

YOUR
ADVANTAGE

- These cases are ergonomic and easy to use.
- Prepared for mounting of digital or analogue display modules.
- Battery compartment with snap-in-mechanism for the quick change of batteries.
- With or without switch cap / slide switch cap, also for multimeters.
- High front end for the mounting of connectors.
- Recessed operating area for the protection of membrane keyboards and operating elements.

STANDARD
COLOURS

Black, RAL 9005 resp.
black brown, RAL 8022
Off-white, RAL 9002.
Please refer to colour chart
on page 214.

MATERIAL

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



ROBUST, MOBILE, HANDY

Successfully used cases for multiple and single measuring
and for mobile data recording.

Available in five different types.

The boxes are easy to handle and easy to service.

The variety of boxes is so large that we are sure you will
find a case to suit your specific requirements exactly.

APPLICATIONS

Useful hand-held-boxes
for mounting of digital or
analogical instruments.
Versatile useable in the
measuring and control
technology, e.g. continuity
checker and volt meter,
field intensity meter, digital
thermometers etc.

EMC

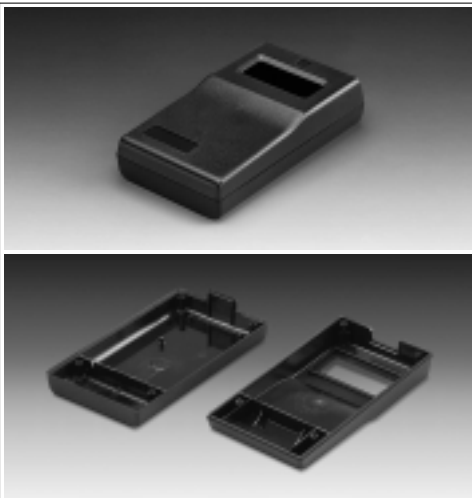
Cases marked with \neq are
available with aluminium
metallization on demand.
The contact areas of top and
bottom part are poor.

MODIFICATIONS
AS PER
CUSTOMER'S
REQUIREMENTS

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

DESIGN

Successfully used case for measuring instruments of handy pocket size. With recessed area for imprints or your logo. Cut-out section for LCD or analogical modules with active area up to 50 x 20 mm. With battery compartment, accessible from the outside, for 9 V flat battery (PP3) or one 1.5 V baby cell (C) with contacts for soldering. Raised front area to accommodate plugs.



Battery compartment for one 9 V flat battery (PP3) or one 1.5 V baby cell (C) with contacts for soldering.

ASSEMBLY

Case parts are assembled by 4 self-tapping screws. Snap-in battery compartment lid.

VERSION I

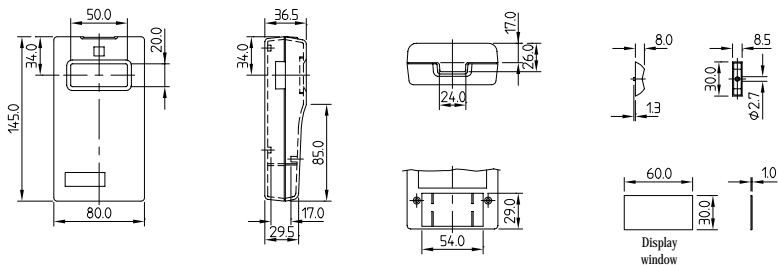
With lateral recess for rocker switch.

VERSION II

Without lateral recess.

Detailed drawing available on demand in dwg or dxf format.

⊕ ⊕ = Type of screw for case fixing: cross head



Max. size of PCB: base part 71 x 106 mm, top part 72 x 106 mm (cutouts for pillars not taken into consideration)

⊕ H (PH1)

MODIFICATIONS AS PER CUSTOMER'S REQUIREMENTS

See pages 210-213.

CASE (Part-No. with \neq see EMC page 42)

Outside dimensions in mm Colour Version

L W H

145 80 36.5 / 29.5 black I

145 80 36.5 / 29.5 off-white I

145 80 36.5 / 29.5 black II

145 80 36.5 / 29.5 off-white II

ACCESSORIES

Article Colour Version / Application

Switch cap black for rocker switch application

Switch cap off-white for rocker switch application

Cover plug black cover the screw holes in the bottom

Plug-in-contact blue for 1 x 9 V flat battery (PP3)

Display window transparent plexiglass

Adhesive foil transparent for fastening the display window

Part-No.

