ALUBOS

Thanks to their versatility and the comprehensive range of accessories, these robust, attractive enclosures can be used for a wide range of applications.

With its eye-catching visual design, which includes seals as a design element, it makes any electronic components look good.

ALUBOS enclosures are available with profiles which are closed, divided horizontally, and open on one side. The lengths of all profile types are so variable that the result is a universal, ergonomic, individual hand-held enclosure in your special design. Ingress protection up to IP 65, the high mechanical loading capacity of the profile and good EMC screening ensure a high level of protective functions even in the standard design.

An overview of the enclosure sizes and the available lid and profile designs can be found on pages 536-537.

Enclosure material: Aluminium extrusion Al Mg Si 0.5, powder-coated, aluminium diecast lid GD-Al Si 12, powder-coated. For technical data see pages 646-655.

Colour: Black, similar to RAL 9005. Special colours and minimum order quantities on request.

Ingress protection: IP 65 / DIN EN 60529 (except AB-AP... IP 40).

Accessories (additional charge):

ABA ... : Axial adapter
AB-AP: Parallel adapter
DI: Coloured seals in: red, similar to RAL 3000, rape yellow, similar to RAL 1021, green, similar to RAL 6000 or blue, similar to RAL 5002
PU = 10 pcs
HS 2: Black handle profile available on request

AB...HS: Handle
AB...MKL: Mounting clamp
DI...EMV: EMC seal, black, similar to RAL 9005
PU = 10 pcs
AB...WLV: Wall brackets, adjustable
AB-WL: Wall brackets
AB...GF: Rubber feet
For universal docking station UDS, see page 606.

Seals
Coloured seals **DI...** to provide ingress protection IP 65 between the profile and the lid are available so you can create your individual design. The use of aluminium means that ALUBOS has very good EMC protection, which can be increased by the use of an EMC seal **DI...EMV**.
The EMC and the standard seals are suitable for a temperature range of -15°C to +50°C. V0 seals for temperature ranges from -30°C to +85°C are available on request.

ABPH: Version with horizontal split for fitting elements which protrude through the key surface. All profiles are fitted with grooves for the insertion of PCBs.

ABM...IR / ABM...AL: The mounting lids with a recessed assembly surface, for example for plugs, inserts or similar. These lids can be sealed watertight with a **push-on cap**.
ABM...IR: Infrared-permissive plastic cap.
ABM...AL: Aluminium cap
All mounting lids are also available with battery compartment **ABM...-BE** for 9V block batteries.
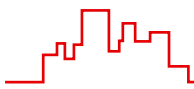
ALUBOS profiles
ABP closed version
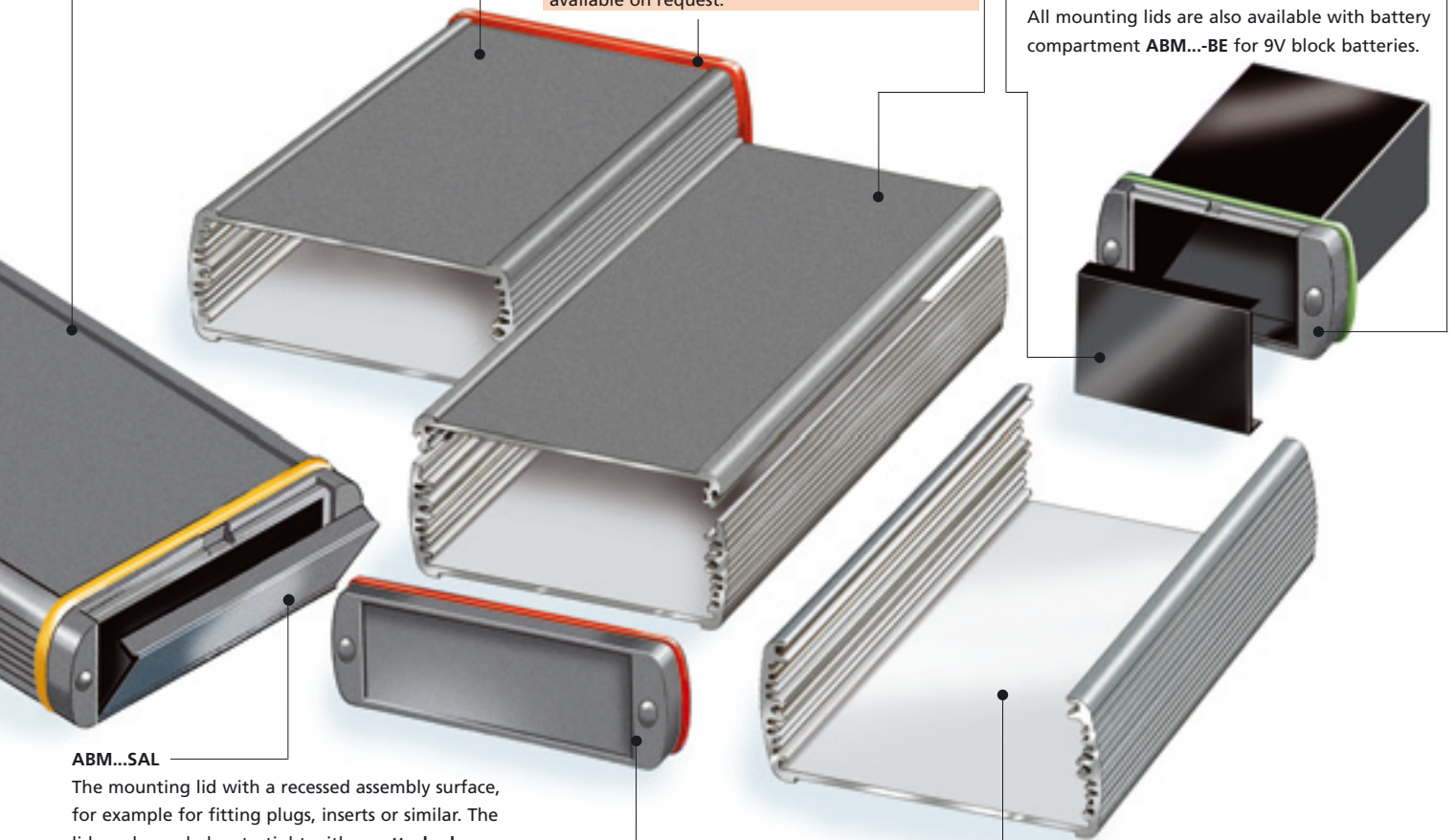
ABM...SAL
The mounting lid with a recessed assembly surface, for example for fitting plugs, inserts or similar. The lid can be sealed watertight with an **attached, hinged aluminium flap.**
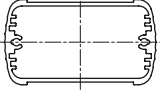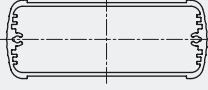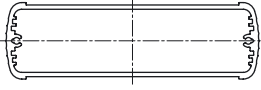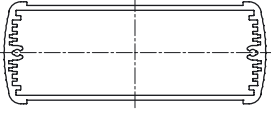
ABM...AL
The mounting lids with a recessed assembly surface, for example for plugs, inserts or similar. These lids can be sealed watertight with a **push-on cap**.

ABD
End lid with recessed surface for accommodating front membranes or membrane keypads.

ABPU Type open on one side. Front panels in a wide range of materials, or pre-assembled PCBs, can be used as operating fronts.
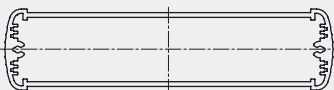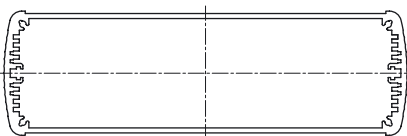
ALUBOS

	Profile width approx. 60 mm	Profile width approx. 80 mm	Profile width approx. 100 mm
Profile height approx. 20 mm		ABP / ABPH / ABPU / ABD AB 820	
Profile height approx. 30 mm	ABP / ABPH / ~~ABPU~~ / ABM / ABD AB 600	ABP / ABPH / ~~ABPU~~ / ABM / ABD AB 800	ABP / ABPH / ~~ABPU~~ / ABM / ABD AB 1000
Profile height approx. 40 mm			ABP / ABPH / ABPU / ABM / ABD AB 1040
Profile height approx. 50 mm			
Profile height approx. 70 mm			
Profile height approx. 80 mm			

NOTE
Other ALUBOS size are available on request.

ABP	ABPH	~~ABPU~~
ABM		

The profile and lid variants which are crossed out are not available in the relevant sizes.

The empty sections mean that these profile or lid variants are planned as system extensions. Please contact us if you require further details.

Profile width approx. 130 mm			Profile width approx. 160 mm			Profile width approx. 200 mm		

ABP	ABPH	ABPU
ABM		ABD

AB 1300

ABP		ABPU
	ABD	

AB 1600

ABP		
	ABD	

AB 2070

ABP	ABPH	ABPU
	ABD	

AB 1680

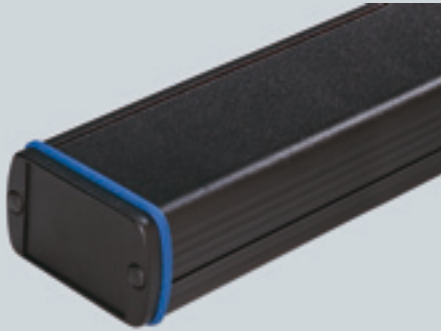| ABP	= closed profile
ABPH	= horizontally-divided profile
ABPU	= profile for plug-in front panels
ABM	= mounting lids (lids with recessed mounting surface; different designs)
ABD	= lid with membrane area

ALUBOS 600

The sturdy, aluminium enclosure,
57 mm wide.
The powder-coated extruded profiles are fitted with grooves for the insertion of PCBs.

Depending on your requirements, you can choose from various lid designs as a closing element for the complete ALUBOS series. These designs include simple end lids, mounting lids with aluminium or infrared-permissive caps, and battery compartments to complete the enclosure.

Lid and seal variants

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 600-1000	84060000	1000	57	32	IP 65
ABP 600-0100	84060100	100	57	32	IP 65
ABP 600-0150	84060150	150	57	32	IP 65
ABP 600-0200	84060200	200	57	32	IP 65
Special lengths on request		**Scope of delivery:** enclosure profile			
ABPH 600-1000	84066001	1000	57	32	IP 65
ABPH 600-0100	84066100	100	57	32	IP 65
ABPH 600-0150	84066150	150	57	32	IP 65
ABPH 600-0200	84066200	200	57	32	IP 65
Special lengths on request		**Scope of delivery:** encl. profile split horizontally			

Lids

Order designation

Model	Order no.	Scope of delivery*
ABM 600 AL	84062000	Mounting lid, aluminium profile cap
ABM 600 IR	84063000	Mounting lid, infrared-permissive plastic cap
ABM 600 SAL	84064000	Mounting lid, aluminium hinged flap
ABM 600 AL-BE	84062100	Mounting lid, aluminium profile cap, battery compartment for 9V block
ABM 600 IR-BE	84063100	Mounting lid, infrared-permissive plastic cap, battery compartment for 9V block
ABM 600 SAL-BE	84064100	Mounting lid, aluminium hinged flap, battery compartment for 9V block
ABD 600	84061000	End lid
		* all include black seals, screws, screw covers

Seals

Order designation

Model	Order no.	Description
DI 600-EMV	84200615	● EMC seal, black, PU = 10 pcs
DI 600-5002	84200614	● Seal, ultramarine, PU = 10 pcs
DI 600-3000	84200611	● Seal, flame red, PU = 10 pcs
DI 600-1021	84200612	● Seal, rape yellow, PU = 10 pcs
DI 600-6000	84200613	● Seal, patina green, PU = 10 pcs

