CombiCard® 5000-7000

Modular Instrumentation Enclosure System



For Finishing Services, Product Support, or to Order
Call 1-301-696-9800

CombiCard® 5000-7000



enclosure system are satisfied in the best possible way.

Variable widths and depths, ingress protection IP 66 and access protection which can be defined - these are just a few of the excellent facilities provided by this enclosure.

The double clamp area permits easy, clean wiring with a large number of cable entries.



Enclosure material: ABS, polycarbonate

(only FD...G).

For technical data see pages 646-651.

Fronts and bases light gray, similar to RAL 7035; front

lid in G-version

clear;

side covers light gray, similar to RAL 7035; rear parts agate gray, similar to RAL 7038. Special colors at minimum order quantities on request.

Ingress protection: IP 66 (IP 30 with

ventilation) / DIN EN 60529).

Definable access protection:

The integrated quick-release fastening allows left-hand or right-hand opening between every system part. Each hinged quick-release fastening can be protected against unauthorized access by lock bolts or lead seals. The optimal way to close the front lids is by using a cylinder catch.

Enclosure variants:

Front, base and rear parts can be combined in a basic size in any way required – also without bases. If the units are of sufficient size, the bases can be positioned with ventilation according to the convection requirements.

Accessories (additional charge):

See product pages.

Color:

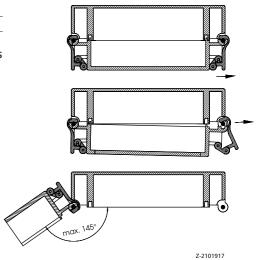


 Control panel mounting model for Combicard® 6000 enclosure system consisting of FD 6000 G, BC 6000 NG, BC 6000, FD 6000 and BC 6000 NG-AP.

Patented hinged quick-release fastening with a maximum opening angle of 145°.

Dimensions:

D 11110113101131			
Model	Front length	Front height	Depth
5000	175.7	146.7	corresponding to the
6000	226.5	146.7	combined system parts
7000	323.0	146.7	





Clear or light gray (similar to RAL 7035) front lid with integrated hinged quick-release fastenings. There is a 1 mm deep offset area for membrane keypads in the front area.



Closed front frame design to hold membranes or membrane keypads. Mounting bosses are moulded on the inside area for the fitting of PCBs, mounting plates or keyboard support plates. The front frame can be fixed with snap-on covers on the base or rear or – to comply with the **VDE regulations** – with screws (included in scope of delivery). If required, upgrading to a hinged quick-release fastening is possible at a later date using accessory SV 5670.

Front lids, clear

Order designation

Model	Order no.	
FD 5000	79002800	
FD 6000	79002900	
FD 7000	79003000	
FD 5000 G	79003100	
FD 6000 G	79003200	
FD 7000 G	79003300	
G = clear		

G = cicui

Scope of delivery:

Front lid with seal, 2 mounted locks,

1 blind plug *1 – to close the lock opening on the opening side,

1 catch *2 – to close the lock opening and one-time definition of the hinge side on the front lid.

Accessories (additional charge)				
Model Order no. Designation				
SHLO-302	21008310	Cylinder catch *3		
VA 5670	79005300	Lock cover		

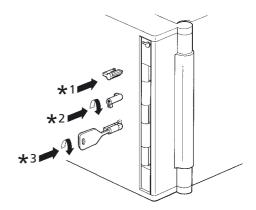


Table of dimensions

Model	B1	B2	В3	
FD 5000 (G)	175.7	131.8+0.5	129.1 / 128.6	
FD 6000 (G)	226.5	182.6 ^{+0.6}	179.9 / 179.4	
FD 7000 (G)	323.0	279.1 ± 1.0	276.4 / 275.9	

Front frames, closed

Order designation

Model	Order no.
FR 5000	79003700
FR 6000	79003800
FR 7000	79003900

Accessory (additional charge)

Model Order no. Designation

SV 5670 79005400 Hinged
fastening

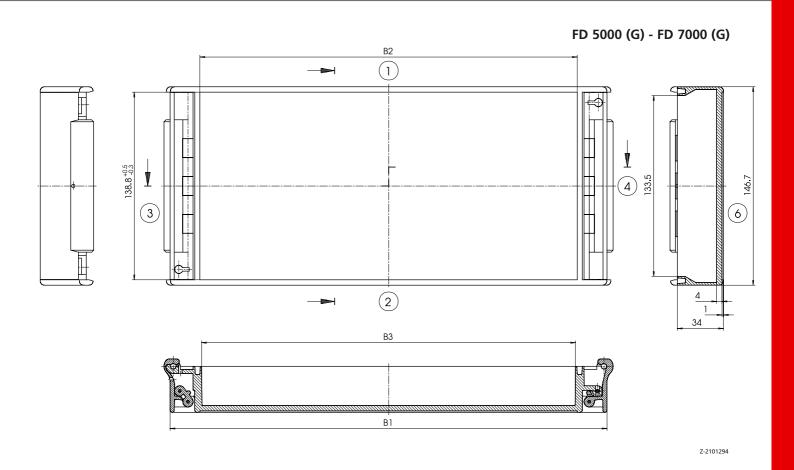
Scope of delivery:

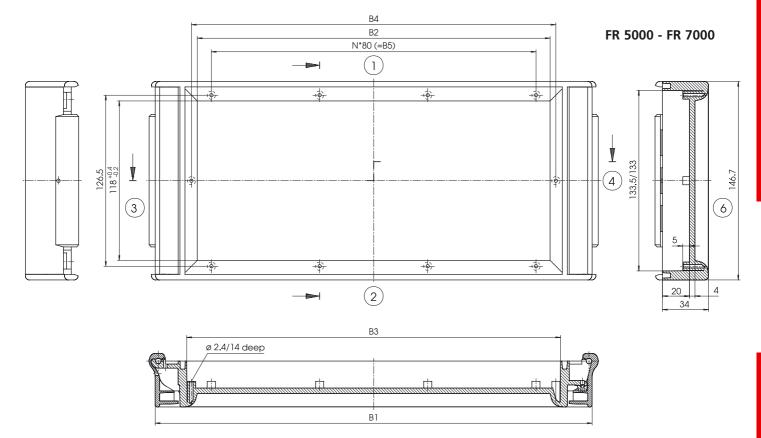
Front frame with seal, 2 snap-on covers, 4 fixing screws

Table of dimensions

Model	B1	B2	B3	B4	B5	N	
FR 5000	175.7	113.6+0.4	129.1 / 128.6	122.1	80	1	
FR 6000	226.5	164.4+0.6	179.9 / 179.4	172.9	160	2	
FR 7000	323.0	260.9+1.0	276.4 / 275.9	269.4	240	3	









Open front frame design, for fitting front panels FP...AI with integrated pre-formed moulded seal. Customerspecific panels with comparable quality and stability guarantee IP 66. The front frame can be fixed by means of the snap-on cover on the base or rear or - to comply with the **VDE** regulations – with screws (included in scope of delivery). If required, upgrading to a hinged quick-release fastening can be carried out at a later date using accessory SV 5670.



Base (with/without air vents) with integrated hinged quick-release fastenings to increase the installation depth in combination with front, base and rear parts. The base contains mounting bosses for:

- front panel FP_000 I
- mounting rack BGT 000...
- mounting plate M 000

The hinged quick-release fastenings are to be opened by means of a tool (in accordance with VDE) and also sealable or to be secured by means of catch SR 5670-__. Unlocking is only possible when the front element is open (see page 211).

Front frames, open

Order designation

o.ac. acsig.		
Model	Order no.	
FO 5000	79003400	
FO 6000	79003500	
FO 7000	79003600	

Scope of delivery: Front frame with seal, 2 snap-on covers, 4 fixing screws, 10 front panel fixing screws

Accessories (additional charge)				
Front panels	Order no.			
FP 5000 AI	79004300			
FP 6000 AI	79004400			
FP 7000 AI	79004500			

Accessory (additional charge) Model Order no. Designation SV 5670 79005400 Hinged quickrelease fastening

Table of dimensions

Model	B1	B2	В3
FO 5000	175.7	109.6	129.1 / 128.6
FO 6000	226.5	160.4	179.9 / 179.4
FO 7000	323.0	256.9	276.9 / 275.9

Bases -0.5 (51.51 mm construction depth)

Order designation

Model	Order no.
BC 5000 -0.5	79001000
BC 6000 -0.5	79001100
BC 7000 -0.5	79001200
BC 5000 L-0.5	79001300
BC 6000 L-0.5	79001400
BC 7000 L-0.5	79001500

L = with ventilation

Accessories (additional charge)				
Front panels	Order no.			
FP 5000 I	79004000			
FP 6000 I	79004100			
FP 7000 I	79004200			
Mounting plates	Ouder ne			
	Order no.			
M 5000	80050000			
M 5000	80050000			

Scope of delivery:

BC_000-0.5: base with seal, 2 mounted locks BC 000 L-0.5: base with air vents without seal, Accessory (additional charge) Order no. Designation **SR 5670-0.5 79004900** Set of catches