A 90 60 009 \neq

A 90 60 007 \neq

A 90 60 019 \neq

A 90 60 017 \neq

A 91 60 009

A 91 60 007

A 91 60 002

A 91 60 003

A 91 60 004

A 91 60 006

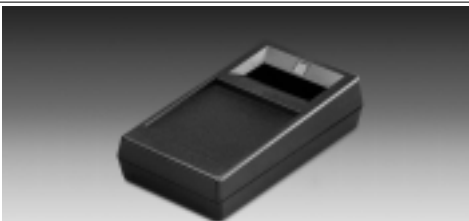
Reference: Suitable tilt foot bar see accessory on page 200.



Battery compartment for one 9 V flat battery (PP3) or one 1.5 V baby cell (C) with contacts for soldering.

VERSION I

With battery compartment for one 9 V flat battery (PP3) or one 1.5 V baby cell (C).



DESIGN

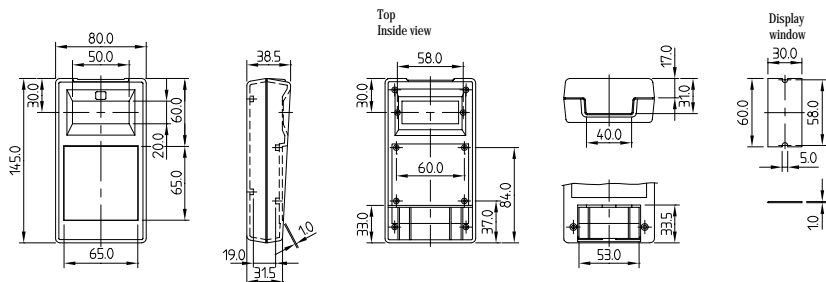
Small hand-held case with excellent design. With recessed area, e.g. for membrane keyboards, control elements. Cut-out section for digital and analogical modules with active area up to 50 x 20 mm. The battery compartment is accessible from the outside. For 9 V flat battery (PP3) or 1.5 V baby cell (C) with contacts for soldering. Raised front area to accommodate plugs.

ASSEMBLY

Case parts are assembled by 4 self-tapping screws. Snap-in battery compartment lid.

Detailed drawing available on demand in dwg or dxf format.

⊕ ⊗ = Type of screw for case fixing: cross head



Max. size of PCB: base part 71 x 102 mm, top part 71 x 106 mm (cutouts for pillars not taken into consideration)

⊕ H (PH1)

Part-No.	CASE (Part-No. with # see EMC page 42)				
	Outside dimensions in mm			Colour	Version
	L	W	H		
A 90.62.019 #	145	80	38.5 / 31.5	black	I
A 90.62.017 #	145	80	38.5 / 31.5	off-white	I
ACCESSORIES					
Article	Colour	Version / Application			
A 91.60.002	black	cover the screw holes on bottom			
A 91.60.003	blue	for 1 x 9 V flat battery (PP3)			
A 91.60.005	transparent	plexiglass			
A 91.60.006	transparent	for fastening the display window			

Reference: Suitable tilt foot bar see accessory on page 200.

MODIFICATIONS
AS PER
CUSTOMER'S
REQUIREMENTS

See pages 210-213.

DESIGN

Large exclusive hand-held case. With recessed area, e.g. for membrane key-boards, control elements. Cut-out section for digital and analogical modules with active area up to 65 x 23 mm. Version with battery compartment either for two 9 V flat batteries (PP3) or four 1.5 V mignon cells (AA), accessible from the outside. Raised front area to accommodate plugs.

ASSEMBLY

Case parts are assembled by 4 self-tapping screws. Snap-in battery compartment lid.



Version I with battery compartment for two 9 V flat batteries (PP3) or four 1.5 V mignon cells (AA).

VERSION I

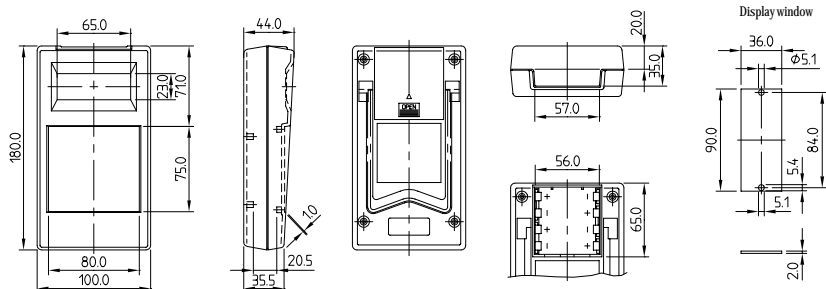
With battery compartment for two 9 V flat batteries (PP3) or four 1.5 V mignon cells (AA).

VERSION II

Without battery compartment.

Detailed drawing available on demand in dwg or dxf format.

⊕ ⊗ = Type of screw for case fixing: cross head



Max. size of PCB:

top part 91 x 169, base part without battery compartment 91 x 168 mm or with battery compartment 91 x 109 mm (cutouts for pillars not taken into consideration) ⊕ Z (PZ1)

MODIFICATIONS AS PER CUSTOMER'S REQUIREMENTS

See pages 210-213.

