

BERNSTEIN Series CP and CPS polyester enclosures are produced from highgrade glass fibre-reinforced polyester. Thanks to their reduced surface resistance ($R_o < 109 \text{ Ohm}$), the black polyester enclosures meet the requirements for Ex applications. Polyester enclosures are therefore particularly suitable for accepting and encapsulating electrical and electronic components as well as control components in harsh environments or potentially explosive atmospheres (see Page 14). All enclosures achieve protection class IP 66 in accordance with DIN EN 60529 (optionally IP 67).

Corresponding to their size, BERNSTEIN polyester enclosures feature M4 or M6 mounting elements in the enclosure body. These galvanised steel bushes are embedded in a flange on the narrow sides of the base and accept mounting plates, mounting rails, pc boards etc.

The captive stainless steel cover screws are retained by a self-latching element integrated in the cover. The threaded bushes for mounting the cover are also made from stainless steel. The protection class (on the standard enclosure) is ensured by a factory-fitted seal. The polyester enclosures are available as standard in grey (RAL 7000, squirrel grey) or black (RAL 9005, jet black) material.

Technical data

Material

Glass fibre-reinforced polyester in grey or black

Seal

Neoprene (CR) round cord (siliconized)

Cover screws

Stainless steel, captive, cross recessed head

Optionally:

Socket head cap screws, stainless steel, captive

Colour

RAL 7000 (squirrel grey)
bzw. RAL 9005 (jet black)

Other colours (coating or dyeing) available on request for large quantities.

Temperature range of CP enclosures

-60°C to +165°C



Temperature range of seals

-30°C to +80°C (Neoprene seal)

Optionally:

-60°C to +130°C (silicone seal) or
-35°C to +100°C (EPDM seal)

Protection class

IP 66

IP 67 on request

Approbations

Germanischer Lloyd

c UL us

c CSA us

ATEX

Label on demand



										Polyester enclosure (grey)		Polyester enclosure (black)	
Dimensions/mm/inches										Article number	Type	Article number	Type
L	x	B	x	H	L	x	B	x	H				
80	x	75	x	55	3.1"	x	3.0"	x	2.2"	4140000000	CP-140	5140000000	CPS-140
80	x	75	x	75	3.1"	x	3.0"	x	3.0"	4140000050	CP-145	5140000050	CPS-145
110	x	75	x	55	4.3"	x	3.0"	x	2.2"	4150000000	CP-150	5150000000	CPS-150
110	x	75	x	75	4.3"	x	3.0"	x	3.0"	4150000050	CP-155	5150000050	CPS-155
160	x	75	x	55	6.3"	x	3.0"	x	2.2"	4170000000	CP-170	5170000000	CPS-170
160	x	75	x	75	6.3"	x	3.0"	x	3.0"	4170000050	CP-175	5170000050	CPS-175
190	x	75	x	55	7.5"	x	3.0"	x	2.2"	4190000000	CP-190	5190000000	CPS-190
190	x	75	x	75	7.5"	x	3.0"	x	3.0"	4190000050	CP-195	5190000050	CPS-195
122	x	120	x	90	4.8"	x	4.7"	x	3.5"	4220000000	CP-220	5220000000	CPS-220
220	x	120	x	90	8.7"	x	4.7"	x	3.5"	4240000000	CP-240	5240000000	CPS-240
160	x	160	x	90	6.3"	x	6.3"	x	3.5"	4280000000	CP-280	5280000000	CPS-280
260	x	160	x	90	10.2"	x	6.3"	x	3.5"	4300000000	CP-300	5300000000	CPS-300
360	x	160	x	90	14.2"	x	6.3"	x	3.5"	4320000000	CP-320	5320000000	CPS-320
560	x	160	x	90	22.0"	x	6.3"	x	3.5"	4330000000	CP-330	5330000000	CPS-330
255	x	250	x	120	10.0"	x	9.8"	x	4.7"	4370000000	CP-370	5370000000	CPS-370
400	x	250	x	120	15.7"	x	9.8"	x	4.7"	4400000000	CP-400	5400000000	CPS-400
400	x	405	x	120	15.7"	x	15.9"	x	4.7"	4450000000	CP-450	5450000000	CPS-450
400	x	405	x	165	15.7"	x	15.9"	x	6.5"	4460000000	CP-460	5460000000	CPS-460

This is just a selection of possible assembly components that BERNSTEIN offers. Contact us, we can incorporate components from all leading manufacturers to satisfy your individual demand. You find further information about "System solutions" on page 12.



Mounting plates

made from galvanised steel plate or laminated paper (thickness: CP-140 to CP 195 laminated paper 1.5 mm; CP-220 to CP-320 and CP-370 to CP-460 steel plate 1.5 mm; CP-330 steel plate 2.5 mm) for versatile mounting of built-in components.



Mounting rails

conforming to Standards TS 15 or TS 32 and TS 35 made from steel; surface treated for accepting terminal blocks.



Terminal blocks

of all renowned manufacturers are used.



Earthing bars

made from galvanised steel for combining and connecting PE conductors.



External mounting brackets

made from metal for mounting enclosures without opening the covers. The brackets are always fitted across the shorter sides of the enclosure.



External articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 155°. Cast aluminium (painted in RAL 7001 – specific colour according to enclosure specification possible). Machining is required for mounting on enclosures.



