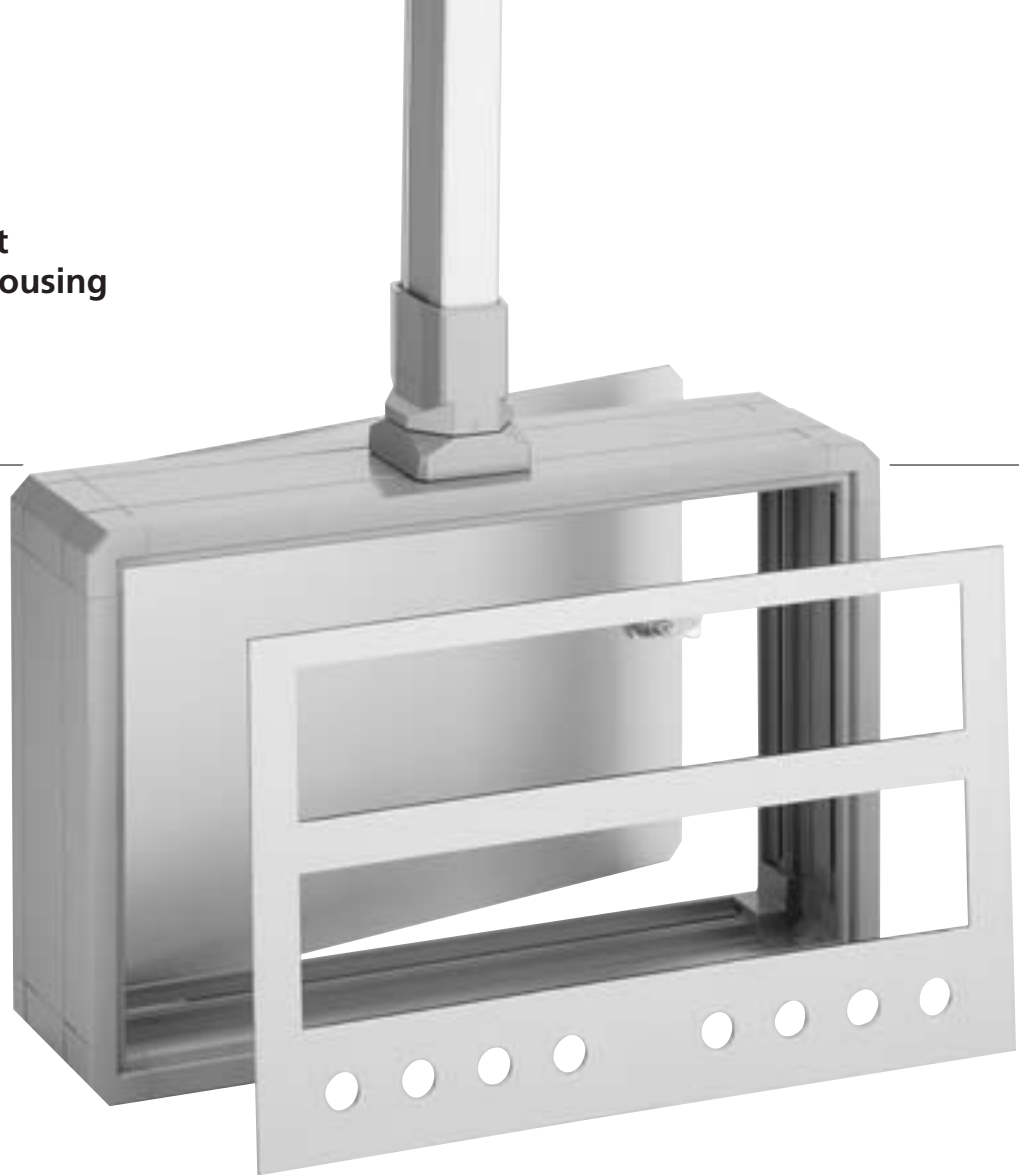


Modular lightweight operator interface housing CC-2000 SL



The BERNSTEIN Lightweight Operator Interface CC-2000 SL is a modular aluminium enclosure particularly suited for operator control station applications where the mounting of industrial computers, MMI, display and similar components is necessary. Its height and width are variable up to a recommended maximum size of approximate 600 x 600 mm. The depth is selected from the combination or individual use of the 200, 120 and 55 mm aluminium profiles available.

