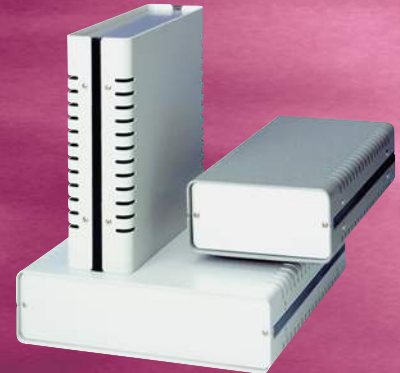


Small cases





Small cases



page 178

- all standard size cards (100, 120, 160, 190 to 233,35 mm) can be installed in one case
- favourable EMC characteristics
- protection system: IP 66



page 181

- for card width 100 mm
- compact dimensions
- sturdy design
- favourable EMC characteristics
- protection system: IP 66

PROFI CASE

page 183

- extremely functional yet simple form
- for eurocards and other electronic components
- various dimensions available
- protection system: IP 30/20



profi set cool

page 189

- sturdy construction
- individual design
- large range of accessories
- many extension possibilities

Desk console 502

page 190

- simple aluminium case
- individual adaptations available
- protection system: IP 30

Plastic standard case D/DB/N2U

page 191

- snap mechanism for assembly; no screws required
- constructed out of impact-resistant polystyrene
- protection system: IP 54 (DB series)



click-case

page 187

- quick and easy mounting without tools
- optimised EMC features
- closed or with ventilation slots
- individual design at front and rear plate
- special sizes possible

Profile case

page 188

- simple profile construction
- can take Eurocards up to 220 mm
- protection system IP 40



Wall enclosure Flex 310

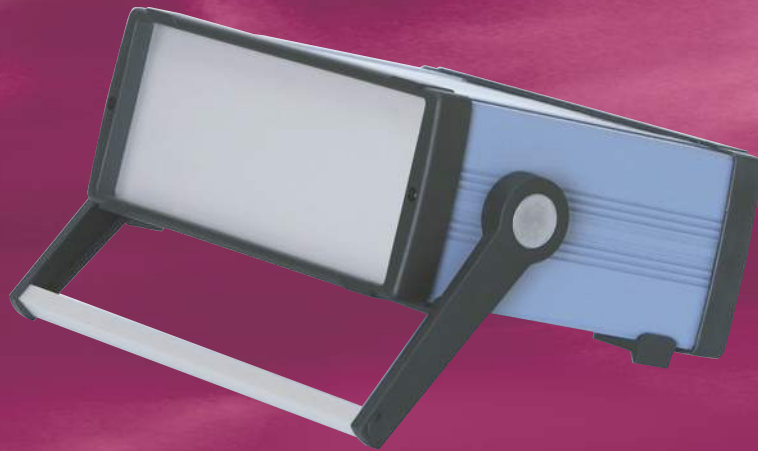
page 194

- universal wall mounting enclosure
- flexible and compact
- high rigidity
- suitable for industrial application
- other sizes and customisation on request



Functionality "to the X degree"

The X-dream small case offers maximum functionality. The solid aluminium extrusion case body forms the extremely stable basis of the case.



Sample configuration



This patented construction offers extra space uncommon to most small cases.

Integrated dovetail guides allow the adapter rails to be moved into different positions, which allows standard-format cards or different size electronics to be installed.

When used with seals and front panels (see accessories), the stylish frame provides maximum protection against exterior influences (up to IP 66 degree of protection). Base feet or customised mounting equipment can be fit into the practical mounting grooves on the underside of the case.

The X-dream small case series can also be fit or retrofitted with a prop-up and carrying handle.

Small case *Xdream*

- high protection system: IP 66
- all standard-size cards (100, 120, 160, 190 to 233.35mm) can be installed in one case
- adapter rails allow you to customise your installation
- sturdy design
- adjustable depths
- stackable
- integrated mounting grooves
- functional accessories
- prop-up and carrying handle optional
- favourable EMC characteristics



Application:

basic case for electronics and other standard-sized cards

Construction:

solid aluminium extrusion enclosed by a plastic frame on the front and rear

Finish:

RAL 7035 light grey
Frame: black

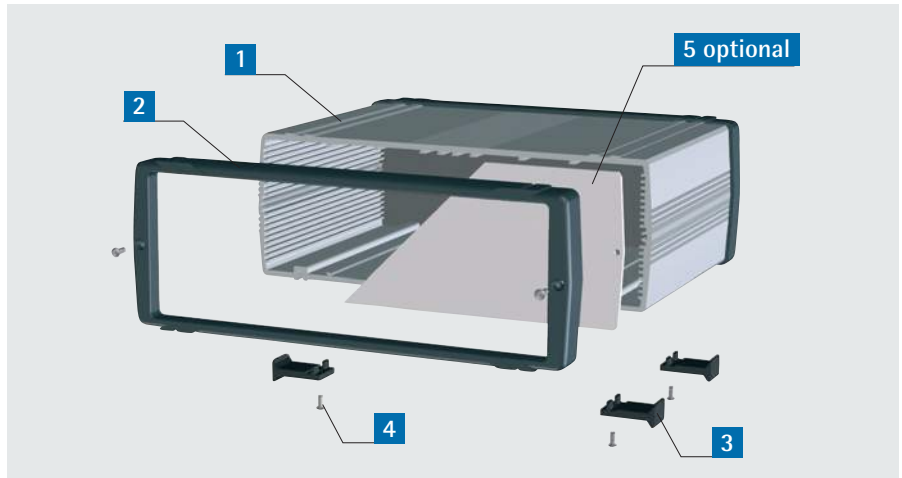
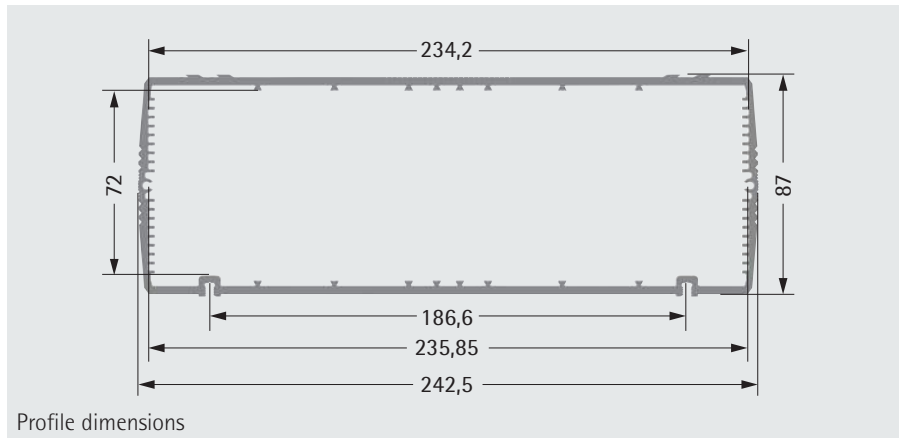
Material:

aluminium extrusion
frame: plastic, flammability tested acc. to UL 94 V-0

Protection system: IP 66*

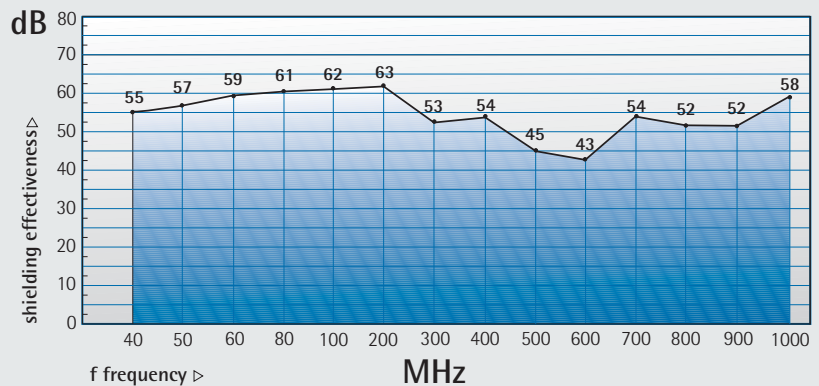
(*configuration: solid back and front panel, frame seal IP 66, without handle)

Delivery: not assembled



Shielding effectiveness of EMC version:

Average values, calculated from measurement results of an independent institution



Testing specifications:

The shielding effectiveness of the empty case was measured according to VG 95373 part 15 in a frequency range of 40 to 1000 MHz.

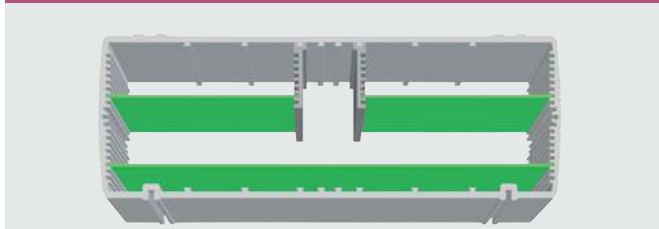
Delivery

Item	Pc.	Description
1	1	Aluminium extrusion
2	2	Plastic frame
3	4	Stacking feet
4		Assembly material
	(1)	Prop-up and carrying handle (without fig.)

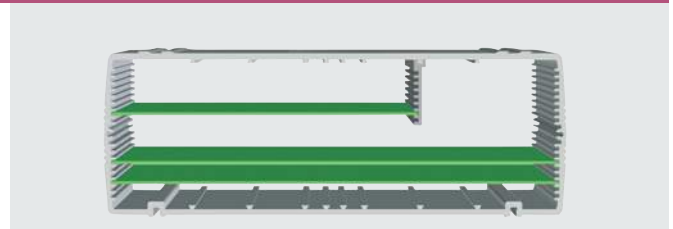
Description	For card depth mm	Order no.
Small case D=180 mm	160	418-001-60
Small case D=180 mm with handle	160	418-001-65
Small case D=240 mm	220	418-002-20
Small case D=240 mm with handle	220	418-002-25



Possible combinations



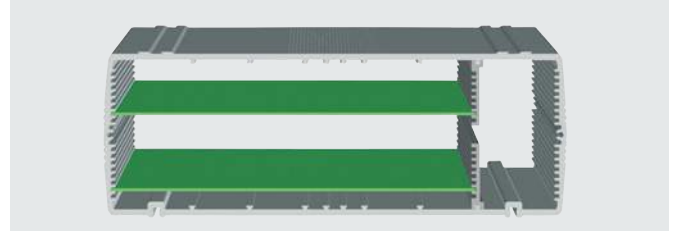
2 x card width 100 mm; 1 x card width 233,35 mm



1 x card width 160 mm; 2 x card width 233,35 mm



1 x card width 120 mm; 1 x card width 233,35 mm



2 x card width 190 mm

More combinations are possible.

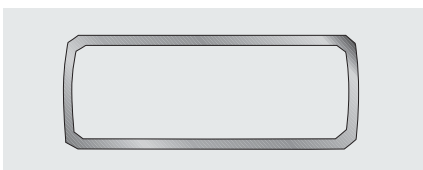
5 Front/ rear panel



Material:
aluminium 2.5 mm
Finish:
anodised front, conductive rear

Order no.
418-004-00

Frame seal IP 66

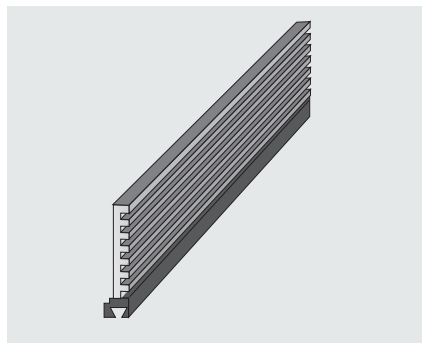


- self-adhesive, for adhering to front or rear panel
- necessary to achieve IP 66

