CONNECTED - COMPRESSION CABLE LUGS MADE FROM ALUMINIUM AND COPPER

Two components reliably connected. Copper and aluminium have different material properties. That's not always a good thing. Our compression cable lugs and connectors made from aluminium and copper are intricately produced by special processes and join together what belongs together. No matter which material you use: Your contacts are reliable with Klauke.

In brief

- Simple processing based on DIN standards
- Reliable connection of copper and aluminium, even in contact with water
- Special manufacturing methods ensure high quality
- Also suitable for sector shaped conductors and wires

As good as always

Cable lugs and connectors made from aluminium and copper can be processed in exactly the same way as DIN standard aluminium cable lugs. No special tools are required, you simply use the right Klauke dies. And so the result is as good as always.

- For round and sector shaped conductors to DIN EN 60228 and aluminium wires to DIN 50182
- No additional costs for new crimping dies
- Reliable connection by preventing contact corrosion

Numerous versions available

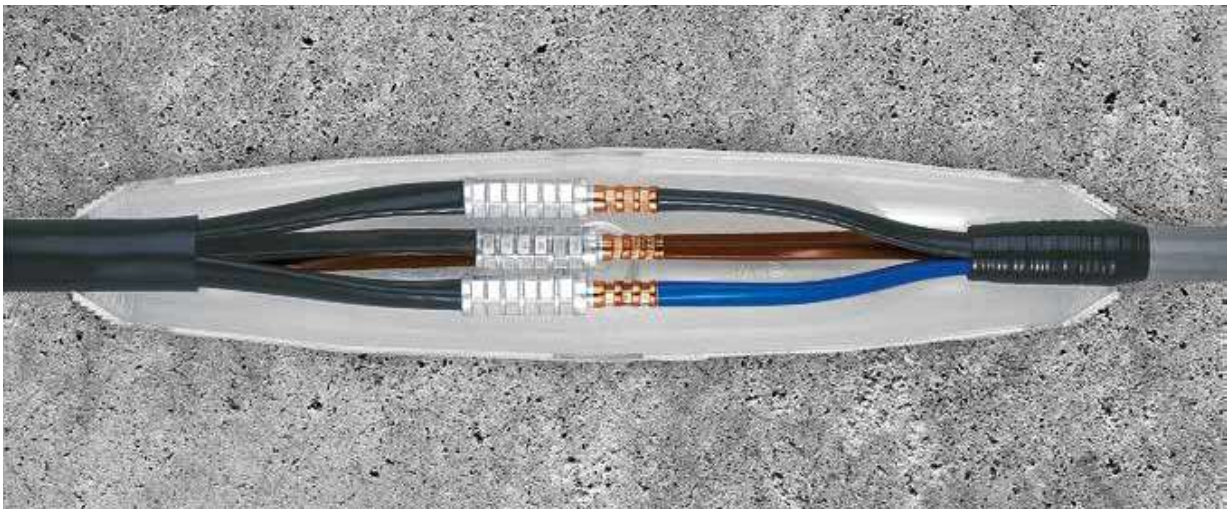
The great thing about the broad Klauke range is: You can select the suitable cable lug for your project and optimally process your choice using the Klauke tools. Everything fitting together.

- Processing as usual with standard aluminium cable lugs
- Different versions available, for instance, as a cable lug with a copper eye or Cupal washers or as a rotational friction welded cable lug

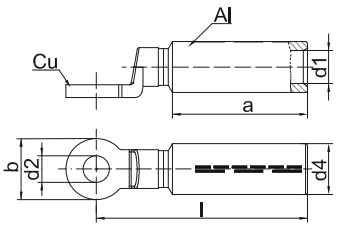
Well connected in every situation

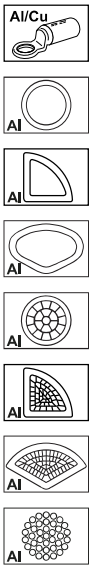
Reduction compression joints enable aluminium conductors to be integrated into copper-containing systems. They connect the two different materials regardless of the physical cable dimensions.

