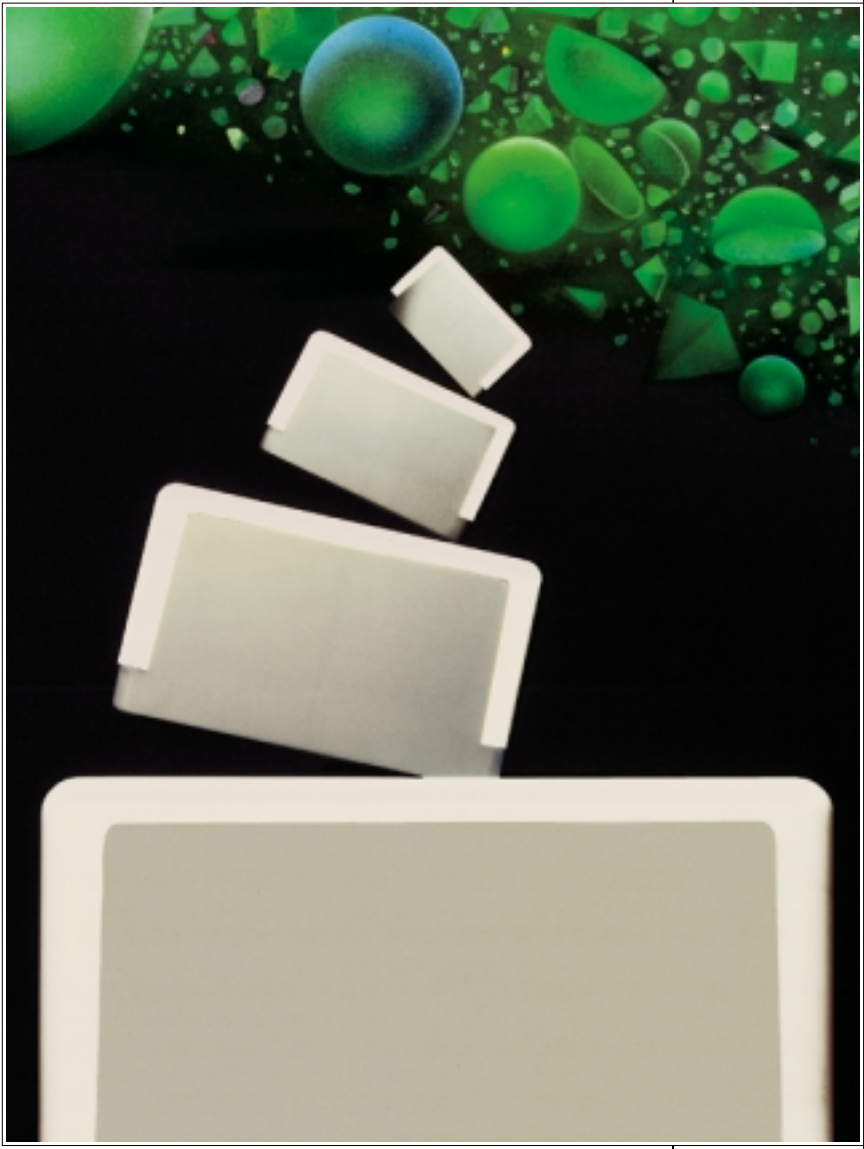


Subject to technical modification without notice. Typographical and other errors do not justify any claim for damages.
Stand: 11/99 e *Copyright © 1999 OKW Gehäusesysteme KG, Buchen, Germany (http://www.okw.com)*

FLAT-PACK CASES

YOUR ADVANTAGE

- Fast and easy equipping through open sided base.
- With low and high top part.
- Special version with handle bar. For easy carrying or convenient canting when using as a desktop unit.
- With ventilation slots for components dissipating high heat.
- With slots on the top part for miniature appliances with sound signal.
- Screwless assembly with separate front panel in aluminium, easy machining. Control elements and lettering are protected through a raised edge on the case.
- Wall-mounting kit for flat-pack cases available as accessory.
- Regulator case with embossed surface especially suitable for wall-mounting through lateral screw-fitting of the cover. With cutout for cable entry.