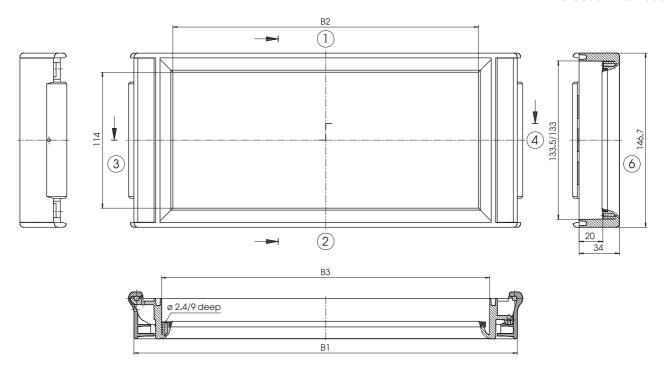
Table of dimensions

2 mounted locks

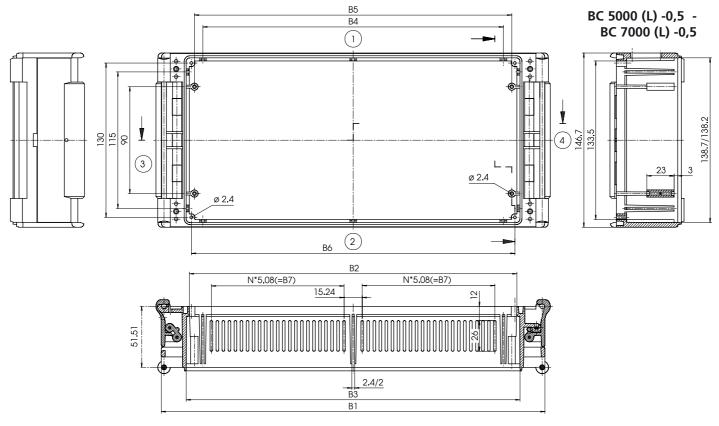
Model	B1	B2	B3	B4	B5	B6	B7	N
BC 5000 (L)-0.5	175.7	128.5/127.1	133.7/133.2	105.78	119.88	125.08	35.56	7
BC 6000 (L)-0.5	226.5	179.3/177.9	184.5/184.0	156.58	170.68	175.88	60.96	12
BC 7000 (L)-0.5	323.0	275.8/274.4	281.0/280.5	253.10	267.20	272.40	111.76	22



FO 5000 - FO 7000



Z-2101295





Base (with/without air vents) with integrated hinged quick-release fastenings to increase the installation depth in combination with front, base and rear parts. The base contains mounting bosses

- front panel FP_000 l
- mounting rack BGT_000...
- mounting plate M_000

The hinged quick-release fastenings are to be opened by means of a tool (in accordance with VDE) and also to be sealable or to be secured by means of catch SR 5670-__. Unlocking is only possible when the front element is open (see page 211).



Bases -1 (88.25 mm construction depth)

Order designation			
Model	Order no.		
BC 5000 -1	79001600		
BC 6000 -1	79001700		
BC 7000 -1	79001800		
BC 5000 L-1	79001900		
BC 6000 L-1	79002000		
BC 7000 L-1	79002100		

L = with ventilation

Accessories (additional charge)				
Front panels	Order no.			
FP 5000 I	79004000			
FP 6000 I	79004100			
FP 7000 I	79004200			
Mounting plates	Order no.			
M 5000	80050000			
M 6000	80060000			
M 7000	80070000			

Scope of delivery:

BC_000-1: base with seal, 2 mounted locks BC_000 L-1:

base with air vents without seal, 2 mounted locks

Accessory (additional charge)

Model	Order no.	Designation
SR 5670-1	79005010	Set of catches

Table of dimensions

Model	B1	B2	B3	B4	B5	B6	B7	N
BC 5000 (L)-1	175.7	128.5/127.1	133.7/132.8	105.78	119.88	125.08	35.56	7
BC 6000 (L)-1	226.5	179.3/177.9	184.5/183.6	156.58	170.68	175.88	60.96	12
BC 7000 (L)-1	323.0	275.8/274.4	261.0/280.1	253.10	267.20	272.40	111.76	22

Bases -1.5 (139.76 mm construction depth)

Order designation			
Model	Order no.		
BC 5000 -1.5	79002200		
BC 6000 -1.5	79002300		
BC 7000 -1.5	79002400		
BC 5000 L-1.5	79002500		
BC 6000 L-1.5	79002600		
BC 7000 L-1.5	79002700		
L = with ventilation			

Accessories (additional charge)					
Front panels	Order no.				
FP 5000 I	79004000				
FP 6000 I	79004100				
FP 7000 I	79004200				
Mounting plates	Order no.				
M 5000	80050000				
M 6000	80060000				
M 7000	80070000				

Scope of delivery:

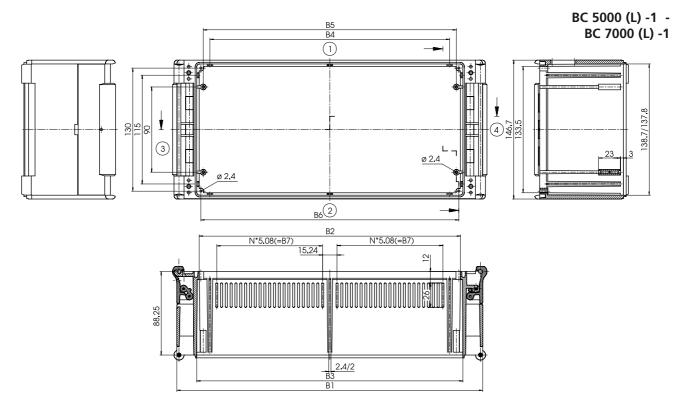
BC_000-1.5: base with seal, 2 mounted locks BC 000 L-1.5: base with air vents without seal, 2 mounted locks