- Suitable for round or sector shaped conductors
- Suitable for multi-stranded and single-stranded sector shaped conductors



Compression cable lugs, Al/Cu





- For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium open wires to DIN EN 50182 and pre-rounded sector shaped conductors
- Tube dimension to DIN 46329
- With code number for clear tool assignment
- Filled with contact grease for optimum crimp results

Characteristics

- For connecting non-tensioned aluminium conductors to copper connections in humid environments and outdoors
- Barrier design with oil stop and solid copper palm
- With crimp markings for correct crimp positioning
- Internal chamfer for simple cable insertion

Material

- E-aluminium
- Copper (EN13600)

Surface

- Bright

Technical instructions

- Tool: see page 115

Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

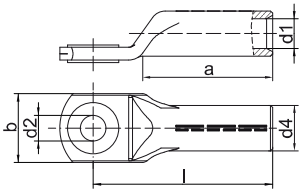
Size of bolt dia.	Part No.	Nominal cross section mm²		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 8	**363R8**	16	25	12	34	24	6.0	8.5	12	68	4	2	4.4	5.9	10
M 10	**363R10**	16	25	12	34	24	6.0	10.5	12	68	4	2	4.2	5.7	10
M 8	**364R8**	25	35	12	34	24	6.8	8.5	12	68	4	2	4.4	5.8	10
M 10	**364R10**	25	35	12	34	24	6.8	10.5	12	68	4	2	4.2	5.6	10
M 12	**364R12**	25	35	12	34	24	6.8	13.0	12	68	4	2	3.9	5.3	10
M 8	**365R8**	35	50	14	43	24	8.0	8.5	14	77	5	2	4.4	6.3	10
M 10	**365R10**	35	50	14	43	24	8.0	10.5	14	77	5	2	4.2	6.1	10
M 12	**365R12**	35	50	14	43	24	8.0	13.0	14	77	5	2	3.8	5.8	10
M 8	**366R8**	50	70	16	43	25	9.8	8.5	16	77	5	2	4.4	6.4	10
M 10	**366R10**	50	70	16	43	25	9.8	10.5	16	77	5	2	4.2	6.2	10
M 12	**366R12**	50	70	16	43	25	9.8	13.0	16	77	5	2	3.9	5.9	10
M8	**367R8**	70	95	18	52	25	11.2	8.5	18.5	84.5	6	3	3.9	6.9	10
M 10	**367R10**	70	95	18	50	25	11.2	10.5	18.5	85	6	3	4.2	7.4	10
M 12	**367R12**	70	95	18	50	25	11.2	13.0	18.5	85	6	3	3.9	7.1	10
M8	**368R8**	95	120	22	56	30	13.2	8.5	22	90.5	6	3	4.1	8.0	5
M 10	**368R10**	95	120	22	50.5	30	13.2	10.5	22	90.5	6	3	7.4	11.4	10
M 12	**368R12**	95	120	22	50.5	30	13.2	13.0	22	90.5	6	3	6.8	10.8	10
M 16	**368R16**	95	120	22	50.5	30	13.2	17.0	22	90.5	6	3	6.4	10.4	10
M8	**369R8**	120	150	22	50.5	30	14.7	8.5	23	95	6	3	3.9	8.3	5
M 12	**369R12**	120	150	22	50.5	30	14.7	13.0	23	92.0	6	3	6.8	11.4	5
M 16	**369R16**	120	150	22	50.5	30	14.7	17.0	23	92.0	6	3	6.4	10.8	5
M 12	**370R12**	150	185	25	62	30	16.3	13.0	25	104.0	6	3	6.8	13.1	5
M 16	**370R16**	150	185	25	62	30	16.3	17.0	25	104.0	6	3	6.4	12.7	5
M 10	**371R10**	185	240	28	62	30	18.3	10.5	28.5	105.5	6	3	10.3	18.6	5
M 12	**371R12**	185	240	28	62	35	18.3	13.0	28.5	105.5	6	3	10.1	18.4	5
M 16	**371R16**	185	240	28	62	35	18.3	17.0	28.5	105.5	6	3	9.3	17.6	5