Internal articulated hinges

for hinged mounting of enclosure cover. Opening range of cover approx. 95°. Stainless steel. Machining is required for mounting on enclosures.



Silicon, EPDM or HF seal

with increased temperature resistance (see indications left side) or to protect sensitive electronic equipment against high-frequency radiation (HF seal). For a conductive connection, grooves and springs of the enclosure must be left blank.



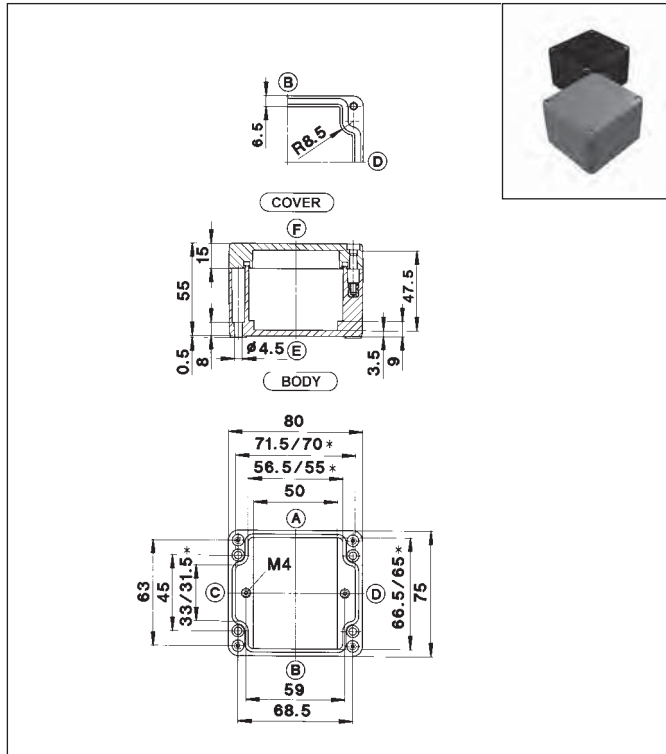
Cable glands

plastic cable glands (polyamide PAGV-2, RAL 7001) or brass cable glands. Sealing element CR/NBR. Temperature range: -20°C to +100°C. Other cable glands on demand.



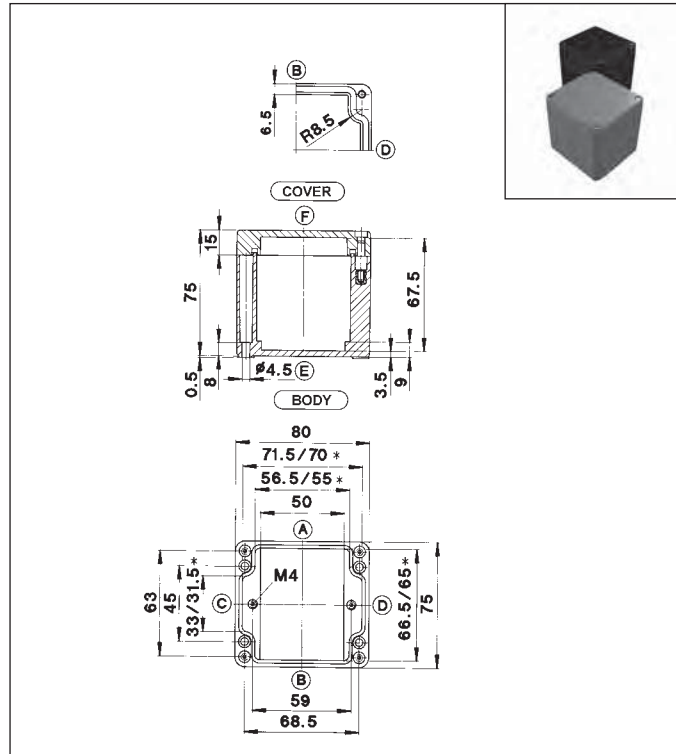
80 x 75 x 55 mm

CP-140 RAL 7000 (squirrel grey)
CPS-140 RAL 9005 (jet black)



80 x 75 x 75 mm

CP-145 RAL 7000 (squirrel grey)
CPS-145 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

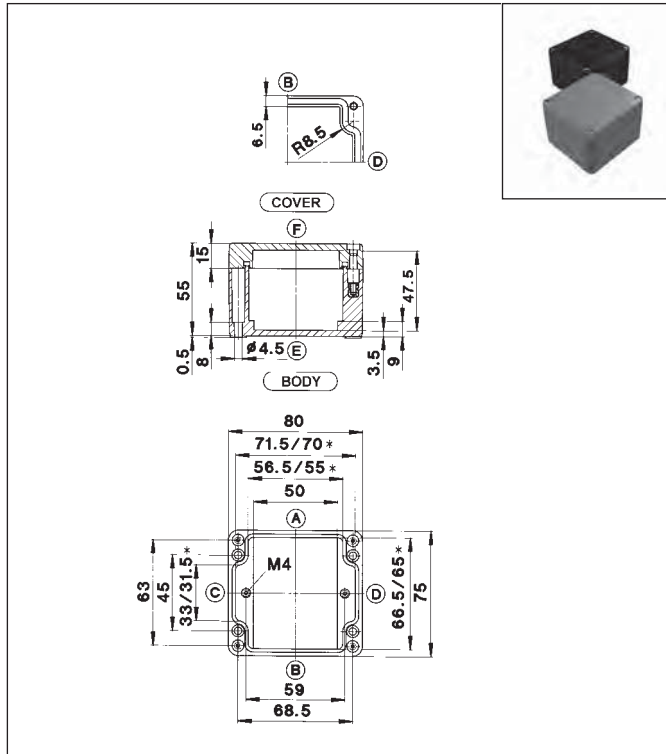
* Smaller dimension at mounting plate support

