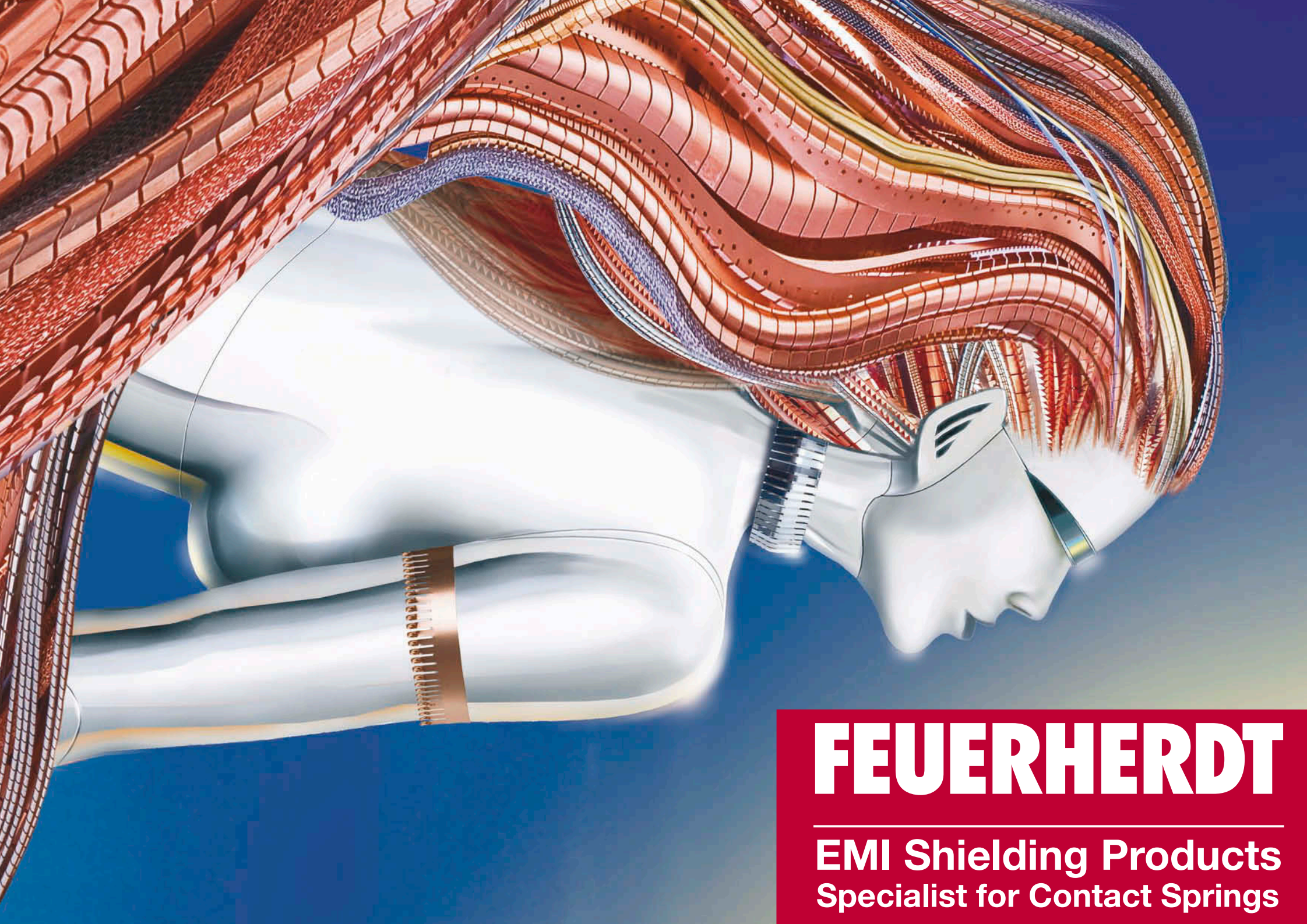

FEUERHERDT

EMI Shielding Products

Specialist for Contact Springs

BERYLLIUM COPPER CONTACT FINGER STRIPS

and other EMI shielding products

TÜVRheinland® CERT ISO 9001

Application

Due to their outstanding material and electrical characteristics, beryllium copper fingers of different shapes and dimensions are used in the following industries: Broadcasting, telecommunication, industrial control, measuring and instrumentation, aerospace technology, nuclear physics and data processing. Contact fingers and rings made of beryllium copper are used at all radio and microwave frequencies, for instance as contacts to valves and tuning components as well as for shielding.

Material Properties

The beryllium copper (CuBe2) used for our products is a quality tested quench hardening spring material. It is noteworthy for its yield point, tensile strength and elasticity, good electrical conductivity, high fatigue strength as well as its resistance to abrasion and corrosion. The good thermal conductivity coupled with hardness eliminates sparking. The raw material is non-magnetic and has an excellent temperature performance.

Physical Characteristics

Specific weight:	8.4g/cm^3
Melting point:	900°C
Coefficient to expansion:	(20–200°C) 17x10^{-6}/°C
Thermal: conductivity:	0.27cal/cm · s · °C 1.13 W/cm · °C
Vickers hardness:	350–430
Bending resistance at 10^{8}cycles strength:	250–290 ±N/mm^2
Modulus of elasticity:	135000N/mm^2
Modulus of torsion:	47000N/mm^2
Spring bending limit:	820–950N/mm^2
Electrical conductivity:	12.5–13m/Ωmm^2

Material Options

- Material: hardened or unhardened
- Finish:
  bright finish, silver, gold, zinc, bright tin, tin lead, bright nickel or according to customer specifications.
  Plating codes: see page 16
- Material in stock:
  hardened and bright finish or hardened and silver or tin plated 4-6 µm
- Order information see page 6

Components

- As a single finger, contact strip or contact ring
- Contact strips are carried as stock items
- Almost all contact strips can be formed into contact rings by the user

Special Fingers

New shapes and special types available at short notice.

Quality Certification

Our facilities for producing EMI shielding and related products and services have been DIN EN ISO 9001 certified.

Please note:

While we believe the information in this document to be correct and in accordance with DIN or MIL standards, we cannot guarantee electrical specifications and we accept no responsibility for any errors or misprints. All measures of length are rounded off.

Details are subject to change without notification.

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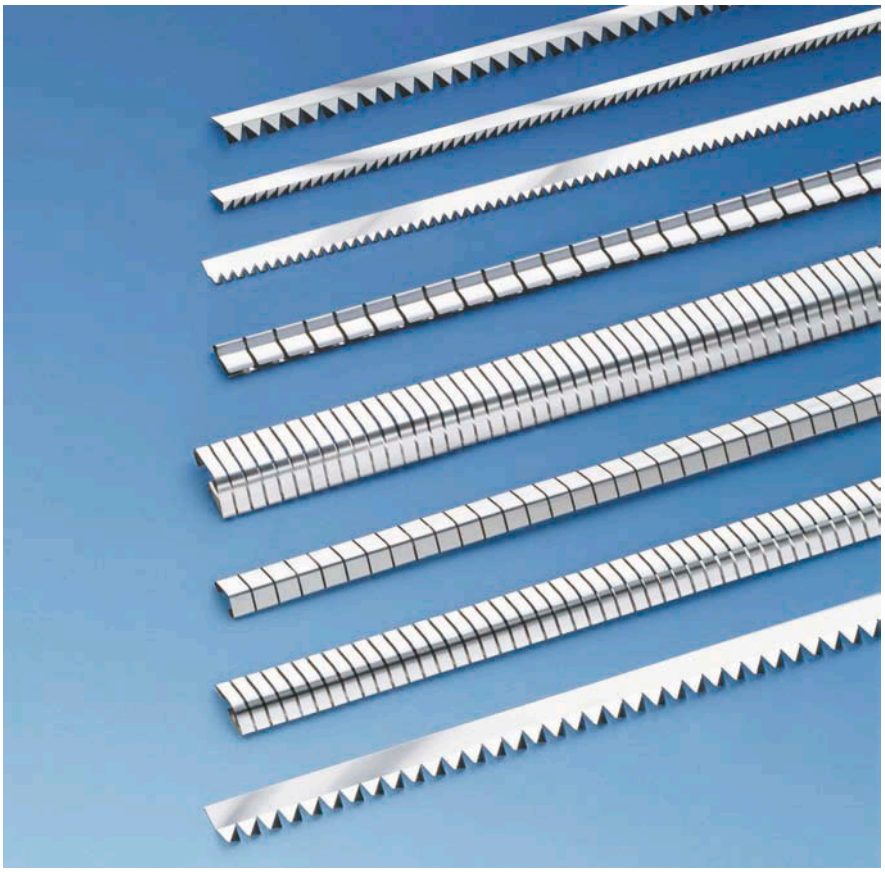
CONTACT STRIPS MADE OF STAINLESS STEEL



Contact strips made of stainless steel

The company Feuerherdt GmbH now offers, as first supplier, a regularly stocked assortment of contact strips made of stainless steel (German material no. 1.4310). The material used is stainless strip steel for springs: a material with extraordinary toughness, good spring characteristics, and long service life. The anti-corrosion properties are excellent, with the result that the contact surfaces are always smooth and shiny. The shielding properties are good, but the damping values that can be achieved are less than with BeCu.

Material number: 1.4310
Characteristics: stainless steel,
spring band steel, cold-rolled
DIN 17224, EN 10258

Mechanical properties:

Tensile strength:	1220(RM N/mm2)
Yield strength:	987 (RP N/mm2)
Strain:	31.00 (L=80mm)

Chemical composition: (data given in percent)

C	0.102	Si	1.130	Mn	1.150	P	0.033
S	0.005	Cr	16.790	Mo	0.670	Ni	6.770
Ti	0.000	Al	0.000	Cu	0.000	V	0.000
W	0.000	Cb/Ta	0.000	Fe	73.350		

Our stainless steel assortment includes almost all of our standard contact springs. To order just put E in front of the part no. e.g.: E xxxx

Please note that the dimensions of the V2A-springs may vary from the CuBe springs, due to the different material conditions. Please refer to us for further enquiry.

FEUERHERDT GMBH

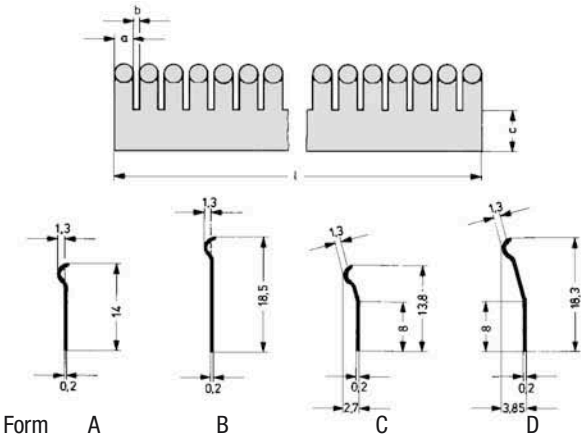
Motzener Straße 26 b
12277 Berlin / Germany

Tel. 030-710 96 45-50/-51
Fax 030-710 96 45-99

Internet:
www.feuerherdt.de

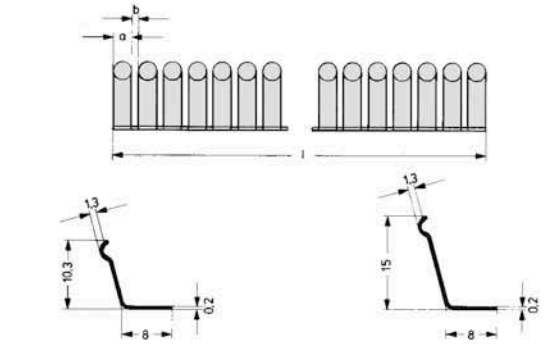
E-mail:
emc@feuerherdt.de

Contact Strips



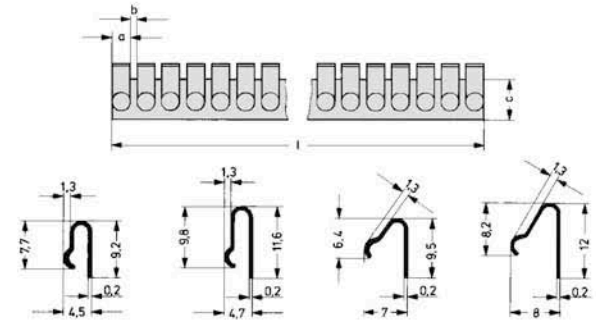
Form	a mm	b mm	c mm	l mm	Part no.
A	3	1	6.5	499	8101
B	3	1	6.5	499	8102
C	3	1	6.5	499	8103
D	3	1	6.5	499	8104

Surface Finish and Plating Codes: see page 16



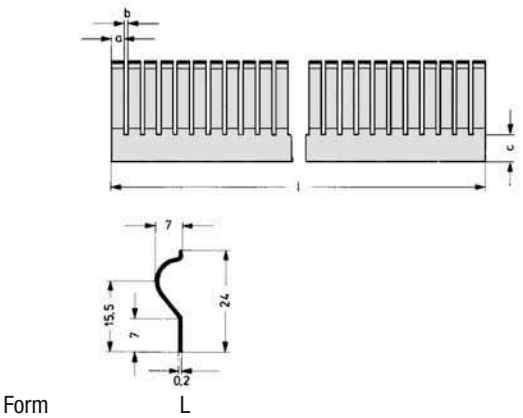
Form	a mm	b mm	c mm	l mm	Part no.
E	3	1	6.5	499	8105
F	3	1	6.5	499	8106

Surface Finish and Plating Codes: see page 16



Form	a mm	b mm	c mm	l mm	Part no.
G	3	1	6.5	499	8107
H	3	1	6.5	499	8108
I	3	1	6.5	499	8109
K	3	1	6.5	499	8110

Surface Finish and Plating Codes: see page 16



Form	a mm	b mm	c mm	l mm	Part no.
L	3	1	6.5	499	8111

Surface Finish and Plating Codes: see page 16

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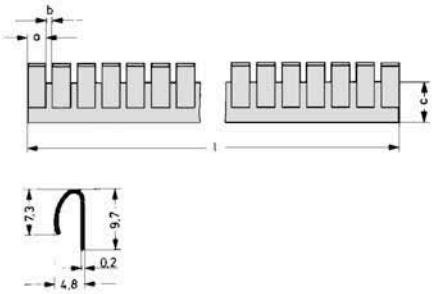
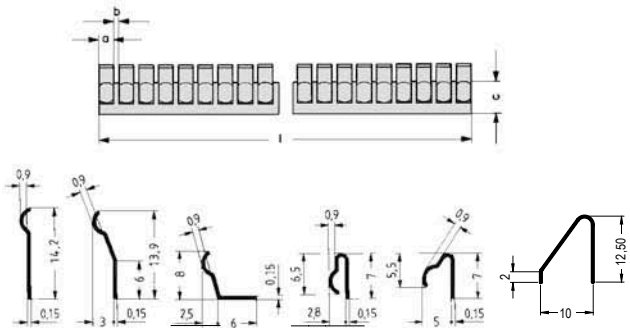
Contact Strips



Form M

Form	a mm	b mm	c mm	l mm	Part no.
M	3	1	6.5	499	8112

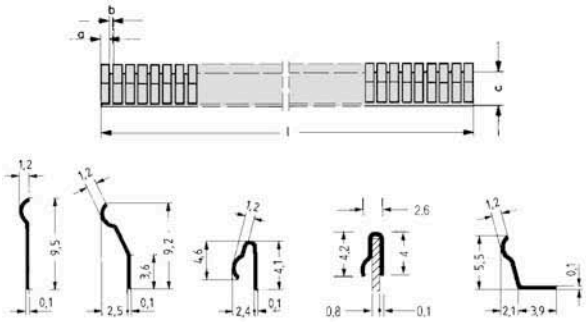
Surface Finish and Plating Codes: see page 16



Form N N1 O P Q Q1

Form	a mm	b mm	c mm	l mm	Part no.
N	1.5	0.5	5.5	500	8113
N1	1.5	0.5	5.5	500	8113-1
O	1.5	0.5	5.5	500	8114
P	1.5	0.5	5.5	500	8115
Q	1.5	0.5	5.5	500	8116
Q1	1.5	0.5	5.5	500	8116-1

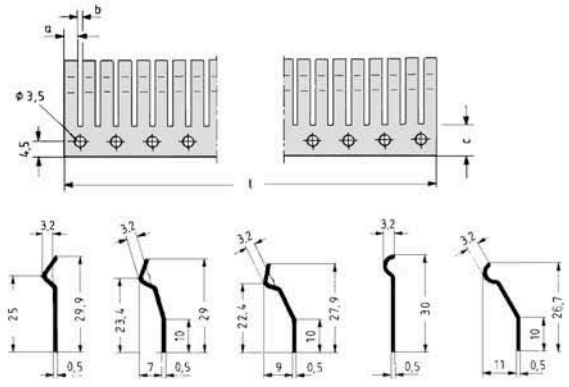
Surface Finish and Plating Codes: see page 16



Form R R1 S S1 T

Form	a mm	b mm	c mm	l mm	Part no.
R	1	0.5	3.2	500	8117
R1	1	0.5	3.2	500	8117-1
S	1	0.5	3.2	500	8118
S1	1	0.5	3.2	406	8118-1
T	1	0.5	3.2	500	8119

Surface Finish and Plating Codes: see page 16



Form U U1 U2 U10 U11

Form	a mm	b mm	c mm	l mm	Part no.
U	3.03	0.97	9	503	8120
U1	3.03	0.97	9	503	8120-1
U2	3.03	0.97	9	503	8120-2
U10	3.03	0.97	9	503	8120-10
U11	3.03	0.97	9	503	8120-11

Surface Finish and Plating Codes: see page 16

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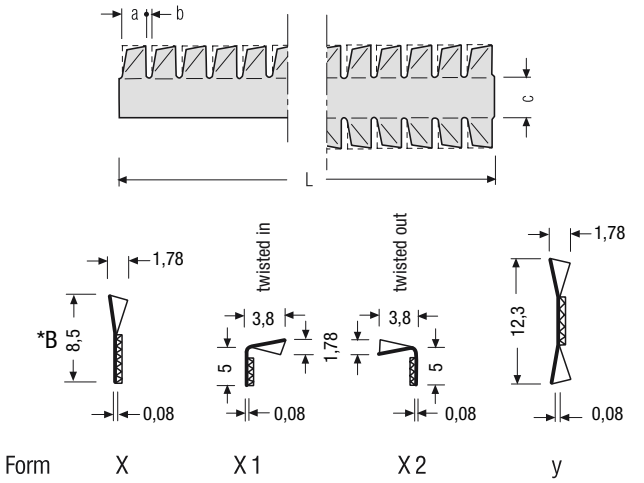
Twisted Contact Strips

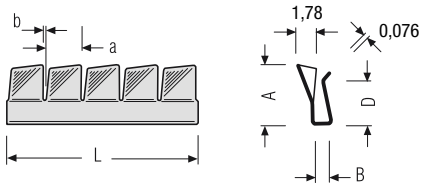


Form X X 1 X 2 y

Strips with or without tape

Form	a	b	c	L	Part no.
X	3.8	0.4	4.8	499 mm	8501
	3.8	0.4	4.8	499 mm	8502
	3.8	0.4	4.8	499 mm	8503
	3.8	0.4	4.8	Endless	8504
X1	3.8	0.4	4.8	499 mm	8505
X2	3.8	0.4	4.8	499 mm	8506
Y	3.8	0.4	4.8	499 mm	8511
	3.8	0.4	4.8	499 mm	8512
	3.8	0.4	4.8	499 mm	8513
	3.8	0.4	4.8	Endless	8514

* B: other dimensions available

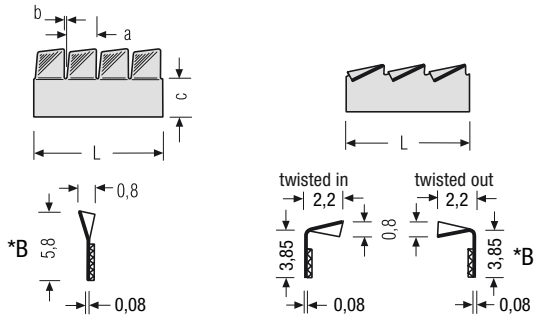


Form X 3, X 4

Form	a	b	A	B	D	L	Part no.
X3	3.8	0.4	4.8	1.0	4.1	407 mm	8601
	3.8	0.4	4.8	1.5	3.6	407 mm	8602
	3.8	0.4	4.8	2.0	3.2	407 mm	8603
X4	3.8	0.4	6.4	1.0	5.7	407 mm	8604
	3.8	0.4	6.4	1.5	5.3	407 mm	8605
	3.8	0.4	6.4	2.0	5.0	407 mm	8606

Also available with lances

Mini-Twisted Contact Strips

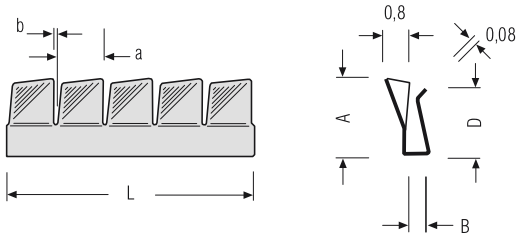


Form X M X 1 M X 2 M

Strips with or without tape

Form	a	b	c	L	Part no.
XM	2.0	0.4	3.6	500 mm	8610
	2.0	0.4	3.6	610 mm	8611
	2.0	0.4	3.6	Endless	8613
X1M	2.0	0.4	3.6	610 mm	8614
X2M	2.0	0.4	3.6	610 mm	8615

* B: other dimensions available



Form X 5 to X 10

Form	a	b	A	B	D	L	Part no.
X5	2.0	0.4	3.8	1.0	3.7	405 mm	8616
X6	2.0	0.4	3.8	1.5	3.5	405 mm	8617
X7	2.0	0.4	4.7	1.0	4.5	405 mm	8618
X8	2.0	0.4	4.3	1.5	4.4	405 mm	8619
X9	2.0	0.4	5.9	1.0	4.7	405 mm	8620
X10	2.0	0.4	5.9	1.5	4.3	405 mm	8621

X 5 and X 6 also available with lances

Dimensions in mm

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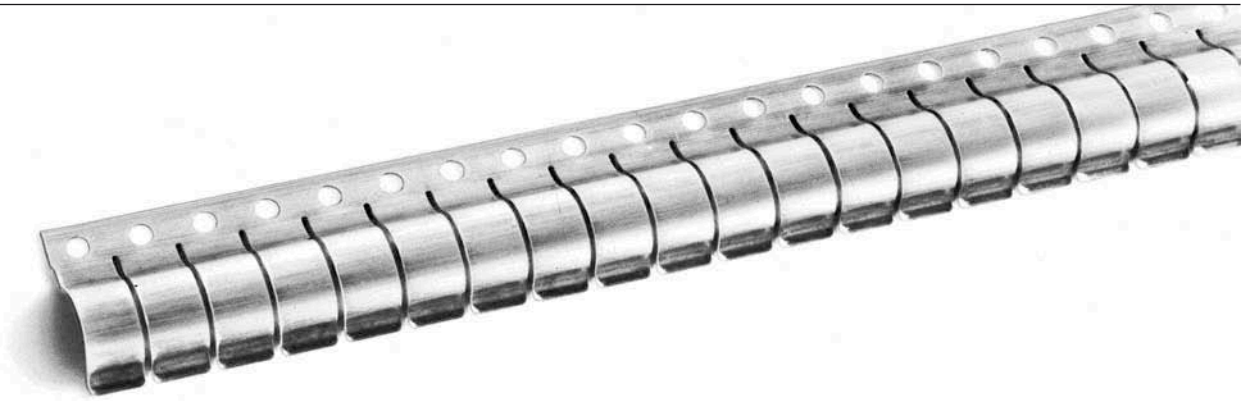
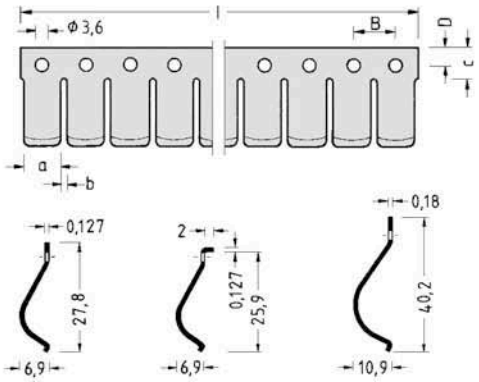
RFI / EMI-Shielding





Form V1 V2 V3

* Maximum compressed length

Form	a mm	b mm	c mm	B mm	D mm	l mm	Part no.
V1	8.5	1	6.7	9.5	4.00	504	8801*
	8.5	1	6.7	9.5	4.00	upon request	8802*
V2	8.5	1	6.7	9.5	4.00	504	8803*
V3	11.7	1	7.9	12.7	4.75	508	8804*
	11.7	1	7.9	12.7	4.75	upon request	8805*

* only available in CuBe

Electrical Properties

Excellent shielding values ≥ 110 dB at 100 MHz.

