

CombiCard® 5000-7000

Modular Instrumentation Enclosure System



For Finishing Services, Product Support, or to Order

Call 1-301-696-9800

CombiCard® 5000-7000

The modular construction of this innovative enclosure ensures that the demands made of a future-orientated 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 hinge system design and the possibility of installing prefabricated mounting racks minimize the assembly times.

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. Color: 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).

Accessories (additional charge): See product pages.

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.

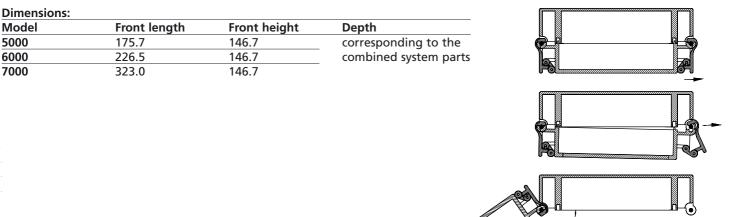
Enclosure variants:

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.



 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°.





CombiCard 5000-7000 system components



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		

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	

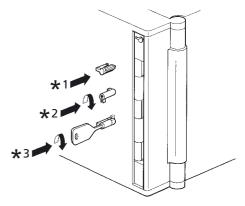


Table of dimensions

Model	B1	B2	B3	
FD 5000 (G)	175.7	131.8 ^{+0.5} _{-0.3}	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	

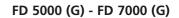
Scope of delivery: Front frame with seal, 2 snap-on covers,

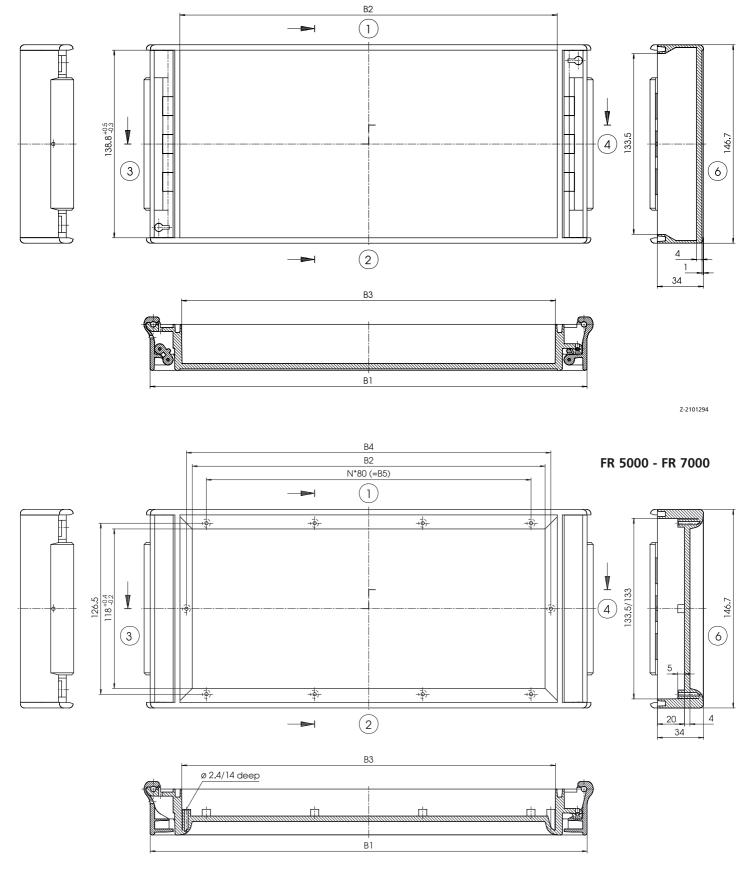
4 fixing screws

Table of dimensions

Model	B1	B2	B3	B4	B5	Ν	
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	









CombiCard 5000-7000 system components



Open front frame design, for fitting front panels FP...Al 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		
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 quick-	
		release fastening	

Table of dimensions

Model	B1	B2	B3
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)

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

SR 5670-0.5 79004900 Set of catches

Order no. Designation

Accessory (additional charge)

Scope of delivery: BC_000-0.5: base with seal, 2 mounted locks BC_000 L-0.5: base with air vents without seal, 2 mounted locks