Type	CP-140	CPS-140						
Weight (g)	230	230						
External dimension (mm)	80 x 75 x 55							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4140000000							
RAL 9005 (jet black), with cover screws	5140000000							
Accessories (individual part or installation kit)								
Mounting plate	9823000000							
Mounting rail TS 15	9820003000							
Mounting rail TS 32	–							
Mounting rail TS 35	–							
Earthing rail	–							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	–							
External articulated hinges for CPS** enclosures	–							
Internal articulated hinges with cover guide**	–							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	5	2	2	1	0	0	0	0
Side C/D	2	1	1	0	0	0	0	0
** Enclosure preparation required								

Type	CP-145	CPS-145						
Weight (g)	300	300						
External dimension (mm)	80 x 75 x 75							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4140000050							
RAL 9005 (jet black), with cover screws	5140000050							
Accessories (individual part or installation kit)								
Mounting plate	9823000000							
Mounting rail TS 15	9820003000							
Mounting rail TS 32	–							
Mounting rail TS 35	–							
Earthing rail	–							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	–							
External articulated hinges for CPS** enclosures	–							
Internal articulated hinges with cover guide**	–							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	8	4	2	1	1	0	0	0
Side C/D	4	1	1	1	1	0	0	0
** Enclosure preparation required								

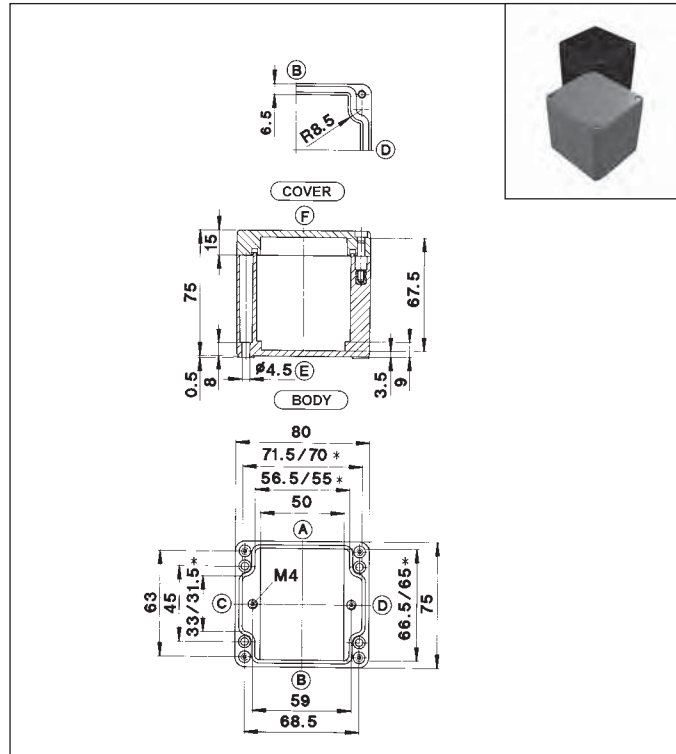
80 x 75 x 55 mm

CP-140 RAL 7000 (squirrel grey)
CPS-140 RAL 9005 (jet black)



80 x 75 x 75 mm

CP-145 RAL 7000 (squirrel grey)
CPS-145 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

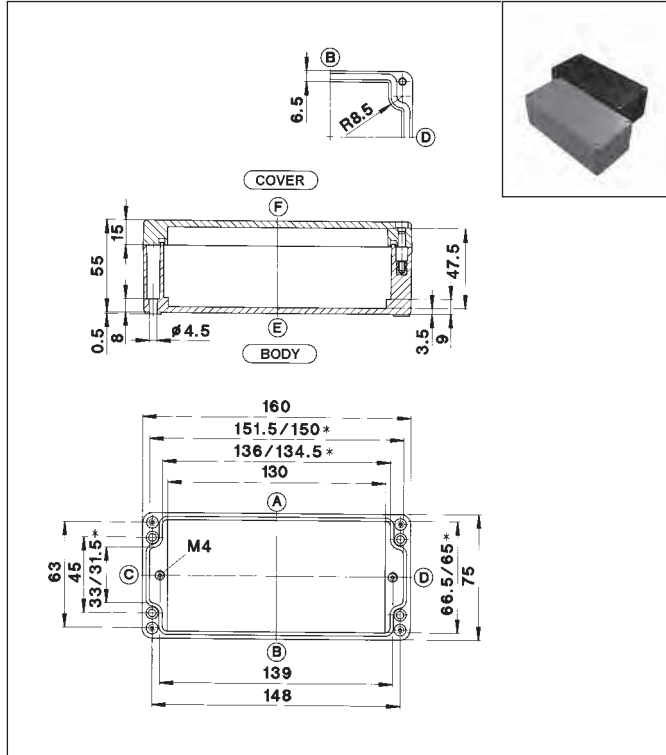
* Smaller dimension at mounting plate support