STANDARD COLOURS

Top off-white, RAL 9002.
base pebble grey, RAL 7032.
Please refer to colour chart on page 214.

MATERIAL

High-impact Polystyrene (UL 94 HB).
Also available in other materials on request. Please refer to the specifications on pages 215-217.

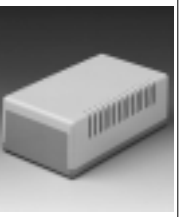
UNIVERSAL AND PRACTICAL

Low-priced housings for your electronics.

Practical for desktop units (with non slip rubber feet) and for wall-mounted units with screw fastening from the front. On demand, we can drill the neccesary holes at a favourable price when the wall-mounting kit is needed.

APPLICATIONS

Universal case for electronic and electro-technical devices as well as control systems. For indoor application as a table-top unit or a wall-mounting case. For example, for monitoring purposes as check instruments, signalling equipment and control systems, medical field and laboratory technology, computer peripherals, etc.



FLAT-PACK CASE L

With ventilation slots.

MODIFICATIONS AS PER CUSTOMER'S REQUIREMENTS

Machining on modern CNC-controlled machines. Lacquering. Silk screen and tampo printing.
See pages 210-213.

DESIGN

Two-piece flat-pack case with high top.

Sandwich-type mounting of several PCBs possible. Additional fastening pillars for self-tapping screws also in the top mould (except FLAT-PACK CASE H 100).

Solid tongue- and groove joint.

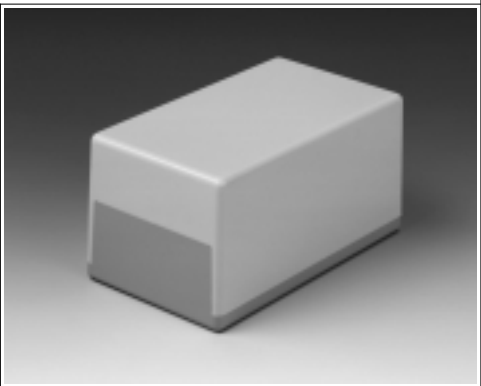
Base of FLAT-PACK CASES H 120 / H 150 / H 189 with premoulded recesses for assembly of self-adhesive rubber feet ø 10 mm, see accessory on page 201.

ASSEMBLY

Case sizes H 100, H 120 and H 150 are assembled by self-tapping screws, size H 189 with four M3 screws or snap lock (see accessories on page 169.

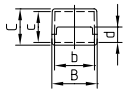
Wall-mounting kit as accessory, see page 169.

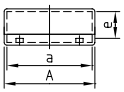
Reference: The tensile strength of our self-tapping screws is much greater than the tensile strength of threaded bushes.
Suitable self-tapping screws see page 201.



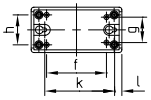
Detailed drawing available on demand in dwg or dxf format.

= Type of screw for case fixing: cross head

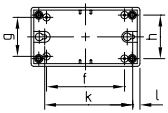




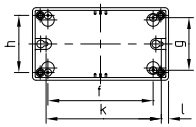
H 100 Z (PZ2)



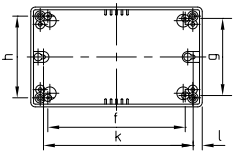
H 120 Z (PZ2)



H 150 Z (PZ2)

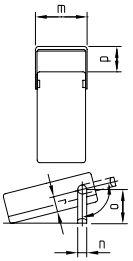


H 189



SUPPLY

1 two-piece case.
4 screws for case assembly.
4 self-tapping screws for PCB mounting.