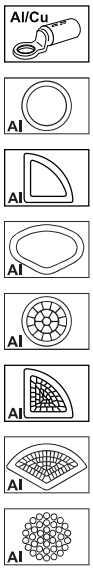
see next page

Compression cable lugs, Al/Cu

Size of bolt dia.	Part No.	Nominal cross section mm² rm/sm	Nominal cross section mm² re/se	Code	Dimension mm a	b	d1	d2	d4	l	Number of crimps Al (7 mm)	Al (wide)	Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
M 20	**371R20**	185	240	28	60	35	18.3	21.0	28.5	107.5	6	3	10.1	18.4	5
M 10	**372R10**	240	300	32	70	35	21.0	10.5	32	118.5	8	3	12.1	22.5	5
M 12	**372R12**	240	300	32	70	35	21.0	13.0	32	118.5	8	3	11.8	22.2	5
M 16	**372R16**	240	300	32	70	35	21.0	17.0	32	118.5	8	3	11.0	21.4	5
M 20	**372R20**	240	300	32	70	35	21.0	21.0	32	118.5	8	3	10.1	20.5	5
M 12	**373R12**	300	--	34	70	36	23.3	13.0	34	123.5	8	3	17.7	33.7	2
M 16	**373R16**	300	--	34	70	36	23.3	17.0	34	123.5	8	3	16.9	32.9	2
M 20	**373R20**	300	--	34	70	40	23.3	21.0	34	123.5	8	3	16.0	32.0	1
M 12	**374R12**	400	--	38	73	40	26.0	13.0	38.5	150.5	--	4	25.6	37.4	1

Compression cable lugs, Al/Cu with Cu eye





- For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- Tube dimension to DIN 46329
- For pre-rounded sector shaped conductors
- Unique tool assignment due to coding
- Filled with contact grease for optimum crimp characteristics

Characteristics

- For connecting non-tension aluminium connections using Cu-washers in humid areas
- With Cu eyelet in screw-on area
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

Material

- E-aluminium
- Copper (EN13600)

Surface

- Bright

Technical instructions

- Tool: see page 115

Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

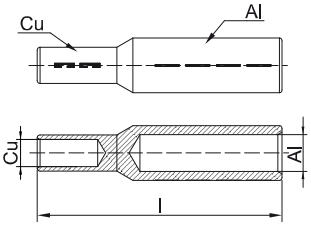
Size of bolt dia.	Part No.	Nominal cross section mm² rm/sm	Nominal cross section mm² re/se	Code	Dimension mm a	b	d1	d2	d4	l	Number of crimps Al (7 mm)	Al (wide)	Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
M 6	**302R6**	10	16	10	32	18	5.0	6.5	10	52	4	2	0.260	1.20	10
M 8	**302R8**	10	16	10	32	22	5.0	8.5	10	52	4	2	0.580	1.50	10
	303R8	16	25	12	32	22	5.8	8.5	12	52	4	2	0.600	1.95	10
M 10	**303R10**	16	25	12	32	25	5.8	10.5	12	52	4	2	0.600	2.00	10
M 8	**304R8**	25	35	12	38	22	7.0	8.5	12	60	4	2	0.625	2.00	10
M 10	**304R10**	25	35	12	38	25	7.0	10.5	12	60	4	2	0.900	2.10	10
	305R10	35	50	14	42	26	8.2	10.5	14	67	5	2	0.800	3.00	10
M 12	**305R12**	35	50	14	42	30	8.2	13.0	14	67	5	2	1.120	3.10	10
M 10	**306R10**	50	70	16	45	27	10.0	10.5	16	72	5	2	0.900	3.60	10
M 12	**306R12**	50	70	16	45	30	10.0	13.0	16	72	5	2	1.120	3.80	10
M 10	**307R10**	70	95	18	55	29	11.5	10.5	18.5	86	6	3	1.075	5.60	10