Type	CP-140	CPS-140						
Weight (g)	230	230						
External dimension (mm)	80 x 75 x 55							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4140000000							
RAL 9005 (jet black), with cover screws	5140000000							
Accessories (individual part or installation kit)								
Mounting plate	9823000000							
Mounting rail TS 15	9820003000							
Mounting rail TS 32	–							
Mounting rail TS 35	–							
Earthing rail	–							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	–							
External articulated hinges for CPS** enclosures	–							
Internal articulated hinges with cover guide**	–							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	5	2	2	1	0	0	0	0
Side C/D	2	1	1	0	0	0	0	0
** Enclosure preparation required								

Type	CP-145	CPS-145						
Weight (g)	300	300						
External dimension (mm)	80 x 75 x 75							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4140000050							
RAL 9005 (jet black), with cover screws	5140000050							
Accessories (individual part or installation kit)								
Mounting plate	9823000000							
Mounting rail TS 15	9820003000							
Mounting rail TS 32	–							
Mounting rail TS 35	–							
Earthing rail	–							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	–							
External articulated hinges for CPS** enclosures	–							
Internal articulated hinges with cover guide**	–							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	8	4	2	1	1	0	0	0
Side C/D	4	1	1	1	1	0	0	0
** Enclosure preparation required								

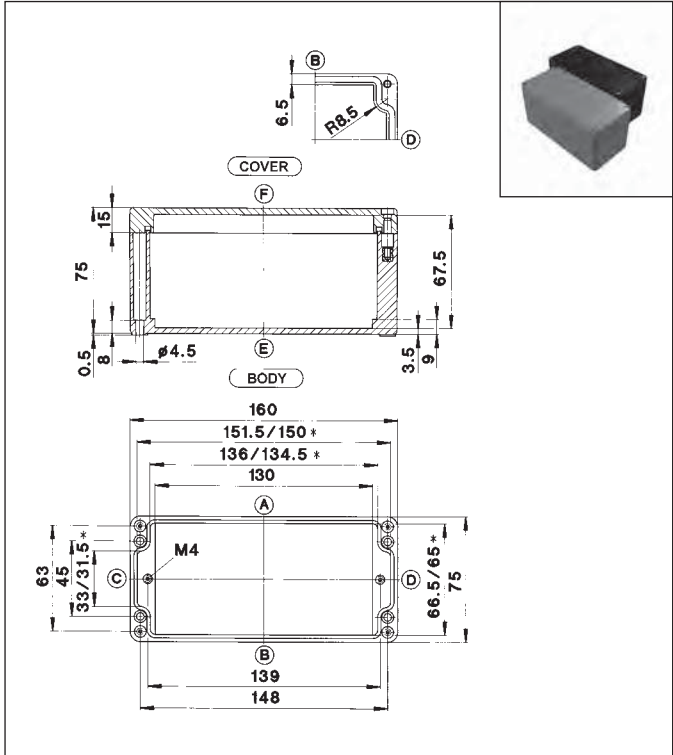
160 x 75 x 55 mm

CP-170 RAL 7000 (squirrel grey)
CPS-170 RAL 9005 (jet black)



160 x 75 x 75 mm

CP-175 RAL 7000 (squirrel grey)
CPS-175 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

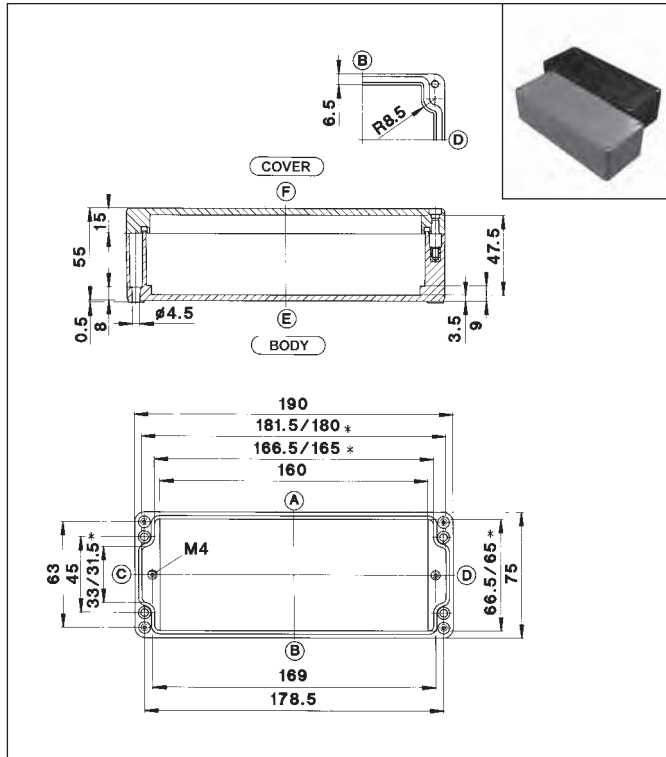
* Smaller dimension at mounting plate support

Type	CP-170	CPS-170						
Weight (g)	405	405						
External dimension (mm)	160 x 75 x 55							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4170000000							
RAL 9005 (jet black), with cover screws	5170000000							
Accessories (individual part or installation kit)								
Mounting plate	9823002000							
Mounting rail TS 15	9820012000							
Mounting rail TS 32	-							
Mounting rail TS 35	-							
Earthing rail	-							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	-							
External articulated hinges for CPS** enclosures	-							
Internal articulated hinges with cover guide**	-							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	12	5	4	3	0	0	0	0
Side C/D	2	1	1	0	0	0	0	0
** Enclosure preparation required								

