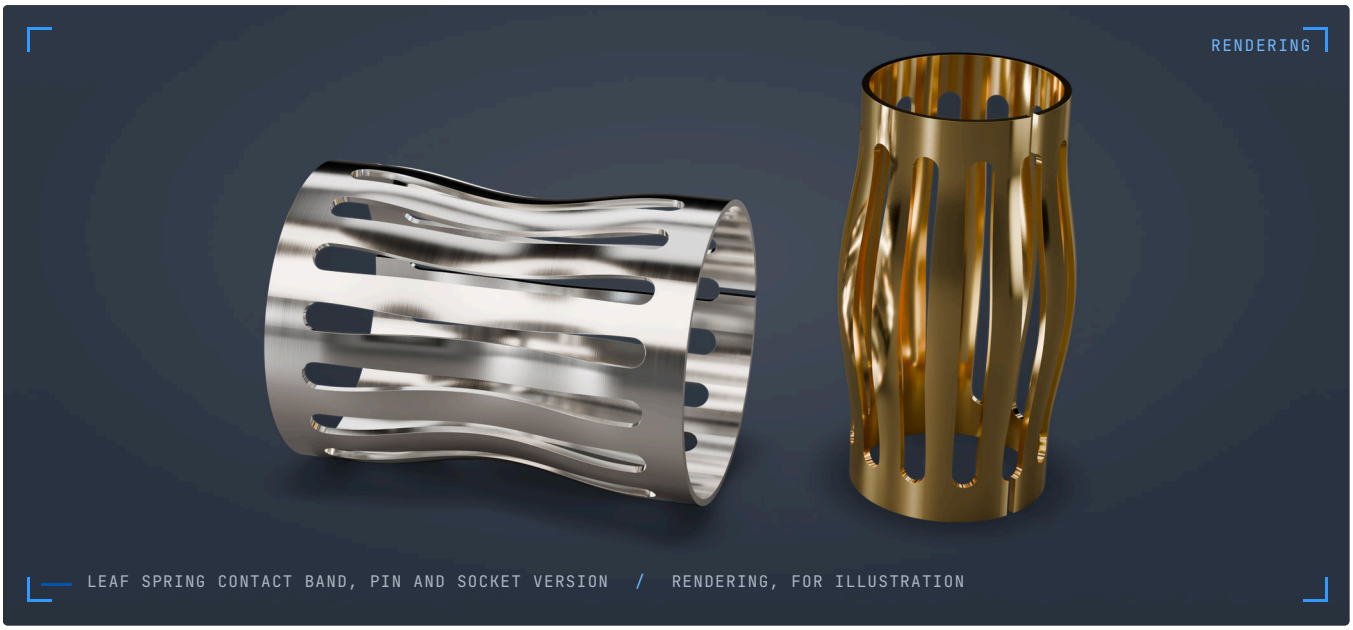
DATASHEET · CONTACT LAMELLAE

Leaf spring contact band: standard sizes

The leaf spring contact band by ACA Atlas Contacte is the compact beryllium copper contact lamella for power and signal contacts from 1.5 mm mating diameter. This datasheet lists the 21 standard sizes with groove dimensions for pin and socket version.



from 1.5 mm	21	5 / 8 / 12 mm	0.1–0.2 mm	Ni · Ag · Au
Mating diameter D	Standard sizes	Length L	Material thickness S	Finishes

01 Operating principle

In the leaf spring contact band the louvers are loaded in bending, like many small leaf springs side by side. A blank with parallel longitudinal slots is stamped, leaving a continuous edge strip at each end. When the blank is rolled, the edge strips become rings and the louvers form a spring basket that presses against the mating contact with a preload.

VERSIONS

- **Pin version:** louvers bow outwards. The lamella sits in a groove on the pin and contacts the cylindrical bore of the socket.
- **Socket version:** louvers bow inwards (waisted). The lamella sits in an internal groove in the socket and contacts a cylindrical pin.

02 Material and finishes

Material	Beryllium copper (CuBe), relaxation-resistant
Nickel (Ni)	for standard applications
Silver (Ag)	for high currents
Gold (Au)	where corrosion resistance is critical
Delivery form	pre-rounded to diameter, ready to install

APPLICATIONS

Medical technology · Measurement and test equipment · Photovoltaics · EV charging connectors · Machine connectors · Automation · Welding technology

03 Standard sizes and groove dimensions

The standard range comprises 21 sizes, all stored in the lamella configurator: 6 in pin version from 2 to 8 mm and 15 in socket version from 1.5 to 16 mm mating diameter. We make other sizes to your specification. Material CuBe, all dimensions in mm.