Application

Shielding of doors and other movable parts in shielded rooms and enclosures.

Mounting

By way of rivets, screws or soldering.

Ordering example

Contact strip Form CL6 / Part. no. 8906, standard length according to the catalogue

⟹ 8906.00.02

└ bright finish (Plating code: see page 16)

Contact strip Form CL6-1/ Part no. 8906-01, length 4 fingers

⟹ 8906.01.03.4F

└ gold finish (Plating code: see page 16)

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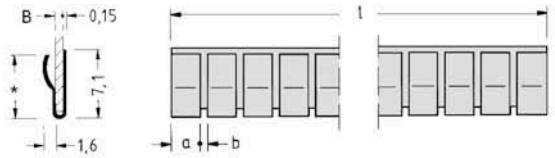
Clip-On Gaskets

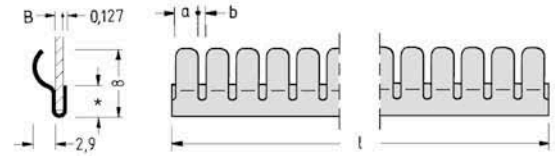


Form CL 1

other heights than 1.6 mm available
* 6.7 mm (Clip 0.8)
* 6.6 mm (Clip 1.0)
* 6.2 mm (Clip 1.5)

Form	a mm	b mm	B mm	l mm	Part no.
CL 1	5.6	0.8	0.8	409	8901
CL 1-1	5.6	0.8	1.0	409	8901-1
CL 1-2	5.6	0.8	1.5	409	8901-2

Also available with D + T-Lances
Surface Finish and Plating Codes: see page 16

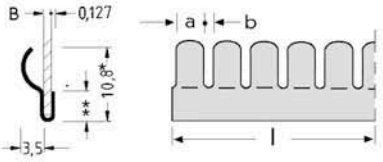


Form CL 2

* CL2-1 = 7.8 mm
* CL2-2 = 4.75 mm

Form	a mm	b mm	B mm	l mm	Part no.
CL 2	3.6	1.2	0.8	407	8902
CL 2-1	3.6	1.2	1.0	407	8902-1
CL 2-2	3.6	1.2	1.5	407	8902-2

Surface Finish and Plating Codes: see page 16

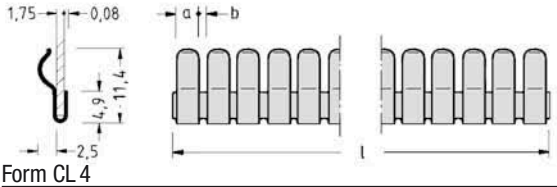


Form CL 3

*CL3-3 = 10.5 mm
**CL3 = 5 mm
**CL3-1 = 4.8 mm
**CL3-2 = 4.3 mm
**CL3-3 = 4.5 mm

Form	a mm	b mm	B mm	l mm	Part no.
CL 3	3.6	1.2	0.8	407	8903
CL 3-1	3.6	1.2	1.0	407	8903-1
CL 3-2	3.6	1.2	1.5	407	8903-2
CL 3-3	3.6	1.2	1.5	407	8903-3

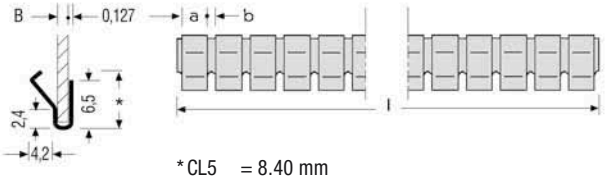
Surface Finish and Plating Codes: see page 16



Form CL 4

Form	a mm	b mm	l mm	Part no.
CL 4	3.6	1.2	407	8904

Surface Finish and Plating Codes: see page 16

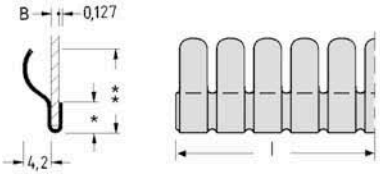


Form CL 5

* CL5 = 8.40 mm
* CL5-1 = 8.10 mm
* CL5-2 = 8.15 mm

Form	a mm	b mm	B mm	l mm	Part no.
CL 5	3.6	1.2	0,8	407	8905
CL 5-1	3.6	1.2	1.0	407	8905-1
CL 5-2	3.6	1.2	1.5	407	8905-2

Surface Finish and Plating Codes: see page 16



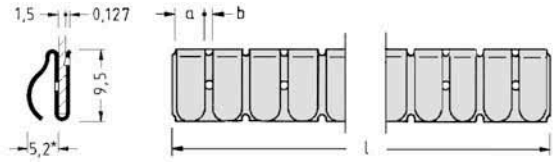
Form CL 6

*CL6 = 4.8 mm
*CL6-1 = 5.1 mm
*CL6-2 = 4.8 mm
**CL6 = 14.65 mm
**CL6-1 = 13.95 mm
**CL6-2 = 14.10 mm

Form	a mm	b mm	B mm	l mm	Part no.
CL 6	3.6	1.2	0.8	407	8906
CL 6-1	3.6	1.2	1.0	407	8906-1
CL 6-2	3.6	1.2	1.5	407	8906-2

Surface Finish and Plating Codes: see page 16

Clip-On Gaskets

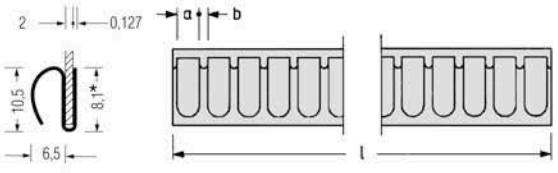


*CL7-1 = 6.9 mm *CL7-2 = 7.9 mm
also available with D + T-Lances

Form CL 7

Form	a mm	b mm	l mm	Part no.
CL 7	5.32	1.04	406	8907
CL 7-1	5.32	1.04	406	8907-1
CL 7-2	5.32	1.04	406	8907-2

Surface Finish and Plating Codes: see page 16

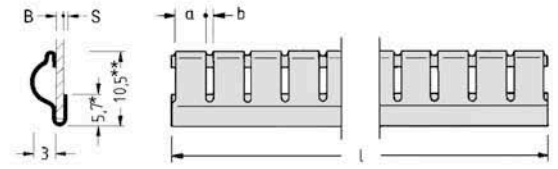


*CL8-2 = 7.4 mm / Clip = 3 mm

Form CL 8

Form	a mm	b mm	l mm	Part no.
CL 8	3.2	1.55	405	8908*
CL 8-1	8.0	1.55	405	8908-1*
CL 8-2	3.2	1.55	405	8908-2*

Surface Finish and Plating Codes: see page 16
* only available in CuBe



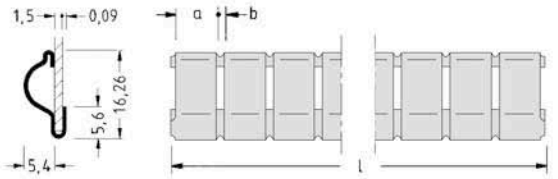
*CL9-1 = 5.50 mm
*CL9-2 = 5.25 mm
*CL9-3 = 5.20 mm

**CL9-1 = 10.5 mm
**CL9-2 = 10.5 mm
**CL9-3 = 10.0 mm

Form CL 9

Form	a mm	b mm	B mm	l mm	S mm	Part no.
CL 9	5.7	0.6	0.8	409	0.05	8909*
CL 9-1	5.7	0.6	1.0	409	0.05	8909-1*
CL 9-2	5.7	0.6	1.5	409	0.05	8909-2*
CL 9-3	5.7	0.6	2.0	409	0.05	8909-3*

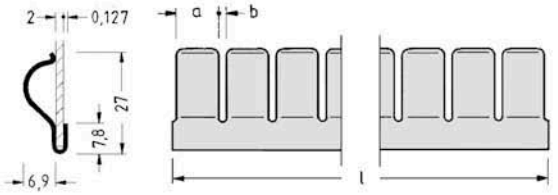
Surface Finish and Plating Codes: see page 16
* only available in CuBe



Form CL 10

Form	a mm	b mm	l mm	Part no.
CL 10	8.7	0.8	455	8910

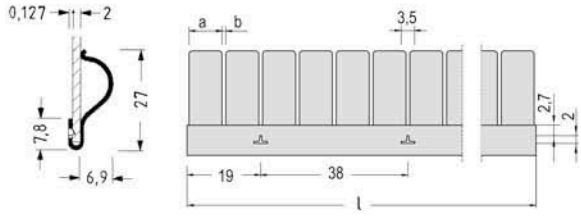
Surface Finish and Plating Codes: see page 16



Form CL 11

Form	a mm	b mm	l mm	Part no.
CL 11	8.5	1.0	494	8911*

Surface Finish and Plating Codes: see page 16
* only available in CuBe



Form CL 12

With T-Lance attachment as shown

Form	a mm	b mm	l mm	Part no.
CL 12	8.5	1.0	494	8912*

Surface Finish and Plating Codes: see page 16
* only available in CuBe

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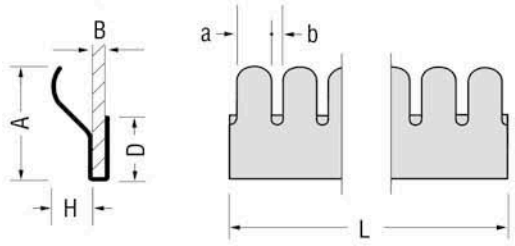
Clip-On Gaskets

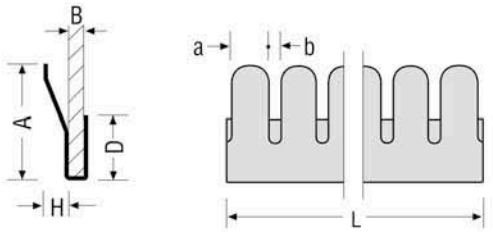


Material thickness 0.1 mm

Form CL 13 – CL 18

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 13	3.56	1.22	15.2	1.0	7.4	5.3	406	8630
CL 14	3.56	1.22	15.2	1.5	6.9	5.3	406	8631
CL 15	3.56	1.22	15.2	2.0	6.4	5.3	406	8632
CL 16	3.6	1.2	8.3	1.0	6.3	2.5	407	8633
CL 17	3.6	1.2	8.3	1.5	5.8	2.5	407	8634
CL 18	3.6	1.2	8.3	2.0	5.4	2.5	407	8635

Surface Finish and Plating Codes: see page 16
Also available with T-Lances

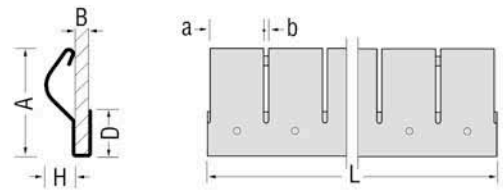


Material thickness 0.1 mm

Form CL 19 – CL 21

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 19	3.6	1.2	11.4	1.0	6.9	2.5	407	8636
CL 20	3.6	1.2	11.4	1.5	6.4	2.5	407	8637
CL 21	3.6	1.2	11.4	2.0	5.8	2.5	407	8638

Surface Finish and Plating Codes: see page 16
Also available with T-Lances



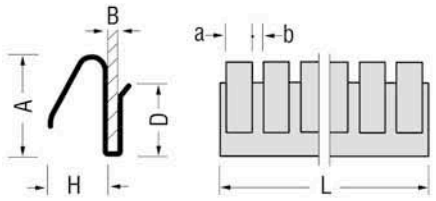
Material thickness 0.07 mm

Form CL 22 – CL 28

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 22	5.85	0.5	11.7	1.0	6.1	3.0	457	8639*
CL 23	5.85	0.5	11.7	1.5	5.6	3.0	457	8640*
CL 24	5.85	0.5	11.7	2.0	5.1	3.0	457	8641*
CL 25	9.0	0.5	19.3	1.0	7.4	6.4	456	8642*
CL 26	9.0	0.5	19.3	1.5	6.9	6.4	456	8643*
CL 27	9.0	0.5	19.3	2.0	6.4	6.4	456	8644*
CL 28	9.0	0.5	19.3	3.0	5.3	6.4	456	8645*

Surface Finish and Plating Codes: see page 16
Also available with T-Lances
* only available in CuBe

Clip-On Gaskets

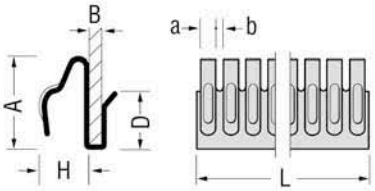


Material thickness
CL 32 – CL 35 : 0.15 mm
CL 36 – CL 37 : 0.08 mm

Form CL 29 – CL 37

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 32*	3.2	1.55	12.25	1.0	8.25	7.2	407	8649
CL 33*	3.2	1.55	12.25	1.5	7.55	7.2	407	8650
CL 34*	3.2	1.55	12.25	2.0	7.55	7.2	407	8651
CL 35*	3.2	1.55	12.25	3.0	6.3	7.2	407	8652
CL 36	2.8	0.4	4.6	1.0	3.8	2.3	307	8653
CL 37	2.8	0.4	4.6	1.5	3.4	2.3	307	8654

Surface Finish and Plating Codes: see page 16
* Also available with D-Lances

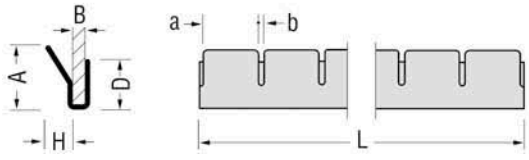


Material thickness
CL 38 – CL 41 : 0.15 mm
CL 42 – CL 44 : 0.13 mm
CL 45 – CL 46 : 0.08 mm

Form CL 38 – CL 46

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 38	1.58	0.81	9.4	1.0	6.9	5.1	408	8655*
CL 39	1.58	0.81	9.4	1.5	6.4	5.1	408	8656*
CL 40	1.58	0.81	9.4	2.0	5.6	5.1	408	8657*
CL 41	1.5	0.5	9.4	3.0	4.6	5.1	408	8658*
CL 42	1.27	0.64	9.1	1.0	6.9	4.1	408	8659*
CL 43	1.27	0.64	9.1	1.5	6.9	4.1	408	8660*
CL 44	1.27	0.64	9.1	2.0	5.6	4.1	408	8661*
CL 45	1.09	0.51	6.1	1.0	5.3	2.8	406	8662*
CL 46	1.09	0.51	6.1	1.5	4.8	2.8	406	8663*

Surface Finish and Plating Codes: see page 16
* only available in CuBe



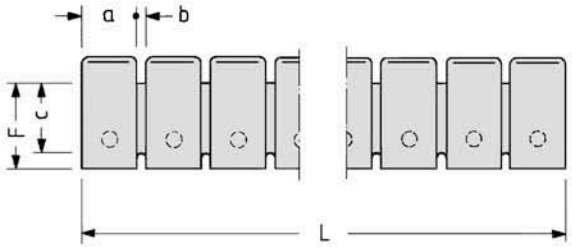
Material thickness 0.08 mm

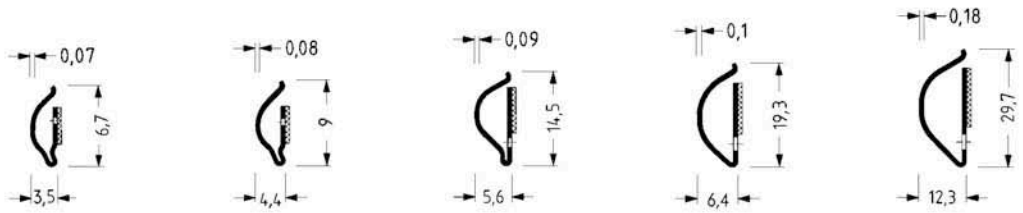
Form CL 47 – CL 49

Form	a mm	b mm	A mm	B mm	D mm	H mm	L mm	Part no.
CL 47	3.8	0.4	4.8	0.8	3.0	1.3	306	8664
CL 48	3.8	0.4	4.8	1.0	2.8	1.3	306	8665
CL 49	3.8	0.4	4.8	1.5	2.3	1.3	306	8666

Surface Finish and Plating Codes: see page 16
Also available with D-Lances

Curved Fingers



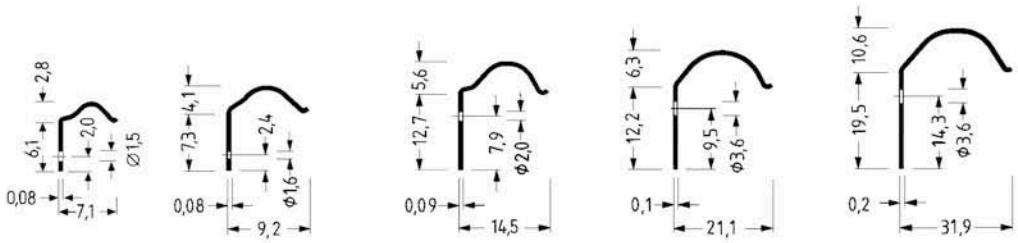


All contact strips are provided with two-sided adhesive strip.

Form	V10	V11	V12	V13	V14

Form	a mm	b mm	c mm	F mm	L mm	Part no.
V10	4.32	0.46	3.85	5.5	406	9001*
					7620	9002
V11	5.79	0.56	3.85	7.5	406	9003*
					7620	9004
V12	8.71	0.81	10.00	12.60	609	9005
					7620	9006
V13	8.51	1.02	10.00	12.00	608	9007*
					7620	9008
V14	11.68	1.02	17.00	17.80	304	9009*

* only available in CuBe

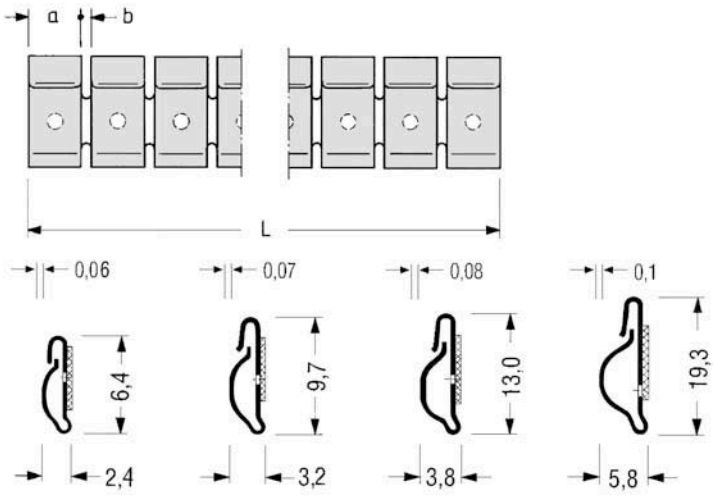


Form	V15-1	V15	V16	V17	V18

Form	a mm	b mm	c mm	F mm	L mm	Part no.
V15-1	4.32	0.46	3.7	5.5	406	9019*
V15	5.79	0.56	3.9	7.6	406	9020*
V16	8.71	0.81	9.9	12.9	609	9021*
V17	8.51	1.02	11.8	12.7	304	9022*
V18	11.68	1.02	18.0	19.9	304	9023*

* only available in CuBe

Slippy Fingers



Form V 19 V 20 V 21 V 22

All contact strips are provided with two-sided adhesive strip.

Form	a mm	b mm	∅ mm	L mm	Part no.
V 19	4.32	0.46	1.5	406	9030*
				7620	9031*
V 20	4.32	0.46	1.5	406	9032*
				7620	9033*
V 21	5.79	0.56	1.5	406	9034*
				7620	9035*
V 22	8.71	0.81	1.5	608	9036*
				7620	9037*

* only available in CuBe

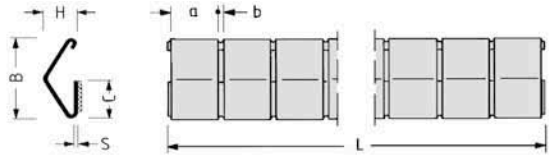
Contact strips made of stainless steel

Curved and slippy fingers can be used to shield housings, enclosures and panels very effectively against interference. They are optimal to use when space is short. Assembly is extremely simple as the rear side of the strip is provided with two-sided adhesive strip.

Extensive soldering, riveting or bolting is therefore not necessary. The measured attenuation values are excellent. Magnetic field: at 14 KHz more than 46 dB. Plane waves: at 10 GHz approx. 108 dB.

Slippy fingers are a further development of the curved fingers, whereby the free part of the finger is retained within a channel and is therefore protected against damage. As compression increases, the fingers will slide further into the channel.