Material:
cellular rubber

Order no.
418-006-02

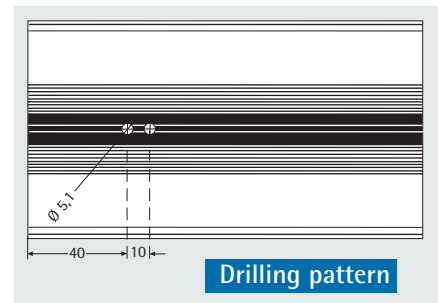
Adapter rail



- for integration of cards in different widths
- fits in the case's dovetail guides
- with special sliding surface

For card depth d mm	Order no.
160	418-003-16
220	418-003-22

Prop-up and carrying handle



- for retrofitting
- assembly material included

Order no.
615-060-03



Maximum space at minimum size

Xdream
mini



- high protection system: IP 66
- for installation of boards with width of 100 mm
- adjustable depths
- stackable
- integrated mounting grooves (e.g. for wall mounting)
- sturdy design
- compact dimensions
- internal grooves for sliding nuts allow installation of individual components
- favourable EMC characteristics

“Little brother” of our well-established enclosure system Xdream

- smaller dimensions
- even more sturdy
- just as convenient



418 • Small case Xdream mini

Application:

basic case for individual electronic components and eurocards of 100 mm x 160 mm

Construction:

solid aluminium extrusion enclosed by plastic frames in front and rear

Material:

aluminium extrusion
frame: plastics, flammability tested
acc. to UL 94 V-0

Finish:

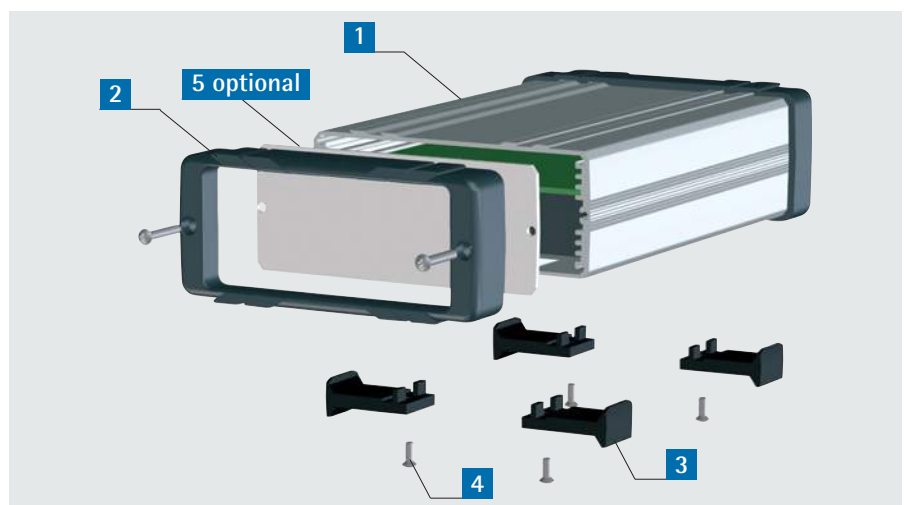
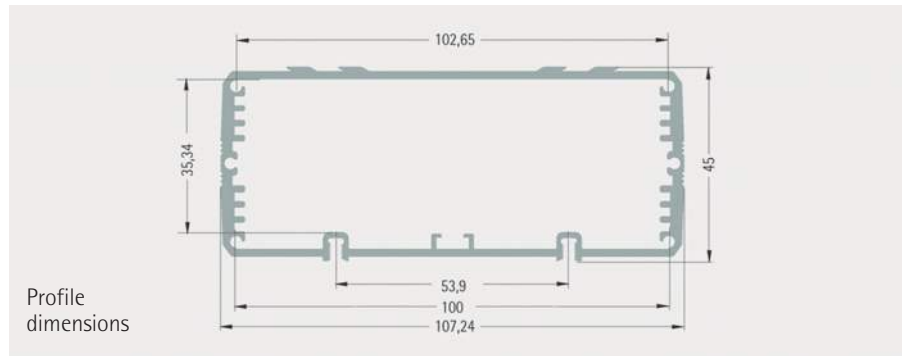
aluminium extrusion: RAL 7035 light grey
frame: black

Degree of protection:

IP 66* (configuration: solid back and front panel, frame seal IP 66, without handle)

Delivery:

unmounted



Other case depths are available on request!

Delivery

Item	Pc.	Description
1	1	Aluminium extrusion
2	2	Plastic frame
3	4	Stacking feet
4		Assembly material

Description	for card depth d mm	Order no.
Small case D=180 mm	160	418-501-60
Small case D=180 mm with handle	160	418-501-65
Small case D=240 mm	220	418-502-20
Small case D=240 mm with handle	220	418-502-25

5 Front / rear panel



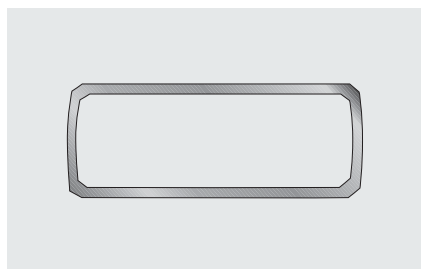
Material:

aluminium 2.5 mm

Finish:

anodised front, conductive rear

Frame seal IP 66



- self-adhesive, for adhering to front or rear panel
- necessary to achieve IP 66

Material:

cellular rubber

Wall-mounting set



- assembly material included

Order no.
418-004-50

Order no.
418-006-04

Order no.
418-004-60



The tailor-made enclosure

The proven PROFI CASE small case series is characterised by its timeless design and simple and functional construction.

PROFI CASE



Small case PROFI CASE

- simple construction
- short assembly time
- available with plastic side piece (series 415) or aluminium extrusion side piece (series 416)
- available as ventilated/partially ventilated or solid models
- special sizes available on request

Truly versatile . . .