Accessory (additional charge) Order no. Designation SR 5670-1.5 79005100 Set of catches

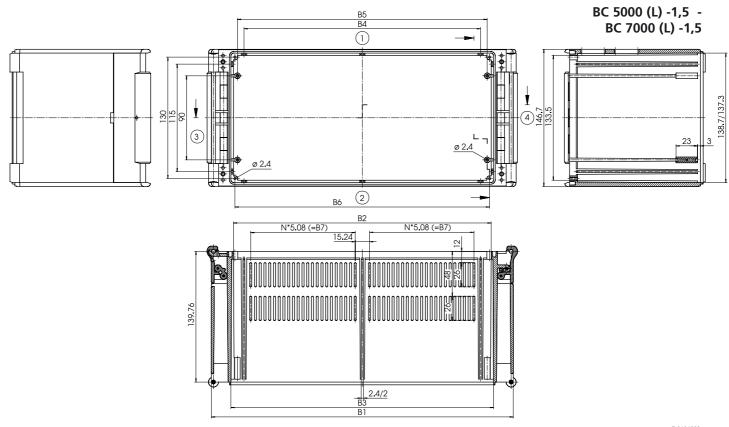
Table of dimensions

Model	B1	B2	B3	B4	B5	B6	B7	B7	N
BC 5000 (L)-1.5	175.7	128.5/127.1	133.7/132.3	105.78	119.88	125.08	125.08	35.56	7
BC 6000 (L)-1.5	226.5	179.3/177.9	184.5/183.1	156.58	170.68	175.88	175.88	60.96	12
BC 7000 (L)-1 5	323.0	275 8/274 4	281 0/279 6	253 10	267 20	272 40	272 40	111 76	22





Z-2101292





Base (with/without air vents) with integrated hinge axes on both front and back so that the base and/or front elements can be snapped into both sides.

This means that the unit in the control panel is optimally accessible from both sides: from the front for operation, from the rear for connection technology and servicing.

For examples of construction see page 205.

Mounting bosses are provided in the base for:

- front panel FP_000 I
- mounting rack BGT_000...
- mounting plate M_000
- DIN rails TS...



Base NG (control panel mounting)

Order designation

Model Order no.

BC 5000 NG 79001610

BC 5000 NG-L 79001910

BC 6000 NG 79001710

BC 6000 NG-L 79002010

BC 7000 NG 79001810

BC 7000 NG-L 79002110

L = with ventilation

Important: When these bases (BC...NG (-L)) are used, front lids must be used on both sides to close the enclosure.

Tightening torque for the fixing elements = 80 Ncm.

Scope of delivery:

Base including mounted set of fixing elements for control panel mounting.

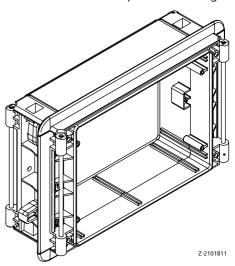


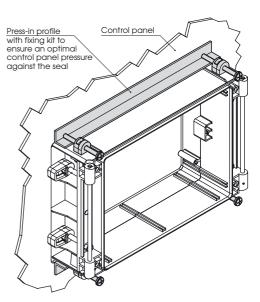
Table of dimensions

Model	B1	B2	B3	B4	B5	B6	B7	N	A1
BC 5000 NG (-L)	203.7	129.1/128.7	133.7/133.3	105.78	119.88	113.7	35.56	7	185.2
BC 6000 NG (-L)	254.5	179.9/179.5	184.5/184.1	156.58	170.68	164.5	60.96	12	236.0
BC 7000 NG (-L)	351.0	276.4/276.0	281.0/280.6	253.10	267.20	261.0	111.76	22	332.5