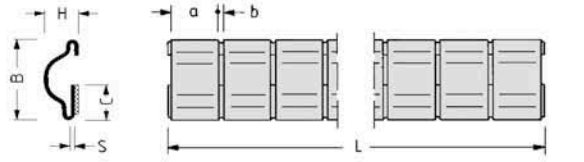
Grounding and Shield Strips



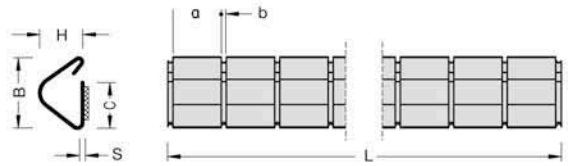
Form W1-W5 Surface Finish and Plating Codes: see page 16

All contact strips are provided with two-sided adhesive strip.

Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
W 1	4.3	0.5	5.3	2.8	8.8	0.05	408	9040
W 2	5.7	0.6	5.3	3.3	9.4	0.05	409	9041
W 3	8.7	0.8	7.2	5.7	15.2	0.08/0.05	608	9042
W 4	8.7	0.1	11.2	8.1	19.8	0.10	455	9043
W 5	11.7	1.0	19.8	10.4	27.9	0.10	455	9044



Form W6-W9 Surface Finish and Plating Codes: see page 16

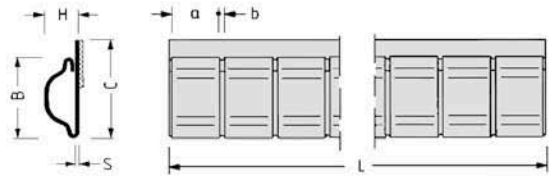


Form W10 Surface Finish and Plating Codes: see page 16

All contact strips are provided with two-sided adhesive strip.

Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
W 6	4.3	0.5	5.4	2.5	8.1	0.09	408	9045 *
W 7	5.7	0.6	5.25	3.3	9.4	0.09	406	9046 *
W 8	3.9	0.8	7.4	5.6	15.2	0.09	455	9047 *
W 9	8.7	0.8	7.4	5.6	15.2	0.09	456	9048 *
W 10	5.7	0.6	5.45	5.15	8.4	0.05	409	9049

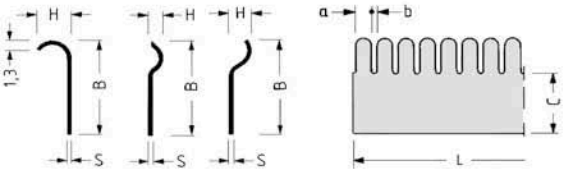
* only available in CuBe



Form W12 Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
W 12	8.72	0.8	19.8	5.6	15.2	0.09	456	9051

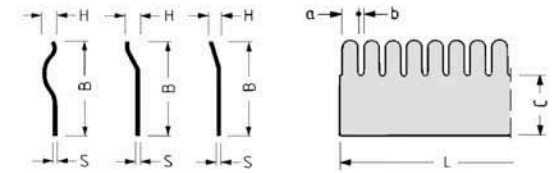
All contact strips are provided with two-sided adhesive strip.



Form J 1 J 2 J 3 Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
J 1	3.56	1.22	16.0	5.8	19.6	0.13	407	9060 *
J 2	3.56	1.22	16.0	2.3	22.6	0.13	407	9061 *
J 3	3.56	1.22	16.0	3.3	22.6	0.13	407	9062 *

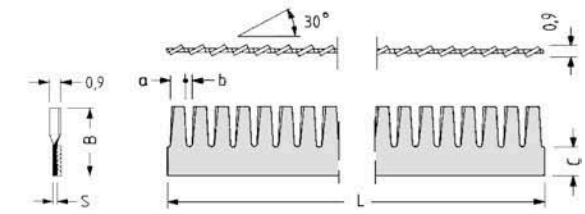
* only available in CuBe



Form J 4 J 5 J 6 Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
J 4	3.56	1.22	16.0	2.3	23.4	0.13	406	9063 *
J 5	3.56	1.22	16.0	2.3	23.4	0.13	406	9064 *
J 6	3.56	1.22	16.0	2.3	23.4	0.13	406	9065 *

* only available in CuBe



Form Z Surface Finish and Plating Codes: see page 16

All contact strips are provided with two-sided adhesive strip.

Form	a mm	b mm	C mm	B mm	S mm	L mm	Part no.
Z	1.65	0.76	4.1	9.1	0.13	407	9070

L also to custumer specifications.

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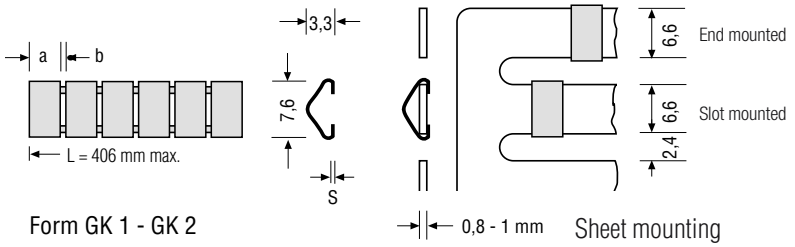
Slot-Mount Shields in Strips or Short Lengths

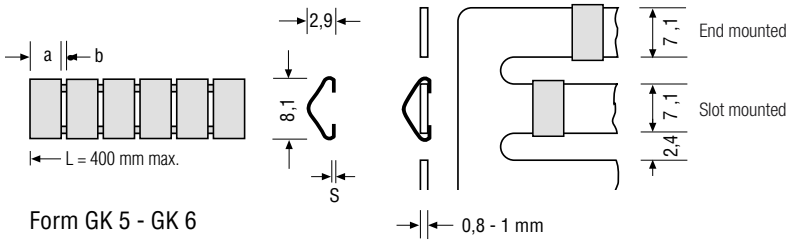


Form GK 1 - GK 2

Sheet mounting

Surface Finish and Plating Codes: see page 16

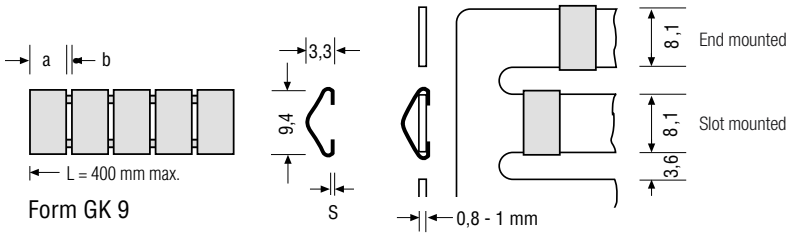
Form	a mm	b mm	S mm	Part no.
GK 1	4.3	0.5	0.05	9701
GK 2	4.3	0.5	0.09	9702



Form GK 5 - GK 6

Surface Finish and Plating Codes: see page 16

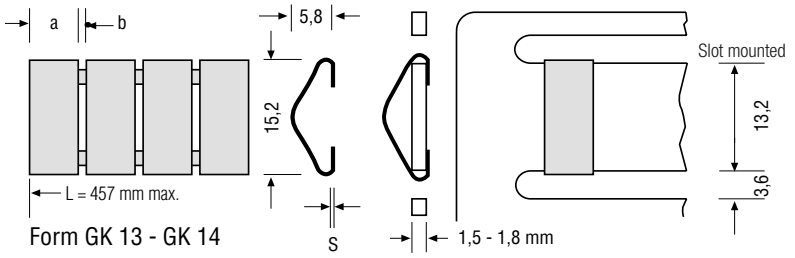
Form	a mm	b mm	S mm	Part no.
GK 5	4.3	0.5	0.05	9705
GK 6	4.3	0.5	0.09	9706



Form GK 9

Surface Finish and Plating Codes: see page 16

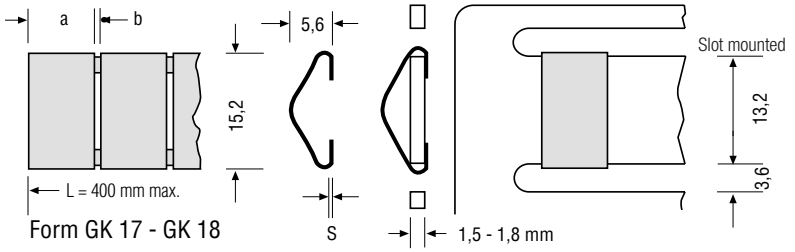
Form	a mm	b mm	S mm	Part no.
GK 9	5.7	0.6	0.05	9709



Form GK 13 - GK 14

Surface Finish and Plating Codes: see page 16

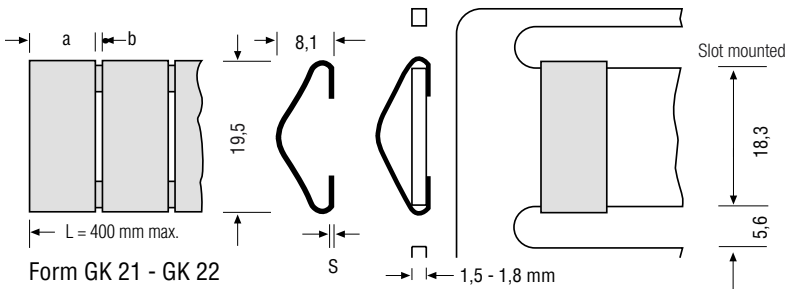
Form	a mm	b mm	S mm	Part no.
GK 13	6.4	0.8	0.08	9713
GK 14	6.4	0.127	0.13	9714



Form GK 17 - GK 18

Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	S mm	Part no.
GK 17	8.7	0.8	0.05	9717
GK 18	8.7	0.8	0.10	9718



Form GK 21 - GK 22

Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	S mm	Part no.
GK 21	8.7	0.8	0.08	9721
GK 22	8.7	0.8	0.10	9722

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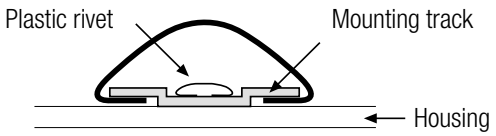
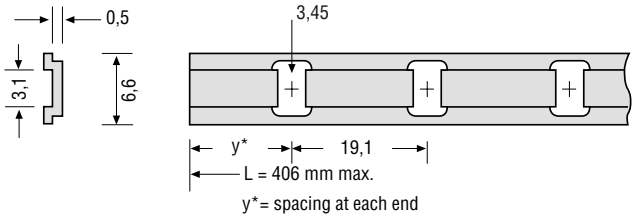
Mounting Tracks and Accessories

Mounting on riveted track

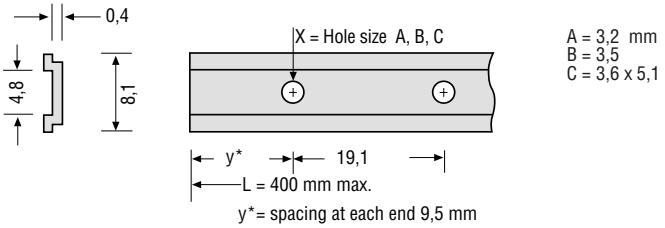


Instead of slots in the housing, a mounting track can be used for the shields with a T-end-piece.



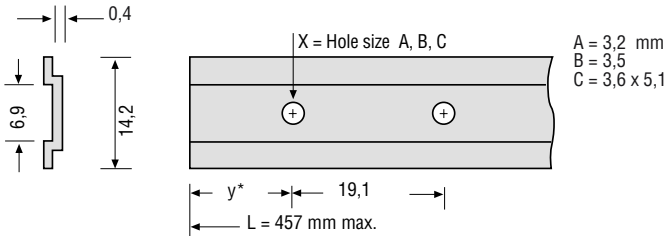
Mounting track	Part no.
MS 2 for GK 5 - 6	9730

Material: Stainless steel



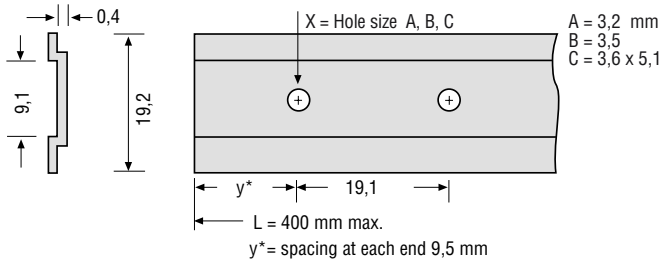
Mounting track	Part no.
MS 3 for GK 9	9735

Material: Brass



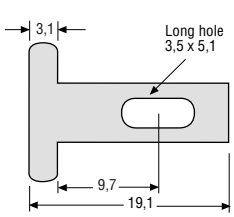
Mounting track	Part no.
MS 4 for GK 13 - 18	9740

Material: Brass

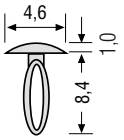


Mounting track	Part no.
MS 5 for GK 21 - 22	9745

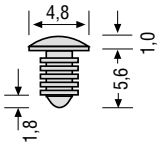
Material: Brass



TE 1 - 3



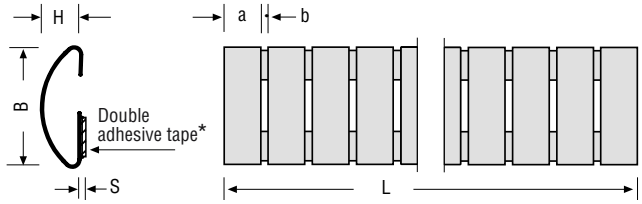
NE 1



NE 2

T-end-piece	Part no.
TE 1 for GK 9	9750
TE 2 for GK 13 - 18	9751
TE 3 for GK 21 - 22	9752
Plastic rivet	
N E 1 for sheet 0.5 - 1.5 mm	9754
N E 2 for sheet 1.1 - 1.9 mm	9755

Rounded Shields

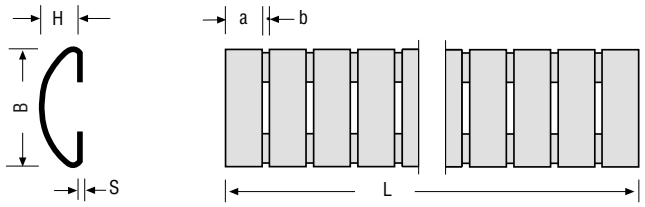


Form HR 1 - 3 *HR 1 = 4,1 HR 2 = 6,5 HR 3 = 7
HR 1 - HR 3 not equal-sided

Form	a mm	b mm	H mm	B mm	S mm	L mm	Part no.
HR 1	4.3	0.5	2.8	9.1	0.08	403	9760
HR 2	5.8	0.6	3.6	11.4	0.08	383	9761*
HR 3	8.8	0.8	5.6	15.8	0.10	379	9762*

Surface Finish and Plating Codes: see page 16
* only available in CuBe

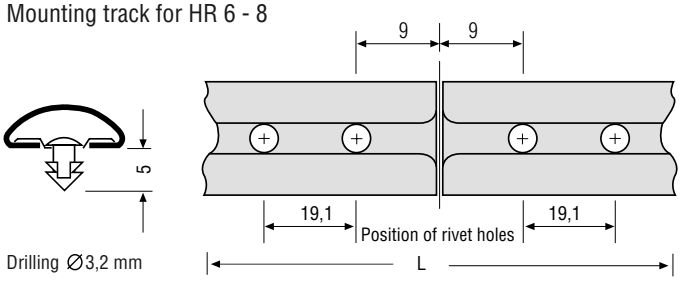
The shields can also be mounted on riveted track. Ideal for bi-directional load.



Form	B mm	H mm	No. of rivets	Part no.
HR 6	9.1	2.8	10	9763
HR 7	11.4	3.6	10	9764 *
HR 8	15.8	5.6	10	9765 *

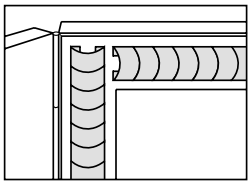
Surface Finish and Plating Codes: see page 16
* only available in CuBe

Mounting track for HR 6 - 8

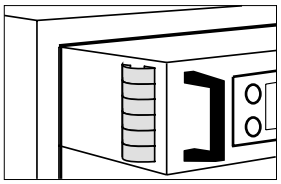


Form	A mm	L mm	Part no.
MS 6	8.1	400	9763
MS 7	11.0	381	9764
MS 8	15.2	381	9765

Material: Brass or stainless steel



HR 1 - HR 3



HR 6 - HR 8

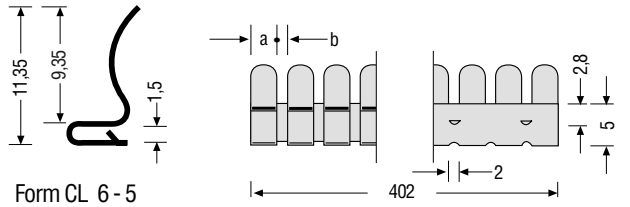
Examples of typical application

Surface finishes for all shields

You can choose from a range of surface finishes. Just add the code for the finish you want to the Part no. in your order. Thus 8906.00.02 means a shield form CL6 with bright surface finish.

Surface Code	Finish and Plating Codes Required Finish
- 02	bright finish
- 03	gold
- 04	silver
- 15	zinc chromate/clear
- 17	bright tin
- 19	bright nickel
	or to customer specification

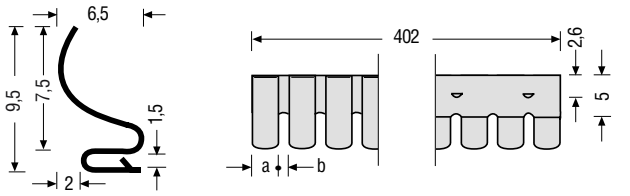
PCB Contact Fingers (Clip-On)



Form CL 6 - 5

Form	a mm	b mm	Part no.
CL 6 - 5	3.6	1.2	8906 - 5

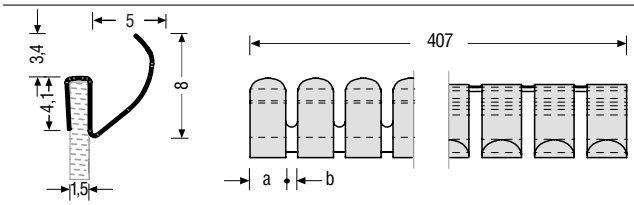
Material thickness: 0.127 mm
Surface Finish and Plating Codes: see page 16



Form CL 6 - 6

Form	a mm	b mm	Part no.
CL 6 - 6	3.6	1.2	8906 - 6

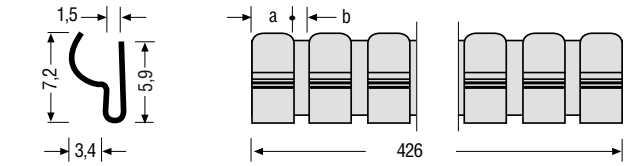
Material thickness: 0.127 mm
Surface Finish and Plating Codes: see page 16



Form CL 6 - 7

Form	a mm	b mm	Part no.
CL 6 - 7	3.6	1.2	8906 - 7

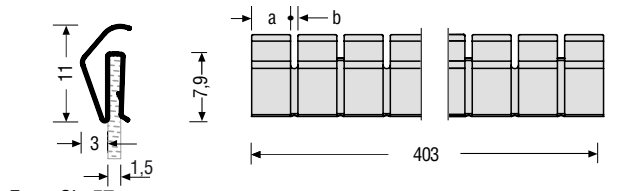
Material thickness: 0.127 mm
Surface Finish and Plating Codes: see page 16



Form CL 3 - 2 - LP

Form	a mm	b mm	Part no.
CL 3 - 2	3.6	1.2	8903 - 2 - LP

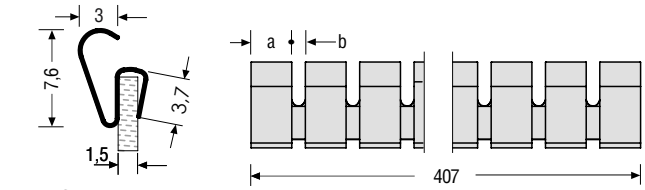
Material thickness: 0.127 mm
Surface Finish and Plating Codes: see page 16



Form CL 57

Form	a mm	b mm	Part no.
CL 57	5.31	1.0	8669

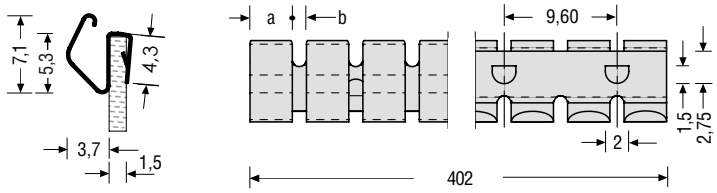
Material thickness: 0.08 mm
Surface Finish and Plating Codes: see page 16



Form CL 58

Form	a mm	b mm	Part no.
CL 58	3.6	1.2	8918

Material thickness: 0.08 mm
Surface Finish and Plating Codes: see page 16



Form CL 59

Form	a mm	b mm	Part no.
CL 59	3.6	1.2	8917

Material thickness: 0.08 mm
Surface Finish and Plating Codes: see page 16

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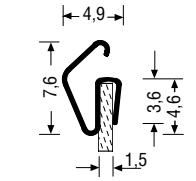
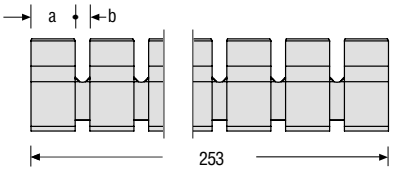
INTERNET: WWW.FEUERHERDT.DE · E-MAIL: EMC@FEUERHERDT.DE

PCB Contact Fingers (Clip-On)



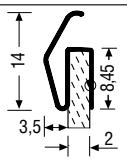
Form CL 60 M



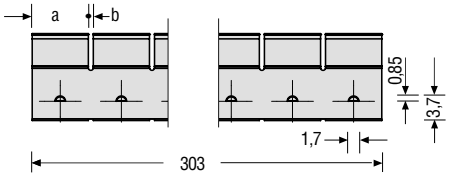
Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	Part no.
CL 60 M	3.6	1.2	8913-M

Material thickness: 0.08 mm



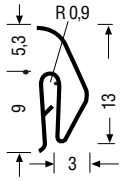
Form CL 60



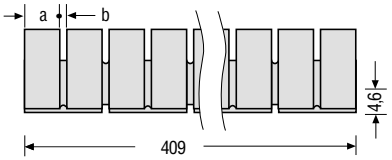
Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	Part no.
CL 60	9.0	0.8	8913

Material thickness: 0.08 mm



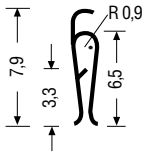
Form CL 61



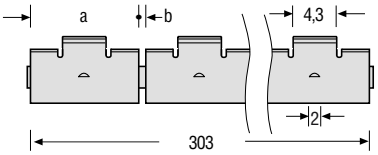
Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	Part no.
CL 61	5.6	0.8	8914*