The front plate may be mounted through a specially developed quick and simple mounting system. Secured from the inside fastening clips replace both the requirement to machine the front plate and the time-consuming screw fitting during installation or servicing. The rear panel is secured using fixing screws or hinged using internal hinges that do not affect the usable depth. With the 55 mm deep extension profile, hinged as a door, there is a maximum usable depth of 244 mm when the 200 mm profile width is used.

The aluminium-extruded profile has grooves running the width and height of the enclosure, allowing components to be fitted and secured by means of simple spring nuts, again without additional enclosure machining. The profile is designed to create a cable duct around the inside of the housing to provide protection for cable looms and wiring entering from the suspension system.

Product advantages

- Modular system – width and height of the housing are completely variable
- Standard rectangular front plates can be fitted directly (e. g. Displays, MMIs)
- Front plates can be internally or externally mounted and secured
- Front plate mounting from the inside is particularly quick and easy
- No external rubber gasket required
- IP 65 protection
- Rear panel secured by screws or mounted on integrated hinges
- No loss of usable depth due to hinges
- Internal grooves allow simple fastening with spring nuts
- Single-wall aluminium extruded profile incorporates a built-in cable channel
- Excellent heat dissipation
- Modern industrial design

Materials

- Aluminium extruded profile: Al Mg Si 05
- Aluminium die-cast corners: Al Si 12
- Seals between profile and corner module: CR
- Seal for front plate and rear panel: CR
- Hinge profile: Al Mg Si 05
- Front plate, rear panel: Al Mg 3

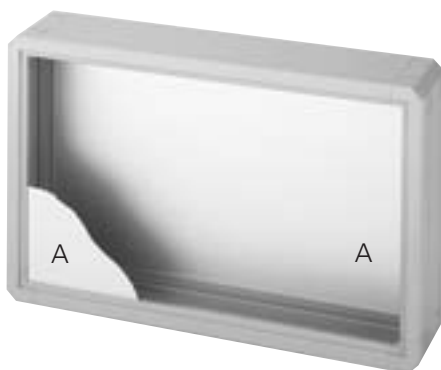
Colour

- Housing: RAL 7035
- Front plate and rear panel: Aluminium nature anodised

Availability

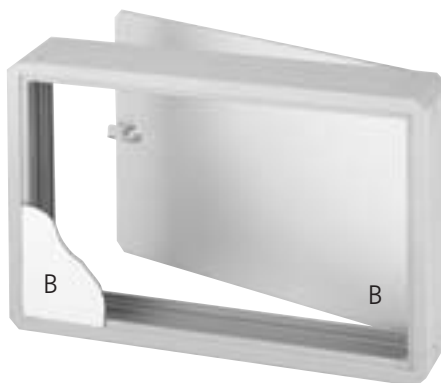
CC-2000 SL lightweight control housings in standard sizes are available with short delivery times or as custom versions built to order.