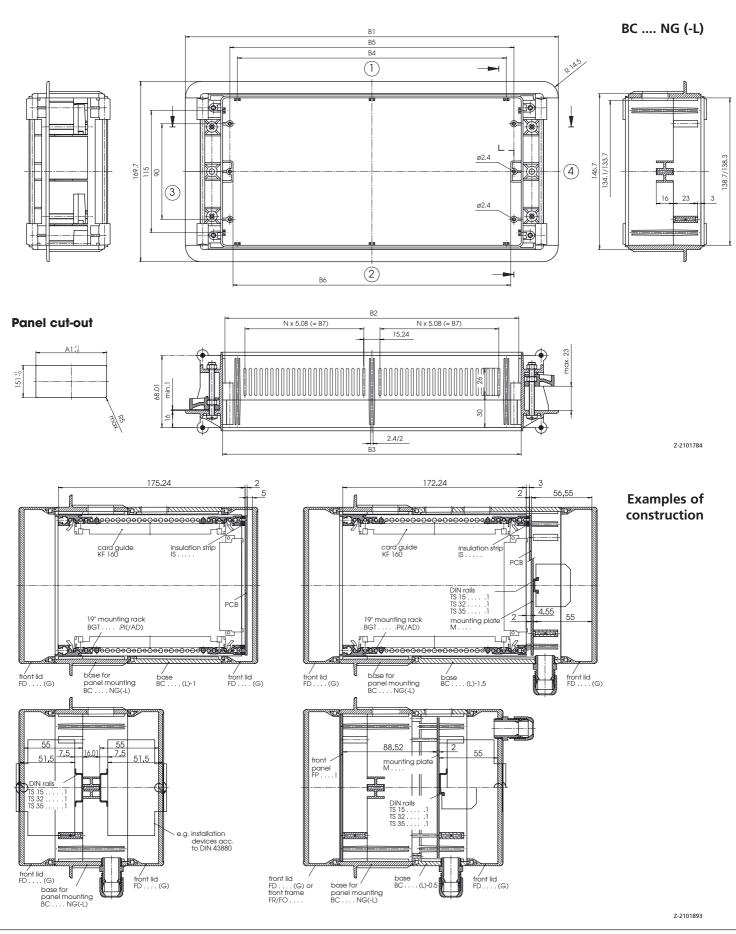
Accessories (additional charge)

Model	Order no.	Description
BC 5000 NG-DI*	79001630	Self-adhesive seal
BC 5000 NG-AP	79001620	Press-in profile with fixing kit to ensure an
		optimal control panel pressure against the seal
BC 6000 NG-DI*	79001730	Self-adhesive seal
BC 6000 NG-AP	79001720	Press-in profile with fixing kit to ensure an
		optimal control panel pressure against the seal
BC 7000 NG-DI*	79001830	Self-adhesive seal
BC 7000 NG-AP	79001820	Press-in profile with fixing kit to ensure an
		optimal control panel pressure against the seal

* Ingress protection acc. to DIN EN 60529 possible up to max. IP 65, depending on the control panel material and thickness.







Welcome to BOPLA City!

CombiCard 5000-7000 system components



Rear section (without terminal compartment) for combining with base (not BC...NG) or front elements. Mounting bosses are provided in the rear section for the fixing of mounting plates/DIN rails.

Wall fixing points or screw fastening points for wall brackets are provided outside the sealed lip.



Rear section (with terminal compartment on one side) for combining with base (not BC...NG) or front elements.

Mounting bosses are provided in the rear for the fixing of mounting plates/DIN rails.

Wall fixing points or screw fastening points for wall brackets are provided outside the sealed lip.

Rear sections without terminal compartment

Order designation

Model	Order no.	
RD 5000	79000100	
RD 6000	79000200	
RD 7000	79000300	

A fixing kit BS 5670 is also required for fitting front panels FP_000 I in the rear section. This elevates the front panel in the rear section.

Scope of delivery: Rear section

Accessories (additional charge)				
Front panels Order no.				
FP 5000 I	79004000			
FP 6000 I	79004100			
FP 7000 I	79004200			

Mounting plates	Order no.
M 5000	80050000
M 6000	80060000
M 7000	80070000

Accessories (additional charge)

Model	Order no.	Designation			
BS 5670	79005500	Fixing kit			
		for FPI in RD			
WL 5670	79004600	Wall brackets			
For DIN rails see page 213.					

Table of dimensions

Model	B1	B2	В3	B5	В6	B7	N
RD 5000	175.7	152.7	133.7 / 132.7	119.88	96.52	76.2	3
RD 6000	226.5	203.5	184.5 / 183.5	170.68	147.32	127.0	5
RD 7000	323.0	300.0	281.0 / 280.0	267.20	243.84	228.6	9

Rear sections with terminal compartment

Order designation

Model	Order no.
RD 5000 K	79000400
RD 6000 K	79000500
RD 7000 K	79000600

A fixing kit BS 5670 is also required for fitting front panels FP_000 I in the rear section. This elevates the front panel in the rear section.

Accessories (additional charge)						
Front panels	Order no.					
FP 5000 I	79004000					
FP 6000 I	79004100					
FP 7000 I	79004200					
Mounting plates	Order no.					
M 5000 K	80050100					
M 6000 K	80060100					

80070100

Scope of delivery:

Rear section, terminal compartment bar, terminal compartment cover including seal and fixing screws

Accessories (additional charge) Order no. Designation Model **79005500** Fixing kit BS 5670 for FP...I in RD... WL 5670 K 79004700 Wall brackets For DIN rails see page 213.