Material thickness: 0.127 / 0.08 mm
* only available in CuBe



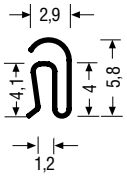
Form CL 62



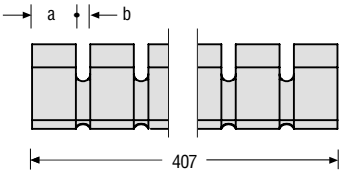
Surface Finish and Plating Codes: see page 16

Form	a mm	b mm	Part no.
CL 62	12.68	1.14	8915*

Material thickness: 0.07 mm * only available in CuBe



Form CL 63



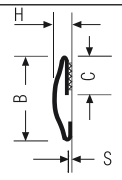
Form CL 63-1 = Clip 1.5

Surface Finish and Plating Codes: see page 16

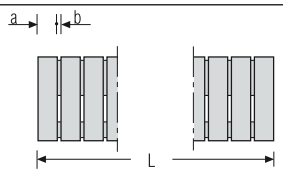
Form	a mm	b mm	Part no.
CL 63	3.0	1.0	8916*
CL 63-1	3.0	1.0	8916-1*

Material thickness: 0.09 mm * only available in CuBe

Low Profile Gaskets



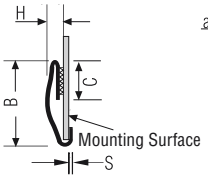
Form NP



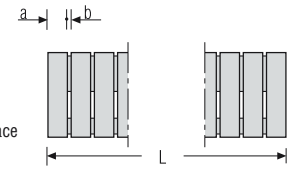
Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
NP2	2.5	0.6	6.0	2.0	11.4	0.05	406	2001
NP3	2.5	0.6	8.2	3.0	15.2	0.05	406	2002

with double adhesive transfer tape

Low Profile Gaskets, Hook-On Type



Form NPH



Form	a mm	b mm	C mm	H mm	B mm	S mm	L mm	Part no.
NPH	2.5	0.6	6.0	1.5	11.4	0.05	406	2003
NPH	2.5	0.6	8.2	2.3	15.2	0.05	406	2004

with double adhesive transfer tape

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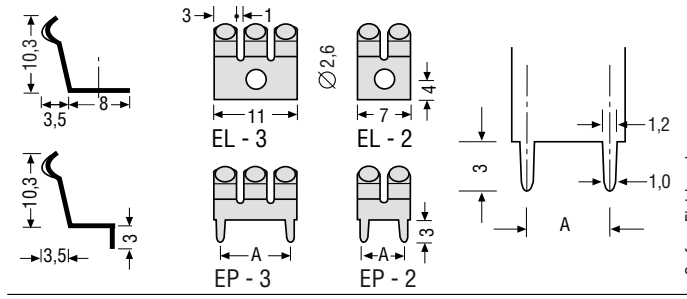
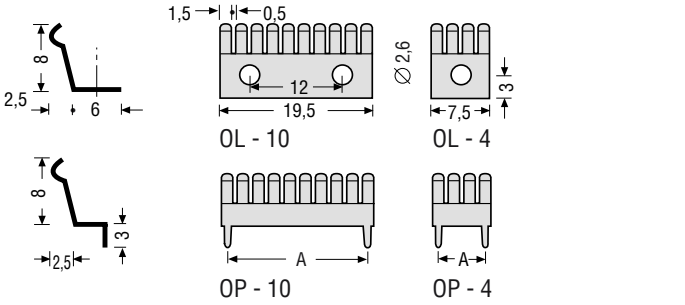
PCB Contact Fingers with Hole/Pins



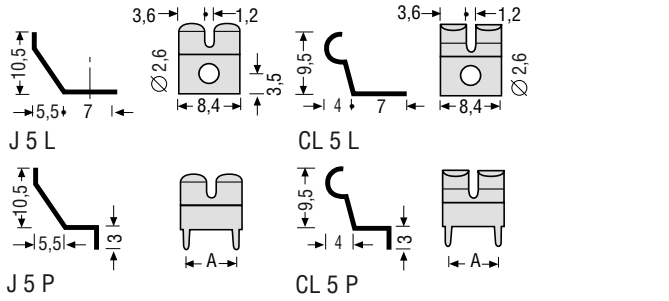
Form	No. of fingers	A mm	Part no.
EL - 3	3	-	8920
EL - 2	2	-	8921
EP - 3	3	10	8925
EP - 2	2	5	8926

Material thickness: 0.2 mm



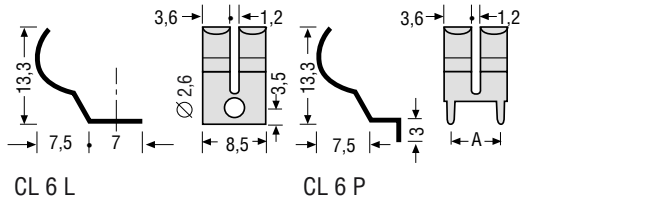
Form	No. of fingers	A mm	Part no.
OL	10	-	8930
	4	-	8931
OP	10	17.5	8935
	4	5	8936

Material thickness: 0.15 mm



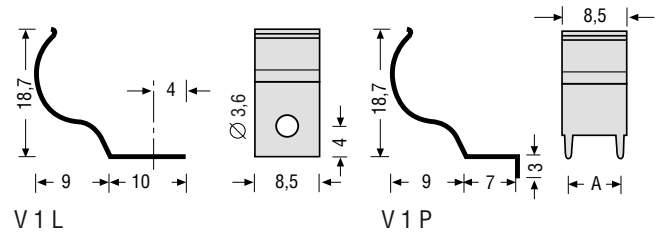
Form	No. of fingers	A mm	Part no.
J 5 L	2	-	8940
J 5 P	2	5	8941
CL 5 L	2	-	8945
CL 5 P	2	5	8946

Material thickness: 0.127 mm



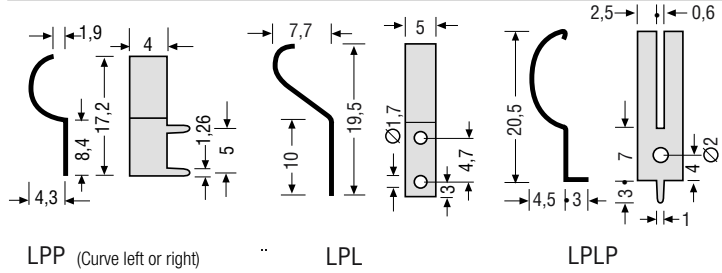
Form	No. of fingers	A mm	Part no.
CL 6 L	2	-	8950
CL 6 P	2	5	8955

Material thickness: 0.127 mm



Form	No. of fingers	A mm	Part no.
V 1 L	1	-	8960 *
V 1 P	1	5	8965 *

Material thickness: 0.127 mm * only available in CuBe



Form	No. of fingers	A mm	Part no.
L P P	1	-	8970 *
L P L	1	-	8980
L P L P	2	-	8990

Material thickness: LPP=0.15 LPL=0.15 LPLP=0.15 mm
* please state r (right) or l (left) for ordering

Alterations possible if required

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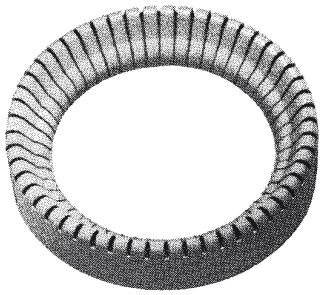
Contact Strips and Rings

for Radio Amateurs

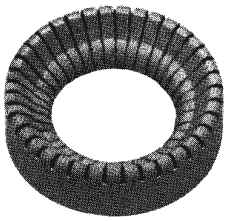
For tube 2 C 39 BA

Anode Contact Ring



Form Q
∅ 33 mm*

Grid Contact Ring



Cathode Contact Ring

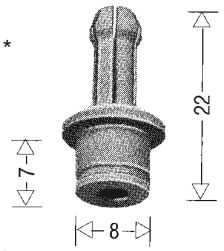
Form Q
∅ 23.5 mm*

Form S
∅ 19.5 mm*

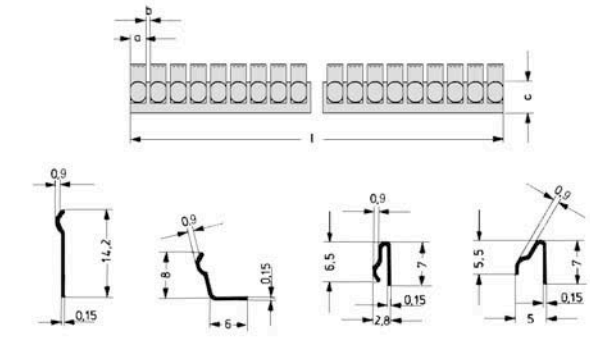
Heating Contact

Form R
∅ 9.25 mm*

Form S
∅ 12.6 mm*

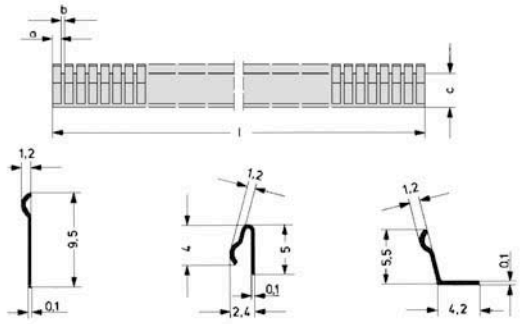


*Outer diameters



Form N O P Q

Form	a mm	b mm	c mm	l mm	Part no.
N	1.5	0.5	5.5	500	8113
O	1.5	0.5	5.5	500	8114
P	1.5	0.5	5.5	500	8115
Q	1.5	0.5	5.5	500	8116



Form R S T

Form	a mm	b mm	c mm	l mm	Part no.
R	1.0	0.5	3.2	500	8117
S	1.0	0.5	3.2	500	8118
T	1.0	0.5	3.2	500	8119

Material Options

Material: hardened or unhardened
Finish: bright finish or silver-plated
Material in stock:
hardened and bright finish or hardened and silver-plated 4–6µm

Components

As a single finger, contact strip or contact ring.
Contact strips are carried as stock items.
Almost all contact strips can be formed into contact rings by the user.

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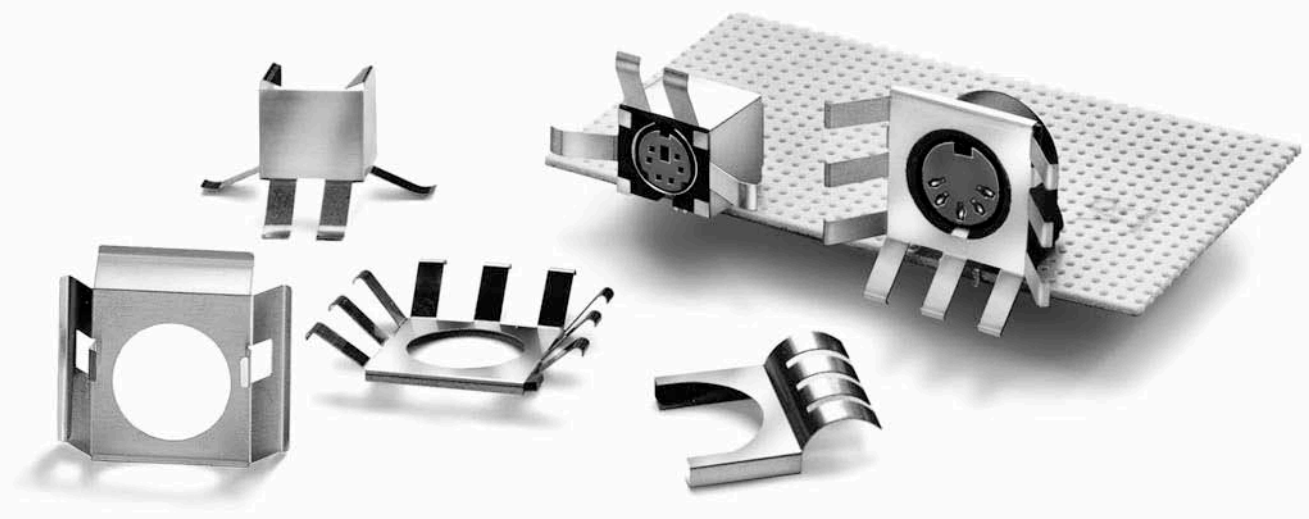
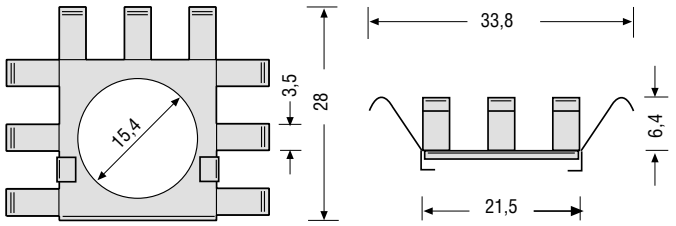
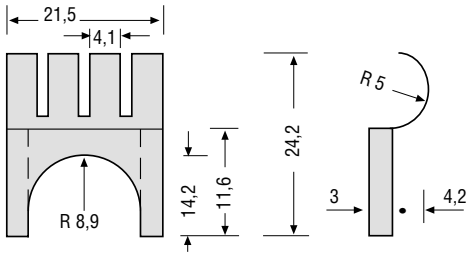
DIN Connector Gaskets





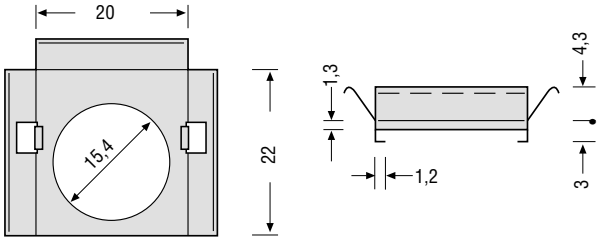
Part no.
9540

Material: CuBe 2
Material thickness: 0.2 mm
Surface Finish and Plating Codes: see page 16



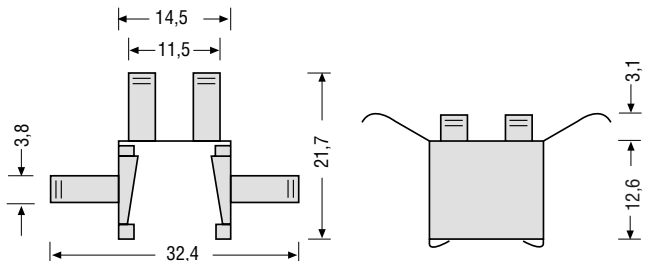
Part no.
9550

Material: CuBe 2
Material thickness: 0.2 mm
Surface Finish and Plating Codes: see page 16



Part no.
9560

Material: CuBe 2
Material thickness: 0.2 mm
Surface Finish and Plating Codes: see page 16



Part no.
9570

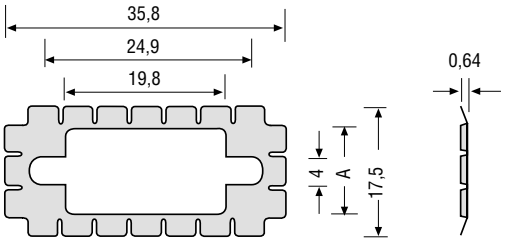
Material: CuBe 2
Material thickness: 0.12 mm
Surface Finish and Plating Codes: see page 16

"D"-Connector Shields with Contact Fingers

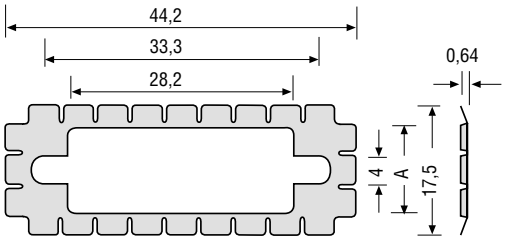
"D"-connector shields for shielding and grounding of "D" sub-miniature connectors with 9, 15, 25, 37 or 50 pins. With 20° angled contact fingers.

Material: CuBe or VA. Whole range of surface finishes available with CuBe.

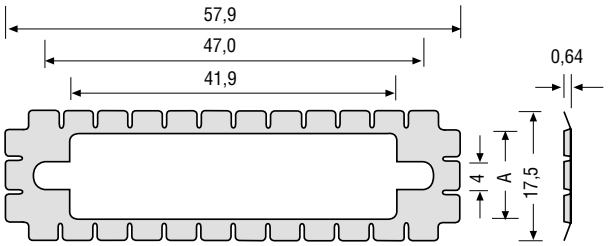
See also our silicone-based "D"-connector shields, p. 33



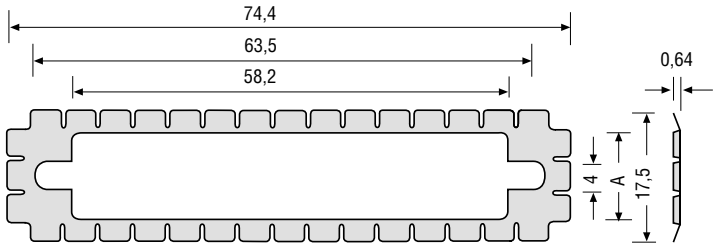
Pins	A mm	A VA	Part no. CuBe
9	11.2	9506	9526
	8.9	9507	9527



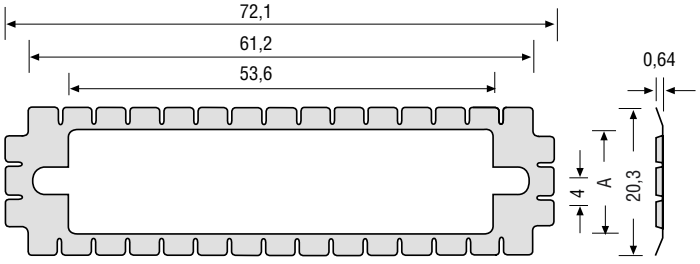
Pins	A mm	A VA	Part no. CuBe
15	11.2	9508	9528
	8.9	9509	9529



Pins	A mm	A VA	Part no. CuBe
25	11.2	9510	9530
	8.9	9511	9531



Pins	A mm	A VA	Part no. CuBe
37	11.2	9512	9532
	8.9	9513	9533



Pins	A mm	A VA	Part no. CuBe
50	14.0	9514	9534
	11.4	9515	9535

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Spiral Shield Gaskets

Spiral shields are made from bands of tin-plated beryllium copper or stainless steel.
The spirals are laid into a groove so that they are well protected against destruction. The groove can be milled in the metal or introduced during the pressing process. If neither option is feasible, the spiral can be supplied with a silicone strip which keeps it in the proper position and at the same time acts as a stop to keep the material from being deformed too much.
The spiral shields can also be supplied with a silicone foam which provides protection against dust and humidity.
Tin-plated beryllium copper offers the best shielding and is one of the few materials with corrosion compatibility with aluminium if humidity or salt water spray is a problem.
Stainless steel shields are used if the corrosion-resistance of stainless steel is important or if the requirements for elasticity and shielding properties are lower and a more economical option is preferred.
Gaskets can be supplied with three levels of resilience: Standard Force. Moderate Force and Low Force. The Moderate and Low Force gaskets have an inner core of solid silicone with a diameter some 75% of that of the spiral and stops it being deformed past its elastic limits.
Both types can also be ordered without the core by adding NC behind the order number (e. g. MS-08 NC). The stainless steel spirals are supplied as standard without the silicon core. They can be ordered with core by leaving the NC off the order code.

Spira Shield

Dia-meter mm	Part no.						Recommended mounting dimensions mm		
	Tin-plated beryllium copper			Stainless steel					
	Standard Force	Moderate Force	Low Force	Standard Force	Moderate Force	Low Force	L	G	W
0.9	IWSS-02	IWMS-02 NC*	–	NI-02	–	–	0.59	1.17	0.84
1.2	IWSS-03	IWMS-03 NC*	–	NI-03	NM-03 NC*	–	0.89	1.60	1.14
1.6	IWSS-04	IWMS-04	IWLS-04	NI-04	NM-04 NC	NL-04 NC	1.17	2.39	1.52
1.8	IWSS-.070	IWMS-.070	IWLS-.070	NI-.070	NM-.070 NC	NL-.070 NC	1.35	2.39	1.70
2.0	IWSS-05	IWMS-05	IWLS-05	NI-05	NM-05 NC	NL-05 NC	1.50	2.77	1.91
2.4	IWSS-06	IWMS-06	IWLS-06	NI-06	NM-06 NC	NL-06 NC	1.78	3.18	2.29
2.6	IWSS-.103	IWMS-.103	IWLS-.103	NI-.103	NM-.103 NC	NL-.103 NC	1.96	3.58	2.52
2.8	IWSS-07	IWMS-07	IWLS-07	NI-07	NM-07 NC	NL-07 NC	2.08	3.96	2.67
3.2	IWSS-08	IWMS-08	IWLS-08	NI-08	NM-08 NC	NL-08 NC	2.39	4.34	3.07
3.6	IWSS-09	IWMS-09	IWLS-09	NI-09	NM-09 NC	NL-09 NC	2.67	4.75	3.46
4.4	IWSS-11	IWMS-11	IWLS-11	NI-11	NM-11 NC	NL-11 NC	3.25	5.94	4.19
4.8	IWSS-12	IWMS-12	IWLS-12	NI-12	NM-12 NC	NL-12 NC	3.56	6.35	4.60
6.4	IWSS-16	IWMS-16	IWLS-16	NI-16	NM-16 NC	NL-16 NC	4.70	8.71	6.10
7.9	IWSS-20	IWMS-20	IWLS-20	NI-20	NM-20 NC	NL-20 NC	–	–	–
9.5	IWSS-24	IWMS-24	IWLS-24	NI-24	NM-24 NC	NL-24 NC	7.11	12.70	9.25
12.7	IWSS-32	IWMS-32	IWLS-32	NI-32	NM-32 NC	NL-32 NC			

* not available with core

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Spiral Shield Gaskets

In order to compress the „Spira Shield“ gaskets by 25% of their diameter the following forces are required:

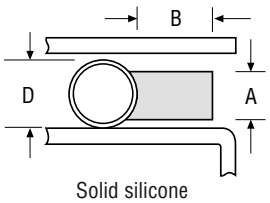
Standard Force:	30 pounds per linear inch of the gasket
Moderate Force:	10 pounds per linear inch of the gasket
Low Force:	2 pounds per linear inch of the gasket.