(A)
Front plate
Fitted from inside



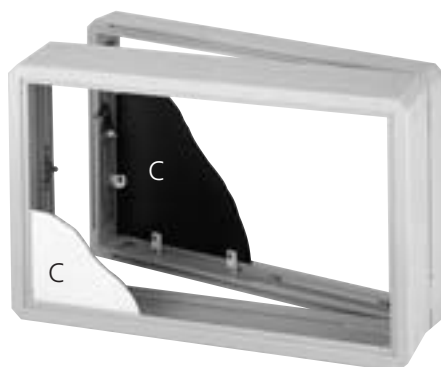
(A)
Back plate
Fixed or hinged

(B)
Front plate
Fitted from the outside



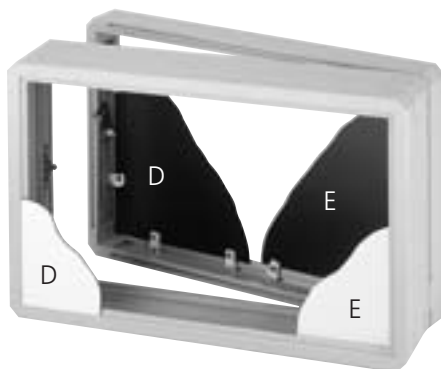
(B)
Front plate
Fitted from the outside

(C)
Front plate
Fitted from the inside



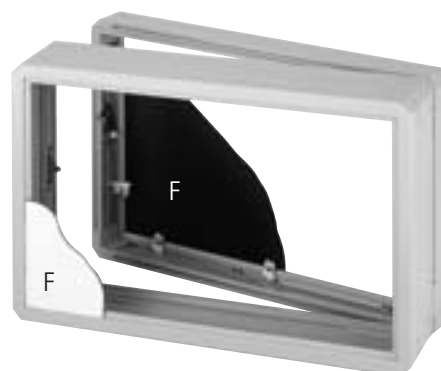
(C)
Back plate
Fitted from the inside

(D)
Front plate
Fitted from the outside



(D)
Back plate
Fitted from the inside

(E)
Front plate
Fitted from the inside



(E)
Back plate
Fitted from the outside

(F)
Front plate
Fitted from the outside



(F)
Back plate
Fitted from the outside

System variations

As a result of the various fitting and profile combinations, usable depths between the front plate and the back plate (each 3 mm thick) vary between 101 and 244 mm:

Profile 120/Profile 200

Usable depth		Housing construction
Profile [mm]	Profile [mm]	
101	181	Front plate from the inside. Back plate fixed or hinged (A)
109	189	Front plate from the outside. Back plate fixed or hinged (B)

Profile 120 + 55 as a door extension
Profile 200 + 55 as a door extension

Usable depth		Housing construction
Profile [mm]	Profile [mm]	
147	227	Front plate from the inside. Back plate from the inside (C)
155	235	Front plate from the outside. Back plate from the inside (D)
155	235	Front plate from the inside. Back plate from the outside (E)
164	244	Front plate from the outside. Back plate from the outside (F)



Dimensions

The BERNSTEIN CC-2000 SL is available with a selection of front and back plates and various combinations of profile width, including:

Profile widths

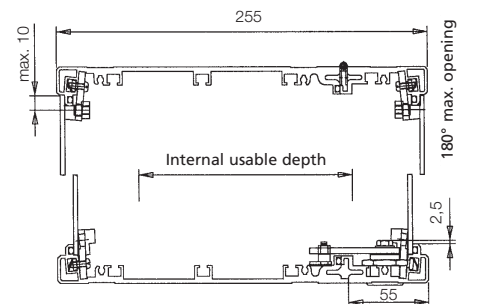
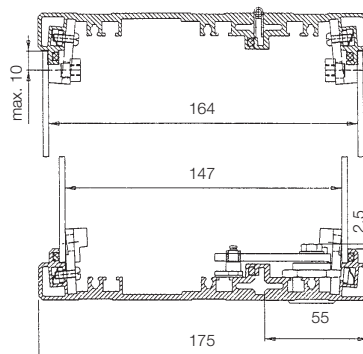
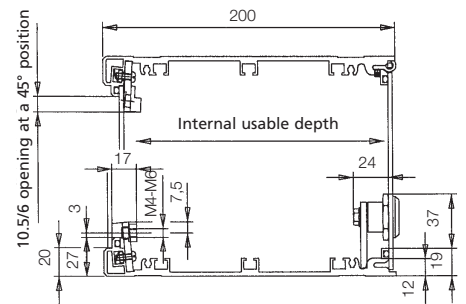
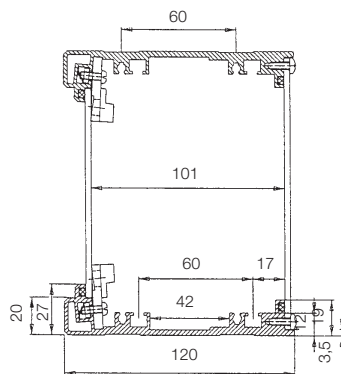
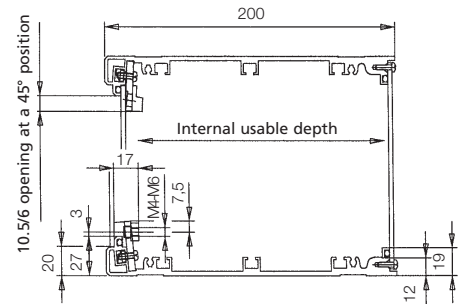
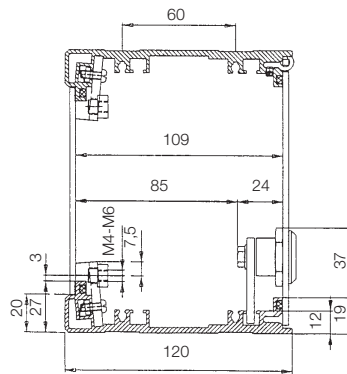
- 120 mm
- 175 mm (120 + 55 mm)
- 200 mm
- 255 mm (200 + 55 mm)