ABP 600
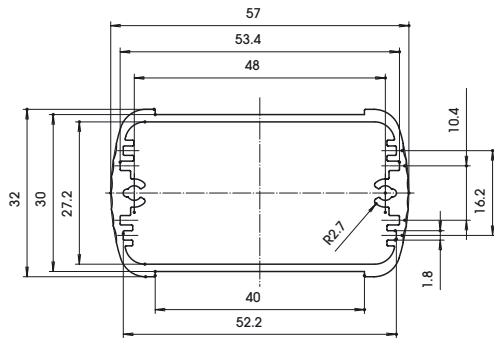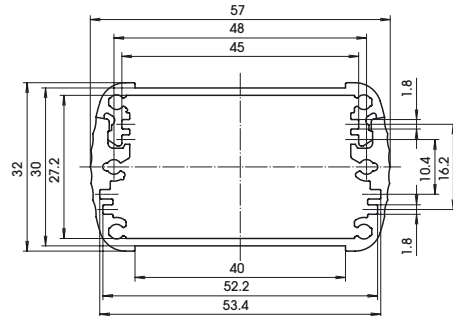
ABPH 600

AB 600

ABD 600
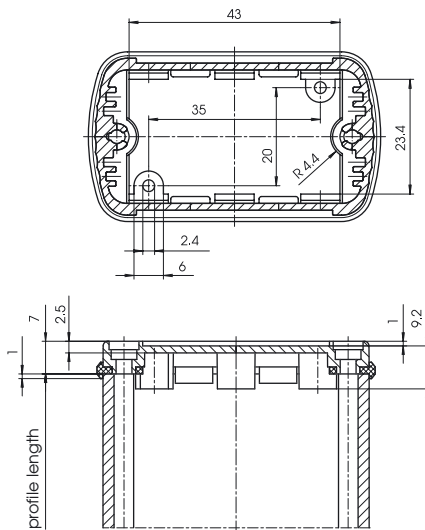
ABM 600...
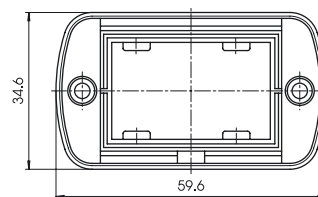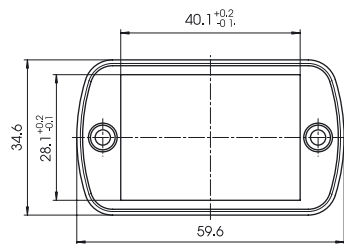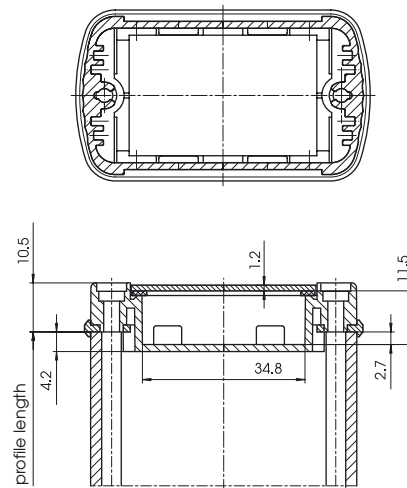
view without profile cap (AL)
or profile flap (SAL)

ABM 600 IR
ABM 600 AL
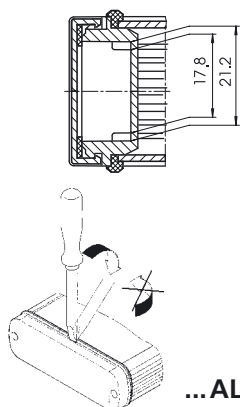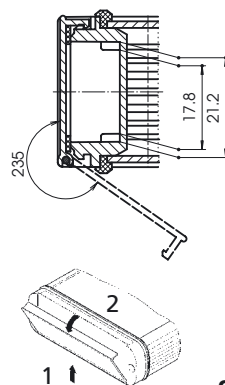
ABM 600 SAL

ABM 600 . . BE
(for further dimensions
see ABM 600..)

...AL

...SAL
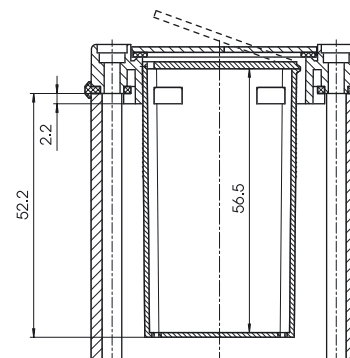
Z-2801325

ALUBOS 800
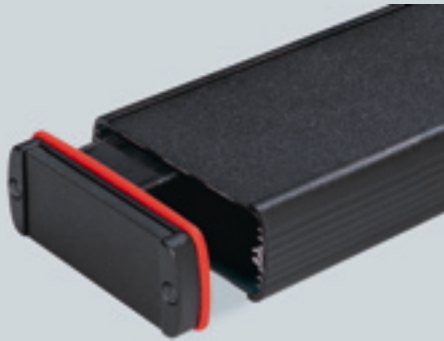
The sturdy, aluminium enclosure,
82 mm wide.
The powder-coated extruded profiles are fitted with grooves for the insertion of PCBs.

Depending on your requirements, you can choose from various lid designs as a closing element for the complete ALUBOS series. These designs include simple end lids, mounting lids with aluminium or infrared-permissive caps, and battery compartments to complete the enclosure.

For illustrations of the system components, see page 535.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 800-1000	84080000	1000	82	32	IP 65
ABP 800-0100	84080100	100	82	32	IP 65
ABP 800-0150	84080150	150	82	32	IP 65
ABP 800-0200	84080200	200	82	32	IP 65
Special lengths on request		**Scope of delivery:** enclosure profile			
ABPH 800-1000	84086001	1000	82	32	IP 65
ABPH 800-0100	84086100	100	82	32	IP 65
ABPH 800-0150	84086150	150	82	32	IP 65
ABPH 800-0200	84086200	200	82	32	IP 65
Special lengths on request		**Scope of delivery:** encl. profile split horizontally			

Lids

Order designation

| Model	Order no.	Scope of delivery*
ABM 800 AL	84082000	Mounting lid, aluminium profile cap
ABM 800 IR	84083000	Mounting lid, infrared-permissive plastic cap
ABM 800 SAL	84084000	Mounting lid, aluminium hinged flap
ABM 800 AL-BE	84082100	Mounting lid, aluminium profile cap, battery compartment for 9V block
ABM 800 IR-BE	84083100	Mounting lid, infrared-permissive plastic cap, battery compartment for 9V block
ABM 800 SAL-BE	84084100	Mounting lid, aluminium hinged flap, battery compartment for 9V block
ABD 800	84081000	End lid, powder-coated aluminium
ABA 800-1000 [1]	84002000	Axial adapter for ALUBOS 800/1000

[1] see page 560   * all include black seals, screws, screw covers

Seals

Order designation

| Model	Order no.	Description
DI 800-EMV	84200815	● EMC seal, black, PU = 10 pcs
DI 800-5002	84200814	● Seal, ultramarine, PU = 10 pcs
DI 800-3000	84200811	● Seal, flame red, PU = 10 pcs
DI 800-1021	84200812	● Seal, rape yellow, PU = 10 pcs
DI 800-6000	84200813	● Seal, patina green, PU = 10 pcs

Lid and seal variants

ABP 800
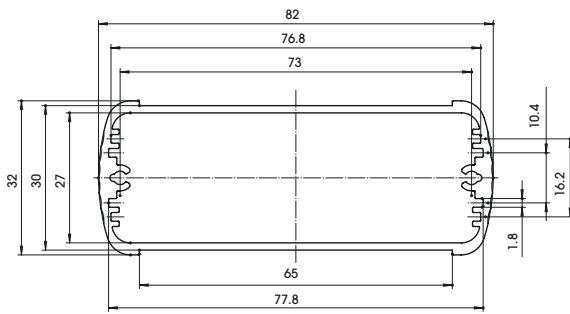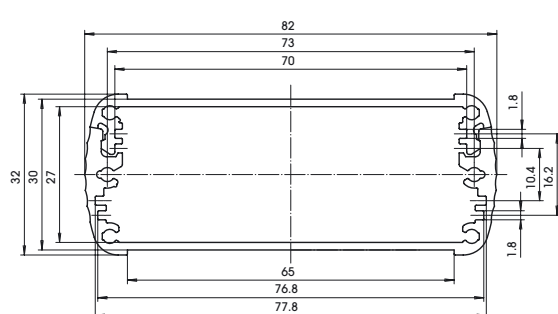
ABPH 800   AB 800

ABD 800
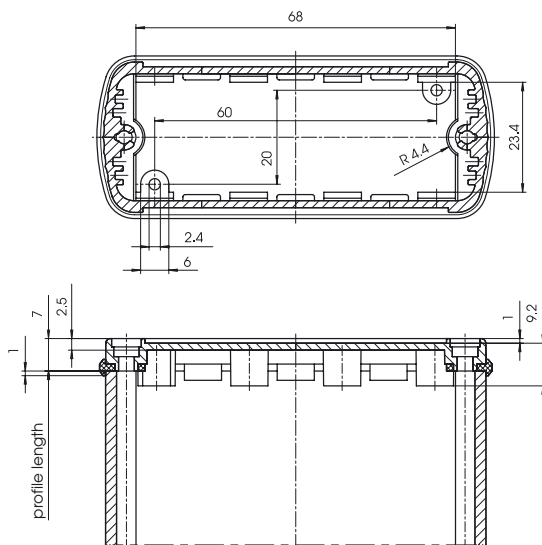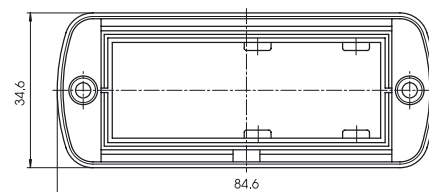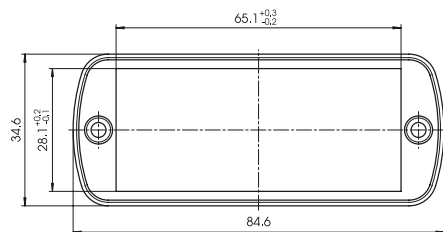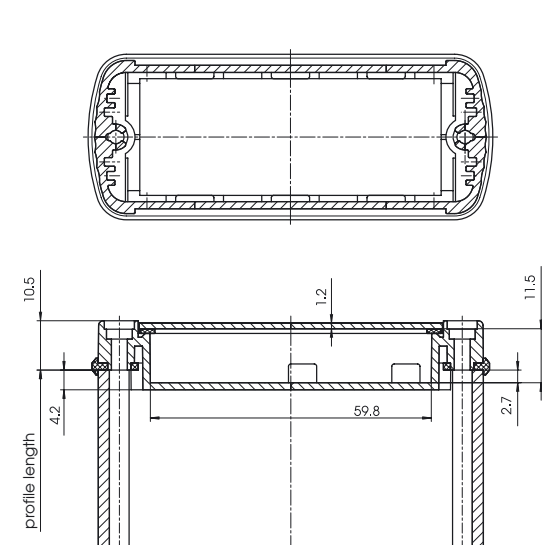
## ABM 800...

view without profile cap (AL)
or profile flap (SAL)

**ABM 800 IR
ABM 800 AL**
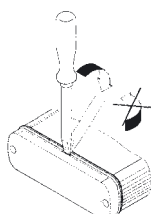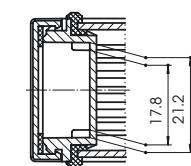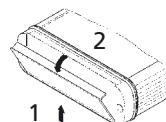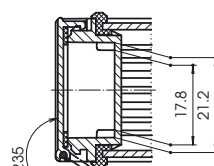
ABM 800 SAL

ABM 800 . . BE
(for further dimensions
see ABM 800..)

...AL   ...SAL
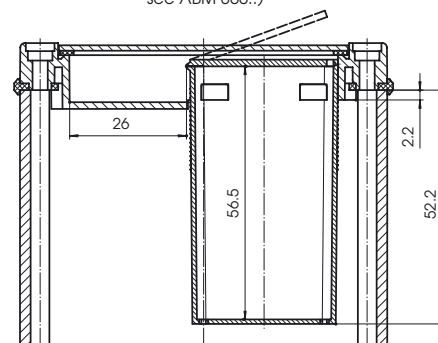
ALUBOS 820
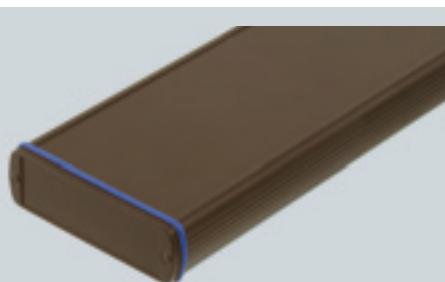
The robust aluminium enclosure is available with a width of 82 mm and a height of 22 mm, and with an additional type of ABPU profile (open on one side). This profile offers the following advantages:
- Front panels in a very wide range of materials can be used.
- Pre-assembled PCBs with a front membrane can be fitted directly as an operating front.