Spira Strip (Military Grade)

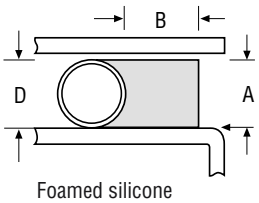
Spiral gasket with tin-plated beryllium copper and elastomer seal

Spira Strip is a Spira shield gasket to which a strip of solid or foamed elastomer has been attached. The elastomer is provided with adhesive tape to keep the spiral in the required position. Solid elastomers also serve as a mechanical stop to protect the spiral gasket from excessive compression as well as acting as a seal.
Foamed elastomers are preferred as environmental seals against rain, wind and dust.
Solid silicones have a Shore hardness of approx. 40°. They can be supplied as f uorosilicone if the „S“ from the order number is replaced by an „F“ (e. g. SS-0622/F).
Moderate Force und Low Force spirals have a solid elastomer core of approx. 80 Shore and a diameter some 75% of that of the spiral.
The Moderate Force spiral can also be ordered without the elastomer core by adding „NC“ to the order number (e.g. MS-0834 NC/S).
Foamed silicones are supplied with Shore hardness of 15°-25°. They can also be replaced by a neoprene foam if the „C“ is replaced by „A/P“ (e.g. MS-0623-A/P).

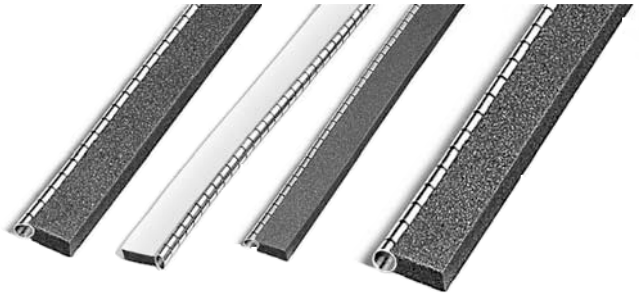
Elastomer-dimensions		Part no.							
		Solid silicone				Foamed silicone			
A mm	B mm	∅ D mm	Standard Force	Moderate Force	Low Force	∅ D mm	Standard Force	Moderate Force	Low Force
1.6	6.4	2.4	IWSS-0622/S	IWMS-0622/S	IWLS-0622/S	1.6	IWSS-0422/C	IWMS-0422/C	IWLS-0422/C
1.6	3.5	2.4	IWSS-0623/S	IWMS-0623/S	IWLS-0623/S	1.6	IWSS-0423/C	IWMS-0423/C	IWLS-0423/C
1.6	12.7	2.4	IWSS-0624/S	IWMS-0624/S	IWLS-0624/S	1.6	IWSS-0424/C	IWMS-0424/C	IWLS-0424/C
1.6	15.9	2.4	IWSS-0625/S	IWMS-0625/S	IWLS-0625/S	1.6	IWSS-0425/C	IWMS-0425/C	IWLS-0425/C
2.4	6.4	3.2	IWSS-0832/S	IWMS-0832/S	IWLS-0832/S	2.4	IWSS-0632/C	IWMS-0632/C	IWLS-0632/C
2.4	9.5	3.2	IWSS-0833/S	IWMS-0833/S	IWLS-0833/S	2.4	IWSS-0633/C	IWMS-0633/C	IWLS-0633/C
2.4	12.7	3.2	IWSS-0834/S	IWMS-0834/S	IWLS-0834/S	2.4	IWSS-0634/C	IWMS-0634/C	IWLS-0634/C
2.4	15.9	3.2	IWSS-0835/S	IWMS-0835/S	IWLS-0835/S	2.4	IWSS-0635/C	IWMS-0635/C	IWLS-0635/C
3.2	6.4	4.4	IWSS-1142/S	IWMS-1142/S	IWLS-1142/S	3.2	IWSS-0842/C	IWMS-0842/C	IWLS-0842/C
3.2	9.5	4.4	IWSS-1143/S	IWMS-1143/S	IWLS-1143/S	3.2	IWSS-0843/C	IWMS-0843/C	IWLS-0843/C
3.2	12.7	4.4	IWSS-1144/S	IWMS-1144/S	IWLS-1144/S	3.2	IWSS-0844/C	IWMS-0844/C	IWLS-0844/C
3.2	15.9	4.4	IWSS-1145/S	IWMS-1145/S	IWLS-1145/S	3.2	IWSS-0845/C	IWMS-0845/C	IWLS-0845/C



Solid silicone



Foamed silicone



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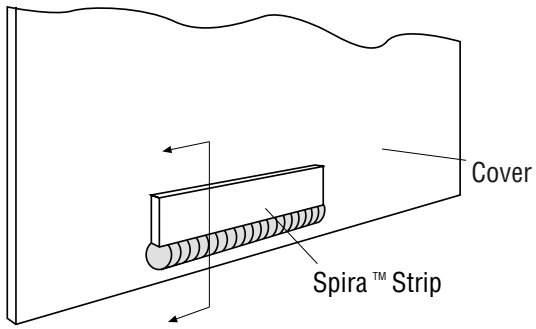
Spiral Shield Gaskets

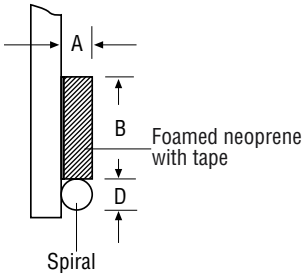
Spira Strip (Commercial Grade)



Spiral shield gaskets of stainless steel with foamed neoprene as hold/seal. All three resiliencies are delivered without silicone core.

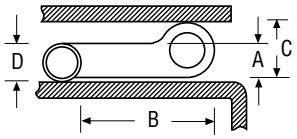
Compression forces:
The following approximate forces are required to compress the „Spira Strip“ by 25% of their diameters:

Standard Force: 34 pounds per linear inch of the gasket
Moderate Force: 14 pounds per linear inch of the gasket
Low Force: 4 pounds per linear inch of the gasket



A mm	B mm	∅ D mm	Part no. Standard Force	Moderate Force	Low Force
1.6	6.4	1.6	NI-0422-A/P	NM-0422-A NC/P	NL-0422-A NC/P
1.6	9.5	1.6	NI-0423-A/P	NM-0423-A NC/P	NL-0423-A NC/P
2.4	6.4	2.4	NI-0632-A/P	NM-0632-A NC/P	NL-0632-A NC/P
2.4	9.5	2.4	NI-0633-A/P	NM-0633-A NC/P	NL-0633-A NC/P
3.2	6.4	3.2	NI-0842-A/P	NM-0842-A NC/P	NL-0842-A NC/P
3.2	9.5	3.2	NI-0843-A/P	NM-0843-A NC/P	NL-0843-A NC/P

Basic Spira Multi-Seal



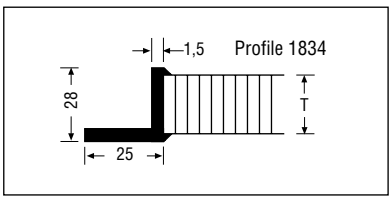
These spiral seals have a specially formed elastomer seal for use with very uneven sealing surfaces. Their design allows the elastomer seal to act both as pressure stop to protect the spiral shield gasket and also as a seal against dust and moisture.

Compression forces:
Standard Force: 34 pounds per linear inch of the gasket
Moderate Force: 14 pounds per linear inch of the gasket

Dimensions of seals A mm	B mm	C mm	D mm	Part no. tin-plated beryllium copper Standard Force	Moderate Force	Stainless steel Standard Force	Moderate Force
1.6	9.5	3.2	2.4	CSS-0623	CMS-0623	CNI-0623	CNM-0623
2.4	9.5	4.8	3.2	CSS-0833	CMS-0833	CNI-0833	CNM-0833
2.4	12.7	4.8	3.2	CSS-0834	CMS-0834	CNI-0834	CNM-0834
2.4	15.9	4.8	3.2	CSS-0835	CMS-0835	CNI-0835	CNM-0835

Shielding Ventilation Panels

Shielding Ventilation Panels are shielding elements which also allow the passage of air for ventilation purpose. They have a honeycomb structure and are made of steel or aluminium. The elements can be provided simply as panels or fully-assembled in a frame. The frames have EMC seals and can be supplied with drillings or screw plugs for assembly as required.



Steel Shielding Ventilation Panels

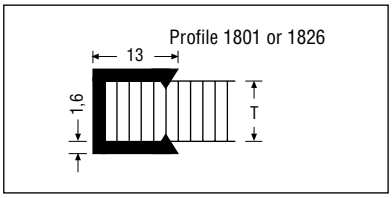
Material	Steel
Surface	tin-coated

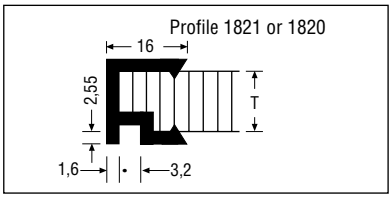
Dimensions		
Honeycomb diameter	B = 4.5	mm
Depth	T = 25	mm
Material thickness	D = 0.15	mm

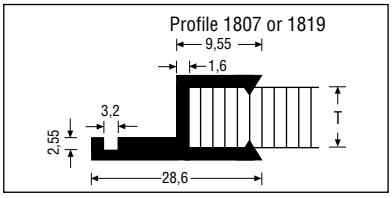
Cell bonding	Welded
Max. panel size	600 x 900 mm
Frame material	Steel
Surface of frame	Tin-coated

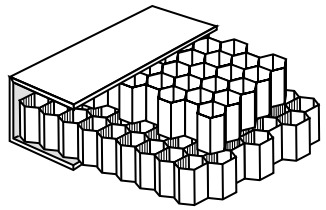
Attenuation

Magnetic field	10 kHz	60 dB
Electric field	10 MHz	110 dB
Plane Wave	1 GHz	100 dB









In order to improve attenuation and avoid polarization effects a double-layer panel can be used, so that two honeycombs 6.35 mm thick produce a panel 12.7 mm thick or two 12.7 mm layers give a total thickness of 25.4 mm.

Aluminium Shielding Ventilation Panels

Material	Aluminium
Surface	Standard: Alodine 1200 tin- or nickel-coated

Dimensions Cell-∅	Depth T		
3.2 mm	6.35 mm	12.7 mm	25.4 mm
4.5 mm		12.7 mm	25.4 mm

Cell bonding	Glued and perforated
Max. panel size	1000 x 1000 mm
Frame material	Aluminium
Surface of frame	Alodine 1200, tin- or nickel-coated

Dimensions Profile	Depth T
1801 1821 1807	12.7 mm
1826 1820 1819	25.4 mm

Attenuation

Magnetic field	100 kHz	25 dB
Electric field	10 MHz	80 dB
Plane Wave	1 GHz	70 dB

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Shielding Ventilation Panels

Order Form

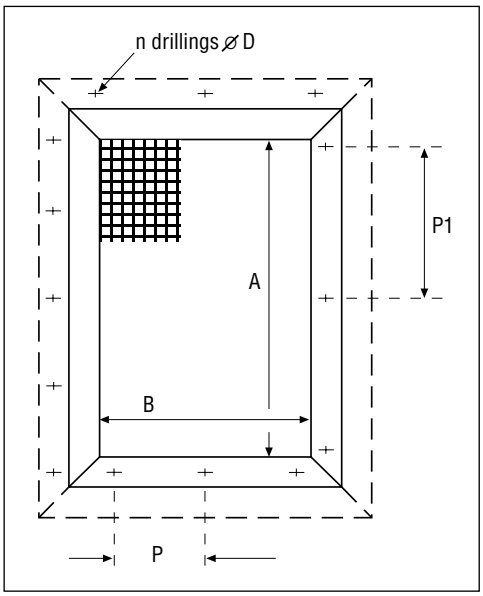
Shielding Ventilation Panels are not a standard product but are produced specially to customer specifications.
If you provide a sketch of your requirements and enter the appropriate dimensions in the tables we will be able to calculate costs accurately.

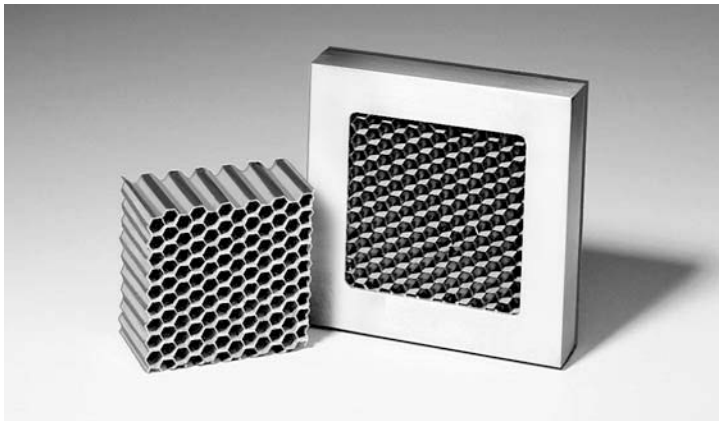
Tin-Coated Steel Shielding Ventilation Panels

Air permeability	Cell-∅ mm	Depth mm	Your dimensions in mm A	B	n	D	P	P1	Profile
88 %	4.5	25							1834

Aluminium Shielding Ventilation Panels. Alodined. Nickel- or Tin-Coated

Air permeability	Cell-∅ mm	Depth mm	Your dimensions in mm A	B	n	D	P	P1	Profile
83 %	3.2	6.35							1801/1807/1821
83 %	3.2	12.7							1819/1820/1826
83 %	3.2	25.4							
88 %	4.5	6.35							1801/1807/1821
88 %	4.5	12.7							1819/1820/1826
88 %	4.5	25.4							





Note

- The frames from profile sections 1834, 1801 and 1826 can be provided with a f at silicone seal or with mini-twisted contact strips.
- The frames from profile sections 1807, 1819, 1820 and 1821 have a groove with seal.

Electro-EMI dust filters can be supplied if required

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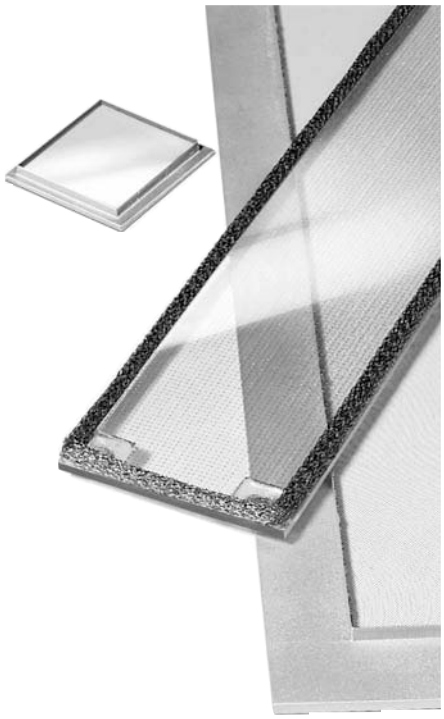
Shielded Windows

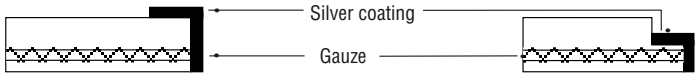
Shielded windows are fully transparent but provide effective electro-magnetic screening.
They consist of two layers of glass, polycarbonate or acrylics sand-wiching a fine metallic gauze which extends beyond the edges of the pane allowing good contact.

Windows of glass or polycarbonate can be made of two sheets of identical dimensions or with a step-construction.

Sheets of same dimensions | Step construction



Acrylic sheets are glued over the whole area. The windows can be produced by cutting to size, either with straight or stepped edges. Silvercoating is used to provide electrical contact.



Sheets of same dimensions | Step construction

For special applications a polyester foil can be supplied with a vacuum-deposited layer of indium-tin oxide. This can easily be retrofitted on equipment already in use.

Anti-ref ection surface finish

All materials can be treated to avoid ref ection.

Colour

Generally colourless but red, grey, green or other tints are possible on request.

Choice of material

Various factors should be taken into account when choosing materials:

Glass:
Resistant to abrasion
Anti-ref ection surface finish
Convex forms possible
Transparent

Toughened Glass:
Suitable for aggressive environments
Temperature tolerant to 250° C
Anti-ref ection surface finish
Transparent

Polycarbonate:
Conforms to UL 94 VO above 3 mm
Withstands ultra violet rays
Lightweight
Shockproof
Temperature range
-50 to +125° C
Anti-ref ection surface finish
Transparent

Acrylic:
Fully glued
Variable shapes
Good contact with silver-coated bus bar

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Shielded Windows

Glazing material

Standard	Material thickness in mm	Surface finish		Bonding of sheets	Max. size of sheets
		Anti-reflection	Non-glare etch		
Glass	2 ± 0.5 4 ± 1 6 ± 1.6	Multi-layer	On request	Glued all over or at edges	2 x 1 m
Polycarbonate	2 – 6	–	On request	Glued at edges	2 x 1 m
Acrylic	3 ± 0.6 4 ± 0.8 6 ± 0.8	–	On request	Glued all over	0.3 x 0.4 m

Add on 0.4 mm for thickness of gauze and adhesive.

Screening

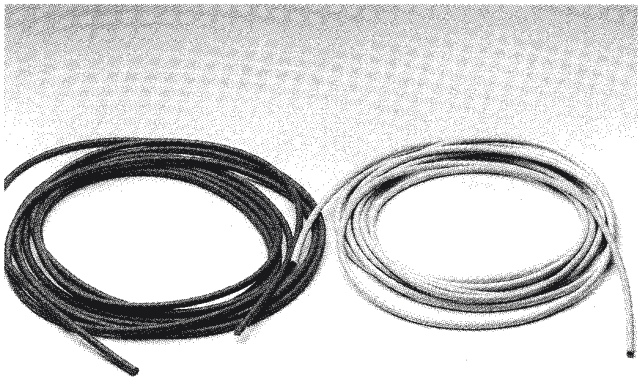
A fine gauze of copper, bronze or stainless steel is inserted between the two layers of glazing. It is treated with a darkening compound to make it less visible. Mesh size, attenuation and luminous transmittance must be matched to needs in each particular case.

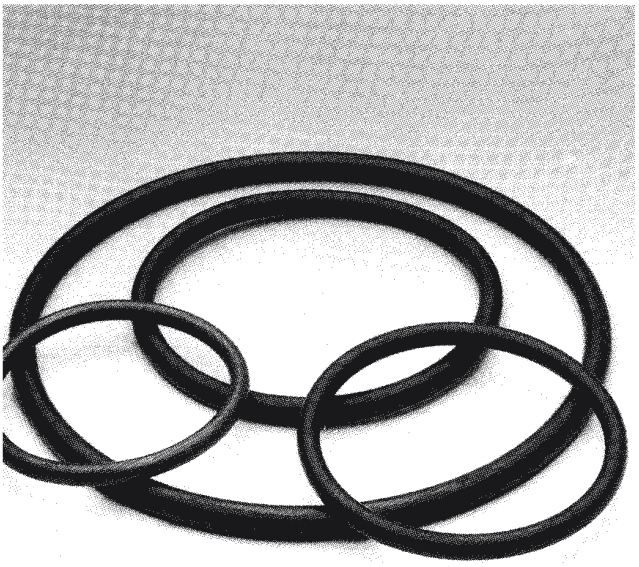
Material	Wire ∅	Mesh	Transmittance	Attenuation			Surface
				H field	E field		
				100 kHz	400 MHz	1 GHz	
Copper	50 µ	150 µ 204 µ 350 µ	56 % 65 % 77 %	48 dB 29 dB 21 dB	70 dB 65 dB 61 dB	69 dB 62 dB 54 dB	Blackened
Bronze	71 µ	355 µ 144 µ	69 % 45 %	37 dB 40 dB	57 dB 60 dB	54 dB 65 dB	Blackened
Stainless steel	50 µ 25 µ	204 µ 229 µ	65 % 81 %	– –	70 dB 80 dB	60 dB 60 dB	Siver-coated and blackened
Polyester foil	175 µ	Vacuum deposited ITO 60 Ω Square	80 %	–	36 dB	35 dB	–

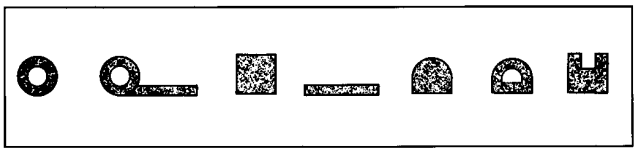
A polycarbonate-gauze sandwich window developed specially for 19“ cabinets and enclosures offers particularly good value for money. If desired it can be supplied with an aluminum frame.

Material	Wire ∅	Mesh	Transmittance	Attenuation					Surface
				H field		E field			
				100 kHz	1 MHz	100 MHz	400 MHz	1 GHz	
Stainless steel	50 µ	150 µ	56 %	10 dB	16 dB	68 dB	52 dB	54 dB	without
Bronze	71 µ	355 µ	69 %	21 dB	41 dB	75 dB	57 dB	55 dB	Black coating

Electrically Conductive Elastomers







In addition to contact finger strips and woven gaskets the electrically conducting elastomer seals form the third major group of shielding products.

They consist of an elastomer binder (silicone or f uoro-silicone) and a silver filler. Depending on the technical requirements this may be silver-coated copper or aluminium particles, silver-coated glass balls or particles of pure silver. In addition nickel, nickel/graphite and carbon are also used as filier.

Elastomer seals have very good attenuation properties. lying between 50 and 120 dB depending on the product and wavelenght. They also act as seals against dust and water.

Electrically conductive elastomers are produced in sheets, as moulded or extruded sections and can also be printed onto surfaces.

Depending on the numbers required rings will be either moulded or supplied as vulcanised round cord.

Extruded circular profiles can be produced with very small diameters and are therefore ideally suited for enclosures with thin walls. This option is particularly cost-effective.

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Order information for extruded profiles

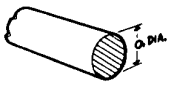
There is a wide range of options but the customer can use the information provided here to determine the order number.