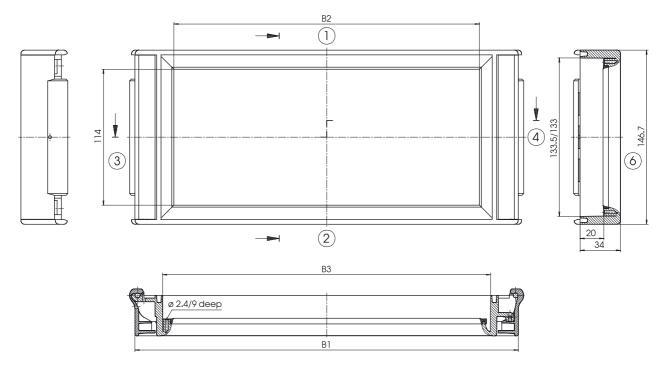
Table of dimensions

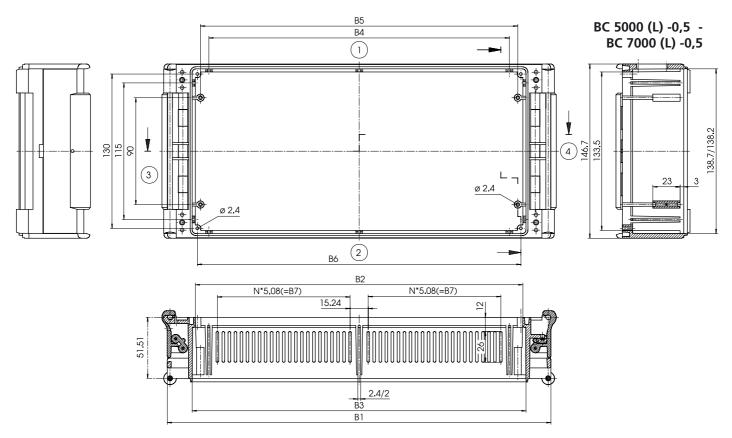
Model	B1	B2	B3	B4	B5	B6	B7	Ν
BC 5000 (L)-0.5	175.7	128.5/127.1	133.7/133.2	105.78	119.88	125.08	35.56	7
BC 6000 (L)-0.5	226.5	179.3/177.9	184.5/184.0	156.58	170.68	175.88	60.96	12
BC 7000 (L)-0.5	323.0	275.8/274.4	281.0/280.5	253.10	267.20	272.40	111.76	22

Model



FO 5000 - FO 7000







CombiCard 5000-7000 system components



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 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 ventila	ition				

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

Accessory (Accessory (additional charge)					
Model	Order no.	Designation				
SR 5670-1	79005010	Set of catches				

Table of dimensions

Scope of delivery: BC_000-1: base with seal,

2 mounted locks BC_000 L-1:

2 mounted locks

base with air vents without seal,

Model	B1	B2	B3	B4	B5	B6	B7	Ν
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 ventila	ition				

tional charge)
Order no.
79004000
79004100
79004200
Order no.
80050000
80060000
80070000

Order no. Designation

Accessory (additional charge)

SR 5670-1.5 79005100 Set of catches

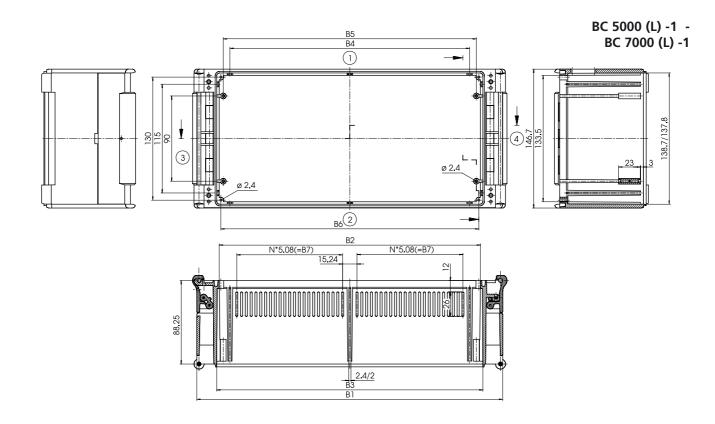
Scope of delivery: BC_000-1.5: base with seal, 2 mounted locks BC_000 L-1.5: base with air vents without seal, 2 mounted locks