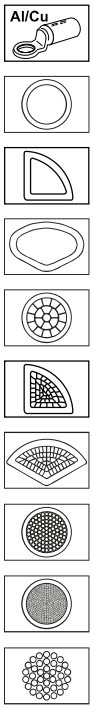
see next page

Compression cable lugs, Al/Cu with Cu eye

Size of bolt dia.	Part No.	Nominal cross section mm²		Code	Dimension mm						Number of crimps		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
		rm/sm	re/se		a	b	d1	d2	d4	l	Al (7 mm)	Al (wide)			
M 12	**307R12**	70	95	18	55	32	11.5	13.0	18.5	86	6	3	1,300	5,70	10
M 10	**308R10**	95	120	22	55	32	13.5	10.5	22	90	6	3	1,435	10,00	5
M 12	**308R12**	95	120	22	55	35	13.5	13.0	22	90	6	3	1,735	9,50	5
M 16	**308R16**	95	120	22	55	38	13.5	17.0	22	90	6	3	2,655	10,00	5
M 12	**309R12**	120	150	22	55	35	15.0	13.0	23	91	6	3	1,810	8,70	5
M 16	**309R16**	120	150	22	55	38	15.0	17.0	23	91	6	3	2,230	8,80	5
M 12	**310R12**	150	185	25	63	35	16.5	13.0	25	103	6	3	2,025	12,20	5
M 16	**310R16**	150	185	25	63	41	16.5	17.0	25	103	6	3	2,655	12,30	5
M 12	**311R12**	185	240	28	65	40	18.5	13.0	28.5	106	6	3	2,320	15,00	5
M 16	**311R16**	185	240	28	65	42	18.5	17.0	28.5	106	6	3	4,975	15,50	5
M 20	**311R20**	185	240	28	65	46	18.5	21.0	28.5	106	6	3	4,610	15,50	5
M 12	**312R12**	240	300	32	70	45	21.0	13.0	32	116	8	3	2,750	20,00	5
M 16	**312R16**	240	300	32	70	45	21.3	17.0	32	116	8	3	3,400	21,00	5
M 20	**312R20**	240	300	32	70	49	21.3	21.0	32	116	8	3	4,600	22,00	5
M 16	**313R16**	300	--	34	75	51	23.3	17.0	34	124	8	3	3,980	21,60	1
M 20	**313R20**	300	--	34	75	51	23.3	21.0	34	124	8	3	5,510	22,20	1
M 16	**314R16**	400	--	38	95	58	26.25	17.0	38.5	165	--	4	4,200	35,00	1
M 20	**314R20**	400	--	38	95	58	26.25	21.0	38.5	165	--	4	5,950	35,00	1

Compression joints, Al/Cu





- For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- For Cu round conductors, e.g. to DIN EN 60228 Cl. 1, 2, 5 and 6
- For non-tension copper cables, e.g. to DIN 48201-1
- For pre-rounded sector shaped conductors
- Tube dimension to DIN 46235 part 1 and 2
- With code number for clear tool assignment

Characteristics

- For connecting non-tension aluminium and copper conductors
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

Material

- E-aluminium
- Copper (EN13600)

Surface

- Bright

Technical instructions

- Sleeves for compacted conductors and sleeves for 3-core and 4-core cables, see chapter „Sleeves for compacted conductors and sector shaped conductors - Cu“
- Reduction sleeves for connecting unequal cross-sections can be found on page 68
- Tool: see page 115

Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

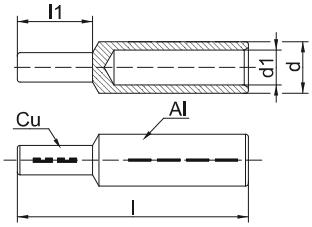
Part No.	Nominal cross section mm²			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
322R10	10		10	55.0	5.0	4.5	10	6	0.212	1.100	4
322R16	10		16	61.0	5.0	5.4	10	8	0.714	1.550	4
323R10	16		10	55.0	6.0	4.5	12	6	0.212	1.500	4
323R16	16		16	61.0	6.0	5.4	12	8	0.714	1.750	4
324R10	25	35	10	55.0	6.8	4.5	12	6	0.212	1.400	4
324R16	25	35	16	61.0	6.8	5.5	12	8.0	0.714	1.650	4
324R25	25	35	25	63.0	6.8	7.0	12	10	0.892	1.900	4
324R35	25	35	35	63.0	6.8	8.2	12	12.0	1.624	2.000	4
324R50	25	35	50	72.0	6.8	10.0	12	14	2.362	3.500	4
324R416	25/4	35	16	61.0	7.6	5.5	12	8.0	0.714	1.600	4
325R16	35	50	16	71.0	8.0	5.5	14	8.0	0.714	2.500	4
325R25	35	50	25	71.0	8.0	7.0	14	10	0.892	2.650	4
325R35	35	50	35	71.0	8.0	8.2	14	12.0	1.519	3.300	4
325R50	35	50	50	77.0	8.0	10.0	14	14.0	2.362	3.530	4
325R616	35/6	50	16	71.0	9.0	5.5	14	8.0	0.714	2.450	4
325R625	35/6	50	25	71.0	9.0	7.0	14	10	0.892	2.600	4
325R635	35/6	50	35	71.0	9.0	8.2	14	12.0	1.624	3.250	4
326R16	50	70	16	71.5	9.8	5.5	16	8.0	0.714	2.850	4
326R25	50	70	25	71.5	9.8	7.0	16	10	0.892	3.200	4
326R35	50	70	35	71.5	9.8	8.2	16	12.0	1.624	3.800	4
326R50	50	70	50	77.5	9.8	10.0	16	14.0	2.362	4.550	4
327R16	70	95	16	79.0	11.2	5.5	18.5	8.0	0.714	4.100	4