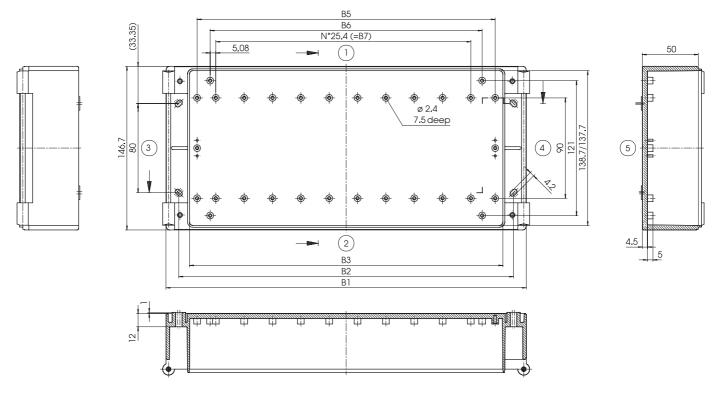
Table of dimensions

Model	B1	B2	B3	B4	B5	B6	B7	N
RD 5000 K	175.7	152.7	133.7/132.7	129.7/128.7	119.88	96.52	76.2	3
RD 6000 K	226.5	203.5	184.5/183.5	180.5/179.5	170.68	147.32	127.0	5
RD 7000 K	323.0	300.0	281.0/280.0	277.0/276.0	267.20	243.84	228.6	9

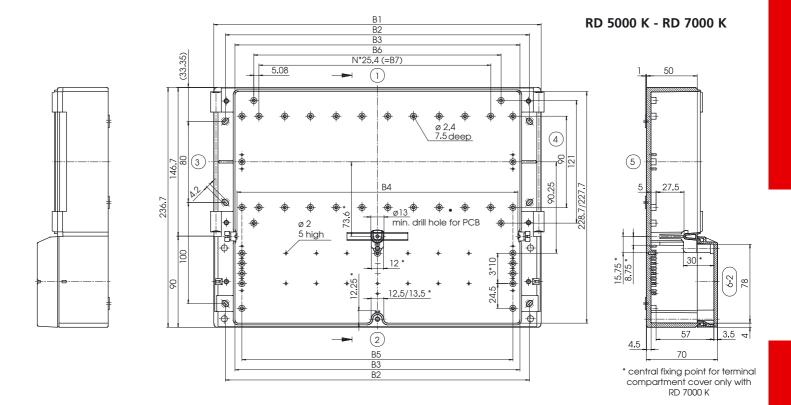
M 7000 K



RD 5000 - RD 7000



Z-2101288



CombiCard 5000-7000 system components/accessories



Rear section (with terminal compartment on both sides) for combining with base (not BC...NG) or front elements. Mounting bosses are provided in the rear section for the fixing of mounting plates/DIN rails. Wall fixing points or screw fastening points for wall brackets are provided outside the sealed lip.



The wall brackets can be mounted either projecting outwards for a projecting wall fastening or flush with the enclosure edge as a distance piece. In both cases there is an 11 mm clearance for rear ventilation or cable bushing.

Rear sections with terminal compartment on both sides

Order designation

Model	Order no.	
RD 5000 BK	79000700	
RD 6000 BK	79000800	
RD 7000 BK	79000900	

A fixing kit BS 5670 is also required for fitting front panels FP_000 I in the rear section. This elevates the front panel in the rear section.

Scope of delivery:

Rear section, 2 terminal compartment bars 2 terminal compartment covers incl. seal and fixing screws

Accessories (additional charge)					
Front panels Order no.					
FP 5000 I	79004000				
FP 6000 I	79004100				
FP 7000 I	79004200				
Mounting plates Order no.					
M 5000 BK	80050200				

80060200

80070200

Accessories (additional charge)

M 6000 BK

M 7000 BK

Model	Order no.	Designation		
BS 5670	79005500	Fixing kit		
		for FPI in RD		
WL 5670 BK	79004800	Wall brackets		
For DIN rails see page 213.				

Table of dimensions

Model	B1	B2	В3	B4	B5	B6	B7	N
RD 5000 BK	175.7	152.7	133.7/132.7	129.7/128.7	119.88	96.52	76.2	3
RD 6000 BK	226.5	203.5	184.5/183.5	180.5/179.5	170.68	147.32	127.0	5
RD 7000 BK	323.0	323.0	281.0/280.0	277.0/276.0	267.20	243.84	228.6	9

Wall brackets

Order designation

Model	Order no.	Description
WL 5670	79004600	Wall bracket for RD_000
WL 5670 K	79004700	Wall bracket for RD_000 K
WL 5670 BK	79004800	Wall bracket for RD_000 BK

Scope of delivery:

2 wall brackets including fixing material for screwing to the rear section

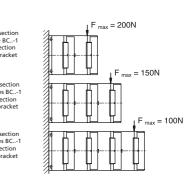
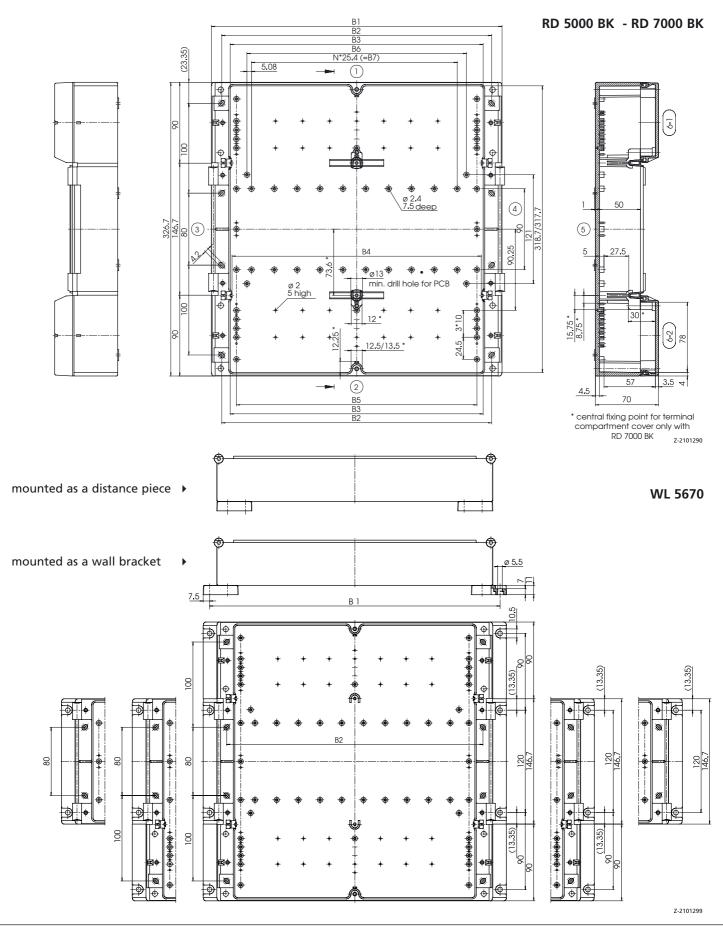


Table of dimensions

lable of difficultions	,		
Model	B1	B2	
RD 5000 (K) (BK)	192.7	152.7	
RD 6000 (K) (BK)	243.5	203.5	
RD 7000 (K) (BK)	340.0	300.0	





Welcome to BOPLA City!

CombiCard 5000-7000 accessories



Material: anodized aluminium



Material: anodized aluminium



The handle can be fitted to the BC_000 -1, BC_000 -1.5 and to the rear section RD_000. In addition to its standard carrying function, the handle can also be used as a swivelling set-up handle (fixed locking position at 30° intervals).

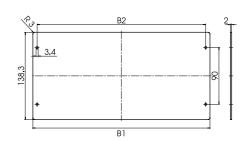
Front panels, internal for BC.../RD...

Order designation		Table of	dimensions
Model	Order no.	B1	B2
FP 5000 I	79004000	133.3	119.88
FP 6000 I	79004100	184.1	170.68
FP 7000 I	79004200	280.6	267.20
BS 5670	79005500	Fixing ki	t for FP_000 l in RD

Scope of delivery:

FP_000 I without fixing screws; for fixing screws, see accessories starting on page 576.

A fixing kit BS 5670 is also required for fitting front panels FP_000 I in the rear section. This elevates the front panel in the rear section.

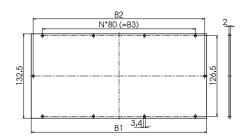


7-2101298

Front panels for FO...

Order designation		Table of	Table of dimensions			
Model	Order no.	B1	B2	В3	N	
FP 5000 AI	79004300	128.1	122.1	80	1	
FP 6000 AI	79004400	178.9	172.9	160	2	
FP 7000 AI	79004500	275.4	269.4	240	3	

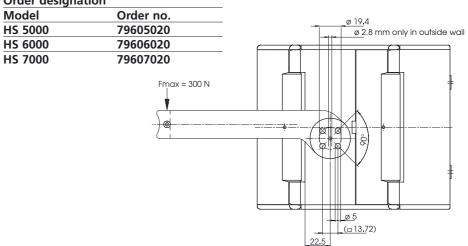
The fixing screws are included with the front frame FO_000.



Z-2101297

Handle

Order designation





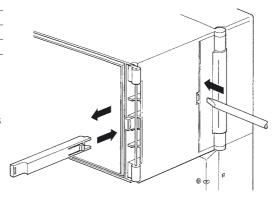
A Phoenix Mecano Company

Lock bolts for bases to lock fastening function

Order designation

Model	Order no.	Application
SR 5670 -0.5	79004900	BC(L)-0.5
SR 5670 -1	79005010	BC(L)-1
SR 5670 -1.5	79005100	BC(L)-1.5

SR: The lock bolts can be used to ensure that the hinged quick-release fastenings cannot be opened when the enclosure is closed. The lock bolt can only be moved and the hinged quick-release fastening opened <u>after</u> this enclosure system part has been removed. This protects a unit against unauthorized access, or restricts the hinged quick-release fastening to the hinge function.



