Universal Enclosures
Catalogue | 2013

Spacial SBM

Steel Industrial Boxes



Schneider Electric

Steel industrial boxes
Introduction

> Simplicity, ergonomics and versatility, it's all in the box.

PB502109



PB502112



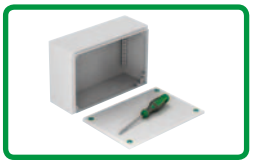
Selection
- 3 versions: flat box (SBM), FL21 entry box (SBMC) and bus box (SBMB).
- 80 mm and 120 mm depth.
- FL21 cable entries available according to the version.

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Modularity
- 28 sizes available.
- Up to 42 sizes possible thanks to the optional Extension box accessory.

PB502073



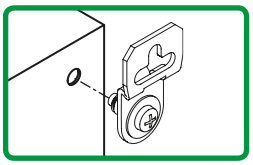
Ergonomics
- Cover opening and accessory mounting with **just a screwdriver**.
- Better accessibility thanks to the Extension box accessory.

PB502069



Sturdy and good ingress protection
- Mechanical protection rating up to IK10.
- Ingress protection rating up to IP66.

DB300080



Easy installation
- Direct fixing though the rear.
- Mounting with versatile external lugs.

PB502071



Added value to your work
- Quality and aesthetics.

Configured

Optimisation of your time with our customisation services which provide the enclosure in your required colour with the cut-outs you want. Please consult us.

Steel industrial boxes
Characteristics







	Spacial SBM Flat box	Spacial SBMC FL21 Entry box	Spacial SBMB Bus box
Description	Box with plain faces.	Equipped with two or more FL21 cable gland plates.	Equipped with FL 21 cable gland plates, a hinged cover with a transparent polycarbonate window and a DIN rail.
	Box body Single-piece body (rectangular structure). Front design incorporating folded gutters. Flat rear. 2 (or 3*) drilled profiles for installing mounting plates and DIN rails, with fixing centres of 12.5 mm. 2 or more FL21 cable gland plates(1) for easy drilling and to guarantee the maximum access area, delivered with the enclosure. **Box cover** Equipped with 2, 3, 4 or 6 half-turn thread screws, according to the version (2) to ensure maximum watertightness. Bus boxes equipped with cover hinges for a comfortable 180° door opening. Polyurethane sealing gasket. **Protection of personnel** Earth connection mandatory for all boxes: Spacial SBM steel boxes are equipped with a M6 x 16 earth stud welded in the cover, to be linked with the body for equipotential connection. Earth braid to be ordered separately (Ø 6.4 mm terminal).		
Material	Sheet steel		
Finish	Structured		
Colour	RAL 7035 grey		
Ingress protection rating	IP66	IP55	
Mechanical protection rating	IK10		IK08
Standard	Compliance with enclosure standard IEC 62208 and the RoHS directive.		
Certifications	UL, BV, DNV, LR, GL. Nema Type 4, 4X according to UL 508A standard. Fire class: M0.	UL, BV, DNV, LR, GL. Nema Type 12, 12K according to UL 508A standard. Fire class: M0.	
Installation	**Indoor installation** Direct wall-mounting (4 x Ø 10 mm holes with sealing plugs to maintain the IP rating) or with the help of fixing lugs installed from the outside (to be ordered separately, see the specific accessory pages). Distance between fixing holes enables the installation of the box in the same locations as many existing enclosures. Marks on the rear of the box locate the fixing points of obsolete Schneider Electric models. Marks on the sides help with drilling the body to install hinges. Outdoor installation Compliant with IEC 62208 regarding type tests specified in §9.12 (resistance to ultra-violet (UV) radiation) and §9.13 (resistance to corrosion). It is always advisable to place the box under shelter to avoid water stagnation on the upper part of the enclosure.		
Maximum load	Loading capacity on the body: 50 kg/m².		
Other characteristics	**Vibration constraints** Specific construction of the Spacial SBM - Single-piece body (rectangular structure). The rear is flat without added parts - this ensures compliance with certain vibration constraints. The tests were conducted according to the marine application by "Det Norske Veritas". Boxes labelled "DNV" have undergone these tests and obtained classification "A".		

** 3 profiles for width 800 mm.*
(1) Only on Entry boxes and Bus boxes.
(2) 2 for Bus box (3 screws for width greater than 400 mm), 4 for Flat and Entry boxes (6 screws for width greater than 400 mm).

