SHELL-TYPE CASES

Order data **on pages 154-155**

OKW GEHÄUSE SYSTEME

1001 POSSIBILITIES

Protection class IP 65
For closed versions (G) without battery compartment when using the sealing kit (accessory).

EMC
On request the SHELL-TYPE CASES are also available with aluminium metalisation. Aluminium contact strips (accessories) provide additional electrical continuity between the top an base shells of shielded cases.

THE PRODUCT

The comprehensive SHELL-TYPE CASE range is available in different sizes, heights and types.

Simply choose the case that meets your special requirements.

YOUR ADVANTAGE

A high degree of rigidity and tight fitting as a result of the tongue- and groove joint.

Flat design for small-volume components. Higher versions for larger components.

Guide ridges for vertical mounting of partitions and PCBs. Fastening pillars in top and base part.

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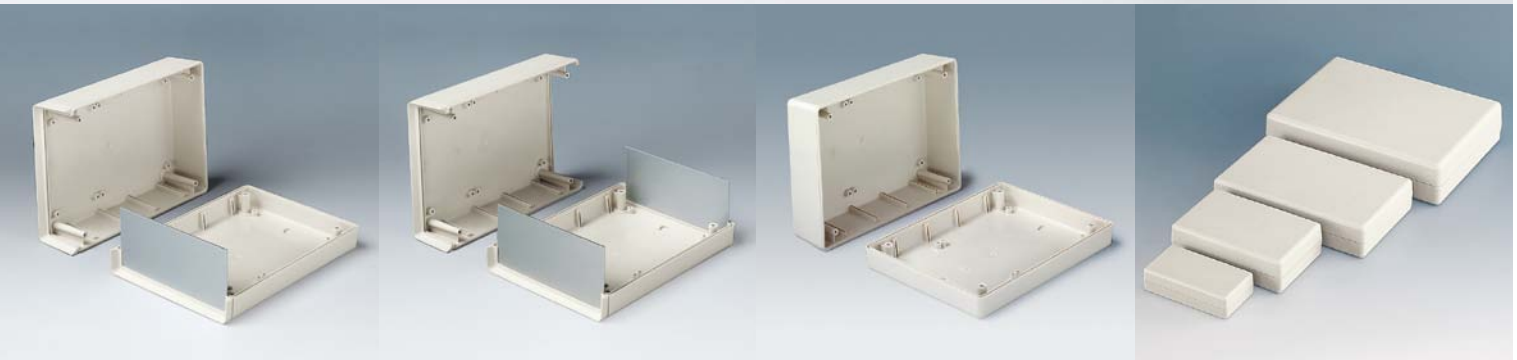
SHELL-TYPE CASES

Order data **on pages 154-155**

OKW GEHÄUSE SYSTEME



FUNCTIONALLY DESIGNED

YOUR ADVANTAGE

3 different case types:
V: open front, closed rear.
O: open front, open rear.
G: closed front, closed rear.

Front and rear panels in aluminium or PMMA red (plexiglass®) available as accessories.

Without/with battery compartment.

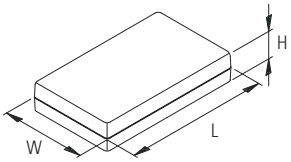
Closed versions with flat top parts (type G), also with recessed area to protect the membrane keyboard.

APPLICATIONS

Measuring and control technology.

Medical field and laboratory technology.

Peripheral devices and interfaces, switchboxes, modems.



Sizes (mm) / types

L x W	H	types	battery comp.*
85x45	22 33* 45*	V, G	–
114x72	33/33.5* 45 57	V, G	1x9 V
158x95	33/33.5* 45 57	V, O, G	2xAA/1x9 V 4xAA/2x9 V
190x138	45/45.5* 68 91	V, O, G	4xAA/2x9 V