allowing the following different internal depths:

Internal usable depths

- 101 mm
- 109 mm
- 147 mm
- 155 mm
- 164 mm
- 181 mm
- 189 mm
- 227 mm
- 235 mm
- 244 mm

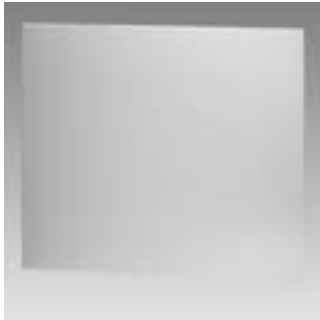
Width and height of the CC-2000 SL control interface housing are completely optional up to a recommended size of circa 600 x 600 mm.



Enclosure components

Light weight operator interface housing

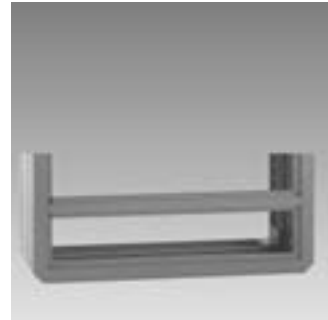
CC-2000 SL



Front plate
Clear (silver) anodised aluminium front plate, 3 mm thick, both sides anodised, protection film one side.



Handles
Handle set, made from aluminium profile. Fixing without machining.



Separator piece
Aluminium separator piece for direct mounting of control and other operating panels (for example emergency stop buttons and other operating-components). Is cut to size and machined to fit individual housing. Complete with fixing and sealing material. Order separately or via checklist.



Spring nut set M4
(Part number 980.6.0060.00)
Spring nut set M5
(Part number 980.6.0070.00)
10 off spring nuts with metric thread M4 or M5 for fixing units in the housing. The spring nuts are fitted in the fixing rails into the aluminium housing profile and can be pushed into position in the housing.



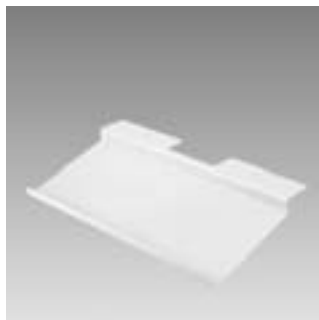
19" fixing set
(Part number 980.6.1120.00)
4 cage nuts M6 with screws and washers to fix 19" inserts of the fixing clips enclosed in the housing.



CD-ROM-Cover
(Part number 980.6.2170.00)
Dimensions (W x H x D):
177 x 119 x 8 mm
Surface: possible to paint.



Keyboard holder (stirrup)
(Part number 980.6.1770.00)
Metal frame for PC keyboards, which can be installed additionally. For assembly the machining of the housing is necessary. Fixings enclosed.



Keyboard support
(Part number 980.6.1750.00)
Steel plate keyboard support in RAL 7035 for additional mounting. Machining is necessary for assembly, including fixings.



Floppy-Cover
(Part number 980.6.2190.00)
Dimensions (W x H x D): 120 x 92 x 8 mm
Surface: possible to paint.