Type	CP-175	CPS-175						
Weight (g)	460	460						
External dimension (mm)	160 x 75 x 75							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4170000050							
RAL 9005 (jet black), with cover screws	5170000050							
Accessories (individual part or installation kit)								
Mounting plate	9823002000							
Mounting rail TS 15	9820012000							
Mounting rail TS 32	-							
Mounting rail TS 35	-							
Earthing rail	-							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	-							
External articulated hinges for CPS** enclosures	-							
Internal articulated hinges with cover guide**	-							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	18	10	6	4	3	0	0	0
Side C/D	4	1	1	1	1	0	0	0
** Enclosure preparation required								

190 x 75 x 55 mm

CP-190 RAL 7000 (squirrel grey)
CPS-190 RAL 9005 (jet black)

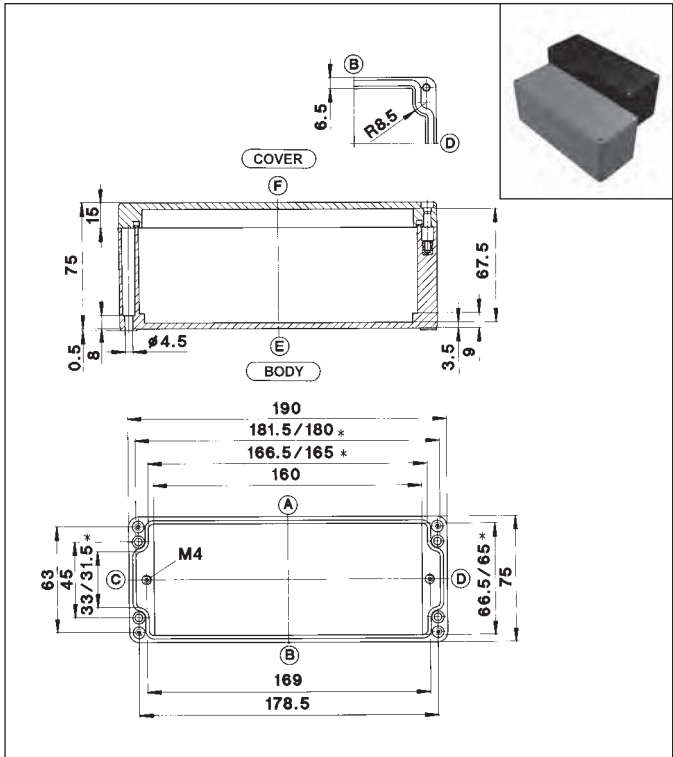


* Smaller dimension at mounting plate support

Type	CP-190	CPS-190						
Weight (g)	450	450						
External dimension (mm)	190 x 75 x 55							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4190000000							
RAL 9005 (jet black), with cover screws	5190000000							
Accessories (individual part or installation kit)								
Mounting plate	9823003000							
Mounting rail TS 15	9820015000							
Mounting rail TS 32	-							
Mounting rail TS 35	-							
Earthing rail	-							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	-							
External articulated hinges for CPS** enclosures	-							
Internal articulated hinges with cover guide**	-							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	16	7	5	4	0	0	0	0
Side C/D	2	1	1	0	0	0	0	0
** Enclosure preparation required								

190 x 75 x 75 mm

CP-195 RAL 7000 (squirrel grey)
CPS-195 RAL 9005 (jet black)

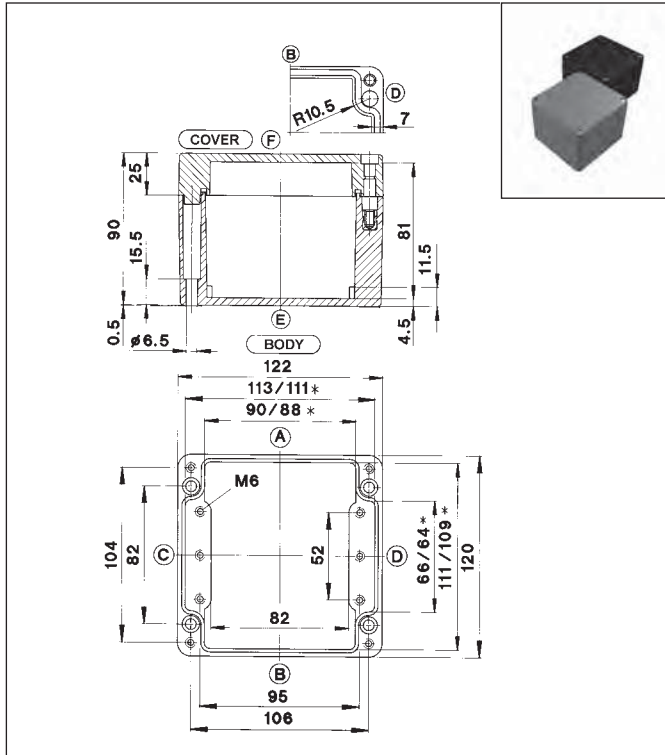


* Smaller dimension at mounting plate support

Type	CP-195	CPS-195						
Weight (g)	530	530						
External dimension (mm)	190 x 75 x 75							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4190000050							
RAL 9005 (jet black), with cover screws	5190000050							
Accessories (individual part or installation kit)								
Mounting plate	9823003000							
Mounting rail TS 15	9820015000							
Mounting rail TS 32	-							
Mounting rail TS 35	-							
Earthing rail	-							
External mounting brackets	9824000000							
External articulated hinges for CP** enclosures	-							
External articulated hinges for CPS** enclosures	-							
Internal articulated hinges with cover guide**	-							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	24	12	8	4	3	0	0	0
Side C/D	4	1	1	1	1	0	0	0
** Enclosure preparation required								