Small case PROFI CASE

Application:

for 2 or 4 PC boards or customised electronic components

Construction:

two aluminium half shells are attached with **plastic side pieces (series 415)** or **aluminium extrusions (series 416)** and screwed together from the outside of the case.

Integrated grooves (width: 2 mm) in the side pieces allow the installation of PCB's (thickness 1,6 mm) or mounting panels.

Finish:

half shells, RAL 7035 light grey
side parts, RAL 9005 deep black

Protection system:

IP 40: solid
IP 20: ventilated

Delivery:

not assembled

Other colours and dimensions on request!

Please order front 7 rear plate [6] and prop-up handle [7] separately.

Delivery

Item	Pc.	Description
1	2	Top/ bottom cover
2	2	Plastic side pieces (series 415, H=55mm)
	4	Plastic side pieces (series 415, H=90mm)
	2	Aluminium extrusion side pieces (series 416)
3	2	Side panels (series 415, H=90mm)
4	4	Adhesive feet
5		Assembly material

PROFI CASE 415 H = 55 mm

solid

one shell ventilated

both shells ventilated

PROFI CASE 415 H = 90 mm

solid

one shell ventilated


both shells ventilated

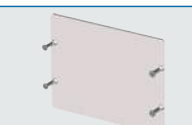
PROFI CASE 416 H = 55 mm


solid

one shell ventilated



PCB dimensions	Case height	Case depth	Usable depth	Case width	Usable width	Order no.			 6 Front panels / rear panels anodised RAL 7035	
						solid IP 40	one shell ventilated IP 20	both shells ventilated IP 20		
mm	H mm	D mm	d mm	W mm	w mm					
100 x 160	55	175	160,5	115	101	415-303	415-323	415-343	415-103	415-123
120 x 160	55	175	160,5	135	121	415-305	415-325	415-345	415-105	415-125
160 x 160	55	175	160,5	175	161	415-302	415-322	415-342	415-102	415-122
190 x 160	55	175	160,5	205	191	415-301	415-321	415-341	415-101	415-121
233,35 x 160	55	175	160,5	248,5	234,5	415-304	415-324	415-344	415-104	415-124
100 x 210	55	225	210,5	115	101	415-003	415-023	415-043	415-103	415-123
160 x 210	55	225	210,5	175	161	415-002	415-022	415-042	415-102	415-122
190 x 210	55	225	210,5	205	191	415-001	415-021	415-041	415-101	415-121
233,35 x 210	55	225	210,5	248,5	234,5	415-004	415-024	415-044	415-104	415-124

PCB dimensions	Case height	Case depth	Usable depth	Case width	Usable width	Order no.			 6 Front panels / rear panels anodised RAL 7035	
						solid IP 40	one shell ventilated IP 20	both shells ventilated IP 20		
mm	H mm	D mm	d mm	W mm	w mm					
100 x 160	90	175	160,5	115	101	415-313	415-333	415-353	415-113	415-133
120 x 160	90	175	160,5	135	121	415-315	415-335	415-355	415-115	415-135
160 x 160	90	175	160,5	175	161	415-312	415-332	415-352	415-112	415-132
190 x 160	90	175	160,5	205	191	415-311	415-331	415-351	415-111	415-131
233,35 x 160	90	175	160,5	248,5	234,5	415-314	415-334	415-354	415-114	415-134
100 x 210	90	225	210,5	115	101	415-013	415-033	415-053	415-113	415-133
160 x 210	90	225	210,5	175	161	415-012	415-032	415-052	415-112	415-132
190 x 210	90	225	210,5	205	191	415-011	415-031	415-051	415-111	415-131
233,35 x 210	90	225	210,5	248,5	234,5	415-014	415-034	415-054	415-114	415-134

PCB dimensions	Case height	Case depth	Usable depth	Case width	Usable width	Order no.		 6 Front panels / rear panels anodised RAL 7035	
						solid IP 40	one shell ventilated IP 20		
mm	H mm	D mm	d mm	W mm	w mm				
100 x 160	55	175	160,5	115	101	416-303	416-323	415-103	415-123
160 x 160	55	175	160,5	175	161	416-302	416-322	415-102	415-122
190 x 160	55	175	160,5	205	191	416-301	416-321	415-101	415-121
100 x 210	55	225	210,5	115	101	416-003	416-023	415-103	415-123
160 x 210	55	225	210,5	175	161	416-002	416-022	415-102	415-122
190 x 210	55	225	210,5	205	191	416-001	416-021	415-101	415-121



7 Prop-up and carrying handle



- consists of handle brackets and a handle piece which can be cut to the appropriate length
- handle can be set 30° by pressing a button to snap it into place
- attached by a single hole on both sides

Material:

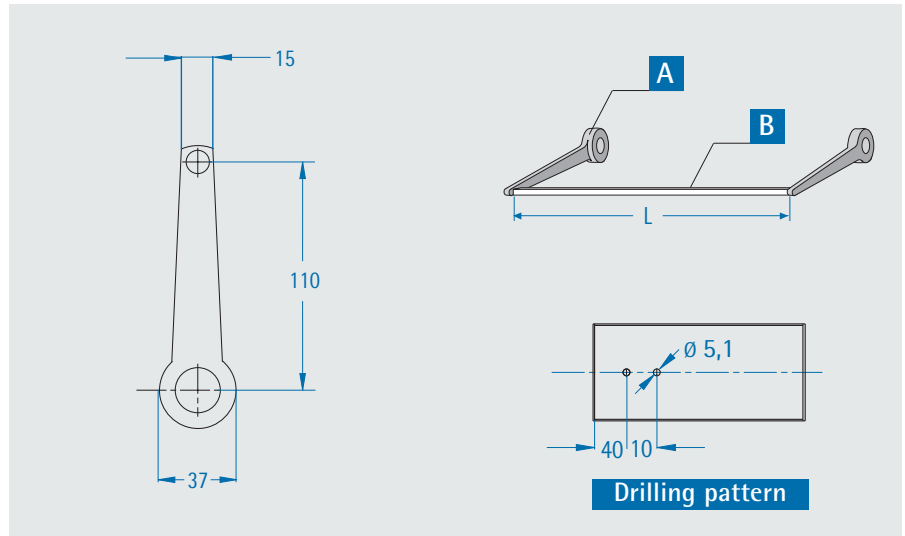
handle extrusion: anodised aluminium
handle brackets: black polyamide

