

## 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 and 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.



# 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<sup>®</sup>) available as accessories.

Without/with battery compartment.

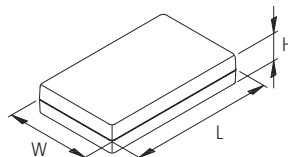
Closed versions with flat top parts (type G), also with recessed area to protect the membrane keyboard.

### 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	V, G	-
	33*		
	45*		
114x72	33/33.5*	V, G	1x9 V
	45		
	57		
158x95	33/33.5*	V, O, G	2xAA/1x9 V 4xAA/2x9 V
	45		
	57		
190x138	45/45.5*	V, O, G	4xAA/2x9 V
	68		
	91		





\*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](http://www.okw.com)



## SHELL-TYPE CASES

SHELL-TYPE CASE	Outside dim. in mm			Version / Equipment (dim. in mm)			Material	Part-No. off-white RAL 9002		
	L	W	H	battery comp.	max. dim. keypad	max. size of PCB*1				
 V 85 V 110	85	45	22	I	–	–	71 x 38 / 71 x 38	ABS (UL 94 HB)	A 94 04 333	
	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



## 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* <sup>5</sup>	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	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

\*<sup>5</sup> alternatively, wall suspension element may be installed; see universal accessories page 178