Standard dimensions CC-2000 SL light weight operator interface housing

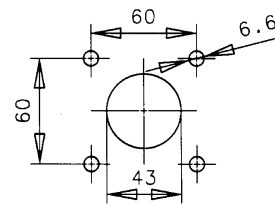
Part number	External housing dimensions W x H x D (mm)	19" fitting dimensions	Front plate dimensions overall (mm)	Front plate usable area (mm)	Front plate Part number	Usable depth with 3 mm plate thickness min./max. (mm)	Back plate dimensions overall e x f (mm)
114.5.2000.00	275 x 254 x 120	–	235 x 214	221 x 200	954.5.5410.00	101/109	268 x 247
114.5.2000.00	275 x 254 x 120	–	235 x 214	221 x 200	954.5.5410.00	101/109	266 x 245
114.5.2010.00	284 x 312 x 120	–	244 x 272	230 x 258	954.5.5420.00	101/109	277 x 305
114.5.2010.00	284 x 312 x 120	–	244 x 272	230 x 258	954.5.5420.00	101/109	275 x 303
114.5.2020.00	284 x 428 x 120	–	244 x 388	230 x 374	954.5.0120.00	101/109	277 x 421
114.5.2020.00	284 x 428 x 120	–	244 x 388	230 x 374	954.5.0120.00	101/109	275 x 419
116.5.2020.00	284 x 428 x 175	–	244 x 388	230 x 374	954.5.0120.00	147/164*	244 x 388
124.5.2020.00	284 x 428 x 200	–	244 x 388	230 x 374	954.5.0120.00	181/189	277 x 421
124.5.2020.00	284 x 428 x 200	–	244 x 388	230 x 374	954.5.0120.00	181/189	275 x 419
114.5.2030.00	395 x 345 x 120	–	355 x 305	341 x 291	954.5.0090.00	101/109	388 x 338
114.5.2030.00	395 x 345 x 120	–	355 x 305	341 x 291	954.5.0090.00	101/109	386 x 336
116.5.2030.00	395 x 345 x 175	–	355 x 305	341 x 291	954.5.0090.00	147/164*	355 x 305
124.5.2030.00	395 x 345 x 200	–	355 x 305	341 x 291	954.5.0090.00	181/189	388 x 338
124.5.2030.00	395 x 345 x 200	–	355 x 305	341 x 291	954.5.0090.00	181/189	386 x 336
114.5.2040.00	470 x 415 x 120	–	430 x 375	416 x 361	954.5.0150.00	101/109	463 x 408
114.5.2040.00	470 x 415 x 120	–	430 x 375	416 x 361	954.5.0150.00	101/109	461 x 406
116.5.2040.00	470 x 415 x 175	–	430 x 375	416 x 361	954.5.0150.00	147/164*	430 x 375
124.5.2040.00	470 x 415 x 200	–	430 x 375	416 x 361	954.5.0150.00	181/189	463 x 408
124.5.2040.00	470 x 415 x 200	–	430 x 375	416 x 361	954.5.0150.00	181/189	461 x 406
114.5.2050.00	525 x 309 x 120	84 TE x 6 HE	485 x 269	471 x 255	954.5.0060.00	101/109	518 x 302