Load capacity:

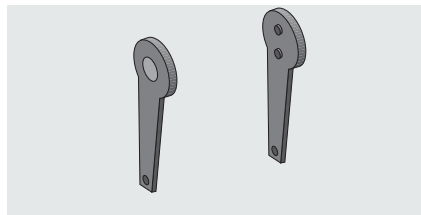
25 kg

Determine the length of the handle section you need using the following formula:

handle section length (L) =
case width (W) + 16mm



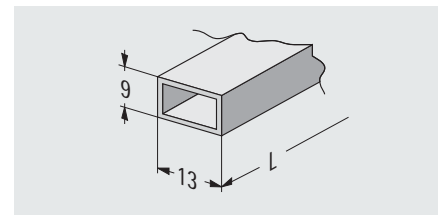
A Handle brackets



Order no. (pair)

615-060

B Handle section



- 1m piece to cut to appropriate length

Order no. (1 m)

615-061



Small case "click-case"

Advantages:

- quick and simple assembly without tools through click-fastener-system, optional with screw connection
- optimised EMC-features through EMC-textile gasket (optional)

Individuality:

- individual design of front and rear panel possible
- screen printing with different colours possible
- special sizes and special versions possible
- ventilated and closed version

Application:

suitable to take PCB or individual electronic components

Various possibilities:

- desktop enclosure
- for wall mounting 412-100-60
- with DIN-rail-clamps 412-100-50

Material:

galvanized sheet steel 1.0 mm

Finish:

RAL 7035 light grey

Dimensions (H x W x D):

ca. 170 x 40 x 105 mm

Degree of protection:

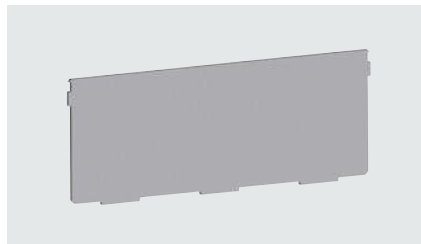
IP 30 ventilated

IP 40 closed



Description	Order no.
closed	412-100-00
ventilated	412-100-10

Front panel / rear panel



Material: sheet steel, galvanised 1,5 mm

Finish: RAL 7035 light grey

Order no.
412-100-20

Wall mounting bracket



• W x H x DT: 91 x 20 x 11,5 mm

• Assembly material included

Material: sheet steel, galvanised 1,5 mm

Finish: RAL 7035 light grey

Order no.
412-100-60

Bracket for top hat rail

- quick, safe and sturdy fixing of small enclosures, circuit boards and other components to rails (TS35) and support rails
- can be easily fixed from inside or outside to the enclosure's rear panel

Material: PA6 GF 30 black, classified acc. to UL 94 V-0



Description	Order no. (1 Set = 10 pieces)
Width 45 mm, with through-bore hole	442-311-20
Width 45 mm, with threaded inserts	442-311-25
Width 18 mm, with through-bore hole	442-311-30
Width 18 mm, with threaded inserts	442-311-35



414 • Small profile case

Small profile case

- cost-effective
- variable width/height/depth

Application:

for 2 PCB or customised electronic components

Construction:

this simply constructed case consists of 4 aluminium extrusions, 4 cover and 2 top panels. The aluminium extrusions have grooves for 2 Europe cards.

Finish:

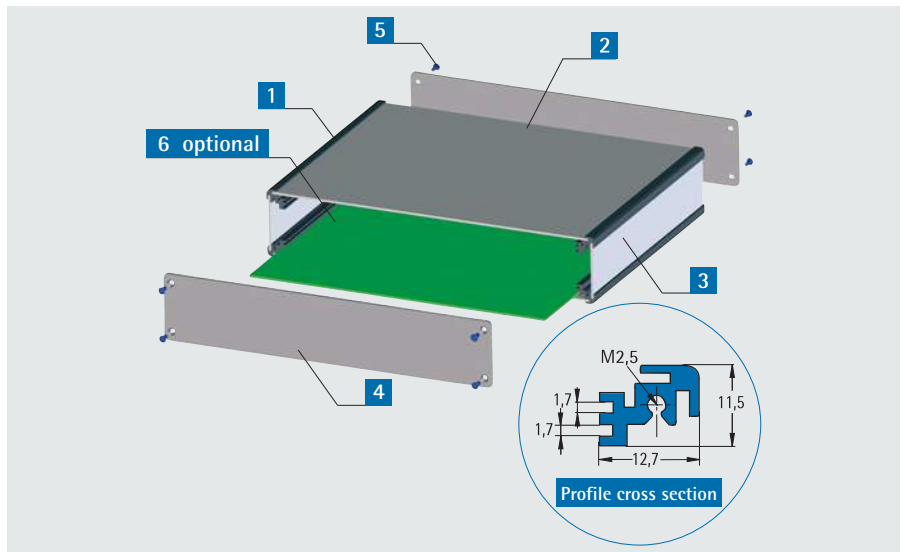
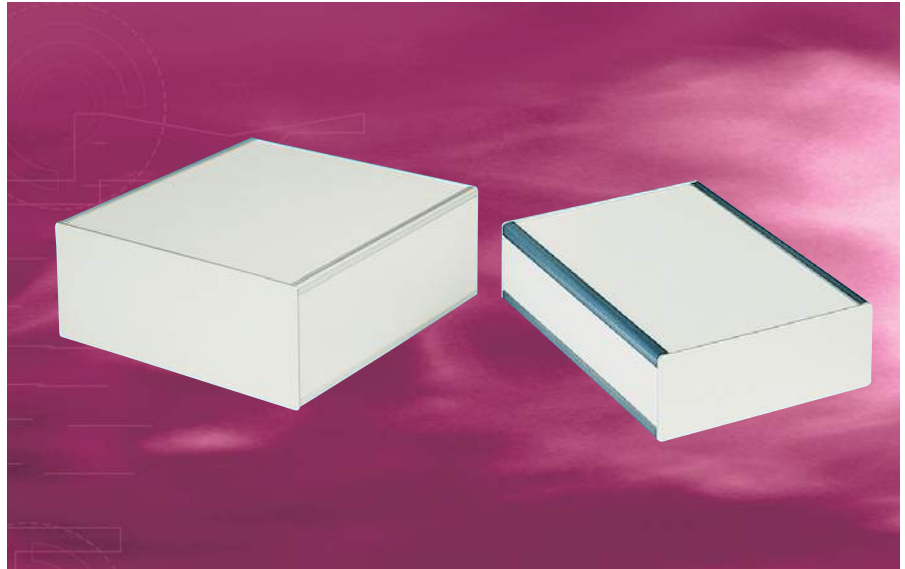
front/ rear panel and extrusions:
anodised aluminium
cover panels: RAL 7035 light grey