CASE (Part-No. with \neq see EMC page 42)

Outside dimensions in mm		Colour	Version	
L	W	H		
180	100	44 / 35,5	black	I
180	100	44 / 35,5	off-white	I
180	100	44 / 35,5	black	II
180	100	44 / 35,5	off-white	II

ACCESSORIES

Article	Colour	Version / Application
Set of battery clips	tin plated	for 4 x 1.5 V mignon cells (AA)
Plug-in contact	blue	for 1 x 9 V flat battery (PP3)
Tilt foot bar	chrome plated	steel, for ergonomic canting
Display window	transparent	plexiglass
Adhesive foil	transparent	for fastening the display window

Part-No.

A 90 61 019 \neq

A 90 61 017 \neq

A 90 61 119 \neq

A 90 61 117 \neq

A 91 61 001

A 91 60 003

A 93 61 009

A 91 61 004

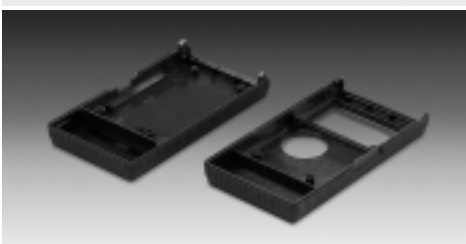
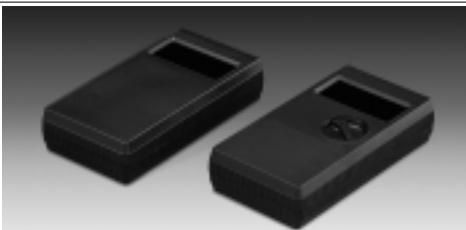
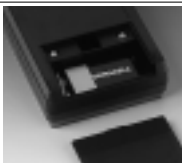
A 91 61 005

DESIGN

Clearly styled hand-held case with ridged side areas affording a firm grip. Suitable for two-layer PCB mounting. Version I with recessed area 142.4 x 71 mm for membrane keyboards or imprinting. Cut-out section for digital and analogical modules with active area up to 60 x 25 mm. Battery compartment for 9 V flat battery (PP3), accessible from the outside.

ASSEMBLY

Case parts are assembled by 2 screws. Removable and plug-in type rear panel.



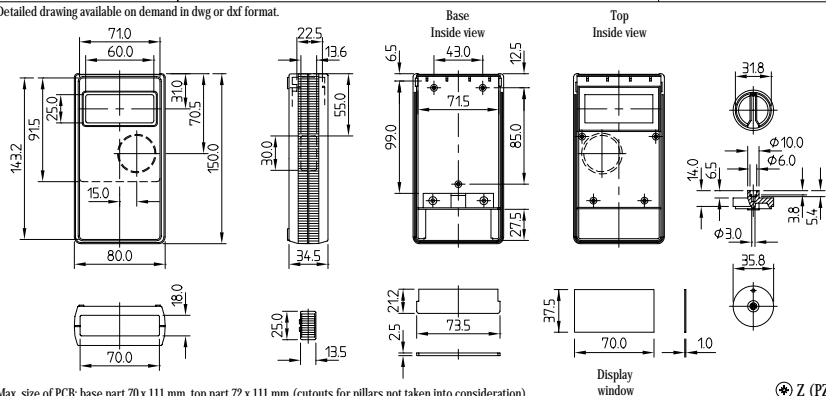
VERSION I

HAND-HELD-BOX G.
Without lateral recess.
With removable front panel.

VERSION II

HAND-HELD-BOX K.
Special type for multi-meters.
With lateral recess for slide switch and borehole for knob on the upper side.
With removable front panel.

Detailed drawing available on demand in dwg or dxf format.



Max. size of PCB: base part 70 x 111 mm, top part 72 x 111 mm (cutouts for pillars not taken into consideration)

⊕ Z (PZI)

Part-No.	CASE (Part-No. with † see EMC page 42)		Colour	Version	
	L	H			
A 90 63 011 †	150	80	34,5	black brown	I
A 90 63 021 †	150	80	34,5	black brown	II
ACCESSORIES					
Article	Colour	Version / Application			
A 91 63 001	Switch knob	black brown			
A 91 63 003	Slide switch cap	black brown	slide dimensions 3 x 3 mm		
A 91 60 003	Plug-in contact	blue	for 1 x 9 V flat battery (PP3)		
A 91 63 004	Display window	transparent	plexiglass		
A 91 63 005	Adhesive foil	transparent	for fastening the display window		

**MODIFICATIONS
AS PER
CUSTOMER'S
REQUIREMENTS**

See pages 210-213.