Order number key

10 – yy – xxxx – zz

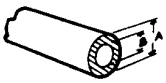
- zz — Material code
- xxxx — Dimensions see tables
- yy — Profile
  - 04 Solid or hollow round profile
  - 05 Solid or hollow D profile
  - 06 P profile
  - 07 Solid or hollow rectangular profile
  - 08 U profile

O profile



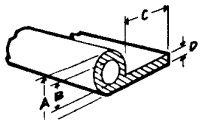
xxxx	∅ (mm) nominal
– 6386 –	1.02
– 3560 –	1.35
– 2561 –	1.57
– 1687 –	1.78
– 2657 –	2.03
– 2865 –	2.36
– 1720 –	2.62
– 2866 –	2.84
– 3077 –	3.02
– 2463 –	3.18
– 2862 –	3.30
– 1721 –	3.53
– 3982 –	3.81
– 3231 –	4.06
– 2864 –	5.49
– 3076 –	6.35

Hollow O profile



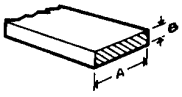
xxxx	Nominal sizes in mm	
	A	B
– 8363 –	2.62	1.02
– 2999 –	3.18	1.14
– 8817 –	3.18	1.57
– 4180 –	3.96	1.27
– 8133 –	4.50	2.01
– 2737 –	6.35	3.18
– 3004 –	7.92	4.88
– 3122 –	9.53	6.35

P profile



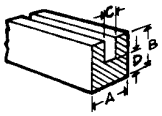
xxxx	Nominal sizes in mm			
	A	B	C	D
– 8550 –	5.08	2.03	6.99	1.57
– 3599 –	5.08	2.03	16.51	1.57
– 4142 –	6.35	3.18	6.35	1.57
– 3300 –	6.35	3.18	9.53	1.57
– 4921 –	6.35	3.81	9.53	1.57
– 6180 –	6.35	3.18	15.88	1.57
– 5611 –	7.92	4.75	14.30	1.57
– 2750 –	9.14	6.48	10.67	1.79

Recctangular profile



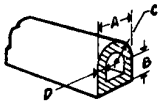
xxxx	Nominal sizes in mm	
	A	B
– 4272 –	1.60	1.07
– F743 –	9.53	1.52
– 2981 –	2.41	1.57
– 3225 –	3.18	1.57
– 3047 –	3.96	1.57
– 3226 –	6.35	1.57
– 4483 –	19.05	1.57
– 4523 –	22.35	1.57
– 4538 –	29.97	1.57
– 4014 –	3.05	1.91
– 3522 –	12.70	1.91
– 4217 –	12.70	3.18
– 3080 –	12.70	4.78
– 3797 –	25.40	6.35

U profile



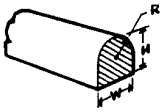
xxxx	Nominal sizes in mm			
	A	B	C	D
– 6475 –	2.54	2.54	0.86	0.84
– 3215 –	3.20	2.79	0.64	1.27
– 4315 –	3.20	5.72	0.51	1.91
– 3157 –	3.96	3.96	1.57	1.19
– 3253 –	4.45	3.96	1.19	1.91
– F815 –	4.78	4.78	1.57	1.57
– 3872 –	8.31	5.97	1.57	2.92

Hollow D profile



xxxx	Nominal sizes in mm			
	A	B	C	D
– 6491 –	3.96	1.98	1.98	1.14
– 4202 –	4.75	2.36	2.36	1.27
– 6394 –	6.35	3.18	3.18	1.65
– 4308 –	7.92	3.96	3.96	1.57
– 4318 –	7.92	5.08	2.84	1.57
– 4542 –	12.37	2.03	6.20	2.03

Solid D profile



xxxx	Nominal sizes in mm		
	H	W	R(ad)
– 5589 –	1.63	1.40	0.79
– 1362 –	1.73	1.57	0.79
– 4699 –	2.54	1.57	0.79
– 1363 –	2.26	1.98	0.99
– 3224 –	1.98	2.39	1.19
– 2618 –	2.79	3.81	1.91
– 1499 –	3.96	3.00	1.50
– 1364 –	3.43	3.10	1.55
– 1577 –	4.45	4.52	2.26

Electrically Conductive Elastomers

Physical and Electrical Properties

Material	Material code	Filler type	Temp. range (°C)	Rel. density g/cm³	Hardness IRHD	Tensile MPa min.	Elongation % min.	Compression-Set 72 hrs/100° C	Vol. resistivity Ohm · cm Spec. (max)	Vol. resistivity Ohm · cm Aged 168 hrs 100° C
Moudable/extrudable grades										
Silicones (MVQ)	1 A	Silver/Nickel	−50/+160	3.71	70	1.25	100	20	0.005	0.005
	1 B	Silver/Copper	−50/+125	4.32	75	1.25	100	30	0.005	0.005
	1 D	Silver/Aluminium	−50/+160	2.19	70	1.25	100	30	0.005	0.005
	1 E	Nickel	−50/+160	4.42	80	1.25	100	30	0.200	0.400
	1 F	Carbon	−50/+160	1.19	70	5.00	150	20	6.000	3.900
	1 G	Silver	−50/+160	3.20	75	1.25	100	30	0.002	0.005
	1 I	Silver/Glass	−50/+160	2.00	75	1.25	100	30	0.005	0.005
	1 J	Silver/Graphite	−50/+160	2.55	90	1.25	100	30	0.050	0.080
Fluoro-Silicones (MFQ)	2 A	Silver/Nickel	−50/+160	4.60	80	1.25	100	30	0.005	0.005
	2 B	Silver/Copper	−50/+125	5.00	75	1.25	100	30	0.005	0.005
	2 D	Silver/Aluminium	−50/+160	2.70	70	1.25	100	30	0.010	0.010
	2 E	Nickel	−50/+160	5.00	80	1.05	100	20	0.200	0.400
	2 J	Nickel/Graphite	−50/+160	3.20	90	1.25	100	30	0.050	0.080
Printable grades										
Silicones (MVQ)	3 A	Silver/Nickel	−50/+160	3.00	80	3.00	30	30	0.005	0.005
	3 B	Silver/Copper	−50/+125	2.75	80	1.50	35	30	0.005	0.005
	3 D	Silver/Aluminium	−50/+160	1.75	70	1.35	30	30	0.008	0.008
	3 G	Silver	−50/+160	3.00	75	2.00	30	30	0.005	0.005
	3 I	Silver/Glass	−50/+160	1.65	80	4.00	20	30	0.050	0.050
	3 I/26	Hollow Silver Glass	−50/+160	1.25	80	1.50	30	30	0.008	0.010
	3 J	Nickel/Graphite	−50/+160	2.25	90	3.00	10	30	0.050	0.080
	3 K	Aluminium compatible	−50/+160	1.95	80	2.50	10	30	12.00	20.00
Primerless Silicone Systems (MVQ)	3 A/1	Silver/Nickel	−50/+160	2.75	70	2.00	40	30	0.005	0.008
	3 B/1	Silver/Copper	−50/+160	2.50	70	2.00	35	30	0.005	0.008
	3 D/1	Silver/Aluminium	−50/+160	1.75	75	1.75	20	30	0.010	0.015
	3 I/1	Silver/Glass	−50/+160	1.85	80	2.00	25	30	0.010	0.015
	3 J/2	Nickel/Graphite	−50/+160	2.25	85	3.00	20	30	0.050	0.075
	3 K/1	Aluminium compatible	−50/+160	1.95	70	2.00	50	30	20.00	30.00

Primerless silicone systems are applied directly to metal surfaces. e.g. rear walls

Galvanic corrosion

This type of corrosion occurs if two materials with different electrochemical properties come into contact in the presence of an electrolyte such as salt water. The type of gasket used must also be considered carefully because of the metal fillers involved. Galvanic corrosion is a problem outdoors particularly in marine environments.

Galvanic compatibility

The following table may help you to choose silicone seals

Galvanic compatibility
● Good
□ Satisfactory
X Not recommended

Material code	Filler type	Gehäuse-Material: Aluminium alloys	Magnesium alloys	Stainless Steel	Copper alloys	Cadmium plating	Tin plating	Nickel plating	Chromium plating	Silver plating	Galvanised Steel	Titanium
A	Silver/Nickel	X	X	●	●	X	□	●	●	●	X	●
B	Silver/Copper	X	X	●	●	X	X	□	●	●	X	●
D	Silver/Aluminium	□	□	●	●	□	□	□	●	●	□	●
K	Inert Aluminium (Al Compatible)	●	□	●	●	□	●	●	●	●	□	●
I	Silver/Glass	X	X	●	●	X	□	●	●	●	X	●
G	Silver	X	X	●	●	X	□	●	●	●	X	●
J	Silver/Graphite	□	□	●	●	□	●	●	●	●	□	●
E	Silver/Nickel	□	□	●	●	□	●	●	●	●	□	●

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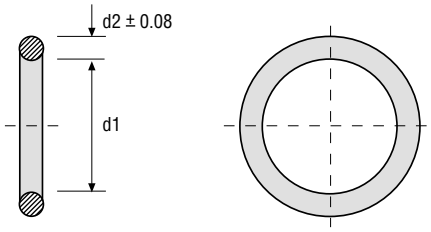
Standard Connector Gaskets

"O" Ring Gaskets of conductive silicone for MIL shells

Standard „0" ring gaskets for MIL shells are produced by compression moulding. Other sizes are produced from extruded silicone and are vulcanised.



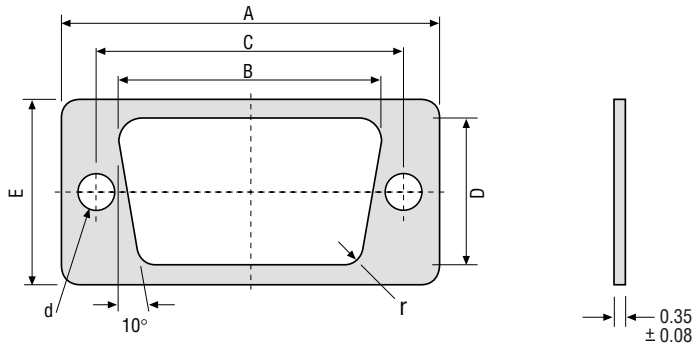
Shell size	MIL C 38999 MIL C 26482	MIL C 81511	d1	Tolerance on d1 ±	d2
	Order code	Order code	mm	mm	mm
6	001	–	14.00	0.13	1.78
8	002	–	17.16	0.13	1.78
8	–	003	18.77	0.13	1.78
9	004	–	20.35	0.15	1.78
10	–	005	21.95	0.15	1.78
11+12	006	–	25.12	0.15	1.78
13+14	007	007	28.30	0.15	1.78
15+16	008	008	31.47	0.15	1.78
17+18	009	009	34.65	0.15	1.78
19+20	010	–	37.77	0.15	2.62
21+22	011	–	40.95	0.25	2.62
23+24	012	–	44.12	0.25	2.62

Example: Ordering ref. MA-XX-XXX

MA	–	1A	–	001
Moulded ring		Silver Nickel/ Silicone		Shell size 6

Miniature Sub- "O" Shell Gaskets of Conductive Silicone

Produced by printing, with no trimming losses and therefore inexpensive. Also possible in very thin layers only 0.35 mm thick.



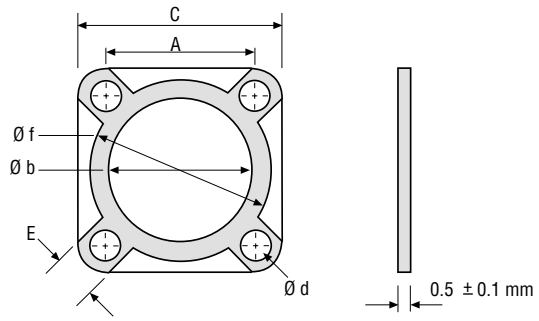
Example: Ordering ref. PB-XX-XXX

PB	–	3A	–	001
Printed Gasket		Silver Nickel/ Silicone		Shell size 1

Shell size	No. of contacts	Order code	A ± 0.38 mm	B ± 0.38 mm	C ± 0.08 mm	D ± 0.18 mm	E ± 0.38 mm	d ± 0.12 mm	r
1	9	001	30.81	20.45	25.00	11.34	14.91	3.12	3.56
2	15	002	39.14	28.57	33.30	11.34	14.91	3.12	3.56
3	25	003	53.03	42.29	47.05	11.34	14.91	3.12	3.56
4	37	004	69.32	58.80	63.48	11.34	14.91	3.12	3.56
5	50	005	66.93	56.64	61.14	14.34	17.83	3.12	3.56

Standard Connector Gaskets

Mil Spec Back Shell Connector Gaskets



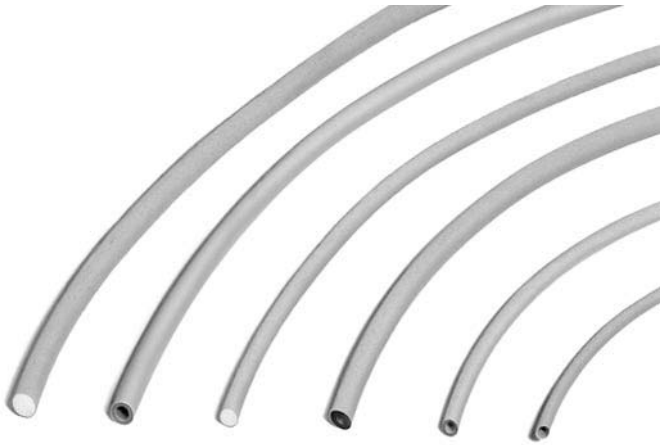
Example: Ordering ref. PD-XX-XXX

PD	–	3A	–	001
Printed Gasket		Silver Nickel/ Silicone		Shell size 8

Shell size	Order code	A mm ± 0.20	∅ b mm ± 0.20	C mm ± 0.25	∅ d mm ± 0.15	E mm ± 0.20	∅ f mm ± 0.20
MIL-C-38999							
8	001	15.09	16.25	21.34	3.43	7.00	20.75
9+10	002	18.26	19.30	24.51	3.43	7.00	23.80
11+12	003	20.62	22.48	26.92	3.58	7.50	26.98
13+14	004	23.01	25.78	29.29	3.43	7.00	30.28
15+16	005	24.61	29.05	31.95	3.96	7.50	33.55
18	006	26.97	32.25	34.32	3.96	7.50	36.75
19+20	007	29.36	35.18	38.10	3.58	7.50	39.68
21+22	008	31.75	38.35	41.28	3.58	7.50	42.85
23+24	009	34.93	41.53	44.45	4.37	8.00	46.03
25	010	38.10	44.70	47.63	4.37	8.00	49.20
MIL-C-5015/26482							
8	011	15.09	12.95	22.23	3.96	7.50	17.45
10	012	18.26	16.08	25.40	3.96	7.50	20.58
12	013	20.65	19.30	27.79	3.58	7.00	23.80
14	014	23.01	22.48	30.18	3.96	7.50	26.98
16	015	24.61	25.65	32.54	3.96	7.50	30.15
18	016	26.97	29.08	34.93	3.96	7.50	33.58
20	017	29.36	32.00	38.10	4.37	8.00	36.50
22	018	31.75	35.18	41.28	4.37	8.00	39.68
24	019	34.93	38.35	44.45	5.16	9.00	42.85
MIL-C-5015							
28	020	39.67	44.70	50.80	5.16	9.00	49.20
32	021	44.45	51.05	57.15	5.56	9.50	55.55
36	022	49.23	57.40	63.50	5.56	9.50	61.90
40	023	55.58	63.75	69.85	5.56	9.50	68.25
44	024	60.33	70.89	76.20	5.56	9.50	75.39
48	025	66.68	77.24	82.55	5.56	9.50	81.74
MIL-C-81511							
8	026	15.09	14.68	20.62	3.18	7.00	19.18
10	027	18.26	17.52	23.80	3.18	7.00	20.02
14	028	23.01	24.08	28.58	3.18	7.00	28.58
16	029	24.61	27.25	31.75	3.18	7.00	31.75
18	030	26.97	30.45	34.11	3.18	7.00	34.95
20	031	29.36	33.57	37.26	3.18	7.00	38.07
22	032	31.75	36.75	39.67	3.18	7.00	41.25
24	033	34.93	39.95	43.26	3.86	7.00	44.45
Non-MIL-Standard Connector Gaskets							
17	034	26.97	29.00	34.93	3.58	7.50	33.50

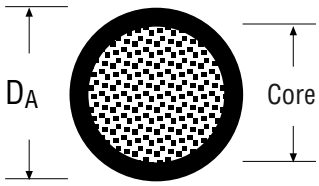
Silicone Gaskets with Electrically Conductive Coating

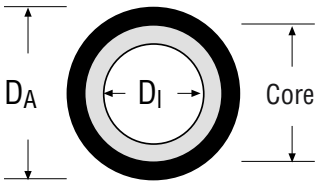
These are very soft gaskets with very good shielding properties. The gaskets are made of silicone: silicone foam, silicone tubing and solid silicone.
This is given an electrically conductive coating of silver/copper.

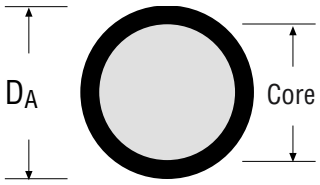


Technical Data of the Coating:

Volume resistance:	0.008 ohm-cm
Coating thickness:	0.15 mm + 0.05
Density DIN 53479:	3.6 g/cm^3
Elongation limit:	125 %
Temperature stability:	125° C







Core: silicone foam non-conductive	
Density	0.43 g/cm^3
Shore-A hardness	15° ±5
Elongation limit	140 %
Permanent set	< 40 %
Temperature stability	200° C

Core: silicone tube non-conductive	
Density	1.14 g/cm^3
Shore-A hardness	60°
Elongation limit	150 %
Permanent set	< 35 %
Temperature stability	200° C

Core: solid silicone non-conductive	
Density	1.08 g/cm^3
Shore-A hardness	60° ±7
Elongation limit	180 %
Permanent set	< 35 %
Temperature stability	200° C

D_A Outer ∅ mm	D_A Tolerance mm	Part no.
1.40	±0.15	1442-01
1.80	±0.20	1442-02
2.00	±0.20	1442-03
2.30	±0.20	1442-04
2.50	±0.25	1442-05
2.80	±0.25	1442-06
3.00	±0.25	1442-07
3.30	±0.25	1442-08
3.80	±0.30	1442-09
4.00	±0.30	1442-10
4.30	±0.30	1442-11
4.50	±0.30	1442-12
4.80	±0.35	1442-13
5.00	±0.35	1442-14
5.30	±0.35	1442-15
5.50	±0.35	1442-16
6.00	±0.35	1442-17
6.50	±0.35	1442-18

D_A Outer ∅ mm	D_I Inner ∅ mm	D_A Tolerance mm	Part no.
1.30	0.50	±0.15	1442-32
1.60	0.50	±0.20	1442-33
1.80	1.00	±0.20	1442-35
2.00	1.00	±0.20	1442-36
2.10	1.00	±0.20	1442-37
2.30	1.00	±0.20	1442-38
2.60	1.00	±0.25	1442-39
2.80	1.00	±0.25	1442-40
3.10	1.00	±0.25	1442-41
3.60	1.50	±0.25	1442-42
4.10	1.50	±0.00	1442-43
4.80	2.00	±0.30	1442-44
5.30	2.00	±0.30	1442-45
5.80	2.00	±0.35	1442-46
6.50	3.00	±0.35	1442-47

D_A Outer ∅ mm	D_A Tolerance mm	Part no.
1.20	±0.15	1442-61
1.50	±0.15	1442-62
1.80	±0.15	1442-63
2.00	±0.15	1442-64
2.30	±0.20	1442-65
2.50	±0.20	1442-66
2.80	±0.25	1442-67
3.00	±0.25	1442-68
3.30	±0.25	1442-69
3.50	±0.25	1442-70
3.80	±0.25	1442-71
4.00	±0.30	1442-72
4.30	±0.30	1442-73
4.50	±0.30	1442-74
4.80	±0.30	1442-75

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Electrically Conductive Adhesives

These products are single-component adhesive agents manufactured on a silicone base. These adhesives harden at room temperature. They are used in the areas of high-frequency shielding (screening). These adhesive agents enable the elastic and electrically conductive bonding of high-frequency seals, metal plates, and foil.

Order reference		K 580	K 682	K 684
Conductive bonding of: Metal with Metall Metal with HF gasket HF gasket with HF gasket		good good good	good good good	good good good
Hardens at room temp.	21° C	yes	yes	yes
Base material		Silicone	Silicone	Silicone
Conductive pigment		Nickel	Silver / Copper	Silver
Hardness DIN 53505	± 6	59	62	60
Ductility	%	> 45	> 35	> 40
Volume resistance (VDE 0303)	ohm · cm	0.9	0.08	0.005
Temperature range	°C	–55/+200	–55/+125	–55/+200
Density (DIN 53479)	g/cm^3	2.0	2.4	3.0
Viscosity on delivery	21° C	viscous	viscous	viscous
% toluene solvent	%	5	5	5
Dilutable[1] to		runny	runny	runny
Skin-over time (for 0.2 mm layer)	minutes	1 to 2	1 to 4	1 to 3
Hadening time (for 0.2 mm layer)	minutes	4 to 100	5 to 20	5 to 20
Hardening times, depending on thickness and surface conditions approx.	minutes	100 to 300	3 to 180	3 to 180
Shelf life (unopened or opened in vacuum)	Weeks	Euro cartridge 8, cartridge 2		
Non-corrosive with metals		yes		
Odourless hardening		no	no	no
Resistant to	UV, Ozon	yes	yes	yes
Colour		black	beige	beige

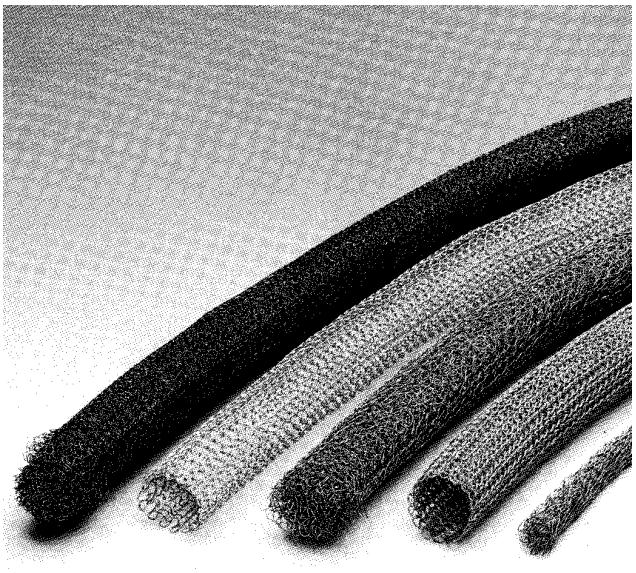
[1] Dilute under vacuum or shortly before use

Cartridge sizes available: 5 cm^3-cartridge (10 g), 10 cm^3-cartridge (25 g), 30 cm^3-cartridge (50 g), 55 cm^3-cartridge (100 g), 310 cm^3-Euro cartridge (200 g to 800 g), 1000 cm^3-Euro cartridge (1.6 kg)
Dispensing: A compressed-air control system powers the dispensing (application) of the contents. Or, the adhesive can be manually dispensed with a pressure piston.

The engineering consulting that we provide for the application of our products takes place as oral communication, in written form, and as test results. We provide this consulting in accordance with the best of our knowledge and belief. This consulting, however, must be understood to represent merely nonbinding information, including matters which pertain to the proprietary rights of any third parties. This consulting does not absolve you from the necessity of conducting your own checks and tests of the products delivered by us, to ensure that they are suitable and that they are effective for the intended purposes and technical processes. Owing to the great number and variety of possible applications for these products, we cannot assume liability of any kind for these products. We of course guarantee fully satisfactory products in accordance with our Terms of Sale and Delivery.

All Mesh Gaskets (Knitted Wire Shielding)

Mesh gaskets are deformable EMI shields made from knitted wire. They can be supplied with rectangular or circular cross-section. The fine-meshed knitted material has excellent elasticity and is very adaptable ensuring good contact and shielding.