Table of dimensions

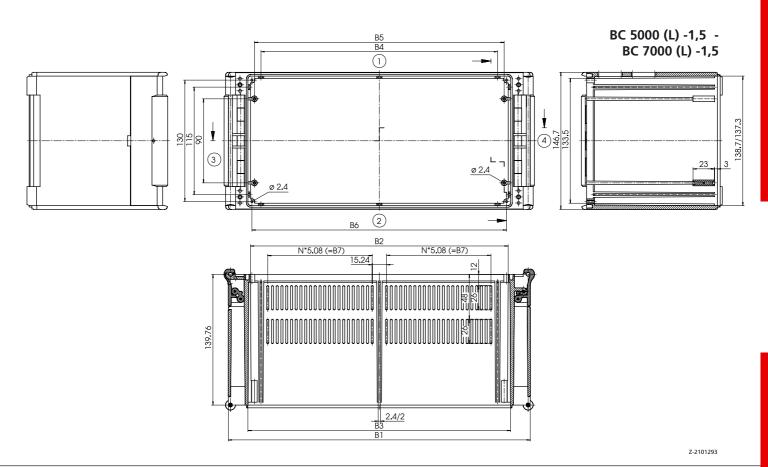
Model	B1	B2	B3	B4	B5	B6	B7	B7	Ν
BC 5000 (L)-1.5	175.7	128.5/127.1	133.7/132.3	105.78	119.88	125.08	125.08	35.56	7
BC 6000 (L)-1.5	226.5	179.3/177.9	184.5/183.1	156.58	170.68	175.88	175.88	60.96	12
BC 7000 (L)-1.5	323.0	275.8/274.4	281.0/279.6	253.10	267.20	272.40	272.40	111.76	22

Model





Z-2101292



All dimensions in mm. Please refer also to technical data.



CombiCard 5000-7000 system components



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 ventila	tion

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.

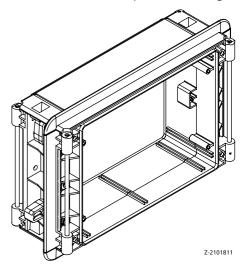


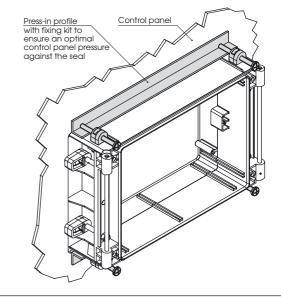
Table of dimensions

lable of uniteris									
Model	B1	B2	B3	B4	B5	B6	B7	Ν	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)

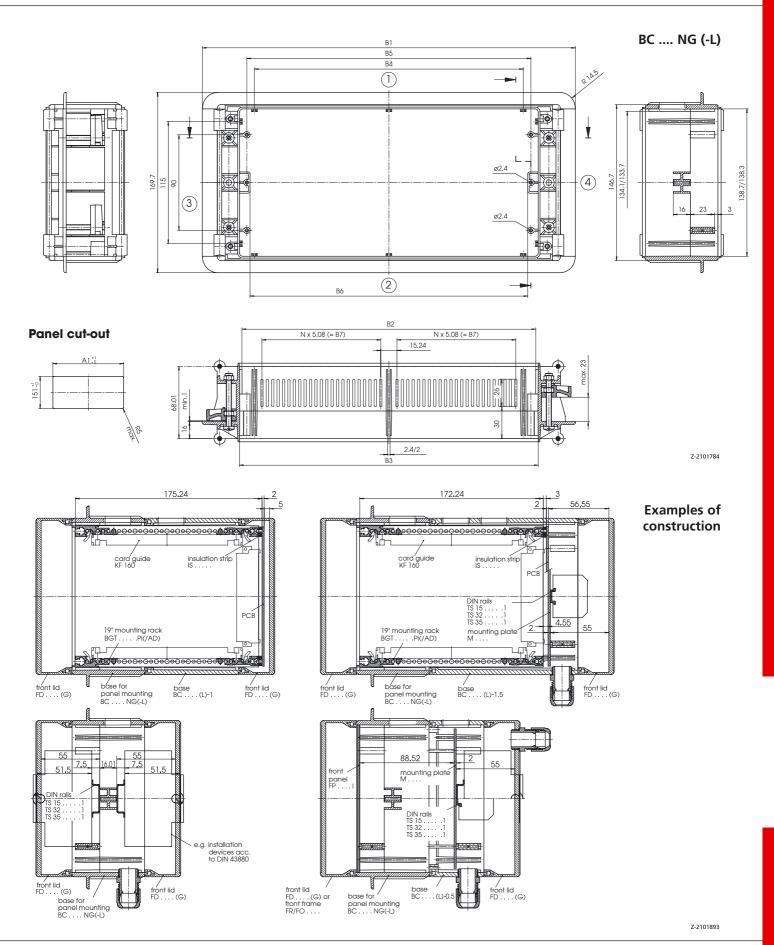
Accessories (add	litional charge	e)
Model	Order no.	Description
BC 5000 NG-DI*	79001630	Self-adhesive seal
BC 5000 NG-AP	79001620	Press-in profile with fixing kit to ensure an
		optimal control panel pressure against the seal
BC 6000 NG-DI*	79001730	Self-adhesive seal
BC 6000 NG-AP	79001720	Press-in 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.