*depending on case versions

V = open front; O = open front,open rear; G = closed front, closed rear

detailed drawings see our website
www.okw.com

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SHELL-TYPE CASES

Information **on pages 65-66**

OKW GEHÄUSE SYSTEME

SHELL-TYPE CASES

SHELL-TYPE CASE		Outside dim. in mm L	W	H	Version / Equipment (dim. in mm)	battery comp.	max. dim. keypad	max. size of PCB*1	Material	Part-No. off-white RAL 9002
	V 85	85	45	22	I	–	–	71 x 38 / 71 x 38	ABS (UL 94 HB)	A 94 04 333
	V 110	114	72	33	I	–	–	99 x 54 / 99 x 54	ABS (UL 94 HB)	A 94 06 333
		114	72	45	I	–	–	99 x 54 / 98 x 54	ABS (UL 94 HB)	A 94 06 343
		114	72	57	I	–	–	69 x 54 / 99 x 54	ABS (UL 94 HB)	A 94 06 443
		114	72	33	II*2	1 x 9 V	–	69 x 54 / 98 x 54	ABS (UL 94 HB)	A 94 06 334
		114	72	45	II*2	1 x 9 V	–	69 x 54 / 98 x 54	ABS (UL 94 HB)	A 94 06 344
	V 155	158	95	33	I	–	–	143 x 77 / 143 x 77	ABS (UL 94 HB)	A 94 08 333
		158	95	45	I	–	–	143 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 343
		158	95	57	I	–	–	142 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 443
		158	95	33	V*3	4 x AA / 2 x 9 V	–	83 x 77 / 143 x 77	ABS (UL 94 HB)	A 94 08 638
		158	95	45	V*3	4 x AA / 2 x 9 V	–	83 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 648
		158	95	33	IV*4	2 x AA / 1 x 9 V	–	113 x 77 / 143 x 77	ABS (UL 94 HB)	A 94 08 336
		158	95	45	IV*4	2 x AA / 1 x 9 V	–	113 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 346
	V 190	190	138	45	I	–	–	174 x 118 / 174 x 118	ABS (UL 94 HB)	A 94 13 333
		190	138	68	I	–	–	174 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 343
		190	138	91	I	–	–	174 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 443
		190	138	45	V*3	4 x AA / 2 x 9 V	–	114 x 118 / 174 x 118	ABS (UL 94 HB)	A 94 13 638
		190	138	68	V*3	4 x AA / 2 x 9 V	–	114 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 648
	O 155	158	95	33	I	–	–	142 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 330
		158	95	45	I	–	–	142 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 340
		158	95	57	I	–	–	142 x 77 / 142 x 77	ABS (UL 94 HB)	A 94 08 440
	O 190	190	138	45	I	–	–	173 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 330
		190	138	68	I	–	–	173 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 340
		190	138	91	I	–	–	173 x 118 / 173 x 118	ABS (UL 94 HB)	A 94 13 440
	G 85	85	45	22	I	–	–	76 x 38 / 75 x 38	ABS (UL 94 HB)	A 94 04 331
		85	45	33	I	–	–	76 x 38 / 75 x 37	ABS (UL 94 HB)	A 94 04 341
		85	45	45	I	–	–	75 x 37 / 75 x 37	ABS (UL 94 HB)	A 94 04 441
	G 110	114	72	33	I	–	–	104 x 54 / 104 x 54	ABS (UL 94 HB)	A 94 06 331
		114	72	33.5	I	–	101.90 x 59.90	104 x 54 / 104 x 54	ABS (UL 94 HB)	A 94 06 351
		114	72	45	I	–	–	104 x 54 / 103 x 54	ABS (UL 94 HB)	A 94 06 341
		114	72	57	I	–	–	103 x 54 / 103 x 54	ABS (UL 94 HB)	A 94 06 441
		114	72	33	II*2	1 x 9 V	–	75 x 54 / 104 x 54	ABS (UL 94 HB)	A 94 06 332
		114	72	33.5	II*2	1 x 9 V	101.90 x 59.90	75 x 54 / 104 x 54	ABS (UL 94 HB)	A 94 06 352
		114	72	45	II*2	1 x 9 V	–	75 x 54 / 103 x 54	ABS (UL 94 HB)	A 94 06 342
	G 155	158	95	33	I	–	–	149 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 331
		158	95	33.5	I	–	144.40 x 81.40	149 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 351
		158	95	45	I	–	–	149 x 77 / 147 x 77	ABS (UL 94 HB)	A 94 08 341
		158	95	57	I	–	–	148 x 77 / 147 x 77	ABS (UL 94 HB)	A 94 08 441
		158	95	33	V*3	4 x AA / 2 x 9 V	–	88 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 737
		158	95	33.5	V*3	4 x AA / 2 x 9 V	144.40 x 81.40	88 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 757
		158	95	45	V*3	4 x AA / 2 x 9 V	–	88 x 77 / 147 x 77	ABS (UL 94 HB)	A 94 08 747
		158	95	33	IV*4	2 x AA / 1 x 9 V	–	119 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 335
		158	95	33.5	IV*4	2 x AA / 1 x 9 V	144.40 x 81.40	119 x 77 / 149 x 77	ABS (UL 94 HB)	A 94 08 355
		158	95	45	IV*4	2 x AA / 1 x 9 V	–	119 x 77 / 148 x 77	ABS (UL 94 HB)	A 94 08 345
	G 190	190	138	45	I	–	–	180 x 118 / 180 x 118	ABS (UL 94 HB)	A 94 13 331
		190	138	45.5	I	–	172.00 x 120.00	180 x 118 / 180 x 118	ABS (UL 94 HB)	A 94 13 351
		190	138	68	I	–	–	180 x 118 / 179 x 118	ABS (UL 94 HB)	A 94 13 341
		190	138	91	I	–	–	180 x 118 / 179 x 118	ABS (UL 94 HB)	A 94 13 441
		190	138	45	V*3	4 x AA / 2 x 9 V	–	120 x 118 / 180 x 118	ABS (UL 94 HB)	A 94 13 737
		190	138	45.5	V*3	4 x AA / 2 x 9 V	172.00 x 120.00	120 x 118 / 180 x 118	ABS (UL 94 HB)	A 94 13 757
		190	138	68	V*3	4 x AA / 2 x 9 V	–	120 x 118 / 179 x 118	ABS (UL 94 HB)	A 94 13 747