The profile with IP 40 ingress protection has additional slots to accept more PCBs or mounting plates.

The ABD 820 can be used as an end lid. For wall brackets for ALUBOS 820, see page 565. For illustrations of the system parts, see page 535.
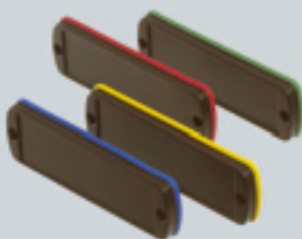
Lid and seal variants

Front panels for ABPU *(not illustrated)*
The front panels for the ABPU profile are manufactured as standard from anodised aluminium.
Front panels made of red-translucent or clear transparent plastic can be manufactured on request for the production of running light displays. In addition, pre-assembled PCBs with a front membrane can also be fitted directly as an operating front.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 820-1000	84820000	1000	82	22	IP 65
ABP 820-0100	84820100	100	82	22	IP 65
ABP 820-0150	84820150	150	82	22	IP 65
ABP 820-0200	84820200	200	82	22	IP 65
ABPH 820-1000	84826000	1000	82	22	IP 65
ABPH 820-0100	84826100	100	82	22	IP 65
ABPH 820-0150	84826150	150	82	22	IP 65
ABPH 820-0200	84826200	200	82	22	IP 65
ABPU 820-1000	84827000	1000	82	22	IP 40
ABPU 820-0100	84827100	100	82	22	IP 40
ABPU 820-0150	84827150	150	82	22	IP 40
ABPU 820-0200	84827200	200	82	22	IP 40

Special lengths on request

Scope of delivery: enclosure profile. Please order front panels for ABPU separately.

Lid

Order designation

Model	Order no.	Scope of delivery
ABD 820	84821000	End lid, black seals, screws, screw covers

Seals

Order designation

| Model	Order no.	Description
DI 820-EMV	84208215	● EMC seal, black, PU = 10 pcs
DI 820-5002	84208214	● Seal, ultramarine, PU = 10 pcs
DI 820-3000	84208211	● Seal, flame red, PU = 10 pcs
DI 820-1021	84208212	● Seal, rape yellow, PU = 10 pcs
DI 820-6000	84208213	● Seal, patina green, PU = 10 pcs

Front panels for ABPU

Order designation

Model	Order no.	L = profile length	W	Th.
ABPU 820-1000 FP2	84828000	1000	73.5	2
ABPU 820-0100 FP2	84828100	100	73.5	2
ABPU 820-0150 FP2	84828150	150	73.5	2
ABPU 820-0200 FP2	84828200	200	73.5	2

Example of ABPU application
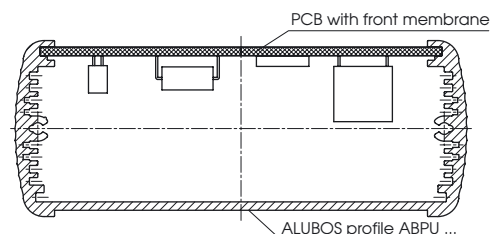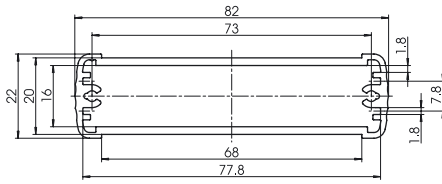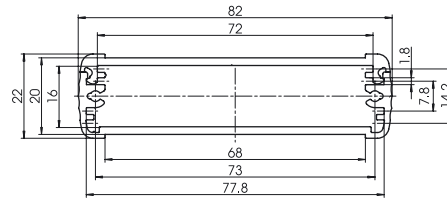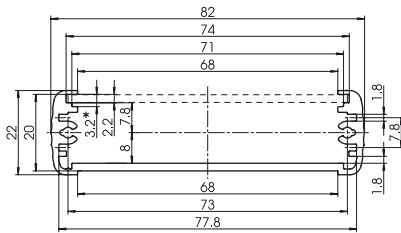
PCB with front membrane

ALUBOS profile ABPU ...

Z-2802084

ABP 820

82
73
1.8
7.8
22
20
16
68
77.8
1.8

Z-2802039

ABPH 820

AB 820

82
72
1.8
7.8
14.2
22
20
16
68
73
77.8

Z-2802040

ABPU 820

82
74
71
68
1.8
7.8
22
20
3.2*
2.2
8
68
73
77.8
1.8

* Note: when using a 3 mm front panel, this contact area must be milled down to 2 mm.

Z-2802041

ABD 820

62.6
shown profile:
ABP 820
12.8

3.5
6.7
profile length
1
1.5
3.8

84.6
$64.1^{+0.3}_{-0.2}$
24.6
$18^{+0.2}_{-0.1}$
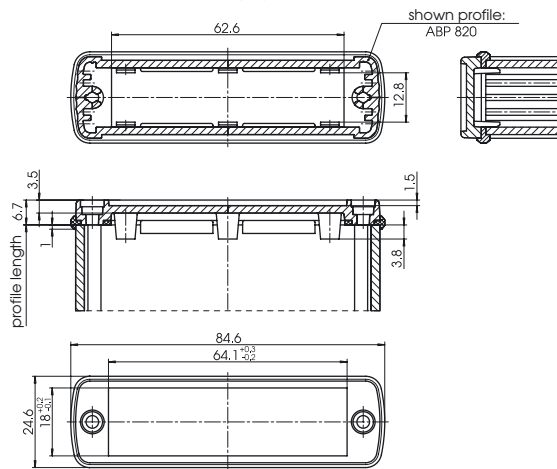
Z-2802042

ALUBOS 1000

The sturdy, aluminium enclosure,
106 mm wide.
The powder-coated extruded profiles are
fitted with grooves for the insertion of
PCBs.

Depending on your requirements, you can
choose from various lid designs as a closing
element for the complete ALUBOS series.
These designs include simple end lids,
mounting lids with aluminium or infrared-
permissive caps, and battery compartments
to complete the enclosure.

For illustrations of the system components,
see page 535.
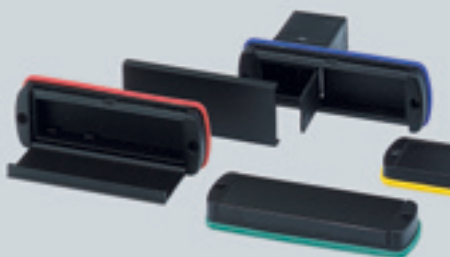
Lid and seal variants

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 1000-1000	84100000	1000	106	32	IP 65
ABP 1000-0100	84100100	100	106	32	IP 65
ABP 1000-0150	84100150	150	106	32	IP 65
ABP 1000-0200	84100200	200	106	32	IP 65
Special lengths on request		**Scope of delivery:** enclosure profile			
ABPH 1000-1000	84106001	1000	106	32	IP 65
ABPH 1000-0100	84106100	100	106	32	IP 65
ABPH 1000-0150	84106150	150	106	32	IP 65
ABPH 1000-0200	84106200	200	106	32	IP 65
Special lengths on request		**Scope of delivery:** encl. profile split horizontally			

Lids

Order designation

Model	Order no.	Scope of delivery*
ABM 1000 AL	84102000	Mounting lid, aluminium profile cap
ABM 1000 IR	84103000	Mounting lid, infrared-permissive plastic cap
ABM 1000 SAL	84104000	Mounting lid, aluminium hinged flap
ABM 1000 AL-BE	84102100	Mounting lid, aluminium profile cap, battery compartment for 9V block
ABM 1000 IR-BE	84103100	Mounting lid, infrared-permissive plastic cap, battery compartment for 9V block
ABM 1000 SAL-BE	84104100	Mounting lid, aluminium hinged flap, battery compartment for 9V block
ABD 1000	84101000	End lid
ABA 800-1000[1]	84002000	Axial adapter for ALUBOS 800/1000
1) see page 560		* all include black seals, screws, screw covers

Seals

Order designation

Model	Order no.	Description
DI 1000-EMV	84201015	● EMC seal, black, PU = 10 pcs
DI 1000-5002	84201014	● Seal, ultramarine, PU = 10 pcs
DI 1000-3000	84201011	● Seal, flame red, PU = 10 pcs
DI 1000-1021	84201012	● Seal, rape yellow, PU = 10 pcs
DI 1000-6000	84201013	● Seal, patina green, PU = 10 pcs

ABP 1000
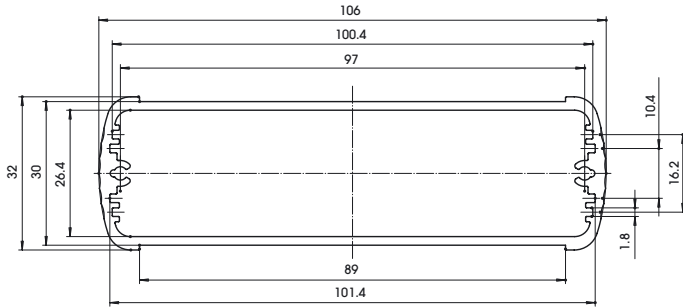
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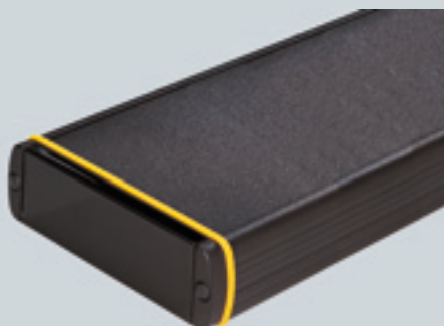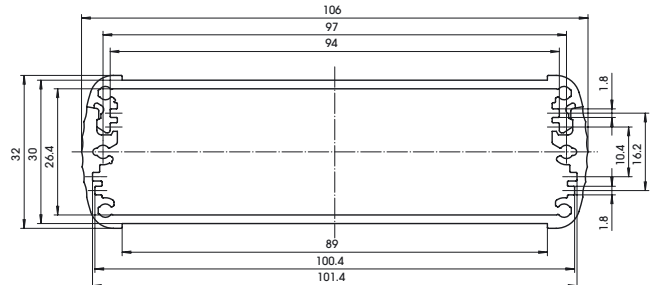
ABPH 1000   AB 1000

Z-2802040

ABD 1000

profile length

ABM 1000...