204





All dimensions in mm. Please refer also to technical data.



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 2	213.			

Accessories (additional charge)

Accessories (additional charge)

For DIN rails see page 213.

79005500

WL 5670 K 79004700 Wall brackets

Front panels FP 5000 I

Mounting plates

FP 6000 I

FP 7000 I

M 5000 K

M 6000 K

M 7000 K

Model

BS 5670

Order no.

79004000

79004100

79004200

Order no.

80050100

80060100

80070100

Order no. Designation

Fixing kit

for FP...I in RD...

Table of dimensions

lable of all							
Model	B1	B2	B3	B5	B6	B7	Ν
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.

Scope of delivery:

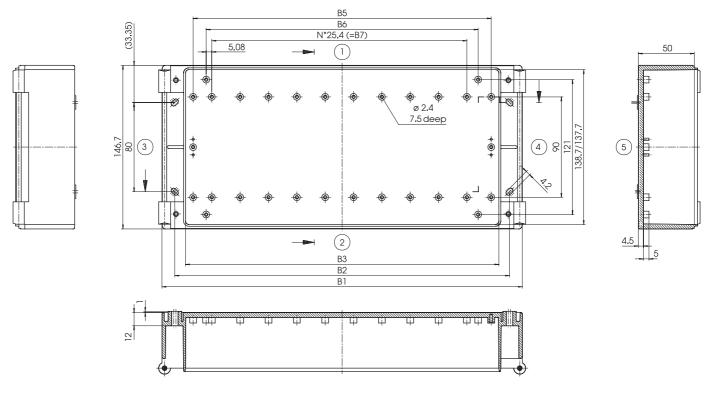
Rear section, terminal compartment bar, terminal compartment cover including seal and fixing screws

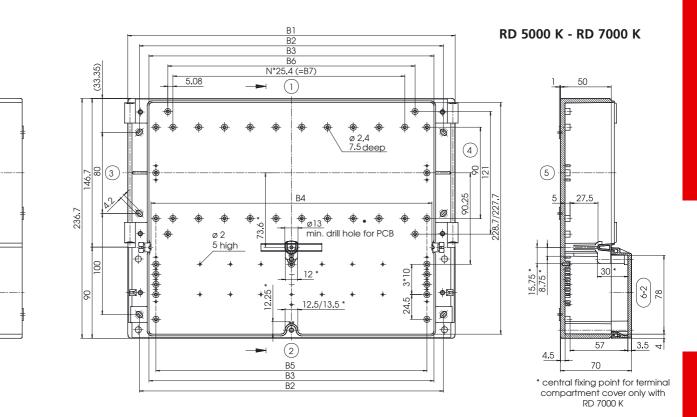
Table of dimensions

Model	B1	B2	B3	B4	B5	B6	B7	Ν
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



RD 5000 - RD 7000



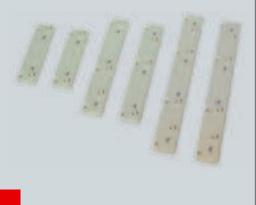




CombiCard 5000-7000 system components/accessories



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 designa	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)					
Order no.					
79004000					
79004100					
79004200					
Order no.					
80050200					
80060200					
80070200					

Accessories	(additional	charge)
Model	Order no.	Designation
BS 5670	79005500	Fixing kit
		for FPI in RD
WL 5670 BK	79004800	Wall brackets
For DIN rail	s see page 2	213.