114.5.2050.00	525 x 309 x 120	84 TE x 6 HE	485 x 269	471 x 255	954.5.0060.00	101/109	516 x 300
116.5.2050.00	525 x 309 x 175	84 TE x 6 HE	485 x 269	471 x 255	954.5.0060.00	147/164*	485 x 269
124.5.2050.00	525 x 309 x 200	84 TE x 6 HE	485 x 269	471 x 255	954.5.0060.00	181/189	518 x 302
124.5.2050.00	525 x 309 x 200	84 TE x 6 HE	485 x 269	471 x 255	954.5.0060.00	181/189	516 x 300
114.5.2060.00	525 x 354 x 120	84 TE x 7 HE	485 x 314	471 x 300	954.5.0000.00	101/109	518 x 347
114.5.2060.00	525 x 354 x 120	84 TE x 7 HE	485 x 314	471 x 300	954.5.0000.00	101/109	516 x 345
116.5.2060.00	525 x 354 x 175	84 TE x 7 HE	485 x 314	471 x 300	954.5.0000.00	147/164*	485 x 314
124.5.2060.00	525 x 354 x 200	84 TE x 7 HE	485 x 314	471 x 300	954.5.0000.00	181/189	518 x 347
124.5.2060.00	525 x 354 x 200	84 TE x 7 HE	485 x 314	471 x 300	954.5.0000.00	181/189	516 x 345
114.5.2070.00	525 x 398 x 120	84 TE x 8 HE	485 x 358	471 x 344	954.5.0030.00	101/109	518 x 391
114.5.2070.00	525 x 398 x 120	84 TE x 8 HE	485 x 358	471 x 344	954.5.0030.00	101/109	516 x 389
116.5.2070.00	525 x 398 x 175	84 TE x 8 HE	485 x 358	471 x 344	954.5.0030.00	147/164*	485 x 358
124.5.2070.00	525 x 398 x 200	84 TE x 8 HE	485 x 358	471 x 344	954.5.0030.00	181/189	518 x 391
124.5.2070.00	525 x 398 x 200	84 TE x 8 HE	485 x 358	471 x 344	954.5.0030.00	181/189	516 x 389
114.5.2080.00	356 x 377 x 120	–	316 x 337	302 x 323	954.5.3420.00	101/109	349 x 370
114.5.2080.00	356 x 377 x 120	–	316 x 337	302 x 323	954.5.3420.00	101/109	347 x 368
114.5.2090.00	542 x 495 x 120	–	502 x 455	488 x 441	954.5.5430.00	101/109	535 x 488
114.5.2090.00	542 x 495 x 120	–	502 x 455	488 x 441	954.5.5430.00	101/109	533 x 486
116.5.2090.00	542 x 495 x 175	–	502 x 455	488 x 441	954.5.5430.00	147/164*	502 x 455
124.5.2090.00	542 x 495 x 200	–	502 x 455	488 x 441	954.5.5430.00	181/189	535 x 488
124.5.2090.00	542 x 495 x 200	–	502 x 455	488 x 441	954.5.5430.00	181/189	533 x 486
124.5.2100.00	475 x 306 x 200	–	435 x 266	421 x 252	direct mounting	181/189	468 x 299
124.5.2100.00	475 x 306 x 200	–	435 x 266	421 x 252	direct mounting	181/189	466 x 297