profile length
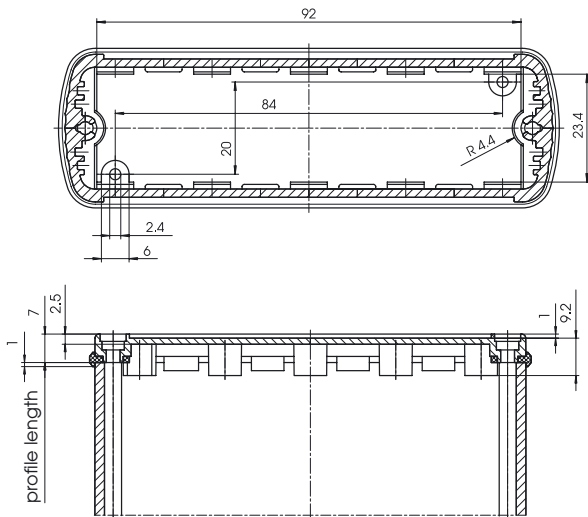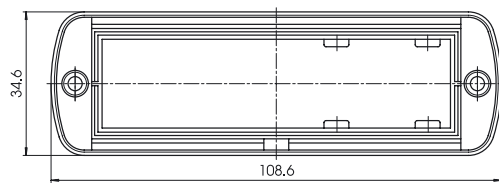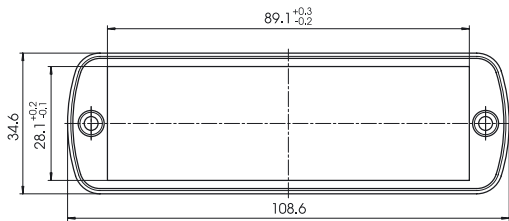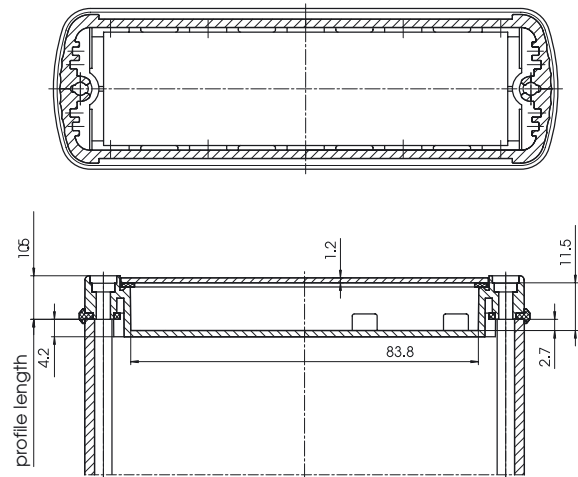
view without profile cap (AL)
or profile flap (SAL)

ABM 1000 IR
ABM 1000 AL

...AL
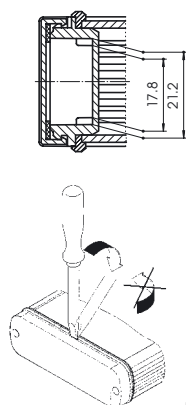
ABM 1000 SAL
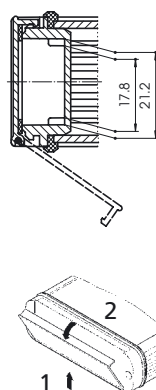
...SAL

ABM 1000 . . BE
(for further dimensions
see ABM 1000..)

Z-2801327

ALUBOS 1040

The robust aluminium enclosure is available with a width of 108 mm and a height of 42 mm, and with an additional type of ABPU profile (open on one side). This profile offers the following advantages:
- Front panels in a very wide range of materials can be used.
- Pre-assembled PCBs with a front membrane can be fitted directly as an operating front.

The profile with IP 40 ingress protection has additional slots to accept more PCBs or mounting plates.
Depending on your requirements, you can choose from different end lids.
For wall brackets for ALUBOS 1040, see page 556. For illustrations of the system parts, see page 535.

Lid and seal variants

Front panels for ABPU *(not illustrated)*
The front panels for the ABPU profile are manufactured as standard from anodised aluminium.
Front panels made of red-translucent or clear transparent plastic can be manufactured on request for the production of running light displays. In addition, pre-assembled PCBs with a front membrane can also be fitted directly as an operating front.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 1040-1000	84040000	1000	108	42	IP 65
ABP 1040-0100	84040100	100	108	42	IP 65
ABP 1040-0150	84040150	150	108	42	IP 65
ABP 1040-0200	84040200	200	108	42	IP 65
ABPH 1040-1000	84046000	1000	108	42	IP 65
ABPH 1040-0100	84046100	100	108	42	IP 65
ABPH 1040-0150	84046150	150	108	42	IP 65
ABPH 1040-0200	84046200	200	108	42	IP 65
ABPU 1040-1000	84047000	1000	108	42	IP 40
ABPU 1040-0100	84047100	100	108	42	IP 40
ABPU 1040-0150	84047150	150	108	42	IP 40
ABPU 1040-0200	84047200	200	108	42	IP 40

Special lengths on request   **Scope of delivery:** enclosure profile.
Please order front panels for ABPU separately.

Lids

Order designation

Model	Order no.	Scope of delivery*
ABM 1040 AL	84042000	Mounting lid, aluminium profile cap
ABM 1040 SAL	84044000	Mounting lid, aluminium hinged flap
ABD 1040	84041000	End lid
		* all include black seals, screws, screw covers

Seals

### Order designation

Model	Order no.	Description
DI 1040-EMV	84200415	● EMC seal, black, PU = 10 pcs
DI 1040-5002	84200414	● Seal, ultramarine, PU = 10 pcs
DI 1040-3000	84200411	● Seal, flame red, PU = 10 pcs
DI 1040-1021	84200412	● Seal, rape yellow, PU = 10 pcs
DI 1040-6000	84200413	● Seal, patina green, PU = 10 pcs

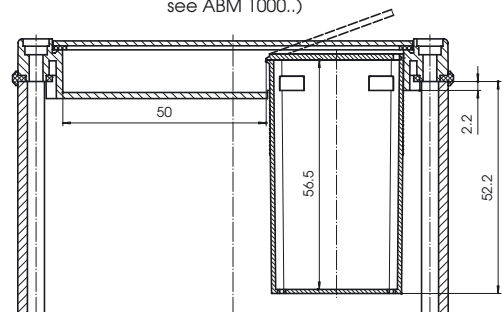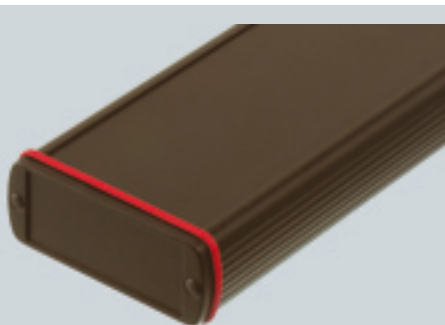## Front panels for ABPU

Order designation

Model	Order no.	L = profile length	W	Th.
ABPU 1040-1000 FP2	84048000	1000	95.5	2
ABPU 1040-0100 FP2	84048100	100	95.5	2
ABPU 1040-0150 FP2	84048150	150	95.5	2
ABPU 1040-0200 FP2	84048200	200	95.5	2

Example of ABPU application

PCB with front membrane

ALUBOS profile ABPU ...
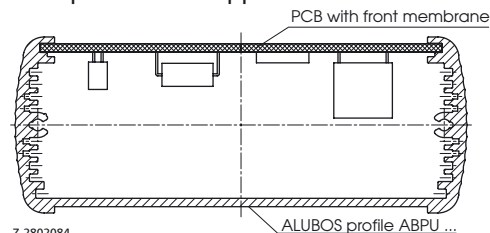
Z-2802084

ABP 1040
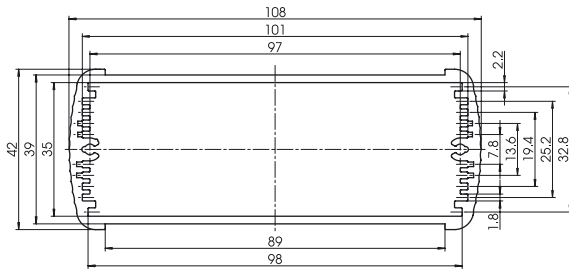
Z-2802039

ABPH 1040   **AB 1040**
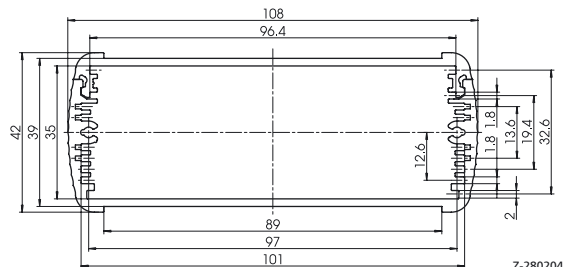
Z-2802040

ABPU 1040
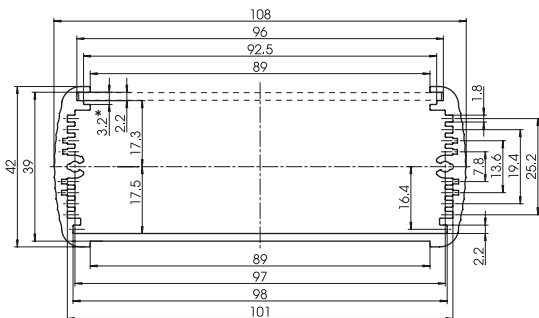
Z-2802041

* Note: when using a 3 mm front panel, this contact area must be milled down to 2 mm.

ABD 1040

shown profile:
ABP 1040

ø 2.6/ø 2.4   7 deep
ø 6/ø 7

profile length

ABM 1040

profile length
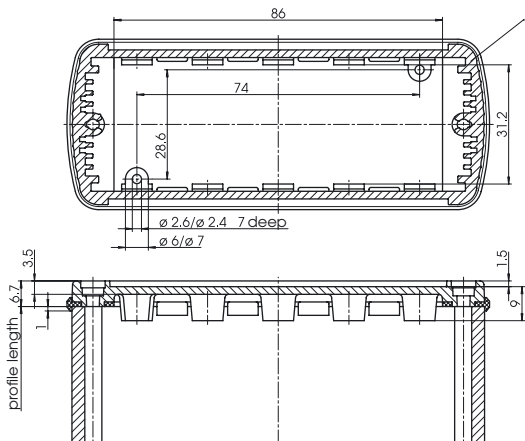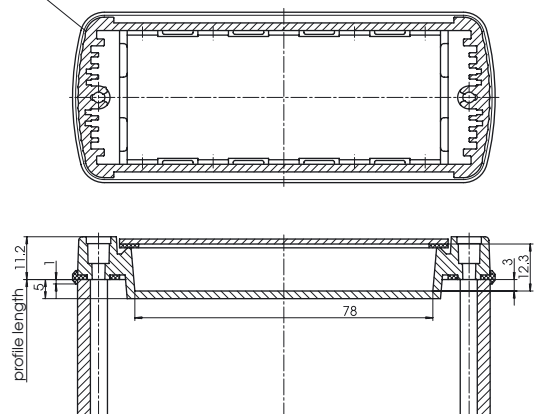
view without profile cap (AL)
or profile flap (SAL)
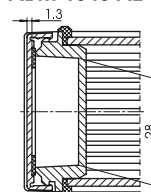
ABM 1040 AL   **ABM 1040 SAL**

...AL   ...SAL   Z-2802044

ALUBOS 1300
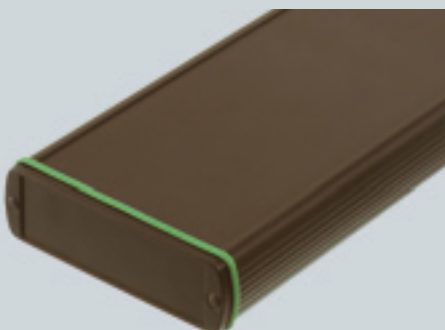
The robust aluminium enclosure is available with a width of 138 mm and a height of 34 mm, and with an additional type of ABPU profile (open on one side). This profile offers the following advantages:
- Front panels in a very wide range of materials can be used.
- Pre-assembled PCBs with a front membrane can be fitted directly as an operating front.

The profile with IP 40 ingress protection has additional slots to accept more PCBs or mounting plates.

Depending on your requirements, you can choose from different end lids.

For wall brackets for ALUBOS 1300, see page 556. For illustrations of the system parts, see page 535.
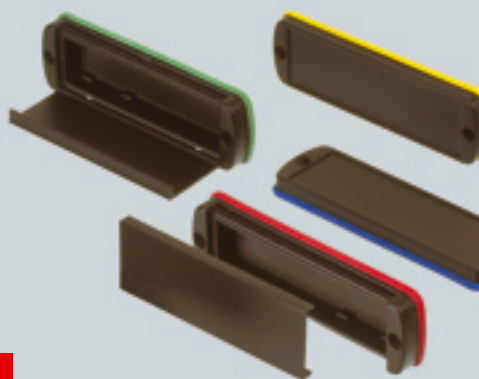
Lid and seal variants

Front panels for ABPU *(not illustrated)*
The front panels for the ABPU profile are manufactured as standard from anodised aluminium.