Materials

All Mesh Gaskets from stock are made either with Monel (a copper-nickel alloy) or in a simpler version with tin-plated copper clad steel wire. Of course other materials such as stainless steel, aluminium or beryllium copper can also be used if so required.

Available forms

Knitted wire shielding can either be supplied on spools or as ready-to-use closed ring gaskets to customer specifications.
Finished gaskets are provided from 75 mm diameter or 50 x 50 mm.
Customers should note the following tolerances when ordering:
up to 175 mm: ± 0.76 mm
176 - 254 mm: ± 1.52 mm
above 254 mm: ± 1.52 mm for every 254 mm.
Round and double round knitted shields can be supplied with a knitted fin or connection by means of which they can be fixed in place.

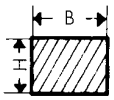
Tolerances

Rectangular cross-section			Circular cross-section		
	1.57 to	4.78: +0.38/-0		1.57 to	3.18: +0.38/-0
above	4.78 to	9.53: +0.81/-0	above	3.18 to	4.78: +0.81/-0
above	9.53 to	12.70: +1.19/-0	above	4.78 to	9.53: +1.19/-0
above	12.70 to	25.40: +1.57/-0	above	9.53 to	19.05: +1.57/-0

Round with mounting fin or double round

up to	25.40: ± 1.52
above	25.40: ± 3.04

Rectangular cross-section

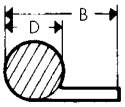


Height H	Width B	Part no.	
mm	mm	Monel	Steel, Cu/Sn
1.57	1.57	01-0101-0408	01-0104-0408
1.57	3.18	01-0101-0218	01-0104-0218
1.57	4.75	01-0101-0213	01-0104-0213
1.57	6.35	01-0101-0144	01-0104-0144
1.57	7.92	01-0101-0777	01-0104-0777
1.57	9.53	01-0101-0149	01-0104-0149
1.57	12.70	01-0101-0780	01-0104-0780
1.57	15.88	01-0101-0812	01-0104-0812
1.57	19.05	01-0101-0258	01-0104-0258
1.57	25.40	01-0101-1539	01-0104-1539
2.36	2.36	01-0101-0424	01-0104-0424
2.36	3.18	01-0101-0377	01-0104-0377
2.36	4.75	01-0101-0203	01-0104-0203
2.36	6.35	01-0101-0167	01-0104-0167
2.36	7.92	01-0101-0332	01-0104-0332
2.36	9.53	01-0101-0197	01-0104-0197
2.36	12.70	01-0101-0285	01-0104-0285
2.36	15.88	01-0101-0238	01-0104-0238
3.18	3.18	01-0101-0199	01-0104-0199
3.18	4.75	01-0101-0177	01-0104-0177
3.18	6.35	01-0101-0153	01-0104-0153
3.18	7.92	01-0101-0336	01-0104-0336
3.18	9.53	01-0101-0192	01-0104-0192
3.18	12.70	01-0101-0286	01-0104-0286
3.18	15.88	01-0101-1607	01-0104-1607
3.18	19.05	01-0101-0251	01-0104-0251
3.18	25.40	01-0101-1092	01-0104-1092
3.96	3.18	01-0101-0194	01-0104-0194
4.75	4.75	01-0101-0168	01-0104-0168
4.75	6.35	01-0101-0958	01-0104-0958
4.75	7.92	01-0101-0516	01-0104-0516
4.75	9.53	01-0101-0217	01-0104-0217
4.75	12.70	01-0101-1639	01-0104-1639
4.75	15.88	01-0101-1815	01-0104-1815
4.75	19.05	01-0101-0547	01-0104-0547
4.75	25.40	01-0101-1817	01-0104-1817
6.35	6.35	01-0101-0169	01-0104-0169
6.35	7.92	01-0101-0581	01-0104-0581
6.35	9.53	01-0101-0310	01-0104-0310
6.35	12.70	01-0101-1523	01-0104-1523
6.35	15.88	01-0101-0818	01-0104-0818
6.35	19.05	01-0101-1530	01-0104-1530
6.35	25.40	01-0101-1598	01-0104-1598
7.92	7.92	01-0101-0390	01-0104-0390
9.53	9.53	01-0101-0265	01-0104-0265
9.53	15.88	01-0101-1816	01-0104-1816

Round cross-section

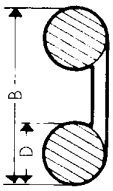
Diameter D	Part no.	
mm	Monel	Steel, Cu/Sn
1.57	01-0101-0064	01-0104-0064
2.26	01-0101-0056	01-0104-0056
3.18	01-0101-0006	01-0104-0006
3.96	01-0101-0311	01-0104-0311
4.75	01-0101-0020	01-0104-0020
6.35	01-0101-0250	01-0104-0250
7.92	01-0101-0439	01-0104-0439
9.53	01-0101-0017	01-0104-0017
11.10	01-0101-0088	01-0104-0088
12.70	01-0101-0110	01-0104-0110

Round with mounting fin



Dia-meter D	Width B	Part no.	
mm	mm	Monel	Steel, Cu/Sn
1.57	9.53	01-0101-0983	01-0104-0983
1.57	12.70	01-0101-0756	01-0104-0756
1.57	15.88	01-0101-0091	01-0104-0091
1.57	19.05	01-0101-1160	01-0104-1160
2.36	9.53	01-0101-0826	01-0104-0826
2.36	12.70	01-0101-0977	01-0104-0977
2.36	19.05	01-0101-0998	01-0104-0998
3.18	12.70	01-0101-0008	01-0104-0008
3.18	11.10	01-0101-0076	01-0104-0076
3.18	12.70	01-0101-0060	01-0104-0060
3.18	14.27	01-0101-1161	01-0104-1161
3.18	15.88	01-0101-0061	01-0104-0061
3.18	19.05	01-0101-0079	01-0104-0079
3.96	12.70	01-0101-1162	01-0104-1162
3.96	19.05	01-0101-1163	01-0104-1163
4.75	11.10	01-0101-0075	01-0104-0075
4.75	12.70	01-0101-0092	01-0104-0092
4.75	15.88	01-0101-0058	01-0104-0058
4.75	19.05	01-0101-0051	01-0104-0051
4.75	22.23	01-0101-1164	01-0104-1164
6.35	12.70	01-0101-1331	01-0104-1331
6.35	15.88	01-0101-0109	01-0104-0109
6.35	19.05	01-0101-0106	01-0104-0106
6.35	22.23	01-0101-0534	01-0104-0534
6.35	25.40	01-0101-1330	01-0104-1330
7.92	15.88	01-0101-0530	01-0104-0530
7.92	19.05	01-0101-0362	01-0104-0362
7.92	22.23	01-0101-0592	01-0104-0592
9.53	15.88	01-0101-0568	01-0104-0568
9.53	19.05	01-0101-1191	01-0104-1191
9.53	22.23	01-0101-0009	01-0104-0009
9.53	25.40	01-0101-0270	01-0104-0270
11.10	19.05	01-0101-1192	01-0104-1192
11.10	22.23	01-0101-0098	01-0104-0098
11.10	25.40	01-0101-0274	01-0104-0274
12.70	19.05	01-0101-0789	01-0104-0789
12.70	22.23	01-0101-1193	01-0104-1193
12.70	25.40	01-0101-1040	01-0104-1040

Double round

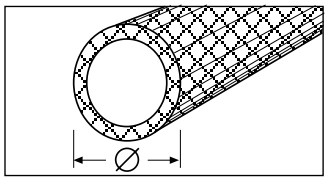


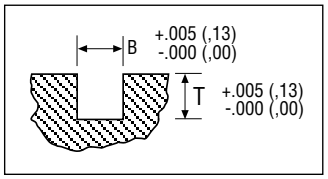
Dia meter D	Width B	Part no.	
mm	mm	Monel	Steel, Cu/Sn
1.57	9.53	01-0101-6164	01-0104-6164
1.57	12.70	01-0101-0922	01-0104-0922
1.57	15.88	01-0101-0041	01-0104-0041
1.57	19.05	01-0101-1261	01-0104-1261
1.57	22.23	01-0101-1262	01-0104-1262
1.57	25.40	01-0101-6165	01-0104-6165
3.18	12.70	01-0101-0449	01-0104-0449
3.18	15.88	01-0101-0012	01-0104-0012
3.18	19.05	01-0101-0085	01-0104-0085
3.18	22.23	01-0101-0515	01-0104-0515
3.18	25.40	01-0101-0625	01-0104-0625
4.75	15.88	01-0101-0019	01-0104-0019
4.75	19.05	01-0101-0049	01-0104-0049
4.75	22.23	01-0101-0735	01-0104-0735
4.75	25.40	01-0101-0344	01-0104-0344
6.35	19.05	01-0101-0949	01-0104-0949
6.35	22.23	01-0101-1276	01-0104-1276
6.35	25.40	01-0101-0452	01-0104-0452
9.53	25.40	01-0101-1277	01-0104-1277
9.53	31.75	01-0101-1278	01-0104-1278

Knit-Shield (Beryllium Copper Knitted Wire Schielding)

Knit Shield hollow knitted wire shielding combines the advantageous mechanical properties of beryllium copper with shielding effectiveness which is some 20 dB higher than conventional materials. It offers excellent resiliency for constant point-to-point contact with very low compression forces. It is available in three forms: Hollow core round, Hollow core round with single fin and Hollow core double round.

Hollow Core Round

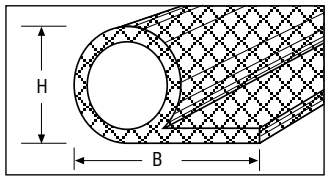




∅-Tolerances	
to 3.1	+0.5/–0
3.3–9.7	+0.8/–0
9.9–12.7	+1.2/–0

∅ mm	Goove dimensions B mm	T mm	Part no.
1.6	1.5	1.2	2001
2.4	2.3	1.8	2002
3.2	3.1	2.4	2003
4.0	3.8	3.0	2004
4.8	4.6	3.6	2005
6.4	6.1	4.8	2006
7.9	7.4	6.0	2007
9.5	9.1	7.1	2008
12.7	12.3	9.5	2009

Hollow Core Round with Single Fin



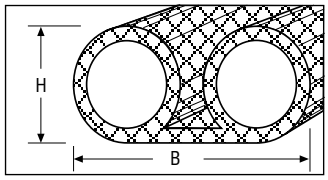
Tolerances		
	H	B
to 4.6	+0.5/–0	–
4.8–9.7	+0.8/–0	+1.5/–0.8
9.9–12.7	+1.2/–0	+1.5/–1.5

Optional platings for all 3 types:

Bright finish
Tin
Nickel
Cadmium

H mm	B mm	Part no.
1.6	9.5	2021
1.6	12.7	2022
2.4	12.7	2023
3.2	9.5	2024
3.2	15.9	2025
3.2	19.1	2026
4.0	12.7	2027
4.8	15.9	2028
6.4	12.7	2029
6.4	19.1	2030
6.4	25.4	2031
7.9	15.9	2032
7.9	22.2	2033
9.5	25.4	2034
11.1	25.4	2035
12.7	25.4	2036

Hollow Core Double Round



Tolerances		
	H	B
to 4.6	+0.5/–0	–
4.8–9.7	+0.8/–0	+1.5/–0.8
9.9–12.7	+1.2/–0	+1.5/–0.8

H mm	B mm	Part no.
1.6	12.7	2041
3.2	12.7	2042
3.2	15.1	2043
3.2	25.4	2044
4.8	15.9	2045
4.8	25.4	2046
6.4	19.1	2047
6.4	25.4	2048
9.5	25.4	2049

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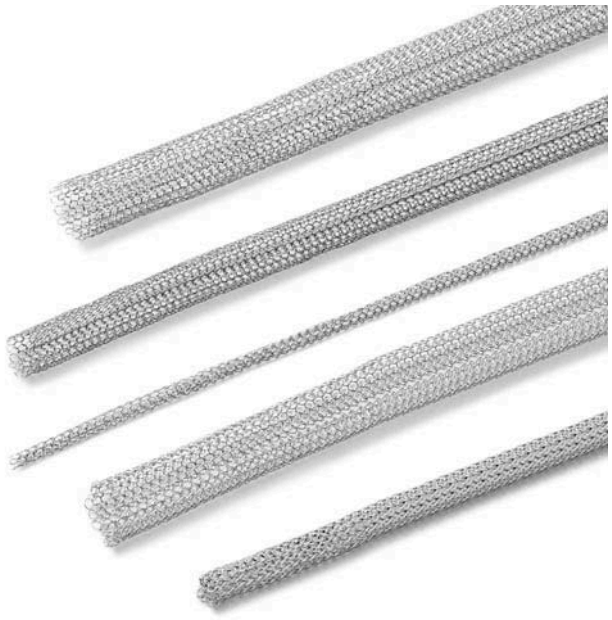
Knit-Shield (Beryllium Copper Knitted Wire Schielding)

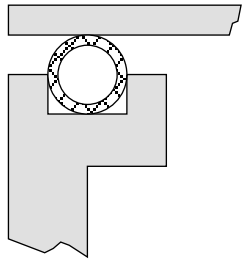
Properties of Knit-Shield

- Compression force ca. 80% less than conventional knitted wire shielding with elastomer core.
- 100% recovery of original height at up to 75% def ection.
- Optimum shielding due to the attenuation properties of beryllium copper.
- Up to 75% lighter than conventional wire knit.
- Long working life.
- No moisture absorption.

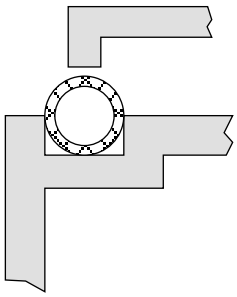
Knit-Shield is supplied on spools in multiples of 7.6 m.



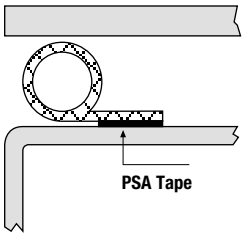
Mounting methods:



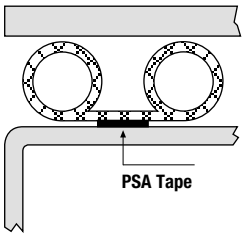
Hollow core in a groove with a flat surface.



Hollow core in a groove with a knife-edge.



Hollow core with fin, mounted with adhesive tape. Hold down bar also possible.



Hollow core double round mounted with adhesive tape. Screw fixing or hold down bar also possible.

Compression recovery

An important feature of Knit-Shield shielding gaskets is their ability to recover up to 90% or more of their free height after repeated def ection of up to 75% of free height.

Part no.	Deflection	Recovery in % after cycle		
	% of external dia.	100 cycles	250 cycles	500 cycles
2001	25	100	98	98
	50	98	98	94
	75	98	98	94
2002	25	100	100	100
	50	98	98	96
	75	92	90	88
2003	25	96	96	96
	50	96	96	96
	75	96	95	95
2004	25	98	98	98
	50	98	98	98
	75	89	88	88
2005	25	100	100	100
	50	100	98	98
	75	97	96	96
2006	25	100	100	100
	50	100	100	99
	75	100	100	98
2007	25	98	98	98
	50	98	98	97
	75	95	95	95
2008	25	100	100	100
	50	100	99	99
	75	100	100	98
2009	25	100	100	100
	50	98	98	97
	75	98	98	97

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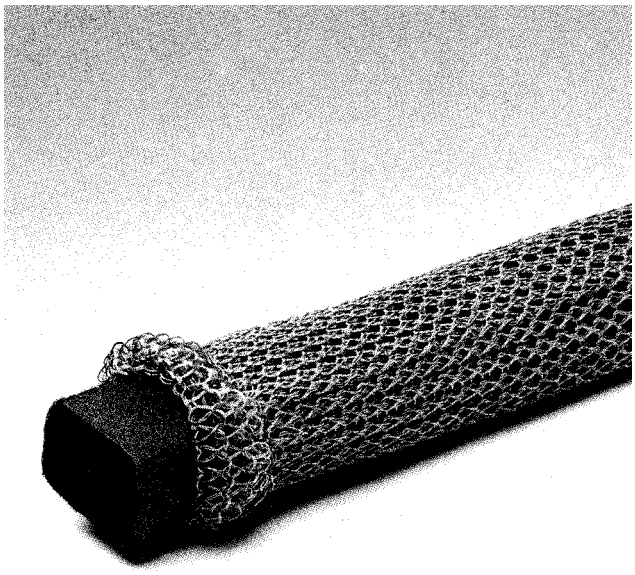
Mesh-Elasto (Elastomer Core and Knitted Wire Cover)

Mesh-Elasto is a deformable EMI gasket consisting of a circular or rectangular core of neoprene or silicone foam (or a silicone tube) around which there is a single- or double-layer knitted wire cover.
As with normal mesh products the knitted wire ensures electrical conductivity while the highly deformable elastomer core improves elasticity and contact.
In addition to HF shielding gaskets can also act as seals against dust and water.



Materials

All gaskets from stock are made either with Monel (a copper-nickel alloy) or in a simpler version with tin-plated copper clad steel wire. Of course, other materials such as stainless steel or aluminium can also be used if so required.

Available forms

Mesh-Elasto can either be supplied on spools or as ready-to-use closed ring gaskets to customer specifications.
For made-to-order rings you should state both the diameter and the straight length.

Please note the following tolerances when ordering
up to 175 mm: ± 0.76 mm
176 - 254 mm: ± 1.52 mm
above 254 mm: ± 1.52 mm for every 254 mm

Round and double round knitted shields can be supplied with a knitted fin or connection by means of which they can be fixed in place.

Tolerances of Elastomer Insert

Rectangular cross-section		Circular cross-section
to 3.18:	+0.79/–0.38	to 12.7 ∅: ± 0.79
above 3.18 to 9.53:	± 0.79	above 12.7 ∅: ± 1.19
above 9.53 to 19.05:	± 1.57	

Round with mounting fin or double round

up to	25.40: ± 1.57
above	25.40: ± 3.05

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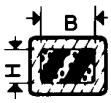
Rectangular with Elastomer Core



Height H*	Width B*1	Part no.			
		Neopren foam		Silicone foam	
mm	mm	Monel	Steel, Cu/Sn	Monel	Steel, Cu/Sn
3.18	3.18	01-0401-1845	01-0404-1845	01-0501-0319	01-0504-0319
3.18	3.96	01-0401-1518	01-0404-1518	01-0501-0666	01-0504-0666
3.18	4.78	01-0401-1846	01-0404-1846	01-0501-1320	01-0504-1320
3.18	6.35	01-0401-1847	01-0404-1847	01-0501-1853	01-0504-1853
4.78	4.78	01-0401-1848	01-0404-1848	01-0501-1854	01-0504-1854
6.35	6.35	01-0401-1564	01-0404-1564	01-0501-1855	01-0504-1855
6.35	9.53	01-0401-0888	01-0404-0888	01-0501-1856	01-0504-1856
6.35	12.70	01-0401-1849	01-0404-1849	01-0501-1857	01-0504-1857
9.53	12.70	01-0401-0328	01-0404-0328	01-0501-1858	01-0504-1858
9.53	15.88	01-0401-1850	01-0404-1850	01-0501-1859	01-0504-1859
12.70	12.70	01-0401-1851	01-0404-1851	01-0501-1860	01-0504-1860
12.70	19.05	01-0401-1852	01-0404-1852	01-0501-1861	01-0504-1861

*1 Note: Dimensions for elastomer core. With wire cover add approx. 0.8 mm.

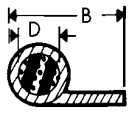
Round with Elastomer Core

∅ D*1	Part no.			
	Neoprene foam		Silicone foam	
mm	Monel	Steel, Cu/Sn	Monel	Steel, Cu/Sn
1.57	–	–	01-0501-1890*2	01-0504-1890*2
3.18	01-0401-0541	01-0404-0541	01-0501-1891	01-0504-1891
4.78	01-0401-0571	01-0404-0571	01-0501-1892	01-0504-1892
6.35	01-0401-0627	01-0404-0627	01-0501-1893	01-0504-1893
7.92	01-0401-0626	01-0404-0626	01-0501-1894	01-0504-1894
9.53	01-0401-1886	01-0404-1886	01-0501-1895	01-0504-1895
11.11	01-0401-0747	01-0404-0747	01-0501-1896	01-0504-1896
12.70	01-0401-0845	01-0404-0845	01-0501-1897	01-0504-1897
19.05	01-0401-0633	01-0404-0633	01-0501-1898	01-0504-1898

*1 Note: Dimensions for elastomer core. With wire cover add approx. 0.8 mm.

*2 Single cover layer

Round with Fin and Elastomer Core



∅ D*1	Total width B	Part no.			
		Neoprene foam		Silicone foam	
mm	mm	Monel	Stahl, Cu/Sn	Monel	Stahl, Cu/Sn
3.18	12.70	01-0401-1862	01-0404-1862	01-0501-0690	01-0504-0690
3.18	15.88	01-0401-1863	01-0404-1863	01-0501-1877	01-0504-1877
3.18	19.05	01-0401-1864	01-0404-1864	01-0501-1878	01-0504-1878
4.78	12.70	01-0401-0630	01-0404-0630	01-0501-1879	01-0504-1879
4.78	15.88	01-0401-1865	01-0404-1865	01-0501-1880	01-0504-1880
4.78	19.05	01-0401-1866	01-0404-1866	01-0501-1881	01-0504-1881
6.35	15.88	01-0401-0819	01-0404-0819	01-0501-1882	01-0504-1882
6.35	19.05	01-0401-1867	01-0404-1867	01-0501-1883	01-0504-1883
6.35	25.40	01-0401-1868	01-0404-1868	01-0501-1884	01-0504-1884
12.50	25.40	01-0401-1869	01-0404-1869	01-0501-1885	01-0504-1885
15.88	34.93	01-0401-1870	01-0404-1870	01-0501-0734	01-0504-0734

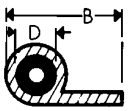
*1 Note: Dimensions for elastomer core. With wire cover add approx. 0.8 mm.

Round with Silicone Tube Insert

∅ D*1	Part no.	
mm	Monel	Steel, Cu/Sn
4.78	01-0501-6044	01-0504-6044
6.35	01-0501-6045	01-0504-6045
9.53	01-0501-6112	01-0504-6112
12.50	01-0501-6115	01-0504-6115

*1 Note: Dimensions for elastomer core.
With wire cover add approx. 0.8 mm.

Round with Fin and Silicone Tube Insert



∅ D*1	Total	Part no.	
mm	widh B	Monel	Steel, Cu/Sn
4.78	12.50	01-0501-6105	01-0504-6105
6.35	15.88	01-0501-6110	01-0504-6110
9.53	19.05	01-0501-6113	01-0504-6113
12.50	25.40	01-0501-6114	01-0504-6114

Standard hollow core 1.02 mm thick
*1 Note: Dimensions for elastomer core.
With wire cover add approx. 0.8 mm.