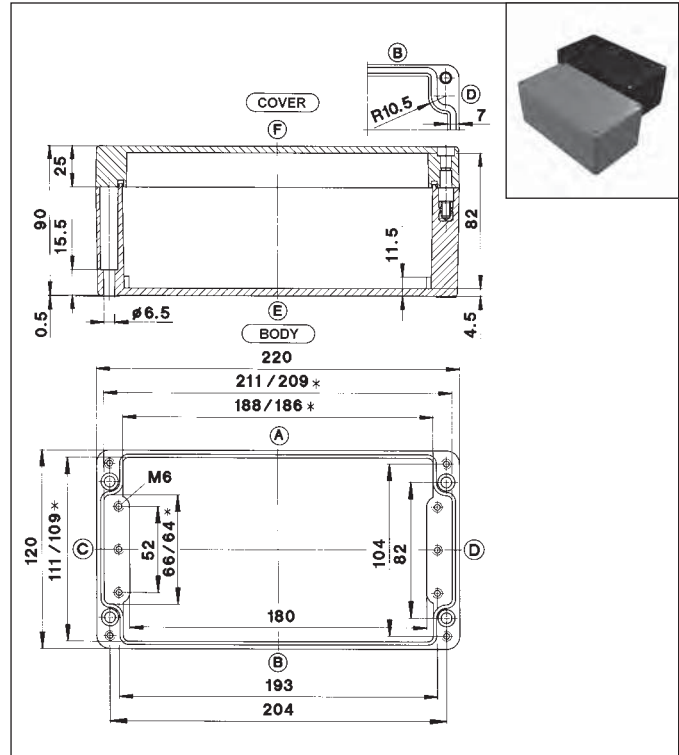
122 x 120 x 90 mm

CP-220 RAL 7000 (squirrel grey)
CPS-220 RAL 9005 (jet black)



220 x 120 x 90 mm

CP-240 RAL 7000 (squirrel grey)
CPS-240 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

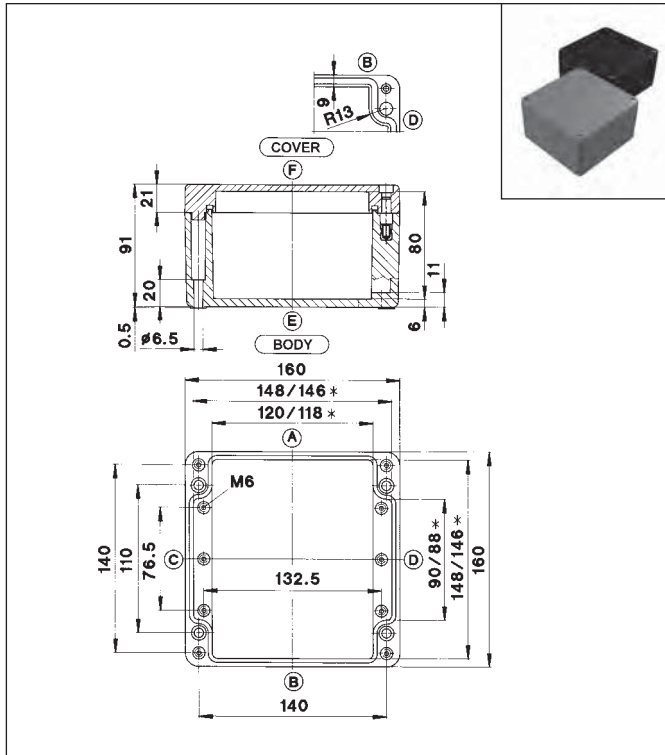
* Smaller dimension at mounting plate support

Type	CP-220	CPS-220						
Weight (g)	750	750						
External dimension (mm)	122 x 120 x 90							
Ordering data Enclosure with seal (CR)	Part number							
RAL 7000 (squirrel grey), with cover screws	4220000000							
RAL 9005 (jet black), with cover screws	5220000000							
Accessories (individual part or installation kit)								
Mounting plate	9823004000							
Mounting rail TS 15	-							
Mounting rail TS 32	9821000000							
Mounting rail TS 35	9822001000							
Earthing rail	9810002000							
External mounting brackets	9824001000							
External articulated hinges for CP** enclosures	9801045000							
External articulated hinges for CPS** enclosures	9801046000							
Internal articulated hinges with cover guide**	-							
Silicone seal for extended temperature range (by the metre)	on request							
Maximum possible number of threads								
ISO M	12	16	20	25	32	40	50	63
Side A/B	13	6	4	3	2	1	0	0
Side C/D	6	3	2	2	1	0	0	0
** Enclosure preparation required								