Delivery includes:

- Assembled enclosure, painted (RAL 7035 light grey) incl. quick fastening kit for front plate
- Standard 8 mm square lock on doors or hinged back plates, lock mounted in back plate
- Front plate, rear panel, handles (optional)

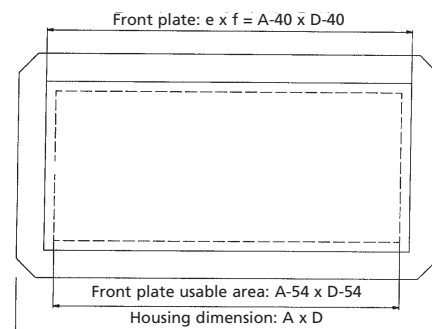
Suspension system machining

- for
- CS-1000 mini support system
 - CS-2000 SL light weight support system
 - CS-2000 suspension system 50
 - CS-2000 suspension system 60
 - Inclination couplings of all systems

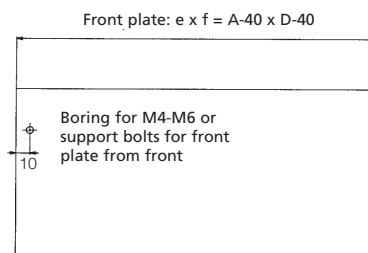


Back plate Features	Back plate Part number	Handles on side Part number	Handles at bottom Part number
screw mounted	954.5.0500.00	980.6.1420.00	-
hinged	980.6.1400.00	980.6.1420.00	-
screw mounted	954.5.1250.00	980.6.1430.00	-
hinged	980.6.1410.00	980.6.1430.00	-
screw mounted	954.5.0130.00	980.6.1310.00	-
hinged	980.6.1250.00	980.6.1310.00	-
from inside	954.5.0120.00	980.6.1310.00	-
screw mounted	954.5.0130.00	980.6.1310.00	-
hinged	980.6.1250.00	980.6.1310.00	-
screw mounted	954.5.0100.00	980.6.1320.00	-
hinged	980.6.1260.00	980.6.1320.00	-
from inside	954.5.0090.00	980.6.1320.00	-
screw mounted	954.5.0100.00	980.6.1320.00	-
hinged	980.6.1260.00	980.6.1320.00	-
screw mounted	954.5.0160.00	980.6.1330.00	-
hinged	980.6.1270.00	980.6.1330.00	-
from inside	954.5.0150.00	980.6.1330.00	-
screw mounted	954.5.0160.00	980.6.1330.00	-
hinged	980.6.1270.00	980.6.1330.00	-
screw mounted	954.5.0070.00	980.6.1340.00	-
hinged	980.6.1280.00	980.6.1340.00	-
from inside	954.5.0060.00	980.6.1340.00	-
screw mounted	954.5.0070.00	980.6.1340.00	-
hinged	980.6.1280.00	980.6.1340.00	-
screw mounted	954.5.0010.00	980.6.1350.00	-
hinged	980.6.1290.00	980.6.1350.00	-
from inside	954.5.0000.00	980.6.1350.00	-
screw mounted	954.5.0010.00	980.6.1350.00	-
hinged	980.6.1290.00	980.6.1350.00	-
screw mounted	954.5.0040.00	980.6.1360.00	-
hinged	980.6.1300.00	980.6.1360.00	-
from inside	954.5.0030.00	980.6.1360.00	-
screw mounted	954.5.0040.00	980.6.1360.00	-
hinged	980.6.1300.00	980.6.1360.00	-
screw mounted	954.5.4840.00	980.6.1600.00	-
hinged	980.6.1640.00	980.6.1600.00	-
screw mounted	954.5.4850.00	980.6.1660.00	-
hinged	980.6.1650.00	980.6.1660.00	-
from outside!	954.5.1210.00	980.6.1660.00	-
screw mounted	954.5.4850.00	980.6.1660.00	-
hinged	980.6.1650.00	980.6.1660.00	-
screw mounted	954.5.4810.00	-	980.6.1630.00
hinged	980.6.1620.00	-	980.6.1630.00

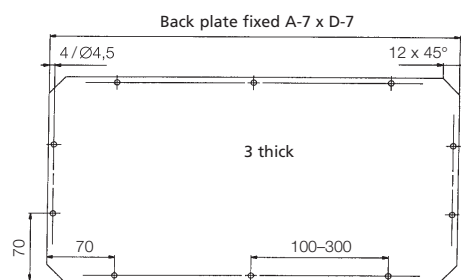
Housing dimensions outline



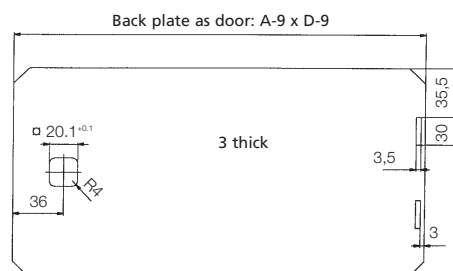
Front plate dimensions



Back plate dimensions (back plate screw fitted)



Back plate dimensions (hinged back plate)



*) 164 mm when drilling or screwing through the rear panel; otherwise 155 mm usable depth (clearance required for internal fixing)

Check list

Price enquiry, Order form Lightweight control housing CC-2000 SL

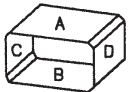
Please use copies of this form.
Grey marked boxes are standard.

Client	Code	Part No.
Address		Cust. No.
Telephone	Telefax	Branch
Contact	Department	
<input type="checkbox"/> Price enquiry	Enquiry No.	Date
<input type="checkbox"/> Enquiry	Annual need	Qty.
<input type="checkbox"/> Order	Delivery date	Qty.


1 Enclosure orientation

Horizontal Vertical

Square housing treat as horizontal



front



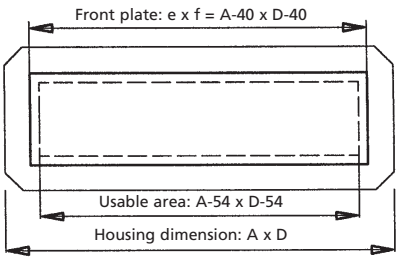
front

Weight of components
 _____ kg

2 Dimensions (mm)

Housing dimensions overall: A x D x

Front plate dimension: e x f x



3a Front plate – back plate

none with Front plate

none with Back plate

Fixing accessories for customer's own plates

For plates mounted internally: gasket, clips etc.