Front panels made of red-translucent or clear transparent plastic can be manufactured on request for the production of running light displays. In addition, pre-assembled PCBs with a front membrane can also be fitted directly as an operating front.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 1300-1000	84130000	1000	138	34	IP 65
ABP 1300-0100	84130100	100	138	34	IP 65
ABP 1300-0150	84130150	150	138	34	IP 65
ABP 1300-0200	84130200	200	138	34	IP 65
ABPH 1300-1000	84136000	1000	138	34	IP 65
ABPH 1300-0100	84136100	100	138	34	IP 65
ABPH 1300-0150	84136150	150	138	34	IP 65
ABPH 1300-0200	84136200	200	138	34	IP 65
ABPU 1300-1000	84137000	1000	138	34	IP 40
ABPU 1300-0100	84137100	100	138	34	IP 40
ABPU 1300-0150	84137150	150	138	34	IP 40
ABPU 1300-0200	84137200	200	138	34	IP 40

Special lengths on request **Scope of delivery:** enclosure profile.
Please order front panels for ABPU separately.

Lids

Order designation

Model	Order no.	Scope of delivery*
ABM 1300 AL	84132000	Mounting lid, aluminium profile cap
ABM 1300 SAL	84134000	Mounting lid, aluminium hinged flap
ABD 1300	84131000	End lid
		* all include black seals, screws, screw covers

Seals

Order designation

| Model	Order no.	Description
DI 1300-EMV	84201315	● EMC seal, black, PU = 10 pcs
DI 1300-5002	84201314	● Seal, ultramarine, PU = 10 pcs
DI 1300-3000	84201311	● Seal, flame red, PU = 10 pcs
DI 1300-1021	84201312	● Seal, rape yellow, PU = 10 pcs
DI 1300-6000	84201313	● Seal, patina green, PU = 10 pcs

Front panels for ABPU

Order designation

Model	Order no.	L = profile length	W	Th.
ABPU 1300-1000 FP2	84138000	1000	125.5	2
ABPU 1300-0100 FP2	84138100	100	125.5	2
ABPU 1300-0150 FP2	84138150	150	125.5	2
ABPU 1300-0200 FP2	84138200	200	125.5	2

Example of ABPU application

PCB with front membrane

Z-2802084

ALUBOS profile ABPU ...
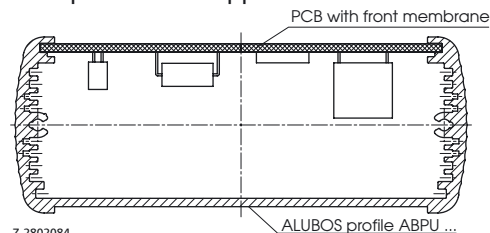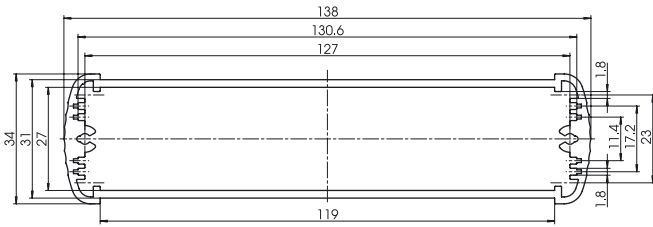
ABP 1300

Z-2802039

ABPH 1300   AB 1300
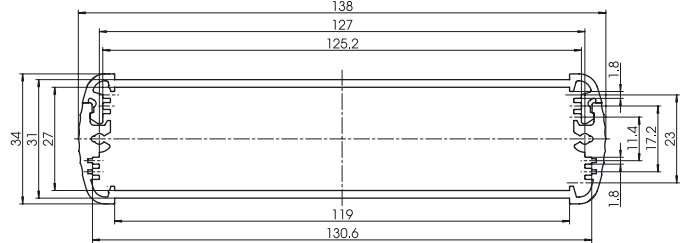
Z-2802040

ABPU 1300
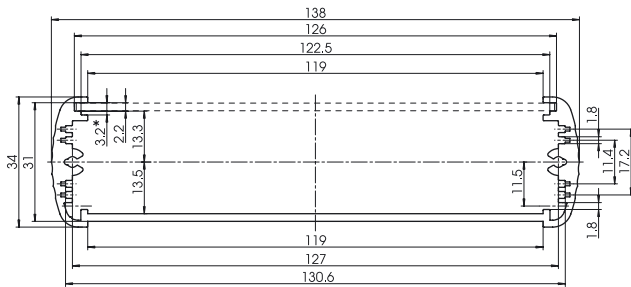
* Note: when using a 3 mm front panel,
this contact area must be milled
down to 2 mm.

Z-2802041

ABD 1300

shown profile:
ABP 1300

ø 2.6/ø 2.4 7 deep
ø 6/ø 7

profile length

140.6
117.1 +0.4 −0.2
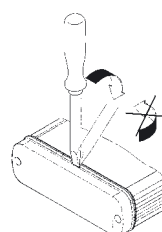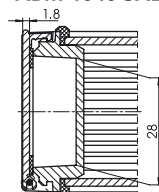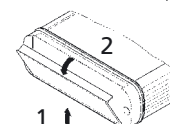
36.6
30.1 +0.2 −0.1

ABM 1300

profile length

108.5

140.6

36.6
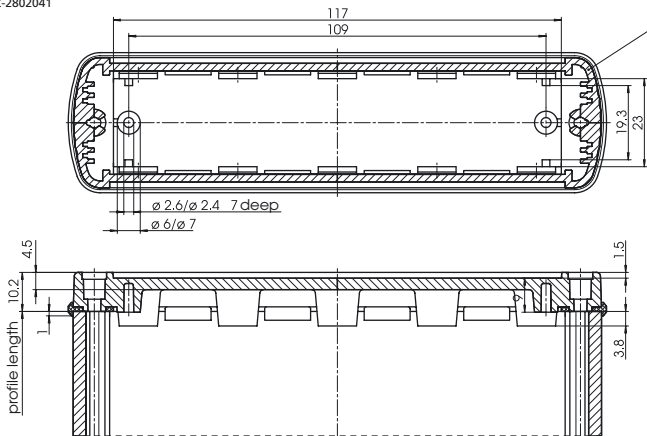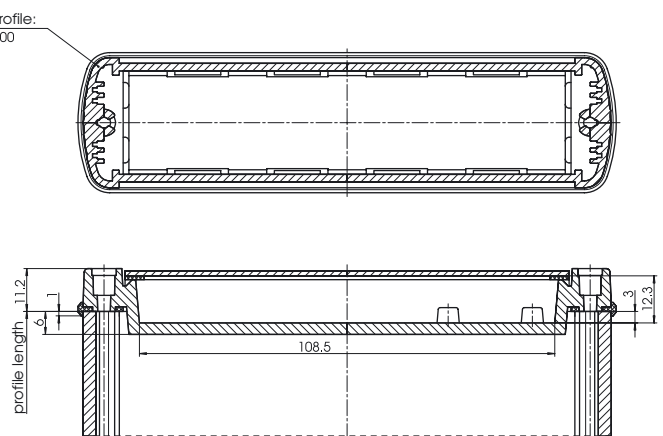
view without profile cap (AL)
or profile flap (SAL)

ABM 1300 AL

1.3
18.8
20.8

... AL

ABM 1300 SAL

1.8
18.8
20.8
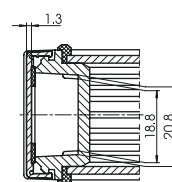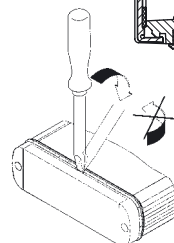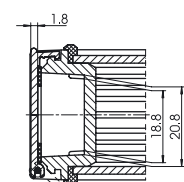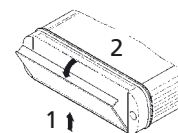
2
1
... SAL   Z-2802043

ALUBOS 1600
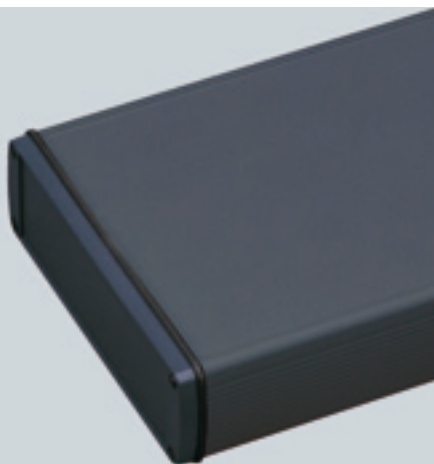
The sturdy aluminium enclosure, 169 mm wide and 52 mm high.
The powder-coated extruded profiles are equipped for the insertion of PCBs with grooves.
The ABD 1600 is available as an end lid.
For wall brackets for ALUBOS 1600, please see page 556.
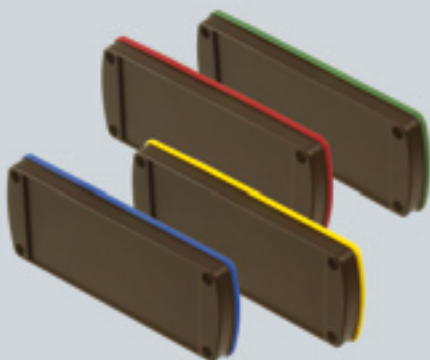
Lid and seal variants

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 1600-1000	84160001	1000	169	52	IP 65
ABP 1600-0100	84160100	100	169	52	IP 65
ABP 1600-0150	84160150	150	169	52	IP 65
ABP 1600-0200	84160200	200	169	52	IP 65

Special lengths on request   **Scope of delivery:** enclosure profile

Lid

Order designation

Model	Order no.	Scope of delivery
ABD 1600	84161000	End lid, black seals, screws, screw covers

Seals

Order designation

| Model	Order no.	Description
DI 1600-EMV	84201615	● EMC seal, black, PU = 10 pcs
DI 1600-5002	84201614	● Seal, ultramarine, PU = 10 pcs
DI 1600-3000	84201616	● Seal, flame red, PU = 10 pcs
DI 1600-1021	84201612	● Seal, rape yellow, PU = 10 pcs
DI 1600-6000	84201613	● Seal, patina green, PU = 10 pcs

BOPLA
A Phoenix Mecano Company

ABD 1600

136
ø 6
ø 2.5
10
42.9
ø 3.2
ø 7
145.6

10.5
5
1.5
profile length
1
9

171.6
142.4 +0.5 -0.3
54.6
47.8 +0.2 -0.1

ABP 1600   AB 1600

161
151
148
16.8
10
30.4
23.6
1.8
5.4 x 1.7
45.8
50
52
153
169
5.3
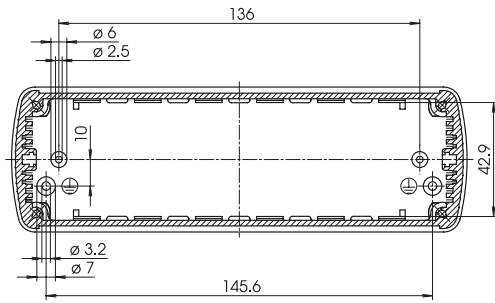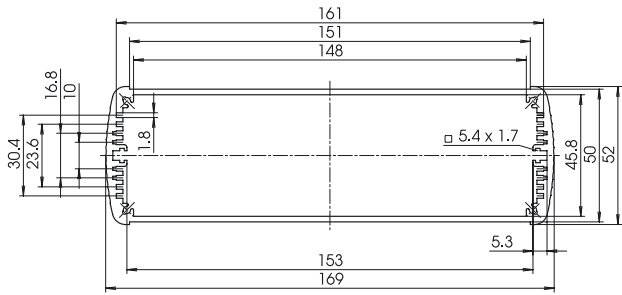
ALUBOS 1680

The robust aluminium enclosure is available with a width of 169 mm and a height of 82 mm, and with an additional type of ABPU profile (open on one side). This profile offers the following advantages:
- Front panels in a very wide range of materials can be used.
- Pre-assembled PCBs with a front membrane can be fitted directly as an operating front.

The profile with IP 40 ingress protection has additional slots to accept more PCBs or mounting plates.