VERSION I

Fastening pillars for PCBs with cored holes of ø 2.4 mm – suitable for self-tapping screws ø 3.0 mm for plastics.

VERSION II

Same version as I, but with handle bar.

Flat-Pack Case	Outside dim. in mm A	B	C	Inside dim. in mm a	b	c	d	e	Spacings in mm f	g	h	k	l	Dim. of handle bar in mm m	n	o	p	r	Version	Part-No.
H 100	100	50	40	94	44	34	17	29.5	66	28	33	77	8						I	A 90 11 065
H 120	120	65	65	114	59	59	32	49.5	86	43	48	97	8						I	A 90 21 065
H 150	150	80	80	144	74	74	42	64	116	58	63	127	8						I	A 90 31 065
H 189	189	110	97	183	104	91	52	81.5	151.5	85	90	165	9						I	A 90 41 065
	189	110	97	183	104	91	52	81.5	151.5	85	90	165	9	115	15	62	30	30	II	A 90 41 165
	189	110	120	183	104	114	52	104.5	151.5	85	90	165	9						I	A 90 42 065

FLAT-PACK CASES N

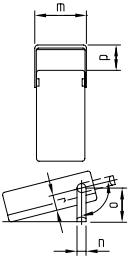
with flat top

SUPPLY

1 two-piece case.
4 screws for case assembly.
4 self-tapping screws
for PCB mounting.

EMC

Cases marked with ϟ are available with aluminium metallization on demand. The contact areas between top and base are low.
See also pages 207-209.

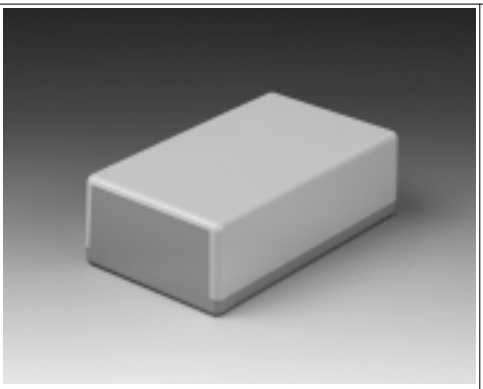


VERSION I

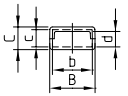
Fastening pillars for PCBs with cored holes of ø 2.4 mm – suitable for self-tapping screws ø 3.0 mm for plastics.

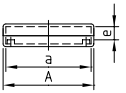
VERSION II

Same version as I, but with handle bar.

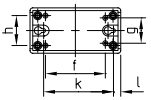


Detailed drawing available on demand in dwg or dxf format.
⊕ ⊕ = Type of screw for case fixing: cross head

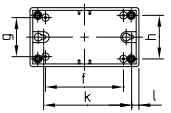




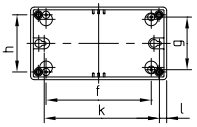
N 100 ⊕ Z (PZ2)



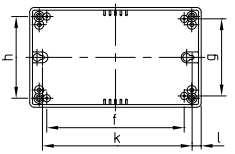
N 120 ⊕ Z (PZ1)



N 150 ⊕ Z (PZ2)



N 189



DESIGN

Two-piece flat-pack case with flat top.

Fastening pillars for PCB mounting.

Solid tongue- and groove-joint.

Base of FLAT-PACK CASES N 120 / H 150 / N 189 with premoulded recesses for assembly of self-adhesive rubber feet ø 10 mm, see accessory on page 201.

ASSEMBLY

Case sizes N 100, N 120 and N 150 are assembled by self-tapping screws, size N 189 with four M3 screws or snap lock (see accessories on page 169).

Wall-mounting kit as accessory, see page 169.

Reference: The tensile strength of our self-tapping screws is much greater than the tensile strength of threaded bushes.
Suitable self-tapping screws see page 201.