Table of dimensions

Tuble of annens	10113							
Model	B1	B2	B3	B4	B5	B6	B7	Ν
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

oraci acsigne		
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

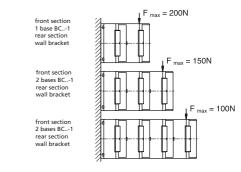
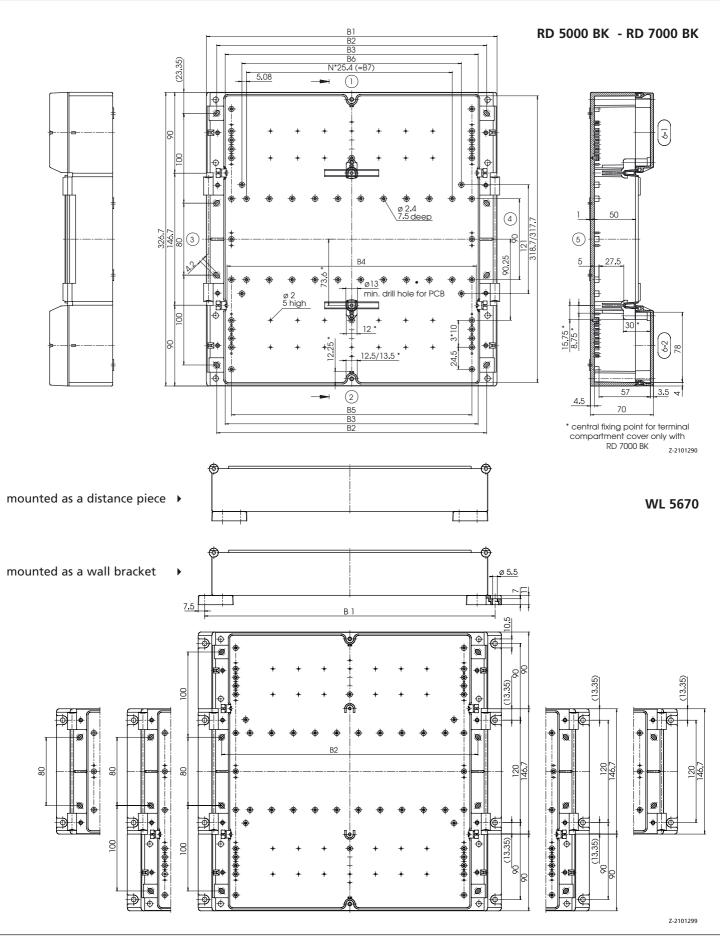


Table of dimensions

lable of unitension	5		
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	







CombiCard 5000-7000 accessories



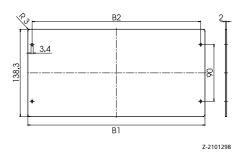
Front panels, internal for BC.../RD...

Order designa	tion	Table of dimensions	
Model	Order no.	B1	B2
FP 5000 l	79004000	133.3	119.88
FP 6000 l	79004100	184.1	170.68
FP 7000 l	79004200	280.6	267.20
BS 5670	79005500	Fixing k	it 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.

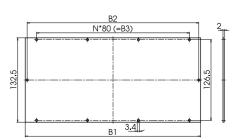


Front panels for FO...

-

Order designation		Table of	Table of dimensions			
Model	Order no.	B1	B2	B3	Ν	
FP 5000 Al	79004300	128.1	122.1	80	1	
FP 6000 Al	79004400	178.9	172.9	160	2	
FP 7000 Al	79004500	275.4	269.4	240	3	

The fixing screws are included with the front frame FO_000.

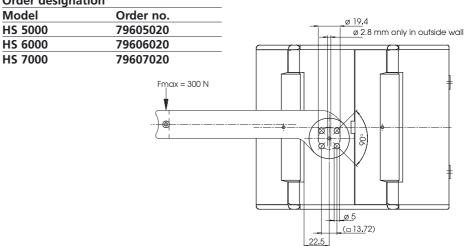


Z-2101297

Z-2101630

Handle

Order designation



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).