Type	CP-240	CPS-240
Weight (g)	1060	1060
External dimension (mm)	220 x 120 x 90	
Ordering data Enclosure with seal (CR)	Part number	
RAL 7000 (squirrel grey), with cover screws	4240000000	
RAL 9005 (jet black), with cover screws	5240000000	
Accessories (individual part or installation kit)		
Mounting plate	9823005000	
Mounting rail TS 15	-	
Mounting rail TS 32	9821005000	
Mounting rail TS 35	9822007000	
Earthing rail	9810008000	
External mounting brackets	9824001000	
External articulated hinges for CP** enclosures	9801045000	
External articulated hinges for CPS** enclosures	9801046000	
Internal articulated hinges with cover guide**	-	
Silicone seal for extended temperature range (by the metre)	on request	
Maximum possible number of threads		
ISO M	12	16 20 25 32 40 50 63
Side A/B	27	12 9 6 4 3 0 0
Side C/D	6	3 2 2 1 0 0 0
** Enclosure preparation required		

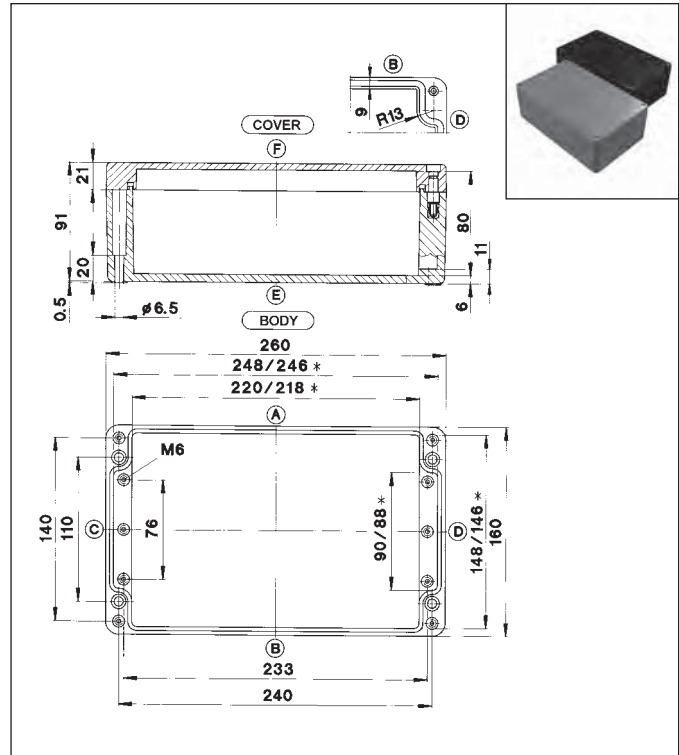
160 x 160 x 91 mm

CP-280 RAL 7000 (squirrel grey)
CPS-280 RAL 9005 (jet black)



260 x 160 x 91 mm

CP-300 RAL 7000 (squirrel grey)
CPS-300 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

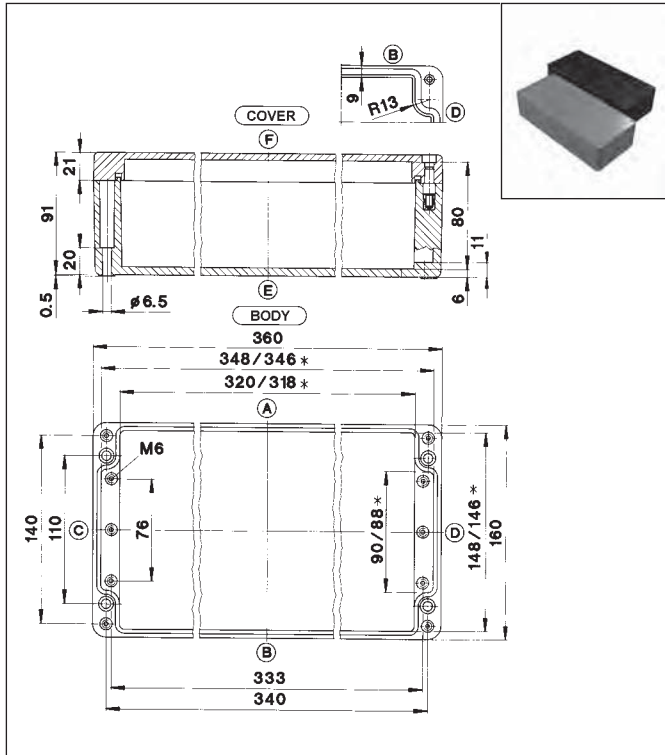
* Smaller dimension at mounting plate support

Type	CP-280	CPS-280
Weight (g)	1130	1130
External dimension (mm)	160 x 160 x 91	
Ordering data Enclosure with seal (CR)	Part number	
RAL 7000 (squirrel grey), with cover screws	4280000000	
RAL 9005 (jet black), with cover screws	5280000000	
Accessories (individual part or installation kit)		
Mounting plate	9823006000	
Mounting rail TS 15	-	
Mounting rail TS 32	9821002000	
Mounting rail TS 35	9822003000	
Earthing rail	9810004000	
External mounting brackets	9824004000	
External articulated hinges for CP** enclosures	9801045000	
External articulated hinges for CPS** enclosures	9801046000	
Internal articulated hinges with cover guide**	9801032000	
Silicone seal for extended temperature range (by the metre)	on request	
Maximum possible number of threads		
ISO M	12	16 20 25 32 40 50 63
Side A/B	18	8 6 4 2 2 1 0
Side C/D	9	4 3 2 2 1 0 0
** Enclosure preparation required		