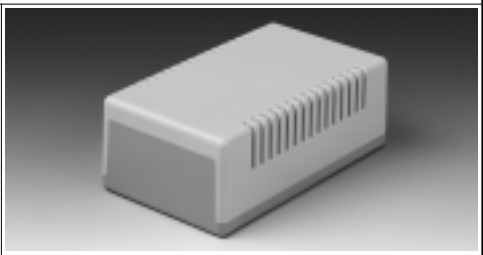
Part-No.	Flat-Pack Case	Outside dim. in mm A	B	C	Inside dim. in mm a	b	c	d	e	Spacings in mm f	g	h	k	l	Dim. of handle bar in mm m	n	o	p	r	Version
A 90 10 065 ϟ	N 100	100	50	25	94	44	19	17	15	66	28	33	77	8						I
A 90 20 065 ϟ	N 120	120	65	40	114	59	34	32	29.5	86	43	48	97	8						I
A 90 30 065	N 150	150	80	50	144	74	44	42	39.5	116	58	63	127	8						I
A 90 30 165		150	80	50	144	74	44	42	39.5	116	58	63	127	8	85	15	62	35	25	II
A 90 32 065		150	80	55	144	74	49	42	44.5	116	58	63	127	8						I
A 90 40 065	N 189	189	110	60	182	104	54	52	49.5	151.5	85	90	165	9						I
A 90 40 165		189	110	60	182	104	54	52	49.5	151.5	85	90	165	9	115	15	62	30	30	II
A 90 43 065		189	110	70	182	104	64	52	59.5	151.5	85	90	165	9						I

DESIGN

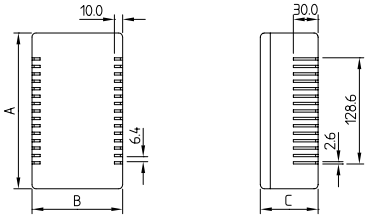
Two-piece flat-pack case with ventilation slots.
For components dissipating high heat.
Base with premoulded recesses for assembly of self-adhesive rubber feet ø 10 mm, see accessory on page 201.

ASSEMBLY

Low-cost assembly. Screw mounting, assembly kit for wall-mounting or snap lock (see accessories on page 169).



Identical main dimensions with FLAT-PACK CASE N 189 on page 166.



Flat-Pack Case	Outside dim. in mm A	B	C	Inside dim. in mm a	b	c	d	e	Spacings in mm f	g	h	k	l
L	189	110	70	183	104	64	52	59.5	151.5	85	90	165	9

FLAT-PACK CASE L

SUPPLY

1 two-piece case.
4 threaded screws M3 for case assembly.
4 self-tapping screws for the PCB mounting.

Part-No.

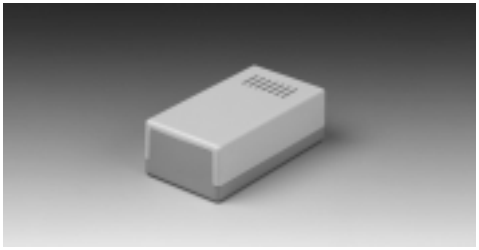
A 90 43 265

DESIGN

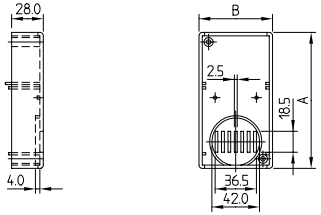
Two-piece case with sound slots in the top section.
For miniature appliances with sound signal e.g. gas leakage detectors etc.
Base with premoulded recesses for assembly of self-adhesive rubber feet ø 10 mm, see accessory on page 201.

ASSEMBLY

Low-cost assembly. Fixing by 2 screws only. Additional wall-mounting kit (see accessories on page 169).



Identical main dimensions with FLAT-PACK CASE N 189 on page 166.