Lock cover / hinged quick-release fastening

Order designation

Model	Order no.	Application				
VA 5670	79005300	FD(G)				
SV 5670	79005400	FO/FR				

Lock cover VA

for clipping onto the hinge side at the front lid FD... (G)

Scope of delivery: 2 pieces

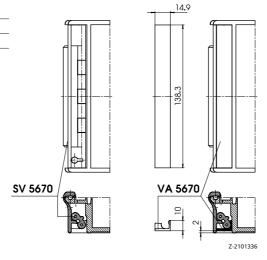
Hinged quick-release fastening SV

for conversion of front frames

FR and FO

Scope of delivery: 2 pieces

1 catch* 1 blind plug*



Cylinder catch

Order designation

Order design	ation			
Model	Order no.	Application		
SHLO-302	21008310	FD(G) /		
		SV 5670	`	\sim
	Cy	Blir	nd plug** Catch**	
** Supplied a	as standard	with front lid		



Scope of delivery: 2 pieces





Cylinder catch

CombiCard 5000-7000 accessories



Material: laminated paper 2 mm



Material: laminated paper 2 mm

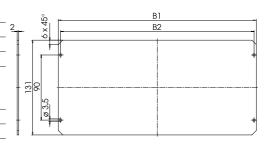


Material: laminated paper 2 mm

Mounting plates for RD... and BC...(L)-...

Order designation Order no. Model M 5000 80050000 M 6000 80060000 M 7000 80070000

Table of dimensions				
Model	B1	B2		
M 5000	125.88	119.88		
M 6000	176.68	170.68		
M 7000	273.20	267.20		



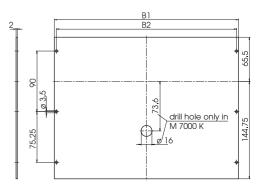
For fixing screws, see accessories starting on page 642.

7-2101328

Mounting plates for RD...K

Order designation Model Order no. M 5000 K 80050100 M 6000 K 80060100 M 7000 K 80070100

Table of dimensions				
Model	B1	B2		
M 5000 K	125.88	119.88		
M 6000 K	176.68	170.68		
M 7000 K	273.20	267.20		



For fixing screws, see accessories starting on page 642.

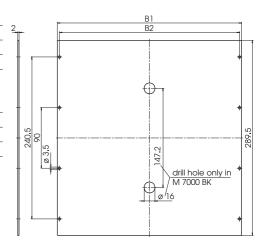
Z-2101329

Mounting plates for RD...BK

Order designation Model Order no. M 5000 BK 80050200 M 6000 BK 80060200 M 7000 BK 80070200

Table of dimensions				
Model	B1	B2		
M 5000 BK	125.88	119.88		
M 6000 BK	176.68	170.68		
M 7000 BK	273.20	267.20		

For fixing screws, see accessories starting on page 642.





DIN rails

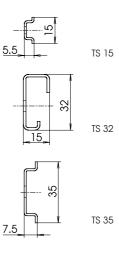
Order designation

Model	5000	6000	7000	Design
	Order no.	Order no.	Order no.	
TS 151	22151301	22151801	22152801	Top hat rail DIN EN 60715 TH15
TS 321	22321301	22321801	22322801	Top hat rail DIN EN 60715 G 32
TS 351	22351301	22351801	22352801	Top hat rail DIN EN 60715 TH35

For fixing screws, see accessories starting on page 642.

Table of dimensions

For model	Length	
5000	130	
6000	180	
7000	280	

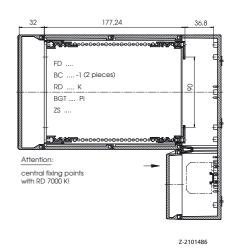


Z-2001663

Dimensioning acc. to VDE 0611 Part 1 / DIN EN 60947-7-1

Model	Phoenix MBK 2.5	MBK 5	MBK 10	Weidmül AKZ 1.5	ler AKZ 4
V ~	500.0	500.0	500.0	400.0	500.0
A	19.5	35.0	46.0	17.5	32.0
mm²	1.5	4.0	6.0	1.5	4.0
RD 5000, RD 5000 K	15.0	12.0	10.0	14.0	12.0
RD 5000 BK	30.0	24.0	20.0	28.0	24.0
RD 6000, RD 6000 K	20.0	18.0	14.0	20.0	16.0
RD 6000 BK	40.0	36.0	28.0	40.0	32.0
RD 7000, RD 7000 K	40.0	34.0	28.0	38.0	32.0
RD 7000 BK	80.0	68.0	56.0	76.0	64.0
Terminal accessories					
End-angle pieces	2	2	2	2	2
Back plates	_	_	_	1	1

Possible terminal assignment



If the terminals are soldered, the following numbers can be achieved:

Soldered terminals with 2.5 or 2.54 pitch

Joiacica (Cilillia) Wi	Solution terminals with 2.5 or 2.54 pitch						
Model	single-row	double-row (do	ouble-deck terminals)				
RD 5000, RD 5000 K	17	34					
RD 5000 BK	34	68					
RD 6000, RD 6000 K	26	52					
RD 6000 BK	52	104					
RD 7000, RD 7000 K	44	88					
RD 7000 BK	88	176					