Type	CP-300	CPS-300
Weight (g)	1710	1710
External dimension (mm)	260 x 160 x 91	
Ordering data Enclosure with seal (CR)	Part number	
RAL 7000 (squirrel grey), with cover screws	4300000000	
RAL 9005 (jet black), with cover screws	5300000000	
Accessories (individual part or installation kit)		
Mounting plate	9823007000	
Mounting rail TS 15	–	
Mounting rail TS 32	9821008000	
Mounting rail TS 35	9822011000	
Earthing rail	9810010000	
External mounting brackets	9824004000	
External articulated hinges for CP** enclosures	9801045000	
External articulated hinges for CPS** enclosures	9801046000	
Internal articulated hinges with cover guide**	9801032000	
Silicone seal for extended temperature range (by the metre)	on request	
Maximum possible number of threads		
ISO M	12	16 20 25 32 40 50 63
Side A/B	33	15 12 8 4 3 3 0
Side C/D	9	4 3 2 2 1 0 0
** Enclosure preparation required		

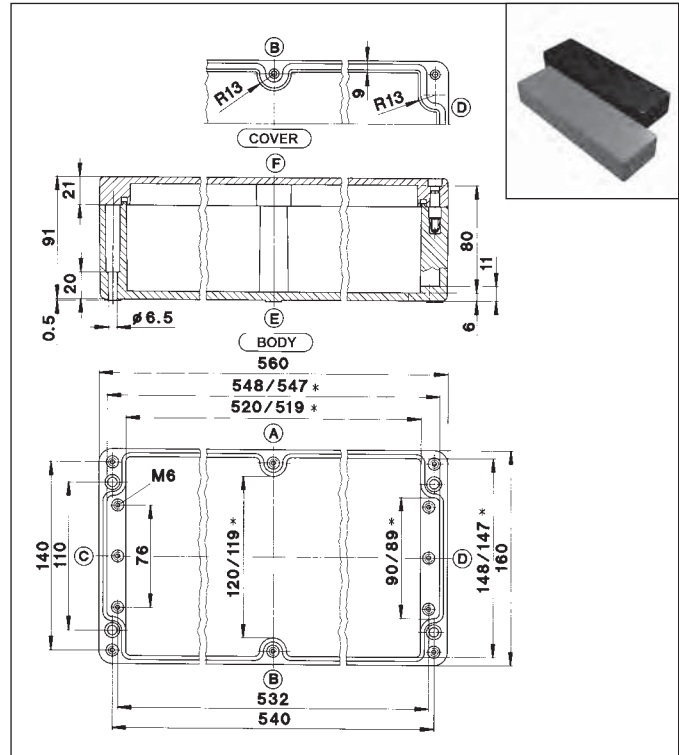
360 x 160 x 91 mm

CP-320 RAL 7000 (squirrel grey)
CPS-320 RAL 9005 (jet black)



560 x 160 x 91 mm

CP-330 RAL 7000 (squirrel grey)
CPS-330 RAL 9005 (jet black)



* Smaller dimension at mounting plate support

* Smaller dimension at mounting plate support

Type	CP-320	CPS-320
Weight (g)	2150	2150
External dimension (mm)	360 x 160 x 91	
Ordering data Enclosure with seal (CR)	Part number	
RAL 7000 (squirrel grey), with cover screws	4320000000	
RAL 9005 (jet black), with cover screws	5320000000	
Accessories (individual part or installation kit)		
Mounting plate	9823008000	
Mounting rail TS 15	–	
Mounting rail TS 32	9821012000	
Mounting rail TS 35	9822015000	
Earthing rail	9810014000	
External mounting brackets	9824004000	
External articulated hinges for CP** enclosures	9801045000	
External articulated hinges for CPS** enclosures	9801046000	
Internal articulated hinges with cover guide**	9801032000	
Silicone seal for extended temperature range (by the metre)	on request	
Maximum possible number of threads		
ISO M	12	16 20 25 32 40 50 63
Side A/B	48	23 18 11 7 5 4 0
Side C/D	9	4 3 2 2 1 0 0
** Enclosure preparation required		

Type	CP-330	CPS-330
Weight (g)	3185	3185
External dimension (mm)	560 x 160 x 91	
Ordering data Enclosure with seal (CR)	Part number	
RAL 7000 (squirrel grey), with cover screws	4330000000	
RAL 9005 (jet black), with cover screws	5330000000	
Accessories (individual part or installation kit)		
Mounting plate	9823085000	
Mounting rail TS 15	–	
Mounting rail TS 32	9821015000	
Mounting rail TS 35	9822018000	
Earthing rail	9810016000	
External mounting brackets	9824004000	
External articulated hinges for CP** enclosures	9801045000	
External articulated hinges for CPS** enclosures	9801046000	
Internal articulated hinges with cover guide**	9801032000	
Silicone seal for extended temperature range (by the metre)	on request	
Maximum possible number of threads		
ISO M	12	16 20 25 32 40 50 63
Side A/B	76	40 28 18 10 8 6 0
Side C/D	9	4 3 2 2 1 0 0
** Enclosure preparation required		