Flat-Pack Case	Outside dim. in mm A	B	C	Inside dim. in mm a	b	c	d	e	Spacings in mm f	g	h	k	l
S	120	65	40	114	59	34	32	29.5	86	43	48	97	8

FLAT-PACK CASE S

SUPPLY

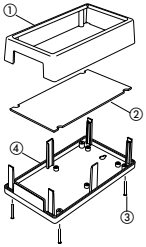
1 two-piece case.
2 self-tapping screws for case assembly.
4 self-tapping screws for the PCB mounting.

Part-No.

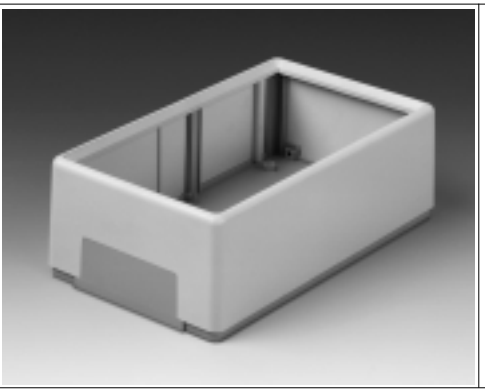
A 90 20 265

FLAT-PACK CASE A

for mounting an aluminium front panel



① Top
② Front panel (accesories)
③ Case screw
(type A 120 only
two case screws)
④ Base



DESIGN

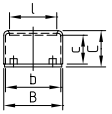
Two-piece case of compact design.
The front panel (accessory) rests upon four spring posts and is held without screws by the case frame.

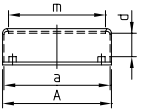
If the case is wall-mounted, the frame can be screwed to the base from the side. (except FLAT-PACK CASE A 150).

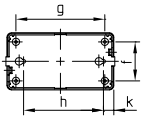
Supply:
1 case with assembly kit.

Detailed drawing available on demand in dwg or dxf format.

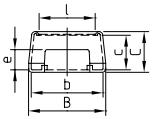
FLAT-PACK CASE A 120

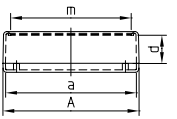


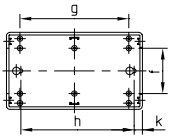




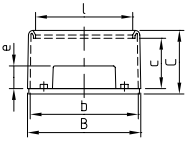
FLAT-PACK CASE A 150

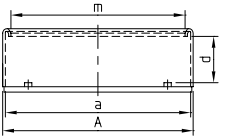


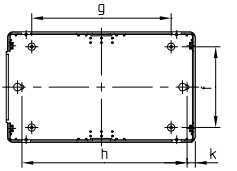




FLAT-PACK CASE A 210





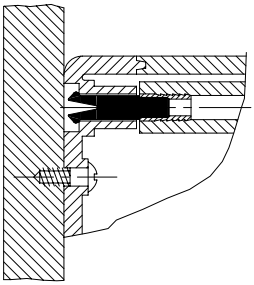


Part-No.	Article	Outside dim. in mm			Inside dim. in mm					Spacings in mm					
		A	B	C	a	b	c	d	e	f	g	h	k	l	m
A 95 20 165	A 120	120	65	40	117	61	31.5	25.5	–	43	98	88	11.5	52	107
A 91 95 201	Front panel	113	58	1											
A 95 30 165	A 150	150	85	45	144	79	36.5	31.5	22	50	120	126	9	62	133
A 91 95 301	Front panel	142	71.5	1.5											
A 95 40 165	A 210	210	125	70	204	119	54	49.5	25	89	154	182	9	107	192
A 91 95 401	Front panel	201	116	1.5											

Base with premoulded recesses for assembly of self-adhesive rubber feet: ø 7 mm at type A 150 and ø 10 mm at type A 210.
See accessory on page 201.

ASSEMBLY

This simple snap lock device replaces the standard screw fixings supplied with the cases. The lock is fixed into the assembly bushes in the top cover. With this, the top can be fixed from the front. This is especially useful if the case is to be wall-mounted.