The ABD 1680 can be used as an end lid. For wall brackets for ALUBOS 1680, see page 556. For illustrations of the system parts, see page 535.
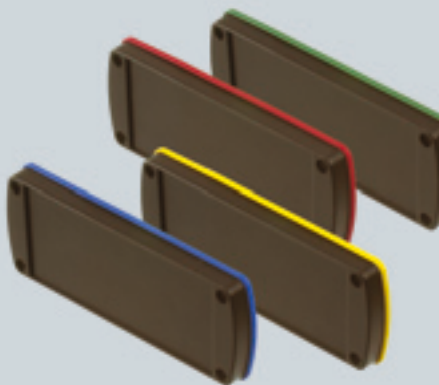
Lid and seal variants
Front panels for ABPU *(not illustrated)*
The front panels for the ABPU profile are manufactured as standard from anodised aluminium.
Front panels made of red-translucent or clear transparent plastic can be manufactured on request for the production of running light displays. In addition, pre-assembled PCBs with a front membrane can also be fitted directly as an operating front.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 1680-1000	84680000	1000	169	82	IP 65
ABP 1680-0100	84680100	100	169	82	IP 65
ABP 1680-0150	84680150	150	169	82	IP 65
ABP 1680-0200	84680200	200	169	82	IP 65
ABPH 1680-1000	84686000	1000	169	82	IP 65
ABPH 1680-0100	84686100	100	169	82	IP 65
ABPH 1680-0150	84686150	150	169	82	IP 65
ABPH 1680-0200	84686200	200	169	82	IP 65
ABPU 1680-1000	84687000	1000	169	82	IP 40
ABPU 1680-0100	84687100	100	169	82	IP 40
ABPU 1680-0150	84687150	150	169	82	IP 40
ABPU 1680-0200	84687200	200	169	82	IP 40

Special lengths on request **Scope of delivery:** enclosure profile.
Please order front panels for ABPU separately.

Lid

Order designation

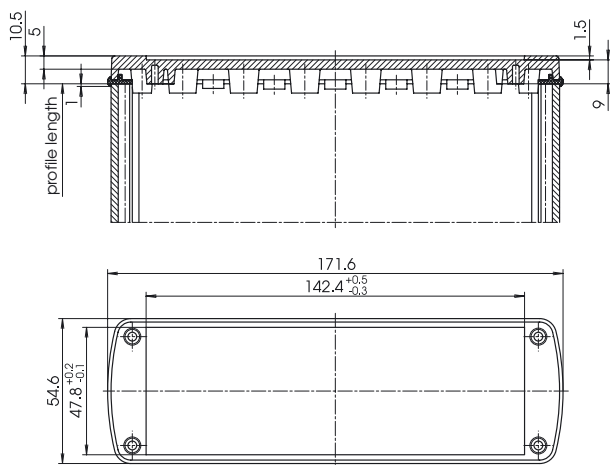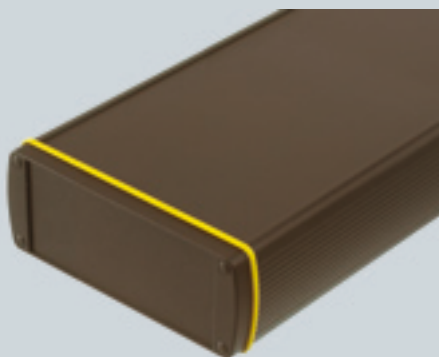| Model	Order no.	Scope of delivery
ABD 1680	84168100	End lid, black seals, screws, screw covers

Seals

Order designation

Model	Order no.	Description
DI 1680-EMV	84206815	● EMC seal, black, PU = 10 pcs
DI 1680-5002	84206814	● Seal, ultramarine, PU = 10 pcs
DI 1680-3000	84206811	● Seal, flame red, PU = 10 pcs
DI 1680-1021	84206812	● Seal, rape yellow, PU = 10 pcs
DI 1680-6000	84206813	● Seal, patina green, PU = 10 pcs

Front panels for ABPU

Order designation

Model	Order no.	L = profile length	W	Th.
ABPU 1680-1000 FP3	84689000	1000	152.0	3
ABPU 1680-0100 FP3	84689100	100	152.0	3
ABPU 1680-0150 FP3	84689150	150	152.0	3
ABPU 1680-0200 FP3	84689200	200	152.0	3

Example of ABPU application

PCB with front membrane

ALUBOS profile ABPU ...

Z-2802084

ABP 1680

169
161
151.6
146
1.8
1.8
□ 5.3 x 2.2
82
79
73
66.8
41.6
10.2
17
23.8
30.6
52.6
59.4
150
3.4
149

Z-2802039

ABPH 1680   AB 1680

169
161
151.6
146
1.8
1.8
□ 5.3 x 2.2
82
79
73
66.8
41.6
10.2
17
23.8
30.6
52.6
59.4
150
3.4
for M3 screw
2
5.9
6.9
127.6
134.6
2.2   149

Z-2802040

ABPU 1680

169
161
156
152.5
149
146
1.8
3.2
2.2*
36.3
1.8
□ 5.3 x 2.2
82
79
66.8
41.6
10.2
17
23.8
30.6
52.6
59.4
150
3.4
36.5
146
149
151.6
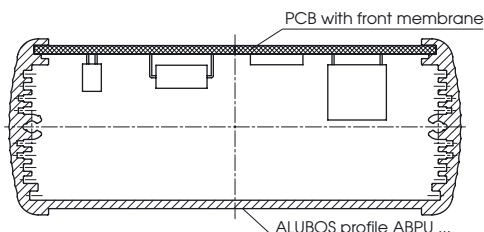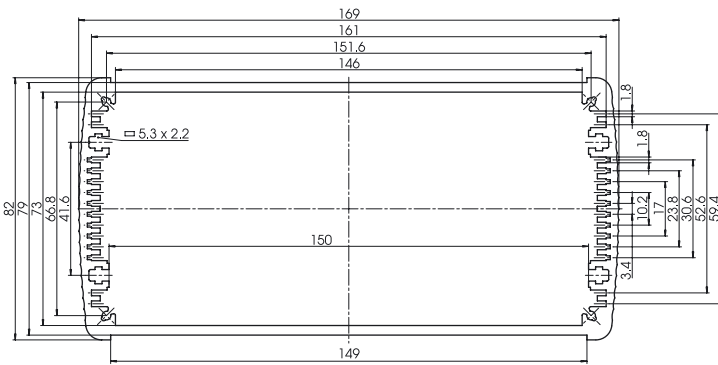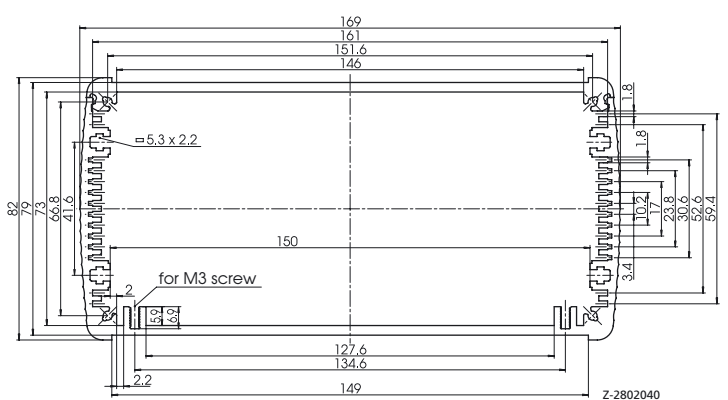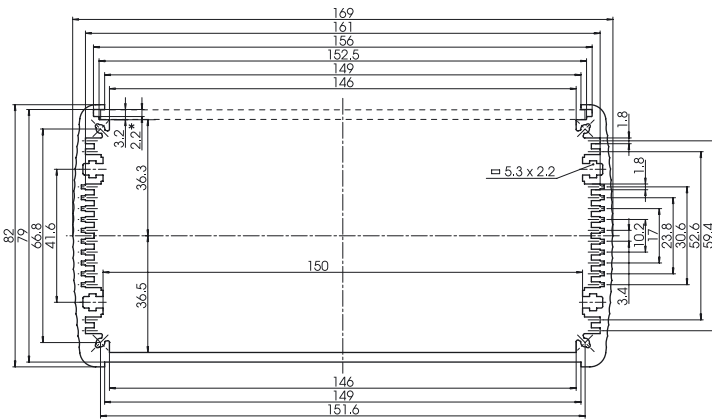
Z-2802041

* Note: when using a 2 mm front panel,
there is no contact to the lid.
The panel or PCB will therefore
not be supported so that the
panel or PCB could bend.

ABD 1680

150
140
125
41.6
68
ø 3.4/ø 3.1 10 deep
ø 7/ø 8.5
ø 2.5/ø 2.4 6.5 deep
ø 6/ø 7

profile length 10.2
5
1
9
1.5
3.8

171.6
140.2 +0.5 -0.3
84.6 +0.3 -0.2
76.1 +0.3 -0.2
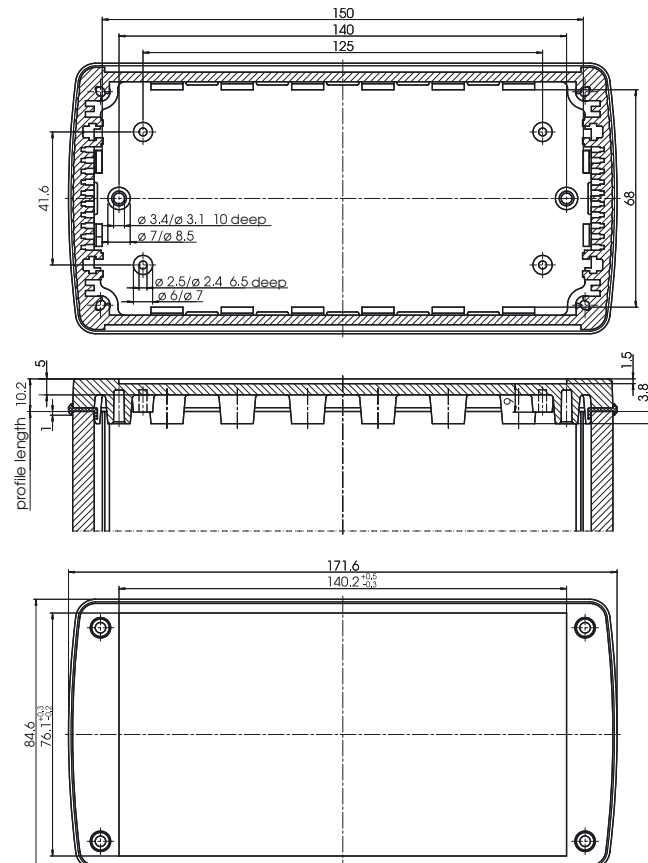
Z-2802045
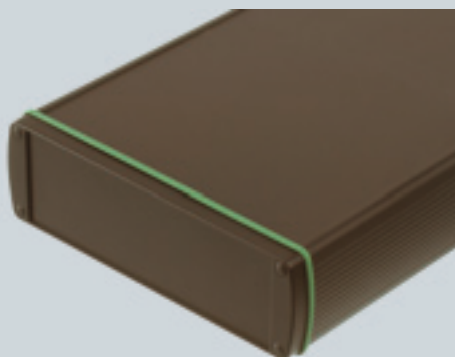
ALUBOS 2070

The robust aluminium enclosure is now also available with a width of 210 mm and a height of 74 mm.
For wall brackets for ALUBOS 2070, please see page 556. The ABD 2070 can be used as an end lid.