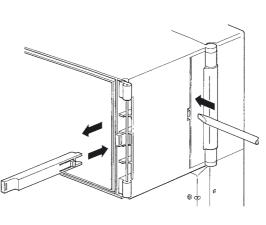


Lock bolts for bases to lock fastening function

~ 1		
Order	desiar	nation

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 guick-release fastenings cannot be opened when the enclosure is closed. The lock bolt can only be moved and the hinged quick-release fastening opened after 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.



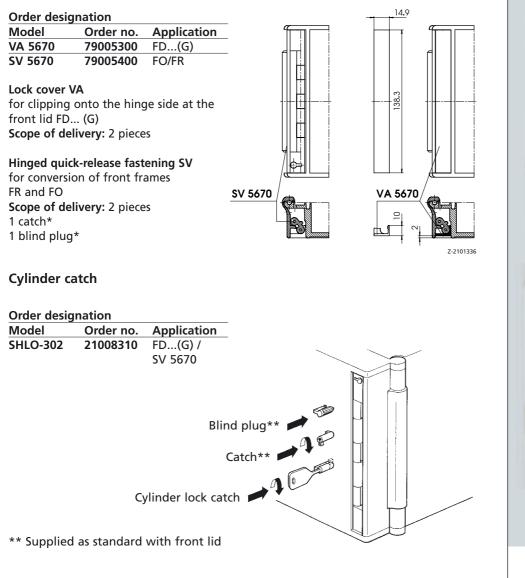


Scope of delivery: 2 pieces

SV 5670

VA 5670

Lock cover / hinged quick-release fastening



*For description of function, see front lid page 198. All dimensions in mm. Please refer also to technical data.

211

Cylinder catch



CombiCard 5000-7000 accessories



Material: laminated paper 2 mm



Material: laminated paper 2 mm

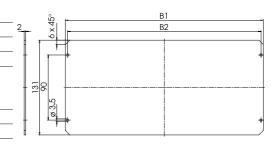


Material: laminated paper 2 mm

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

Order designation					
Model	Order no.				
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			

273.20



For fixing screws, see accessories starting on page 642.

Z-2101328

M 7000

Mounting plates for RD...K

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

Table of dimensions Model B1

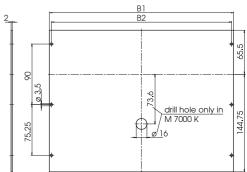
woder	BI	BZ
M 5000 K	125.88	119.88
M 6000 K	176.68	170.68
M 7000 K	273.20	267.20

For fixing screws, see accessories starting on page 642.

170.68 267.20

00

267.20



Z-2101329

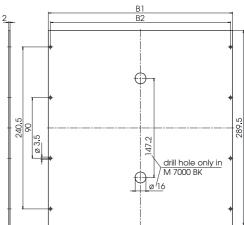
Mounting plates for RD...BK

Order designation

Model	Order no.		- 2 ₁ -
M 5000 BK	80050200		
M 6000 BK	80060200		
M 7000 BK	80070200		-
Table of dime	nsions		_ ↓ ,
Model	B1	B2	
	125.00	110.00	

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.

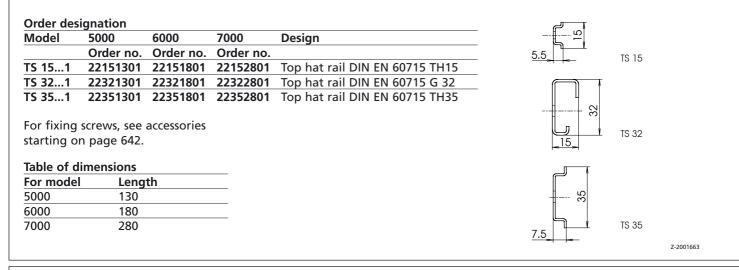


Z-2101330

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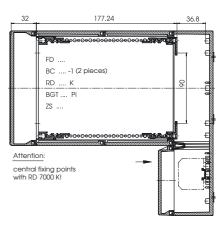
DIN rails



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



Z-2101486

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

Soldered terminals with 2.5 or 2.54 pitch

Model	single-row	double-row (double-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