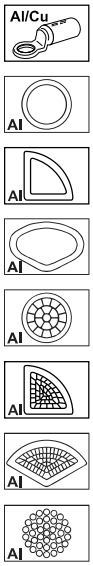
see next page

Compression joints, Al/Cu

Part No.	Nominal cross section mm²			Dimension mm			Code		Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	Al rm/sm	Al re/se	Cu re/rm/se/sm	l	Inner dia. Al	Inner dia. Cu	Al	Cu			
327R25	70	95	25	79.0	11.2	7.0	18,5	10	0.892	3.950	4
327R35	70	95	35	79.0	11.2	8.2	18	12	1.624	4.900	4
327R50	70	95	50	85.0	11.2	10.0	18	14	2.362	5.700	4
327R70	70	95	70	85.0	11.2	11.5	18	16	2.921	7.250	4
327R95	70	95	95	95.0	11.2	13.5	18	18	4.957	9.360	4
327R120	70	95	120	99.0	11.2	15.5	18	20	5.640	10.540	4
328R16	95	120	16	79.0	13.2	5.5	22	8	0.714	6.150	4
328R25	95	120	25	79.0	13.2	7.0	22	10	0.892	6.300	4
328R35	95	120	35	79.0	13.2	8.2	22	12	1.519	6.800	4
328R50	95	120	50	85.0	13.2	10.0	22	14	2.362	8.050	4
328R70	95	120	70	87.0	13.2	11.5	22	16	3.105	8.200	4
328R95	95	120	95	95.0	13.2	13.5	22	18	4.957	10.350	4
328R120	95	120	120	95.0	13.2	15.5	22	20	5.640	11.550	4
329R35	120	150	35	81.0	14.7	8.2	22	12	1.519	7.600	4
329R50	120	150	50	87.0	14.7	10.0	22	14	2.362	7.900	4
329R70	120	150	70	89.0	14.7	11.5	22	16	3.105	8.500	4
329R95	120	150	95	97.0	14.7	13.5	22	18	4.857	11.000	4
329R120	120	150	120	97.0	14.7	15.5	22	20	5.640	10.280	4
330R16	150	185	16	95.5	16.3	5.4	25	8	0.714	7.800	4
330R25	150	185	25	95.5	16.3	6.8	25	10	0.892	8.000	4
330R35	150	185	35	95.5	16.3	8.2	25	12	1.624	8.400	4
330R50	150	185	50	98.5	16.3	10.0	25	14	2.362	10.200	4
330R70	150	185	70	99.5	16.3	11.5	25	16	3.105	10.350	4
330R95	150	185	95	107.5	16.3	13.5	25	18	4.957	12.650	4
330R120	150	185	120	107.5	16.3	15.5	25	20	5.640	13.900	4
330R150	150	185	150	114.0	16.3	17.0	25	23	8.231	16.700	4
331R50	185	240	50	99.0	18.3	10.0	28	14	2.362	12.100	1
331R70	185	240	70	100.0	18.3	11.5	28	16	3.105	13.000	1
331R95	185	240	95	108.0	18.3	13.5	28	19	4.957	14.450	1
331R120	185	240	120	108.0	18.3	15.5	28	28	5.640	13.720	1
331R150	185	240	150	113.0	18.3	17.0	28	22	8.231	19.550	1
331R185	185	240	185	116.0	18.3	19.0	28	25	9.621	21.000	1
332R50	240	300	50	110.0	21.0	10.0	32	14	2.362	16.500	1
332R70	240	300	70	111.0	21.0	11.5	32	16	3.105	18.000	1
332R95	240	300	95	119.0	21.0	13.5	32	18	4.957	19.000	1
332R120	240	300	120	119.0	21.0	15.5	32	20	5.640	20.500	1
332R150	240	300	150	124.0	21.0	17.0	32	22	8.231	23.300	1
332R185	240	300	185	127.0	21.0	19.0	32	25	9.621	25.500	1
332R240	240	300	240	128.0	21.0	21.5	32	28	12.705	30.100	1
333R120	300	--	120	119.0	23.5	15.5	34	21	5.640	27.800	1
333R150	300	--	150	124.0	23.5	17.0	34	23,5	8.234	31.100	1
333R185	300	--	185	127.0	23.5	19.0	34	25	9.621	32.700	1
333R240	300	--	240	128.0	23.5	21.5	34	28	12.705	37.500	1
333R300	300	--	300	134.0	23.5	24.5	34	32	16.099	41.700	1

Compression joints with Cu bolts, Al





- For non-tension connections of aluminium conductors to DIN EN 60228 and aluminium cables to DIN EN 50182
- For pre-rounded sector shaped conductors
- Tube dimension to DIN 46267, part 2
- Unique tool assignment due to coding

Characteristics

- For screwing non-tension aluminium conductors into copper terminals
- Easy to process due to crimp markings
- Simple cable entry due to internal chamfer

Material

- E-aluminium
- Copper (EN13600)

Surface

- Bright

Technical instructions

- Tool: see page 115

Additional information

- re = round single solid wire, rm = round multi-stranded, se = sector shaped single solid wire, sm = sector shaped multi-stranded, sector shaped conductors must be pre-rounded

Part No.	Nominal cross section mm²		Code	Dimension mm				Bolt mm dia.	Conductor mm dia.	Weight 100 St. ~kg Cu	Weight 100 St. ~kg total	Packing unit/pcs
	rm/sm	re/se		d Ø	d1	l	l1					
344R	25	35	12	12.0	6.8	60	20	6	6.3	0.462	1.6	10
345R	35	50	14	14.0	8.0	71	22	7	7.5	0.695	2.5	10
346R	50	70	16	16.0	10.0	74	25	8	9.0	1.037	3.3	10
347R	70	95	18	18.5	11.5	87	30	10	10.5	1.958	5.4	10
348R	95	120	22	23.0	13.2	91	33	12	12.5	3.112	8.7	10
349R	120	150	22	23.0	15.0	97	38	12	14.0	3.598	9.0	10
350R	150	185	25	25.5	16.5	108	38	12	15.8	3.598	10.9	10
351R	185	240	28	28.5	18.5	116	44	14	17.5	3.692	15.7	5
352R	240	300	32	32.5	21.5	128	44	16	20.3	7.435	21.8	5
353R	300	--	34	34.5	23.5	131	46	18	22.5	9.410	26.7	1