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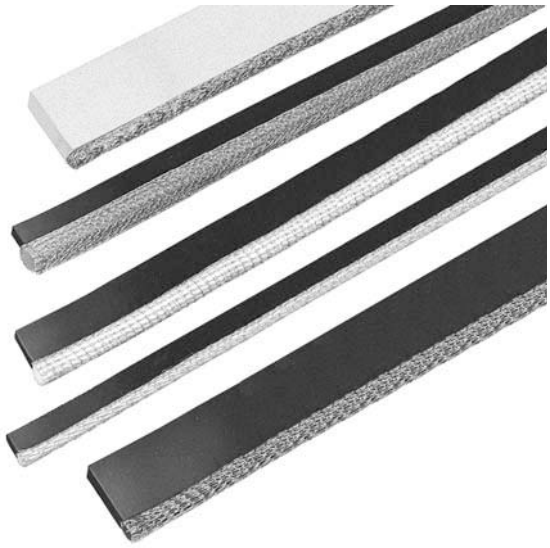
Kombi-Shield: Mesh + Elastomer Enviro-Seal Mesh-Elasto + Elastomer Enviro-Seal

Kombi-Shield consists of a Mesh or Mesh-Elasto gasket which is connected on one side to a foamed or solid elastomer seal. This can be supplied with or without an adhesive tape for fixing purposes.
Standard is a fully-metal knitted wire gasket with an attached band of elastomer foam.
Versions with Mesh-Elasto can be supplied to customer specifications. In this case the knitted-wire gasket has an elastomer core of neoprene, silicone or silicone foam. The knitted-wire is usually V2A or Monel. The soft core means that the Mesh-Elasto achieves a closer fit. By combining the Mesh or Mesh-Elasto gasket with an outer strip of elastomer it is possible to achieve both good EMI shielding and environmental sealing against dust and water.

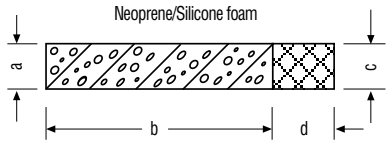


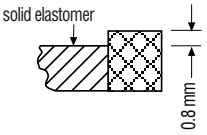
Available forms

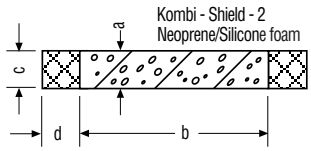
Kombi-Shield can be ordered by the metre in various dimensions or to customer specifications.

Materials

Monel wire and tin-plated copper clad steel wire are used for standard products. Specially ordered Mesh-Elasto products are covered with Monel or V2A.
The elastomer seals are neoprene or silicone (either foamed or solid).



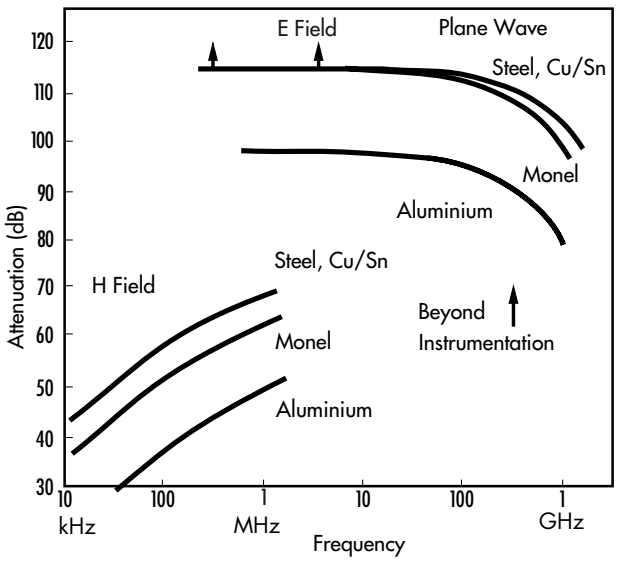




Tolerances

Dimensions		Solid elastomer	Foam elastomer	
			Silicone	Neoprene
a	to 3.18	± 0.38	+ 0.81 – 0.41	+ 0.81 – 0.41
a	3.18 – 12.7	± 0.38	± 0.79	± 1.60
a	12.7 and above	± 0.38	± 1.60	± 2.39
b	to 25.4	± 0.78	± 0.78	± 0.78
c and d		1.57 – 4.78	+ 0.38 – 0.00	
		4.78 – 9.53	± 0.78 – 0.00	

Shielding effectiveness of a typical Kombi-Shield



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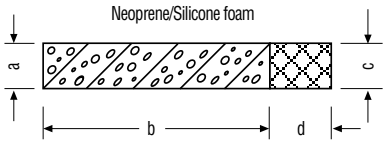
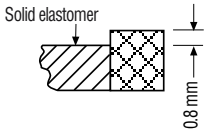
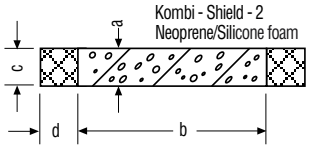
Kombi-Shield: Mesh + Elastomer Enviro-Seal
Mesh-Elasto + Elastomer Enviro-Seal







Mesh + Elastomer Enviro-Seal				Part no.			
Dimensions (mm)				Neoprene foam		Silicone foam	
a	b	c	d	Monel	Steel, Cu/Sn	Monel	Steel, Cu/Sn
1.57	6.35	1.57	3.18	01-0201-1756	01-0204-1756	01-0301-1772	01-0304-1772
1.57	9.53	1.57	3.18	01-0201-1757	01-0204-1757	01-0301-1773	01-0304-1773
1.57	12.70	1.57	3.18	01-0201-1792	01-0204-1792	01-0301-1774	01-0304-1774
1.57	15.88	1.57	3.18	01-0201-1739	01-0204-1739	01-0301-1775	01-0304-1775
2.36	6.35	2.36	3.18	01-0201-1344	01-0204-1344	01-0301-1776	01-0304-1776
2.36	9.53	2.36	3.18	01-0201-1332	01-0204-1332	01-0301-1777	01-0304-1777
2.36	12.70	2.36	3.18	01-0201-1758	01-0204-1758	01-0301-1778	01-0304-1778
2.36	19.05	2.36	3.18	01-0201-1333	01-0204-1333	01-0301-1779	01-0304-1779
3.18	3.18	3.18	3.18	01-0201-1138	01-0204-1138	01-0301-1780	01-0304-1780
3.18	4.78	3.18	3.18	01-0201-1136	01-0204-1136	01-0301-1781	01-0304-1781
3.18	6.35	3.18	3.18	01-0201-1135	01-0204-1135	01-0301-1782	01-0304-1782
3.18	6.35	3.18	6.35	01-0201-1130	01-0204-1130	01-0301-1783	01-0304-1783
3.18	9.53	3.18	3.18	01-0201-1132	01-0204-1132	01-0301-1784	01-0304-1784
3.18	12.70	3.18	3.18	01-0201-1134	01-0204-1134	01-0301-1785	01-0304-1785
3.18	12.70	3.18	6.35	01-0201-1131	01-0204-1131	01-0301-1786	01-0304-1786
3.18	12.70	3.18	12.70	01-0201-1133	01-0204-1133	01-0301-1787	01-0304-1787
3.18	15.88	3.18	3.18	01-0201-1055	01-0204-1055	01-0301-1788	01-0304-1788
3.18	19.05	3.18	3.18	01-0201-1759	01-0204-1759	01-0301-1789	01-0304-1789
4.78	4.78	4.78	3.18	01-0201-1760	01-0204-1760	01-0301-1790	01-0304-1790
4.78	6.35	4.78	3.18	01-0201-1056	01-0204-1056	01-0301-1515	01-0304-1515
4.78	6.35	4.78	3.18	01-0201-1622	01-0204-1622	01-0301-1791	01-0304-1791
4.78	9.53	4.78	3.18	01-0201-1761	01-0204-1761	01-0301-1792	01-0304-1792
4.78	12.70	4.78	3.18	01-0201-1762	01-0204-1762	01-0301-1793	01-0304-1793
4.78	19.05	4.78	6.35	01-0201-1763	01-0204-1763	01-0301-1794	01-0304-1794
6.35	6.35	6.35	3.18	01-0201-1764	01-0204-1764	01-0301-1795	01-0304-1795
6.35	12.70	6.35	3.18	01-0201-1766	01-0204-1766	01-0301-1797	01-0304-1797
6.35	19.05	6.35	3.18	01-0201-1767	01-0204-1767	01-0301-1798	01-0304-1798
9.53	6.35	9.53	3.18	01-0201-0817	01-0204-0817	01-0301-1800	01-0304-1800
9.53	12.70	9.53	6.35	01-0201-1768	01-0204-1768	01-0301-1801	01-0304-1801
9.53	19.05	9.53	6.35	01-0201-1769	01-0204-1769	01-0301-1802	01-0304-1802

Kombi-Shield-2

Mesh + Elastomer Enviro-Seal				Part no.			
Dimensions (mm)				Neoprene foam		Silicone foam	
a	b	c	d	Monel	Steel, Cu/Sn	Monel	Steel, Cu/Sn
3.18	6.35	3.18	3.18	01-0201-1765	01-0204-1765	01-0301-1796	01-0304-1796
3.18	9.53	3.18	3.18	01-0201-1770	01-0204-1770	01-0301-1799	01-0304-1799
3.18	12.70	3.18	3.18	01-0201-1771	01-0204-1771	01-0301-1803	01-0304-1803
3.18	6.35	3.18	3.18	01-0201-1804	01-0204-1804	01-0301-1805	01-0304-1805
3.18	9.53	3.18	3.18	01-0201-1681	01-0204-1681	01-0301-1806	01-0304-1806
3.18	12.70	3.18	3.18	01-0201-1807	01-0204-1807	01-0301-1810	01-0304-1810
4.78	6.35	4.78	3.18	01-0201-1808	01-0204-1808	01-0301-1811	01-0304-1811
4.78	12.70	4.78	3.18	01-0201-1809	01-0204-1809	01-0301-1812	01-0304-1812

Low Compression-Force Gaskets

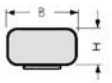
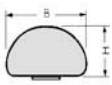
Our Low Compression-Force Gaskets are able to provide excellent shielding even with very low closure forces.
These inexpensive EMI-shields are easy to install and have been developed specially for commercial applications.
They can be installed in a groove or simply stuck onto the surface in question using a double-sided adhesive tape.
In addition to attenuation of approx. 60 dB from 30 MHz to 1 GHz. the gaskets also act as seals against dust and water.

Materials

A core of polyurethane foam is covered by a jacket of silver-coated nylon.
The gaskets offer very good restoration forces alter deformation.

Delivery form

Supplied on spools.
Available with or without adhesive tape.

	Dimensions	Part no.	
	mm	With adhesive tape	Without tape
	B x H: 6.35 x 3.30	2006.2	2006.1
	B x H: 4.80 x 3.20	2106.2	2106.1
	B x H: 12.70 x 3.60	2206.2	2206.1
	B x H: 12.70 x 6.35	2306.2	2306.1
	B x H: 5.08 x 5.08	2707.2	2707.1
	B x H: 6.35 x 6.35	2307.2	2307.1
	B x H: 9.52 x 9.52	2807.2	2807.1
	B x H: 3.55 x 2.50	2408.2	2408.1
	B x H: 9.50 x 6.35	2508.2	2508.1
	B x H: 12.70 x 9.50	2608.2	2608.1

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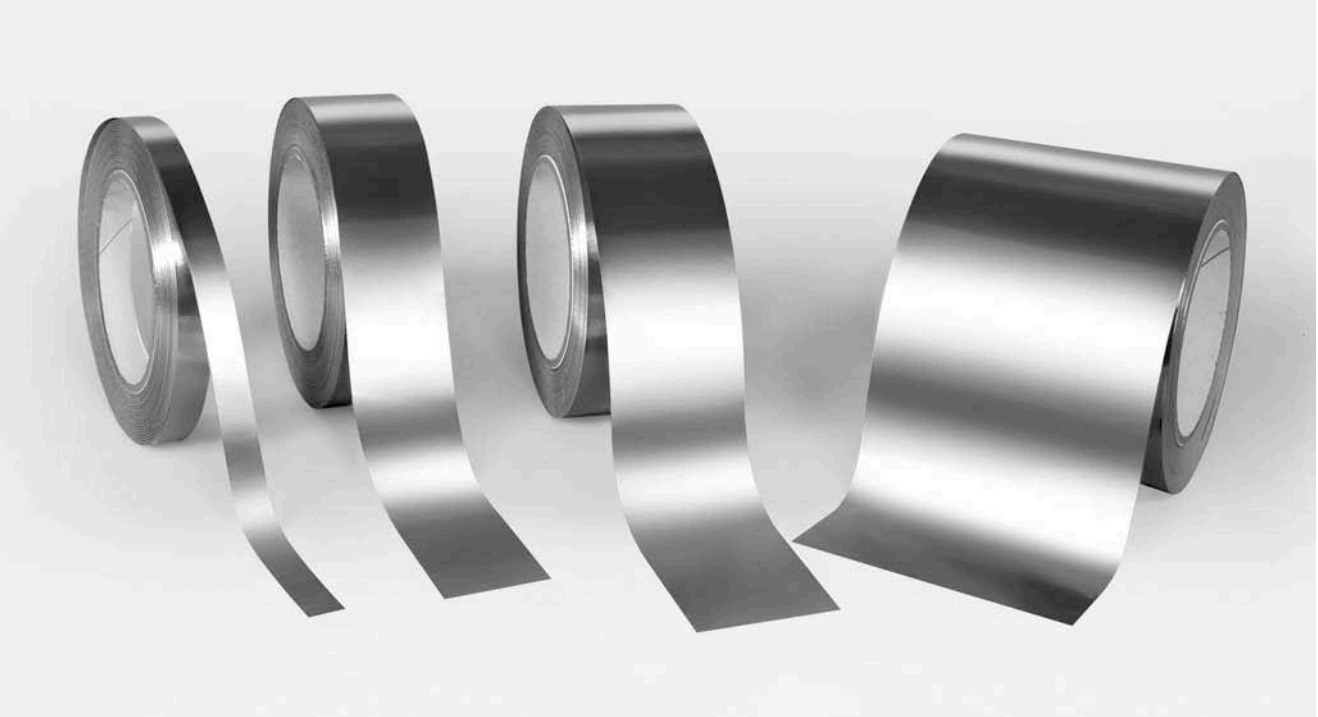
Conductive Foils



Conductive foils are suitable for a wide range of applications in shielding technology. They are inexpensive and easy to use. They are usually supplied with a conductive adhesive tape.
Typical applications include the lining of small enclosures, sealing of housing joints and welds, establishing electrical contact on surfaces which cannot be welded, shielding cables as well as the short-term use during EMC measurements in order to locate leaks for covering points which come into question.

Materials

Copper

Delivery form

On spools or to meet special customer requirements

Technical data

Elec. resistance:	Copper	0,020 Ω/cm²
Thickness:	Copper	75 µm
Attenuation:	Copper	50 dB

Standard products can be supplied in the following lengths and widths

Order no.		Material
1. XX	XXXX	Cooper foil with conductive adhesive
Length	Width	

36	0050	0100	0150	0200	0300	0400	0600	0800
36 yd	0.5“	1.00“	1.50“	2.00“	3.00“	4.00“	6.00“	8.00“
32.9 m	12.7 mm	25.4 mm	38.1 mm	50.8 mm	76.2 mm	102 mm	152 mm	203 mm

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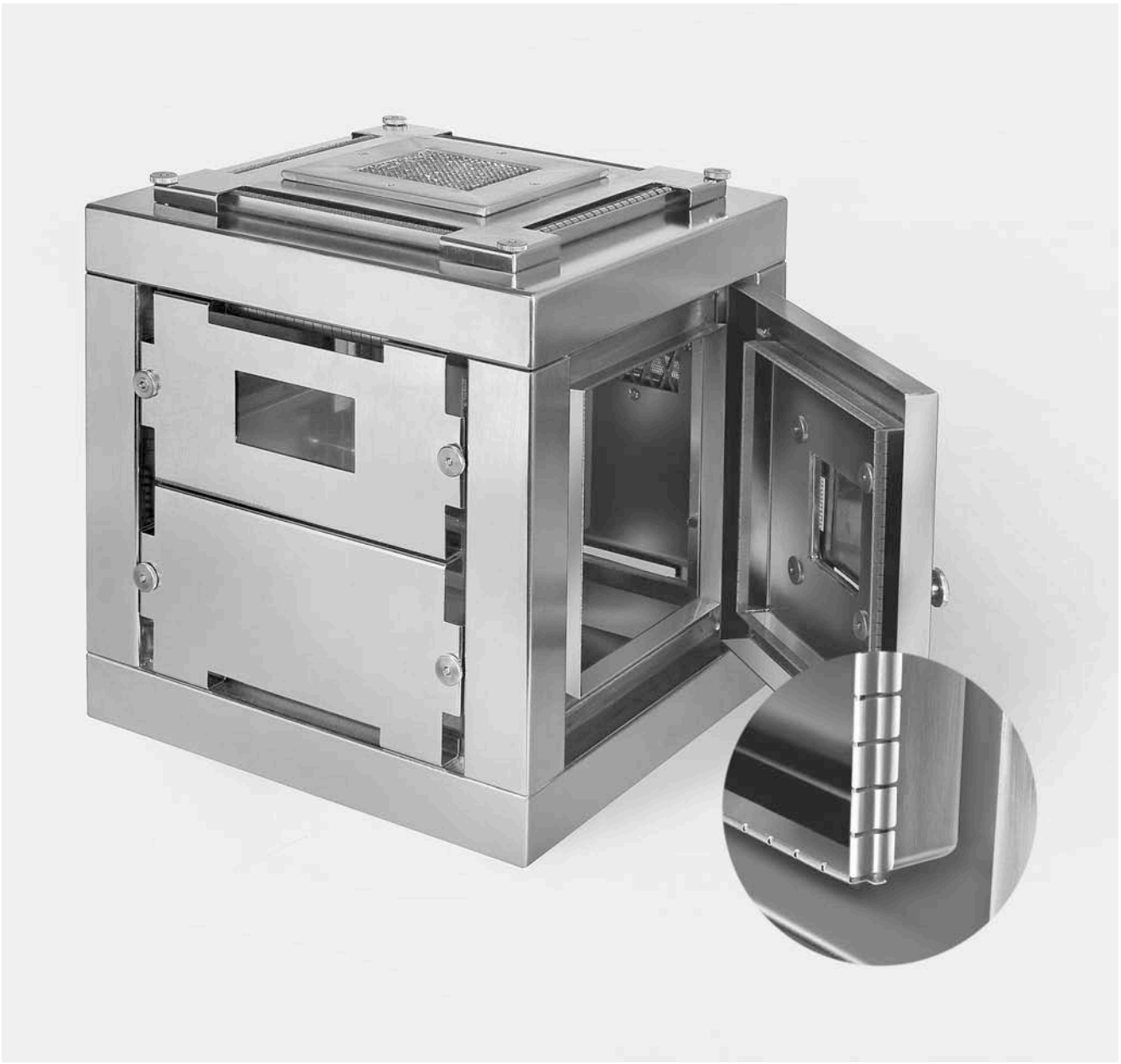
Shielded Cases and Cabinets



We can supply to customer specifications shielded cases and cabinets made from:

- Steel
- Stainless steel
- Aluminium

Shielding is provided by means of contact fingers, knitted-wire gaskets and elastomer gaskets.

Cases can be provided with openings for ventilation etc. as well as with inspection windows.

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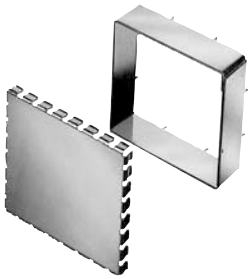
EMI / RFI Screening Enclosures

Tin plated steel (0.6 mm)
Pin size: 2.5 x 1 mm

L (length) mm	B (width) mm	H (height) mm	Part no.
25	25	15	9501
30	25	18	9502
40	28	20	9503
40	32	18	9504
60	40	20	9505
70	50	25	9506

Can with pins for PCB mounting



Tin plated steel (0.9mm)
Pin size: 2.3 x 1 mm

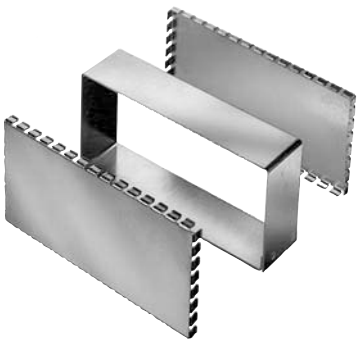
L (length) mm	B (width) mm	H (height) mm	Part no.
20	20	10	9510
30	30	15	9511
50	25	15	9512
50	50	15	9513
75	50	25	9514
75	75	25	9515
100	50	25	9516
125	75	25	9517

PCB mounting frame with fingered lid

Tin plated steel (0.9mm)

L (length) mm	B (width) mm	H (height) mm	Part no.
50	50	15	9520
75	50	25	9521
100	50	35	9522
160	100	50	9523

Standard can with fingered lid



Tin plated steel (0.9mm)

L (length) mm	B (width) mm	H (height) mm	Part no.
50	50	15	9530
75	50	15	9531
100	50	25	9532
160	100	35	9533
220	100	50	9534

Open frame with top and bottom fingered lids

Feuerherdt GmbH is the leading German manufacturer of contact springs. Since founding of the company more than 25 years ago, the product portfolio has steadily increased. The Feuerherdt product assortment includes more than 200 different standard contact springs made of copper-beryllium and stainless steel, for applications in EMI shielding, earthing, and electrical contacting. In addition, we have specialized in the development of customer-dedicated special products – from prototypes to series production. In addition to contact springs, we offer various other EMI shielding solutions: for example, conducting elastomers, textile and mesh seals, EMI plug seals, copper foil, as well as shielded windows, honeycomb vents, conducting glue, and shielded enclosures.

We are committed to the quality seal "Made in Germany," and we manufacture only products with outstanding quality. Our exceptional quality consciousness has been documented since 1996 by our certification in accordance with DIN EN 9001: 2008.

Top quality, cordial relations with customers, and excellent service are the key elements of our corporate philosophy. We achieve these objectives through highly qualified and motivated staff, efficient production technology, and reliable sub-contractors. As a result of flexibility, short turn-around times, and reliability, we have gained the confidence of our customers. Our continuous efforts toward best performance in the fulfilment of our customers' wishes have made us a highly competent and trustworthy partner.

Feuerherdt GmbH cultivates global business relationships with customers from a great variety of industrial sectors:

- Electronics
- IT technology
- Automation
- Automotive industry
- Aerospace technology
- Railway technology
- Mechanical engineering
- Medical technology
- Energy technology
- Measuring and testing systems
- Audio and video systems
- Telecommunications
- Research facilities
- And many more

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