V = Open front, closed rear. **O** = Open front, open rear. **G** = Closed front, closed rear.

*1 cutouts for pillars not taken into consideration; PCB mounting in base / top

*2 plug-in contact for 1 x 9 V flat battery see accessories

*3 set of battery clips for 4 x AA and plug-in contact for 1 x 9 V flat battery see accessories

*4 set of battery clips for 2 x AA and plug-in contact for 1 x 9 V flat battery see accessories

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SHELL-TYPE CASES ACCESSORIES

Article	Version / Application	For SHELL-TYPE CASE	Part-No.
① Set of battery clips complies with DIN EN 60601 (short circuit caused by incorrect insertion of batteries is avoided)	nickel-plated, for 2 x 1.5 V mignon cells (AA) (As alternatives to conventional, tin-plated battery clips 1 x A9193003 and 2 x A9193004 see universal accessories page 182)	V, G 155 version IV	A 91 90 014
	nickel-plated, for 4 x 1.5 V mignon cells (AA) (As alternatives to conventional, tin-plated battery clips 3 x A9193003 and 2 x A9193004 see universal accessories page 182)	V, G 155, 190 version V	A 91 90 013
② Plug-in contact	for 1 x 9 V flat battery (PP3)	V, G 155 , 190 vers. IV, V	A 91 60 003
③ Ring eyelet	plastic, volcano, inside ring ø 2.5 mm, max. wall thickness 3 mm, location hole ø 4 mm required	V, O, G 85	A 91 00 001
	plastic, volcano, inside ring ø 4 mm, max. wall thickness 4 mm, location hole ø 5 mm required	V, O, G 110, 155	A 91 00 002
④ Sealing kit	protection class up to IP 65 for cases type G (closed front and rear and without battery compartment), 1 O-ring for the case, 4 rubber disks for sealing between the assembly pillars	G 85	A 91 04 250
		G 110	A 91 06 352
		G 155	A 91 08 486
		G 190	A 91 13 630
⑤ Contact strips	aluminium strips which provide additional electrical continuity between the top and base shells of shielded cases (order two pieces, one for each side), cases with al-metallisation on request	V, G 85	A 91 04 073
		V, G 110	A 91 06 095
		V, O, G 155	A 91 08 120
		V, O, G 190	A 91 13 150
⑥ Wall mounting brackets*5	PA, pebble grey, RAL 7032, for exterior wall mounting, fastening to the case by means of the case fixing screws, 4 pcs	V, O, G 110, 155, 190	A 92 04 108

⑦ Front / rear panel for SHELL-TYPE CASE V and O (1 piece)	Dim. in mm	For SHELL-TYPE CASE	Part-No. Al matt anodised	Part-No. PMMA (plexiglass®)
	36.0 x 14.6 x 1	A 94 04 33.	A 91 04 111	A 91 04 113
	59.3 x 25.0 x 1	A 94 06 33.	A 91 07 111	A 91 06 113
	59.3 x 37.0 x 1	A 94 06 34.	A 91 07 121	A 91 06 123
	59.3 x 49.0 x 1	A 94 06 44.	A 91 07 221	A 91 06 223
	81.9 x 23.6 x 1	A 94 08 33. / A 94 08 63.	A 91 09 111	A 91 08 113
	81.9 x 35.6 x 1	A 94 08 34. / A 94 08 64.	A 91 09 121	A 91 08 123
	81.9 x 47.6 x 1	A 94 08 44.	A 91 09 221	A 91 08 223
	124.2 x 33.6 x 1.5	A 94 13 33. / A 94 13 63.	A 91 14 111	A 91 13 113
	124.2 x 56.6 x 1.5	A 94 13 34. / A 94 13 64.	A 91 14 121	A 91 13 123
	124.2 x 79.6 x 1.5	A 94 13 44.	A 91 14 221	A 91 13 223

universal accessories **on pages 178-187**

*5 alternatively, wall suspension element may be installed; see universal accessories page 178

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