STANDARD SIZES, LEAF SPRING CONTACT BAND

Mating diameter D	Length L	Thickness S	Groove Ø	Groove width	Guide current Ni / Ag, Au [A]
Pin version: groove on the pin, socket bore D +0.05					
2	8	0.15	1.5	8 +0.25	18 / 22
3	8	0.15	2.5	8 +0.25	27 / 33
4	8	0.17	3.3	8 +0.25	42 / 51
4	12	0.2	3.3	12 +0.25	48 / 58
6	12	0.2	5.3	12 +0.25	72 / 87
8	12	0.2	7.3	12 +0.25	96 / 120
Socket version: groove in the socket, pin D −0.03					
1.5	5	0.1	2.0	5 +0.25	9 / 11
2	5	0.1	2.5	5 +0.25	12 / 15
3	12	0.2	3.7	12 +0.25	42 / 51
4	8	0.15	4.6	8 +0.25	42 / 51
4	12	0.2	4.7	12 +0.25	56 / 67
5	8	0.15	5.6	8 +0.25	53 / 63
6	8	0.15	6.6	8 +0.25	63 / 76
6	8	0.2	6.7	8 +0.25	84 / 100
8	8	0.2	8.7	8 +0.25	110 / 130
8	12	0.2	8.7	12 +0.25	110 / 130
10	8	0.2	10.7	8 +0.25	140 / 170
10	12	0.2	10.7	12 +0.25	140 / 170
12	12	0.2	12.7	12 +0.25	170 / 200
16	8	0.15	16.6	8 +0.25	170 / 200
16	12	0.2	16.7	12 +0.25	220 / 270

Groove Ø and groove width are calculated from the installation drawings: pin D − 0.7 (S = 0.2 and 0.17) and D − 0.5 (S = 0.15), socket D + 0.7 (S = 0.2), D + 0.6 (S = 0.15) and D + 0.5 (S = 0.1), groove width L +0.25. Guide value of the current rating of the whole lamella from the lamella configurator, nickel-plated or silver- or gold-plated: pin 9 / 10.5 / 12 A × D for S = 0.15 / 0.17 / 0.2, socket 6 / 10.5 / 14 A × D for S = 0.1 / 0.15 / 0.2, × 1.2 with silver or gold. Depending on the installation, higher or lower values are possible.

D +0.05 Socket bore

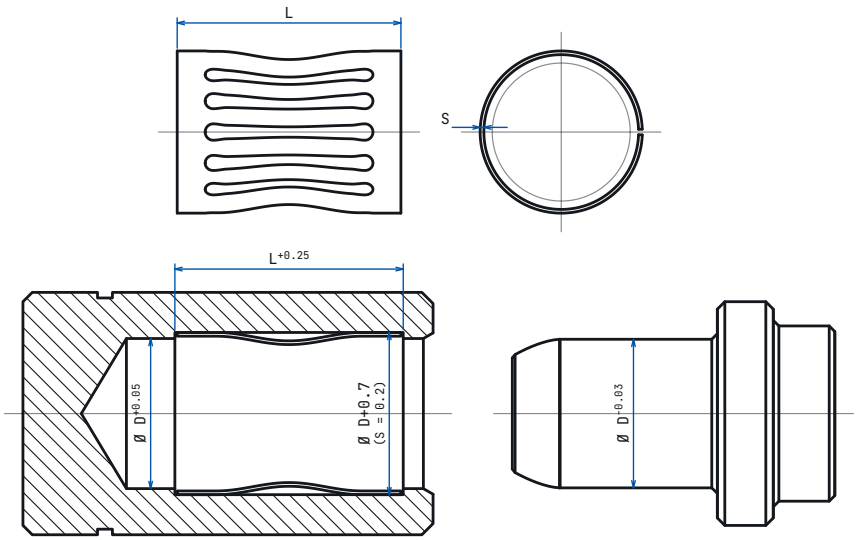
D -0.03 Pin diameter

L +0.25 Groove width

04 Installation

The contact lamella is supplied pre-rounded to the required diameter. All you need is a turned part with a groove to hold it. The lamella is pushed into the groove, where it snaps in and is held captive. The fits for bore and pin are the same for both versions, and the groove diameter depends on the material thickness S.

SCHEMATIC, DIMENSIONS IN MM



— Socket version: contact lamella, socket in section with groove, and pin. Groove Ø drawn for S = 0.2 mm. Dimensions in mm, schematic.

ELECTRICAL RATINGS Contact resistance, contact force, insertion force, temperature range and mating cycles are available on request. The guide value of the current rating of every standard size is in the size table and matches the value of the lamella configurator. Depending on the installation, higher or lower values are possible, so verify the value in your application.

Enquiries and orders

- Pin or socket version
- Standard size D × L × S or your special size
- Finish: nickel, silver or gold
- Quantity (from 100 pieces in the configurator)
- For special sizes: drawing with the installation

ONLINE

Lamella configurator with current rating guide value
atlas-contacte.de/en/request-a-quote/?bauart=blatt

Request with drawing, or samples
atlas-contacte.de/en/request-a-quote/

Product page with configurator

INSTALLATION DRAWINGS (PDF)

Pin version

Socket version

atlas-contacte.de/en/downloads/

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QUALITY

ACA Atlas Contacte GmbH is certified to ISO 9001:2015 (DQS GmbH, reg. no. 068040 QM15). Founded 1987.

ISO 9001:2015 certificate (PDF, German)

Note: Subject to technical change. All data are guide values given to the best of our knowledge and are not guaranteed properties. Only the drawings and specifications agreed with you are binding. Verify suitability, current rating and temperature rise in your application by measurement. Product images are renderings and show the design schematically. © ACA Atlas Contacte GmbH, 2026-11.