Profiles

Order designation

Model	Order no.	L	W	H	Protection
ABP 2070-1000	84207000	1000	210	74	IP 65
ABP 2070-0100	84207100	100	210	74	IP 65
ABP 2070-0150	84207150	150	210	74	IP 65
ABP 2070-0200	84207200	200	210	74	IP 65

Special lengths on request   **Scope of delivery:** enclosure profile

Lid

Order designation

Model	Order no.	Scope of delivery
ABD 2070	84271000	End lid, black seals, screws, screw covers

Seals

Order designation

Model	Order no.	Description
DI 2070-EMV	84202715	● EMC seal, black, PU = 10 pcs
DI 2070-5002	84202714	● Seal, ultramarine, PU = 10 pcs
DI 2070-3000	84202711	● Seal, flame red, PU = 10 pcs
DI 2070-1021	84202712	● Seal, rape yellow, PU = 10 pcs
DI 2070-6000	84202713	● Seal, patina green, PU = 10 pcs
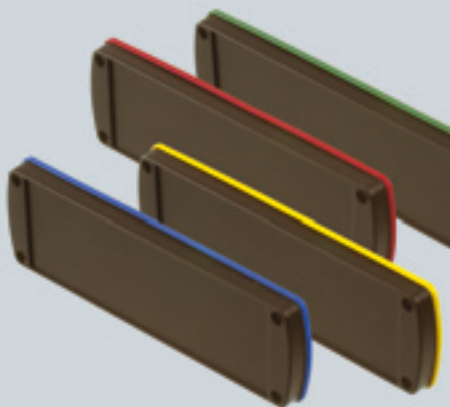
Lid and seal variants

ABP 2070
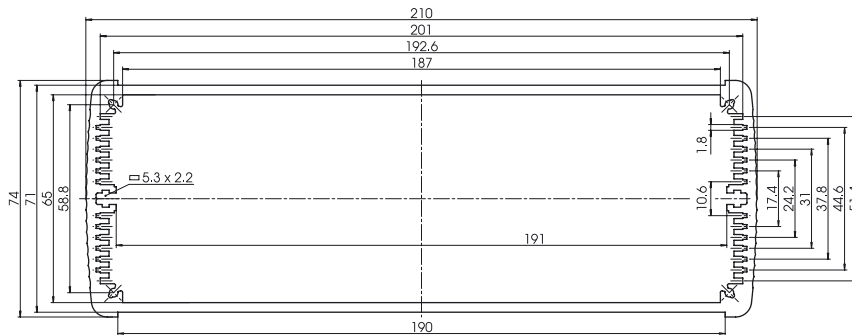
Z-2802039

ABD 2070
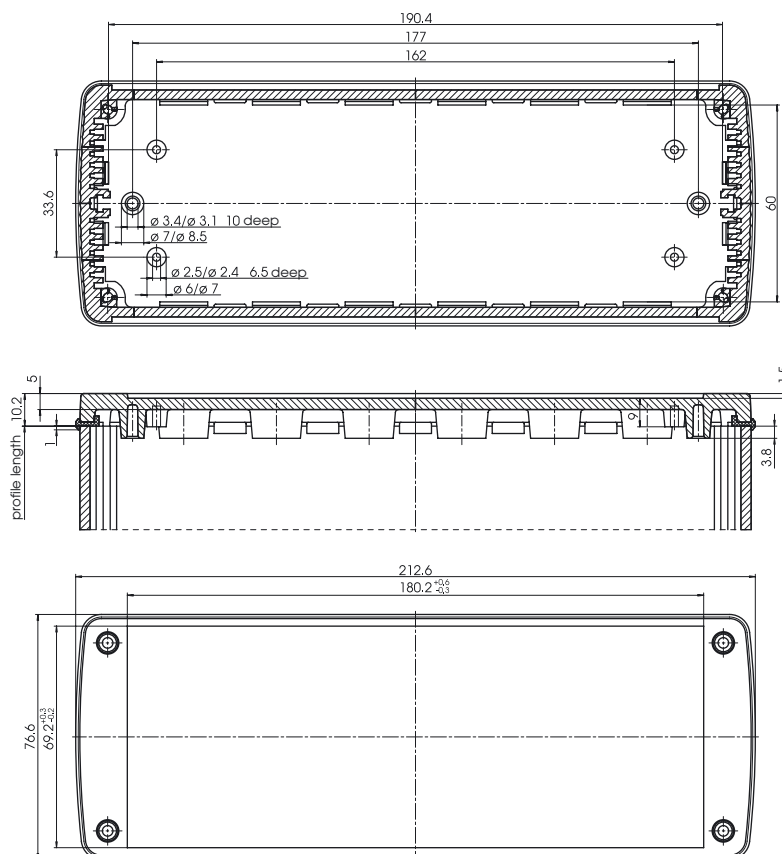
Z-2802057

ALUBOS accessories

For fitting your ALUBOS enclosure to a wall or other objects.
Depending on your requirements, the enclosures can be tilted at angles between 0° - 90° (80° with AB 1040).

For fitting your ALUBOS enclosure to a wall or other objects.
You can create different types of fittings by using the wall brackets.

ALUBOS adjustable wall brackets

Order designation

Model	Order no.
AB-600 WLV	84065000
AB-800 WLV	84085000 [1]
AB-1000 WLV	84105000 [2]

Scope of delivery:
2 lid wall brackets
2 base wall brackets
2 metric screws
2 serrated lock washers
4 sealing rings
4 screws, 18 mm long, for ABD lid
4 screws, 22 mm long, for ABM lid

[1] also for use with AB 820
[2] also for use with AB 1040, swivel angle 80°

AB 1000 AB 800 AB 600

90°

54.8
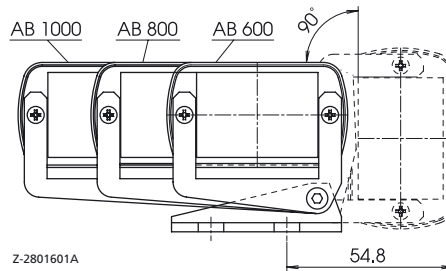
Z-2801601A

with ABD lid, length of screw 18 mm
with ABM lid, length of screw 22 mm

sealing ring

14

serrated lock washer

22.5
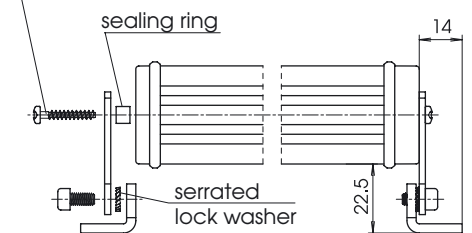
Wall brackets

Order designation

| Model	Order no.	For use with
AB-WL	84005000	ALUBOS 600/800/1000/1300
AB-WL 1	84006001	ALUBOS 820
AB-WL 2	84007000	ALUBOS 1040
AB-WL 3	84008000	ALUBOS 1600/1680/2070

Scope of delivery:
wall brackets,
sealing rings,
screws

15
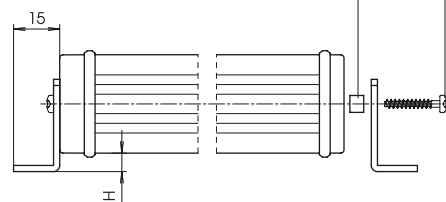
Lid	Sealing ring length	Screw length
ABD 600	4.5	18
ABD 800	4.5	18
ABD 820	4.5	18
ABD 1000	4.5	18
ABD 1040	4.5	18
ABD 1300	7.5	22
ABD 1600	7.5	22
ABD 1680	7.5	22
ABD 2070	7.5	22
ABM 600	4.5	22
ABM 800	4.5	22
ABM 1000	4.5	22
ABM 1040	7.5	22
ABM 1300	7.5	22

Z-2801602

Dimensions for wall bracket fitting

externally visible   **internally concealed**
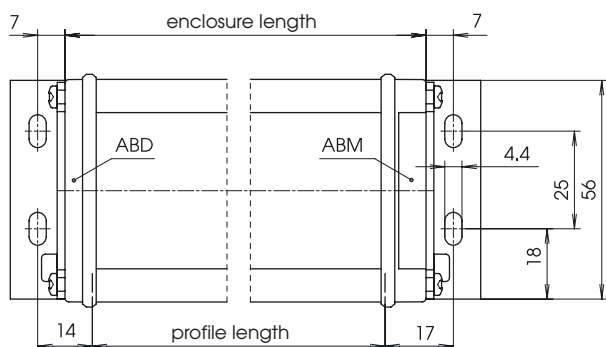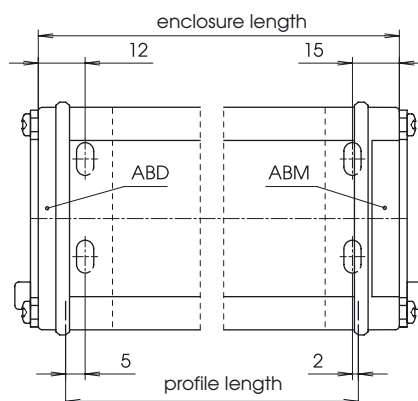
Z-2801601

Lid	L	l	X	H
ABD 600	55	25	16	6.0
ABD 800	55	50	16	6.0
ABD 820	80	50	16	6.0
ABD 1000	80	74	16	6.0
ABD 1040	104	75	16	6.0
ABD 1300	135	105	19	5.0
ABD 1600	163	127	19	8.1
ABD 1680	162	122	19	6.0
ABD 2070	203	163	19	6.0
ABM 600	55	25	19	6.0
ABM 800	80	50	19	6.0
ABM 1000	104	74	19	6.0
ABM 1040	105	75	20	6.0
ABM 1300	135	105	20	5.0
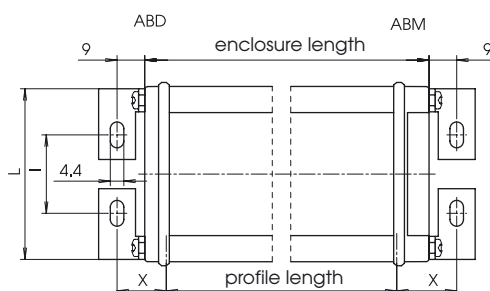
Lid	L	l	X	H
ABD 600	87	70	0	6.0
ABD 800	112	95	0	6.0
ABD 820	112	95	0	6.0
ABD 1000	136	119	0	6.0
ABD 1040	135	119	0	6.0
ABD 1300	166	149	3	5.0
ABD 1600	199	183	3	8.1
ABD 1680	198	182	3	6.0
ABD 2070	239	223	3	6.0
ABM 600	87	70	3	6.0
ABM 800	112	95	3	6.0
ABM 1000	136	119	3	6.0
ABM 1040	135	119	4	6.0
ABM 1300	166	149	4	5.0

Z-2801602

ALUBOS accessories

ALUBOS mounting clamp

Order designation

Model	Order no.	For use with
AB 600 MKL	84006600	ALUBOS 600
AB 800 MKL	84006400	ALUBOS 800
AB 1000 MKL	84006500	ALUBOS 1000
AB-MKL	84006300	ALUBOS 600/800/1000

Scope of delivery:
1 mounting clamp

Material:
Spring steel, stainless, uncoated.

Note:
We recommend using two clamps for profile lengths of 150 mm and over. Mounting clamps AB 800 MKL, AB 1000 MKL and AB-MKL also permit direct wall fitting in addition to fitting on the DIN rail (see illustration).
On request, the mounting clamps can also be supplied coated.

The ALUBOS mounting clamps AB...MKL permit the fitting of ALUBOS enclosures AB 600, 800 and 1000 on a TS 35 DIN rail. Mounting clamp AB-MKL is used for **vertical** fitting on the DIN rail.

Handles

Order designation

Model	Order no.	For use with
AB 1600 HS	84162000	ALUBOS 1600/1680
AB 2000 HS	84200000	ALUBOS 2070

HS 2

Handle AB 1600 HS / AB 2000 HS
Handles AB 1600 HS and AB 2000 HS can be fitted on the side to the profiles. Because the handle swivels, in addition to its carrying function it can also be used to hold the enclosure at an angle (fixed locking position every 30°).