Degree of protection:

IP 40

Delivery:

unmounted



Delivery

Item	Pc.	Description
1	4	Extrusions
2	2	Cover panel 1
3	2	Cover panel 2
4	2	Front/ rear panels
5		Assembly material

Front / rear panels can be pre-punched for plugs or cable entry depending on your specifications.

Please order chassis panel [6] separately.

Description	Enclosure width W mm	Enclosure height H mm	D mm	Order no.
Enclosure 197,8 x 162,6 mm	220	44	166,6	414-101
		88	166,6	414-103
		44	226,6	414-111
		88	226,6	414-113
Eurocards of 100 x 160 mm	122	44	166,6	414-105
		88	166,6	414-106
		44	226,6	414-115
		88	226,6	414-116

Chassis plate (6)

Material:

aluminium 1.5 mm

Finish:

untreated

Description	D mm	Order no.
For enclosure 197,8 x 162,6 mm	166,6	414-151
	226,6	414-161
For Eurocards of 100 x 160 mm	166,6	414-153
	226,6	414-163



Small case profi set cool

The enclosure profi set cool stands out due to its very sturdy construction and individual usability. The corpus exists of shapely aluminium extrusions as well as front and rear panel. These may be custom-made machined and silk screened on request.

Top and bottom extrusions are designed for dissipating the electronics' heat by heat conduction pads or heat pipes. Fixing elements for circuit boards can be individually integrated. The profi set cool series offers different mounting possibilities such as mounting plates or other components.

Features:

- sturdy construction
- individual design
- comprehensive range of accessories
- versatile mounting possibilities

Material:

aluminium

Finish:

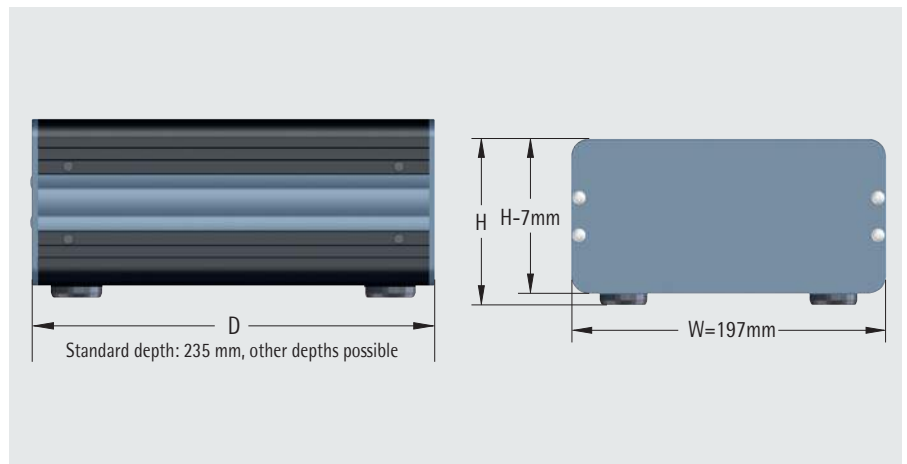
Top / bottom shell:
RAL 9005 deep black
front panel / side panel:
RAL 9006 white aluminium

Delivery:

kit form, including mounting material

Accessories on request:

- skid proof enclosure feet
- mounting plate
- prop-up and carrying handle
- handles for front panel
- wall mounting fixing set
- adapter for top hat rail mounting



H	Order no.
104 mm (inkl. feet)	264-510-00
148,5 mm (inkl. feet)	264-510-10



502 • Desk console

Desk console

- desk console in light aluminium design
- hood fits inside bottom piece and is screwed together from underneath
- perfectly suited for the use of sealed keypads

Application:

for control units such as sealed keypads

Material:

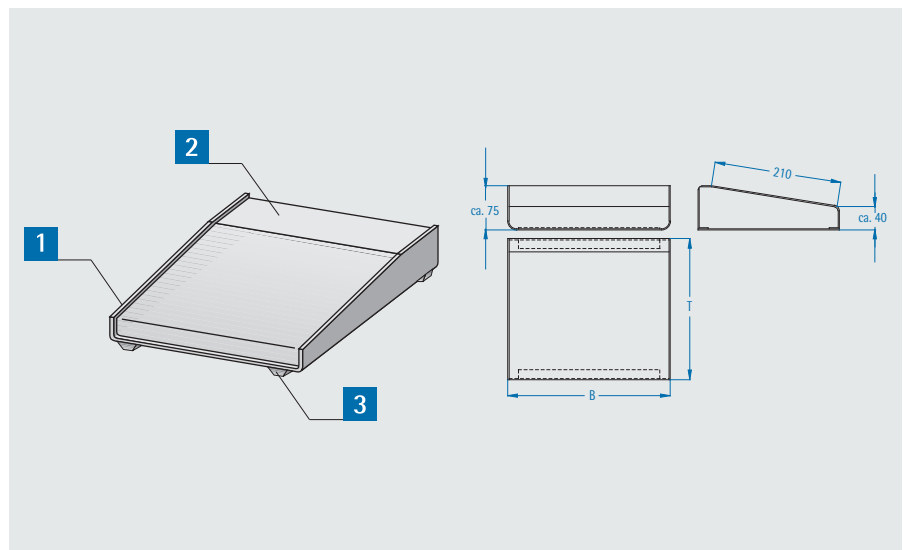
aluminium , 2.0 mm

Finish:

RAL 7035 light grey

Delivery:

not assembled



Additional sizes and customised treatments (e.g. screen printing) on request.

Delivery

Item	Pc.	Description
1	1	Bottom shell
2	1	Cover hood
3	4	Case feet, self-adhesive
4		Assembly material

W mm	D mm	Order no.
490	240	502-001
420		502-011
490	340	502-002
420		502-012



Series D standard case

- plastic case made of impact-resistant polystyrene, 3 mm
- connected by snap locks; no screws required
- front and rear panel with 7 mm offset towards the inside

Application:

case for boards or small modules

Material:

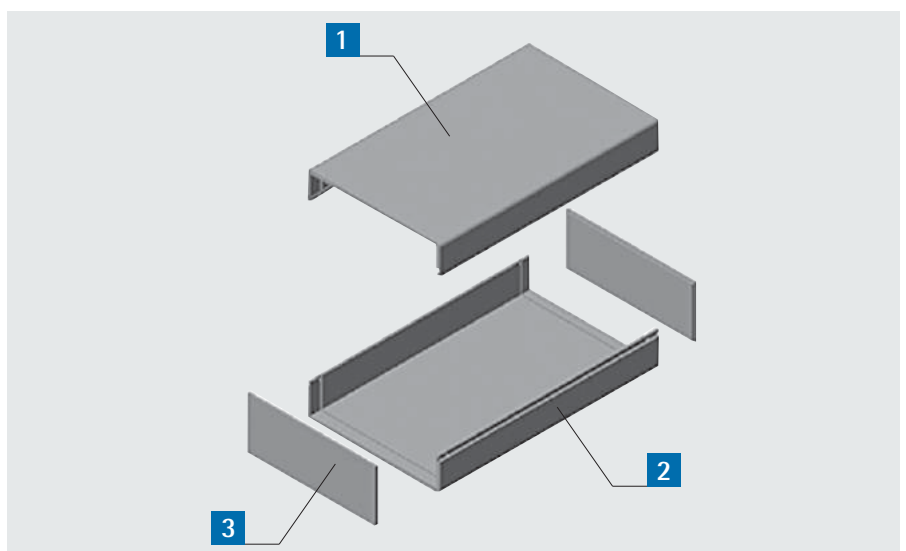
polystyrene, 3 mm

Finish:

grey-white / warm grey

Degree of protection:

IP 42



Additional sizes and customised treatments (e.g. milling, silkscreen printing) on request.

Delivery

Item	Pc.	Description
1	1	Top shell
2	1	Bottom shell
3	2	Front panels

h mm	w mm	d mm	Order no.
50	100	110	D 10
35	145	170	D 20
40	103	160	D 25 R
40	120	170	D 30
70	110	145	D 40
70	103	160	D 45 R
60	160	170	D 50
100	180	210	D 60
70	200	215	D 70



Series DB standard case

Series DB standard case

- plastic case made of impact-resistant polystyrene, 3 mm
- connected by snap locks; no screws required
- 2 card guides can be glued in
- front and rear panels flush fitting

Application:

case for boards or small modules

Material:

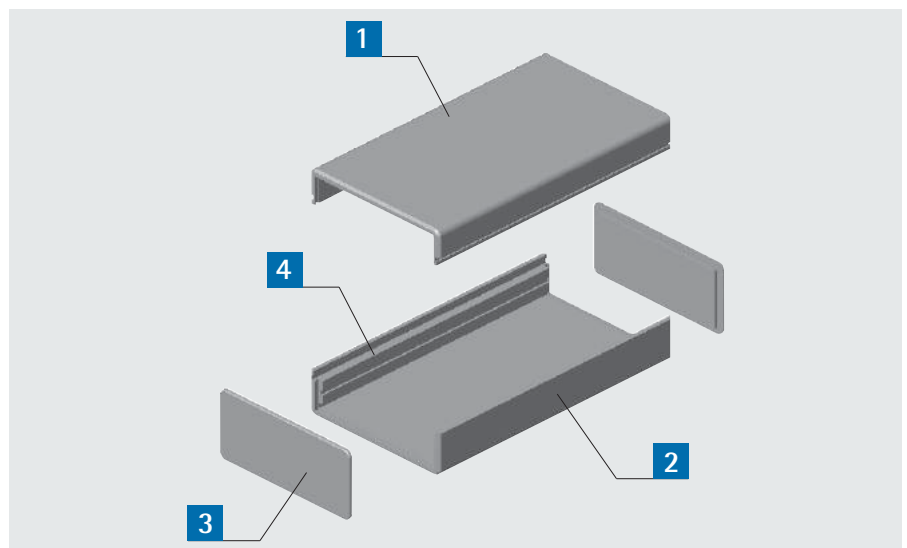
polystyrene, 3 mm

Finish:

grey-white / warm grey

Degree of protection:

IP 54



Additional sizes and customised treatments (e.g. milling, silkscreen printing) available on request.