For plates mounted externally: gasket/washers/nuts M5

19" fixing set (9806112000): screws and nuts M6

3b Separating piece

not mounted/standard

vertical mounted right

horizontal mounted left

mounted at bottom

mounted at top

Operating plate anodised (not mounted) s = 3 mm

Dimension: g x h x

(g = width, h = height)

Housing depth (overall):		Position of front plate: usable depth (mm)		Back plate	
				fixed	or hinged with joint & lock
<input checked="" type="checkbox"/> 120 mm		<input checked="" type="checkbox"/> inside	101 mm	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> outside	109 mm	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> 200 mm		<input checked="" type="checkbox"/> inside	181 mm	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/> outside	189 mm	<input type="checkbox"/>	<input type="checkbox"/>

4b Housing with door profile:
(Door with internal hinges can only be used for its own weight)

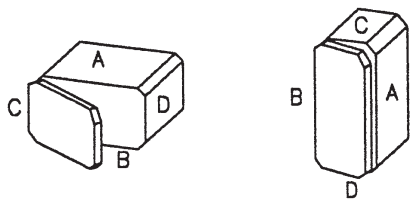
* FP = Frontplatte
RW = Rückwand

Door front	or Housing depth External (mm)	Door back	* FP internal and BP internal	* FP internal and BP external	* FP external and BP internal	* FP external and BP external
			Usable depth (mm)	Usable depth (mm)		Usable depth (mm)
External joint <input type="checkbox"/>	120 + 55	Internal joint <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 147	<input type="checkbox"/> 155	<input type="checkbox"/>	<input type="checkbox"/> 164
External joint <input type="checkbox"/>	200 + 55	Internal joint <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> 227	<input type="checkbox"/> 235	<input type="checkbox"/>	<input type="checkbox"/> 244



5 Door fixing front

Standard (as shown)

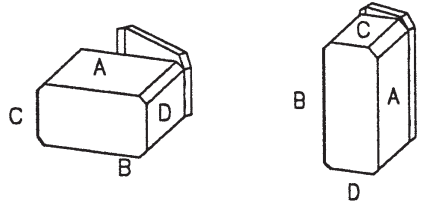


Variation to standard

A B
C D

Door fixing rear

Standard (as shown)



Variation to standard

A B
C D

6 Lock

Square (mm) 6 7 8 Standard
Triangular (mm) 7 8
Double beard (mm) 3 5

Handle with lock
 Daimler Benz
 Special lock (customers specification)

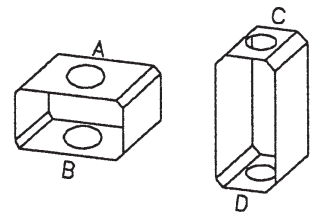
7 Machining for support systems

Side
 A
 B
 C
 D

Standard machining
For swivel tilt coupling and flange coupling 50, 60, 45/60 (SL)

Flange coupling 80 (only profile 200)
 Angle adapter (only profile 200)
 Special machining to customers specifications

None



8 Paint

Main body:
Doors:
Front plates:
Back plates:

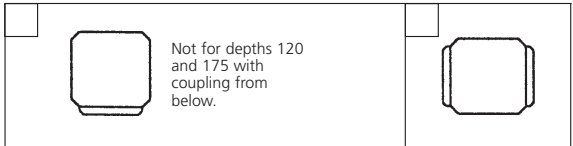
Standard
 RAL 7035, light grey
 RAL 7035, light grey
 anodised, clear
 anodised, clear

Customer specification

9 EMV (electro magnetic compatibility) version

Conducting connections between housing main body, housing door and front plate and back plate.

10 Handles



None
 Pre assembled – ready to fit Standard

11 Accessories, note

Included in delivery: key and earth-set

<input type="checkbox"/> Encl.	Sales	Techn. dept.	Planning dept.	Enquiry
<input type="checkbox"/> No encl.				Order