Note:
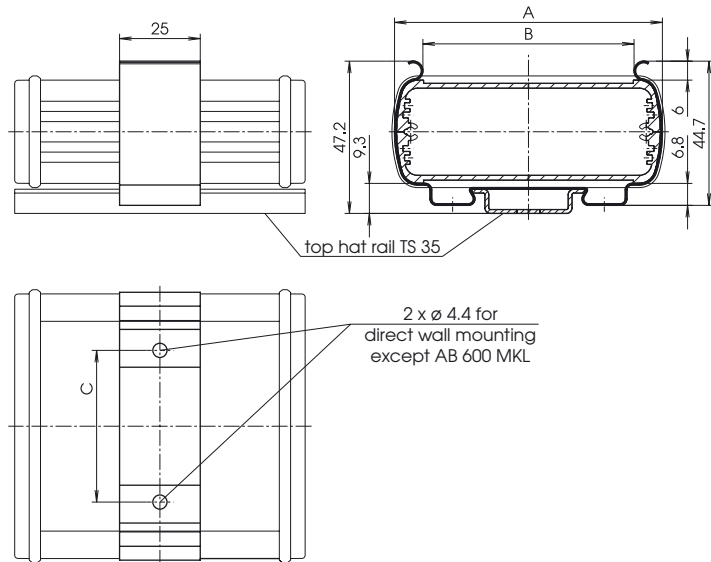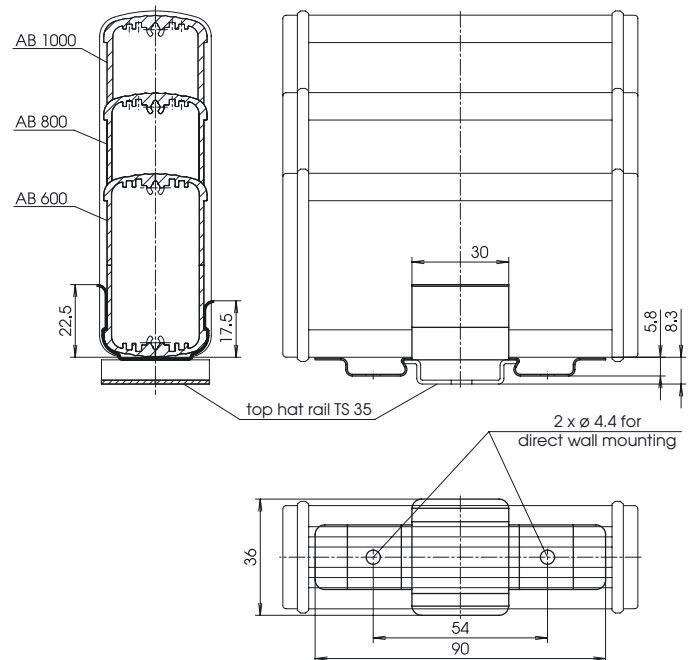An additional handle is available on request: handle (HS 2) for fitting to lids.
Handle HS 2 consists of two side parts (colour: black, similar to RAL 9005) and one profile (colour: anodised aluminium or black anodised aluminium).

The swivelling handle HS 2 (fixed locking position every 15°) can be used for carrying purposes or as an set-up handle for desktop use (see Accessories page 636).

AB .... MKL

25

A
B

47.2
9.3
6.8
6
44.7

top hat rail TS 35

C

2 x ø 4.4 for
direct wall mounting
except AB 600 MKL

AB 1000

AB 800

AB 600

22.5
17.5

30

5.8
8.3

top hat rail TS 35

2 x ø 4.4 for
direct wall mounting

36

54
90

Model	For enclosure	A	B	C
AB 600 MKL	AB 600	58	40.4	–
AB 800 MKL	AB 800	83	65.4	47
AB 1000 MKL	AB 1000	107	89.4	57

Z-2802192

Z-2802193

AB .... HS

Model	L
AB 1600	175.7
AB 1680	175.4
AB 2070	216.4

ø 19.4
ø 3.7
Fmax=300N
25.1
90°
12
R 18
ø 5
(□13.72)
157

22.5
60
enclosure profile length
handle profile length =
enclosure profile length + 25 mm

mounted
on lid

special version
on request

50

L (profile width + 6.4 mm)

mounted on profile
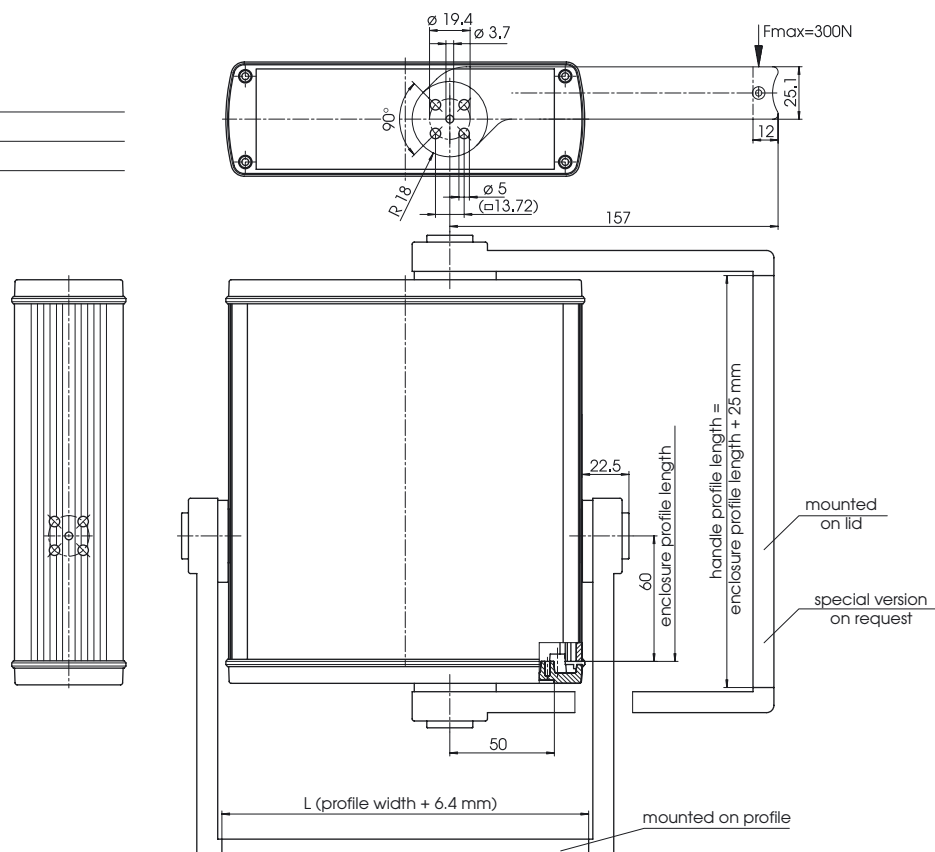
Z-2801898

ALUBOS accessories

By using the ALUBOS adapter you can combine operating and display screens in two ALUBOS enclosures.
The linked enclosures (45° angle) offer a wide range of uses as hand-held, desktop or wall enclosures.
You can benefit from the advantages of ALUBOS, such as sturdiness, EMC protection, easy assembly and easy fitting of membrane keypads.

ABA 800-1000
For an even wider range of applications, BOPLA offers the ALUBOS adapter.
The ABA 800-1000 adapts an 800 profile to an 1000 profile.
Different lengths can be selected, creating a universal, ergonomic and unmistakable hand-held enclosure with your special design. Various lids and seals in the 800 and 1000 series are available to close the profiles.

The rubber feet have an adhesive layer, so they can be fitted anywhere on the membrane area on the ALUBOS profile. When fitted in the corners of the membrane area, the rubber feet can also be used for centring when stacking ALUBOS enclosures. Additional processing of the enclosure is not necessary.

ALUBOS adapter parallel

Order designation

Model	Order no.	Design	For use with
AB-AP 60	84006000	60 mm length	AB 600 / 800 / 1000
AB-AP 100	84010000	100 mm length	AB 600 / 800 / 1000
AB-AP 150	84015000	150 mm length	AB 600 / 800 / 1000

Ingress protection: IP 40

Scope of delivery:
1 adapter profile
1 sheet metal hood cover
incl. fixing screws

Model	A	B	L min.
AB-AP 60	27	41	60
AB-AP 100	67	81	100
AB-AP 150	117	131	150

The enclosure length can be chosen as required, but should correspond to at least length L.

Z-2801620

Profile processing

Profile 2 (desk component) ABP or ABPH

Profile 1 (horizontal position) ABP or ABPH
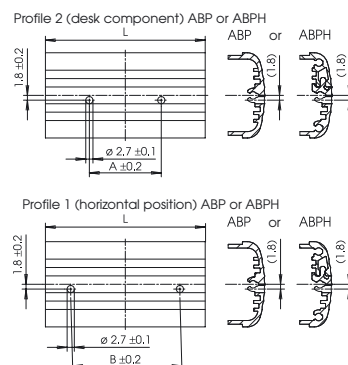
ALUBOS adapter axial

Order designation

Model	Order no.	Description
ABA 800-1000	84002000	ALUBOS axial adapter adapts an ABP 800 to an ABP 1000

Scope of delivery:
1 axial adapter
1 seal for ABP 1000 (black)
1 seal for ABP 800 (black)
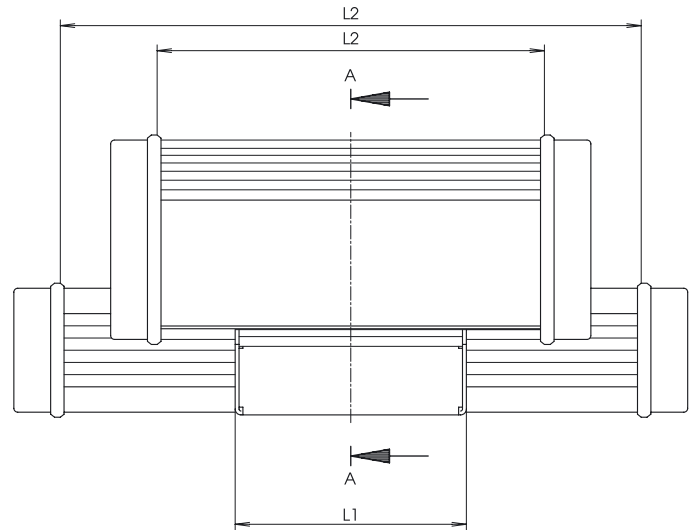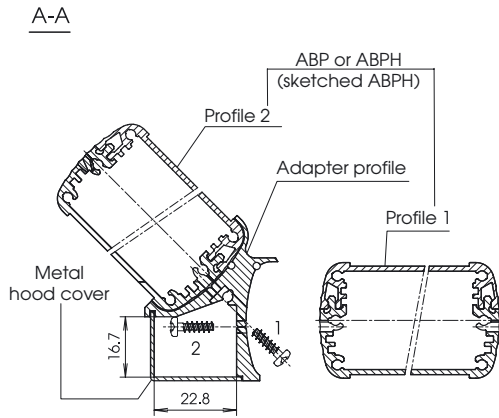4 fixing screws
2 screw covers

ALUBOS rubber feet

Order designation

Model	Order no.
AB-GF	84006700

Scope of delivery:
4 rubber feet

A-A

ABP or ABPH
(sketched ABPH)

Profile 2

Adapter profile

Profile 1

Metal
hood cover

16.7

2

1

22.8

ALUBOS adapter parallel

L2

L2

A

A

L1

Z-2801620A

Model	L1	L2 min.
AB-AP 60	60	60
AB-AP 100	100	100
AB-AP 150	150	150

ALUBOS adapter axial

64.6

23.4

17

A

A

A - A

10.4

20

84
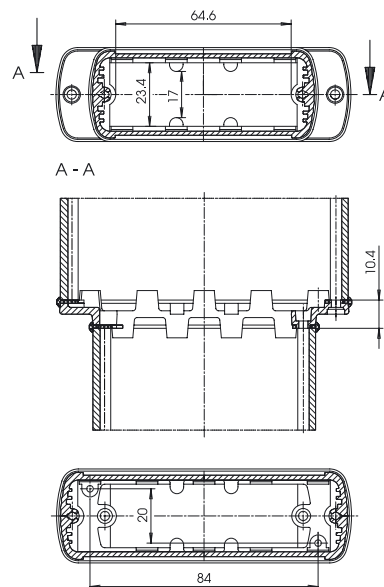
Z-2801621

ALUBOS rubber feet

$\varnothing 7$

$\varnothing 12.7$

5.8

1 set = 4 pieces

Z-2501779