Only for FLAT-PACK CASES N 189 and L 189

A 90 40 065 – A 90 43 265

SNAP LOCK

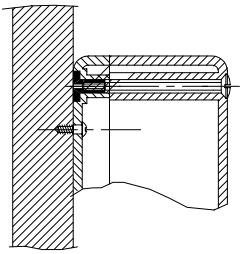
Replaces the standard screw fixing of the case.

Only suitable for FLAT-PACK CASES N 189 / L 189
(A 90 40 065 – A 90 43 265) with assembly bushes.

Supply:
1 piece.

Part-No.

A 91 00 008



Assembly kit for wall-mounting FLAT-PACK CASES if accessibility from the front is required.

Suitable for cases:	Part-No.
A 90 11 . . .	A 91 20 000
A 90 20 . . .	A 91 20 000
A 90 30 . . .	A 91 30 000
A 90 32 . . .	A 91 32 000
A 90 40 . . .	A 91 40 000

ASSEMBLY KIT

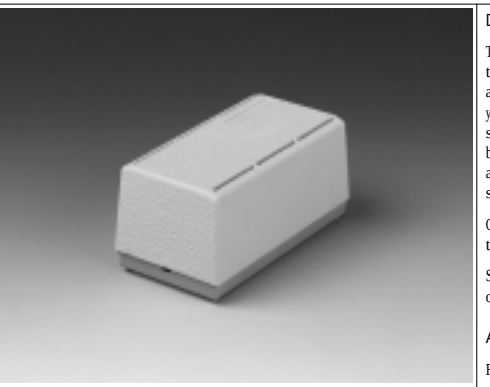
for wall-mounting FLAT-PACK CASES. Permits screw fixing of the cases from the front.

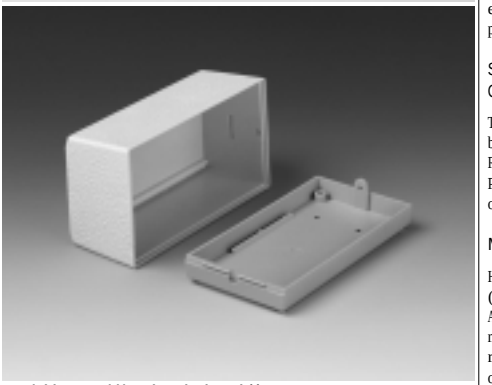
It is neccesary to drill the top cover of the case in order to achieve this. Ask for more details of our service.

Supply:
1 assembly kit with
4 threaded screws and
4 counternuts.

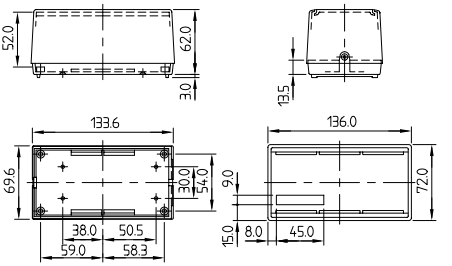
CONTROLLER CASE

Particularly suitable for controllers and thermostats.





Detailed drawing available on demand in dwg or dxf format.



DESIGN

Two-part case with heavy textured surface. Recessed area in the cover e.g. for your logo. Particularly suitable for wall-mounting because the cover and base are fixed together from the side with only one screw.

Covered space louvres in the top and base.

Slot for cable grommets on one side of the base.

ASSEMBLY

Fast assembly and easy to equip. Internal fastening pillars for PCBs.

STANDARD COLOURS

Top off-white, RAL 9002.
base pebble grey,
RAL 7032.
Please refer to colour chart on page 214.

MATERIAL

High-impact Polystyrene (UL 94 HB).
Also available in other materials on request. Please refer to the specifications on pages 215-219.

Part-No.	Outside dim. in mm		
	L	W	H
A 90 90 065	136	72	62