	11,0	91	24				
AKS 95-70	120	12,5	13,0	93	24				
AKS 95-95	120	12,5	15,0	94	24				
AKS 120-50	150	14,0	11,0	91	24				
AKS 120-70	150	14,0	13,0	93	24				
AKS 120-95	150	14,0	15,0	94	24				
AKS 120-120	150	14,0	17,0	98	24				
AKS 150-25	185	15,8	8,0	84	24				
AKS 150-35	185	15,8	9,0	86	24				
AKS 150-50	185	15,8	11,0	91	24				
AKS 150-70	185	15,8	13,0	93	24				
AKS 150-95	185	15,8	15,0	94	24				
AKS 150-120	185	15,8	17,0	99	24				
AKS 150-150	185	15,8	19,0	99	24				
AKS 185-95	240	17,6	15,0	94	12				
AKS 185-120	240	17,6	17,0	99	12				
AKS 185-150	240	17,6	19,0	100	12				
AKS 185-185	240	17,6	21	100	12				
AKS 240-35		19,8	9,0	87	12				
AKS 240-50		19,8	11,0	91	12				
AKS 240-70		19,8	13,0	94	12				
AKS 240-95		19,8	15,0	94	12				
AKS 240-120		19,8	17,0	99	12				
AKS 240-150		19,8	19,0	100	12				
AKS 240-185		19,8	21	100	12				
AKS 240-240A		19,8	22,5	100	12				
AKS 300-150		22	19,0	124	9				
AKS 300-185		22	21	124	9				
AKS 300-240A		22	22,5	125	9				
AKS 400-150		25	19,0	124	6				
AKS 400-185		25	21	124	6				
AKS 400-240A		25	22,5	124	6				
AKS 400-300A		25	24,5	125	6				

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