Delivery

Item	Pc.	Description
1	1	Top shell
2	1	Bottom shell
3	2	Front panels
4	2	Card guides, to be glued in

h mm	w mm	d mm	Order no.
25	53	103	DB 1
25	63	125	DB 2
30	83	163	DB 3
30	103	203	DB 4
50	103	203	DB 5
17	38	83	DB 6



Series N2U standard case

- plastic case made of impact-resistant polystyrene, 3 mm
- locks together with tongue and groove joints
- u-shaped top and bottom pieces
- no screws required

Application:

case for boards or small modules

Material:

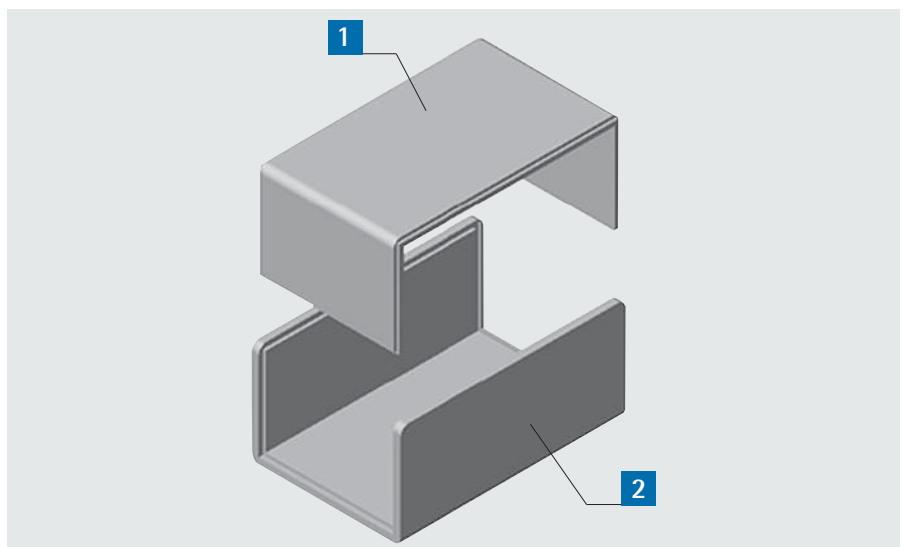
polystyrene, 3 mm

Finish:

grey-white

Degree of protection:

IP 42



Additional sizes and customised treatments (e.g. milling, silkscreen printing) on request.

Delivery

Item	Pc.	Description
1	1	Top shell
2	1	Bottom shell

h mm	w mm	d mm	Order no.
25	40	40	N2U 1
20	90	35	N2U 2
25	53	163	N2U 3
20	53	83	N2U 4
35	53	83	N2U 5
20	103	163	N2U 6
20	163	203	N2U 7



310 • Wall mounting enclosure Flex 310

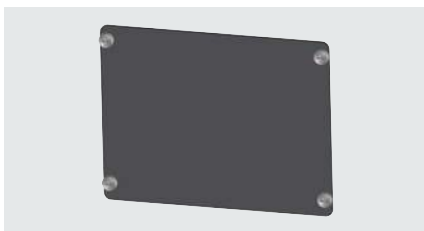
Wall mounting enclosure „Flex 310“

Basic enclosure consisting of wall mounting part and 2 brackets to take the mounting plate and/or mounting rail inside. Front door with foamed sealing, 180° hinges and locking handle.

- basic enclosure and front door painted light grey RAL 7035
- mounting plate made of hot-dip galvanised sheet steel
- mounting rail galvanise

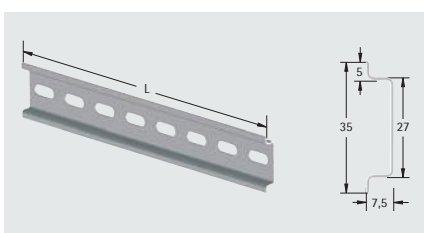


Mounting plate

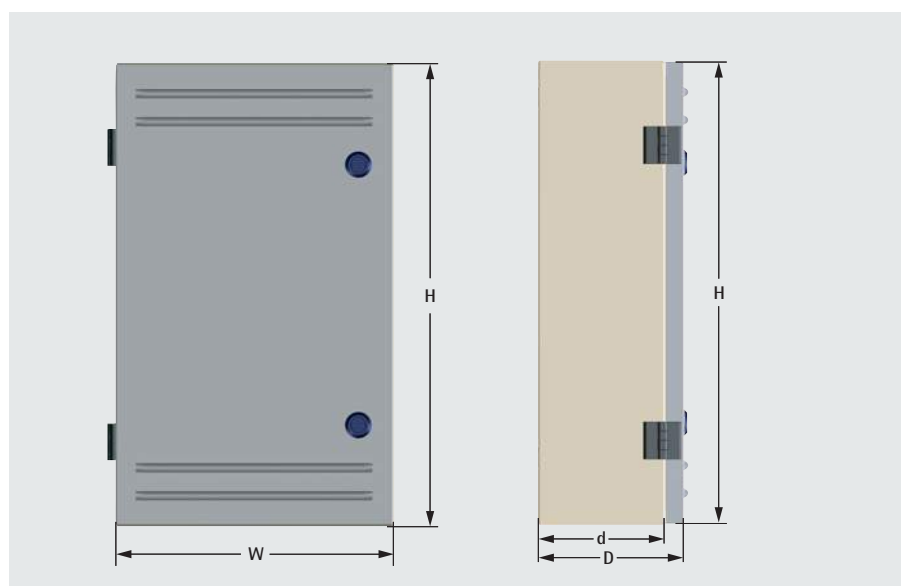


For enclosure height H	Order no.
H=300 mm	310-100-10
H=500 mm	310-200-10
H=700 mm	310-300-10

Mounting rail



For enclosure height H	Order no.
H=300 mm	310-100-20
H=500 mm	310-200-20
H=700 mm	310-300-20



H mm	W mm	D mm	d mm	Order no.
300	200	130	105	310-100-00
500	300	160	135	310-200-00
700	500	210	185	310-300-00