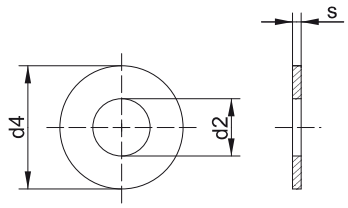
Cupal washers

Characteristics

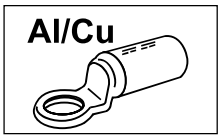
- Flat washer for processing aluminium and copper cable lugs
- For connecting copper conductors to aluminium in dry environments
- For connecting aluminium conductors to copper in dry environments
- Can also be used for connecting tinned aluminium cable lugs in humid environments

Material

- E-Al, one side copper plated



Size of bolt dia.	Part No.	Dimension mm			Weight 100 pcs. ~kg	Packing unit/pcs
		d2	d4	s		
M 6	**CS615**	6.5	15	2	0.06	10
M 8	**CS818**	8.5	18	2	0.09	10
M 10	**CS1022**	11.0	22	2	0.26	10
M 12	**CS1228**	13.0	28	2	0.44	10
M 14	**CS1428**	15.0	28	2	0.40	10
M 16	**CS1635**	17.0	35	2	0.66	10



Tool application chart

Compression cable lugs and connectors made from Al/Cu
The tools of the copper side of our Al/Cu compression joints you will find in the tool application chart of copper compression cable lugs and connectors acc. to DIN

Tool type	Crimping range corresponds to nominal cross-section mm²	Crimping Tool		Catalogue page		Crimp profile
		Part No.	Crimping head / adapter	Crimping Tool	Crimping die	
mechanical, electrical, pneumatic crimping tools with interchangeable die / head	10-70	K354		236	317	⬡
	10-185	K18		238	325	⬡
	10-300	K22		240	330	⬡
Hand hydraulic crimping tools	10-185	HK6018		280	325	⬡
		HK60UNV	+UA18	465	325	⬡
	10-300	HK6022		282	330	⬡
		HK60UNV	+UA22	465	330	⬡
		HK12030		286	336	⬡
		HK12042		288	336	⬡
		HK120U		290	336	⬡
Battery powered crimping tools	10-70	EK354ML		250	317	⬡
		EK354		256	317	⬡
	10-185	EK5018		260	325	⬡
		EK60UNV	+UA18	468	325	⬡
		EKM60UNV	+UA18	467	325	⬡
	10-300	EK6022		264	330	⬡
		EKM6022		262	330	⬡
		EK60UNV	+UA22	468	330	⬡
		EKM60UNV	+UA22	467	330	⬡
		EK12032		270	336	⬡
		EK12042		272	336	⬡
		EK120U		274	336	⬡
		EK135FT	+UA15T	276	336	⬡
		EK120UNV	+UA12T	469	336	⬡
	50-240	EKM60ID		268		⌓
Hydraulic crimping systems	10-185	THK18		294	325	⬡
	10-300	THK22		296	330	⬡
	10-500	HK252	+25A13	308	336 + 340	⬡
	150-500	HK45		309	342	⬡
Hydraulic crimping heads	10-185	PK18		294	325	⬡
		PK60UNV	+UA18	466	325	⬡
	10-300	PK22		296	330	⬡
		PK60UNV	+UA22	466	330	⬡
		PK12042		300	336	⬡
		PK120U		302	336	⬡
	10-500	PK252	+25A13	304	336 + 340	⬡
	150-500	PK45		306	342	⬡