Steel industrial boxes
Selection guide



Dimensions			Cover screws (1)	Flat box	FL21 entry box	Bus box	Extension box (2)	Mounting plate
Height (mm)	Width (mm)	Depth (mm)	Qty	SBM	SBMC	SBMB		
150	150	80	4	NSYSBM15158				NSYMM11SB
		120	4	NSYSBM151512				NSYMM11SB
	200	80	4	NSYSBM15208				NSYMM12SB
		120	4	NSYSBM152012				NSYMM12SB
	300	80	4	NSYSBM15308				NSYMM13SB
		120	4	NSYSBM153012	NSYSBMC153012			NSYMM13SB
	400	80	4	NSYSBM15408				NSYMM14SB
		120	4	NSYSBM154012	NSYSBMC154012			NSYMM14SB
200	200	80	4	NSYSBM20208			NSYAES228SB	NSYMM22SB
		120	4	NSYSBM202012			NSYAES228SB	NSYMM22SB
	300	80	4	NSYSBM20308			NSYAES238SB	NSYMM23SB
		120	4	NSYSBM203012	NSYSBMC203012	NSYSBMB203012	NSYAES238SB	NSYMM23SB
	400	80	4	NSYSBM20408			NSYAES248SB	NSYMM24SB
		120	4	NSYSBM204012	NSYSBMC204012	NSYSBMB204012	NSYAES248SB	NSYMM24SB
	500	80	6	NSYSBM20508			NSYAES258SB	NSYMM25SB
		120	6	NSYSBM205012			NSYAES258SB	NSYMM25SB
	600	80	6	NSYSBM20608			NSYAES268SB	NSYMM26SB
		120	6	NSYSBM206012	NSYSBMC206012	NSYSBMB206012	NSYAES268SB	NSYMM26SB
	800	120	6	NSYSBM208012	NSYSBMC208012	NSYSBMB208012		NSYMM28SB
300	300	120	4	NSYSBM303012	NSYSBMC303012		NSYAES338SB	NSYMM33SB
	400	120	4	NSYSBM304012	NSYSBMC304012		NSYAES348SB	NSYMM34SB
	500	120	6	NSYSBM305012			NSYAES358SB	NSYMM35SB
	600	120	6	NSYSBM306012	NSYSBMC306012		NSYAES368SB	NSYMM36SB
	800	120	6	NSYSBM308012	NSYSBMC308012			NSYMM38SB
400	400	120	4	NSYSBM404012	NSYSBMC404012			NSYMM44SB
	500	120	6	NSYSBM405012				NSYMM45SB
	600	120	6	NSYSBM406012	NSYSBMC406012			NSYMM46SB
	800	120	6	NSYSBM408012	NSYSBMC408012			NSYMM48SB
Supply								
				1	1	1	1	1

(1) For Bus box, divide by 2.
(2) Not compatible with Bus box.

Steel industrial boxes
Selection guide



	DIN rail (3)	Post fastening	Coupling kit	Fixing lugs	Self-tapping screws	Hinges (3)	Double-bar screw	Triangle screw	Sealing kit
	NSYAMRD15357SB	NSYSFPSC15	NSYAEUBU148*	NSYAEFPFSB**	NSYAMFSB**	NSYAEDHSB**	NSYAEDSBSB**	NSYAEDSTSB**	NSYPPSB**
	NSYAMRD15357SB	NSYSFPSC15							
	NSYAMRD20357SB	NSYSFPSC20							
	NSYAMRD20357SB	NSYSFPSC20							
	NSYAMRD30357SB	NSYSFPSC30							
	NSYAMRD30357SB	NSYSFPSC30							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD20357SB	NSYSFPSC20							
	NSYAMRD20357SB	NSYSFPSC20							
	NSYAMRD30357SB	NSYSFPSC30							
	NSYAMRD30357SB	NSYSFPSC30							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD50357SB	NSYSFPSC50							
	NSYAMRD50357SB	NSYSFPSC50							
	NSYAMRD60357SB	NSYSFPSC60							
	NSYAMRD60357SB	NSYSFPSC60							
	NSYAMRD80357SB	NSYSFPSC80							
	NSYAMRD30357SB	NSYSFPSC30							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD50357SB	NSYSFPSC50							
	NSYAMRD60357SB	NSYSFPSC60							
	NSYAMRD80357SB	NSYSFPSC80							
	NSYAMRD40357SB	NSYSFPSC40							
	NSYAMRD50357SB	NSYSFPSC50							
	NSYAMRD60357SB	NSYSFPSC60							
	NSYAMRD80357SB	NSYSFPSC80							
	10	1	1	4	100	6	1	1	1

(3) Standard equipped in Bus box.
** Same reference for all dimensions. Only compatible with FL21 entry box and Bus box.*
*** Same reference for all dimensions.*

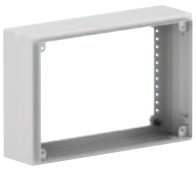
Steel industrial boxes
Specific accessories overview

PB502109



Extension

PB502111



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Coupling

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Mounting accessories

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Cover accessories

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Fixing

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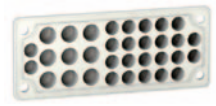
Save time by having your accessories mounted in the factory!
To find out more about our configured offer, please contact us.

Configured

Steel industrial boxes
Common accessories overview

FL21 cable entries

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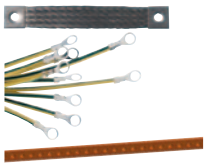
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Earthing

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PB500217
PB500948

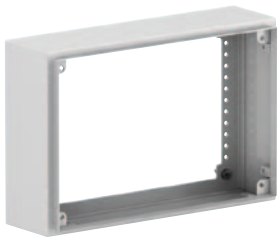


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Steel industrial boxes
Specific accessories

Extension

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Extension box

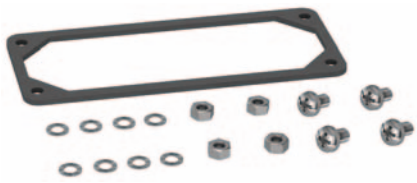
■ **Description:** extension box that fits onto the corresponding box of the same height and width:
□ improved ergonomics and accessibility inside the box,
□ increases the interior depth of the box (+80 mm).
■ **Material:** sheet steel.
■ **Colour:** RAL 7035.
■ **Ingress protection rating:** IP66 (1 extension).
■ **Installation:** two earth braids must be used with the extension box.
■ **Maximum load:** 30 kg/m² on the extension box.
■ **Supply:** 1 unit.

Extension box

Height (mm)	Width (mm)	Weight (kg)	References
200	200	1.2	**NSYAES228SB**
	300	1.5	**NSYAES238SB**
	400	1.8	**NSYAES248SB**
	500	2.3	**NSYAES258SB**
	600	2.6	**NSYAES268SB**
300	300	1.8	**NSYAES338SB**
	400	2.1	**NSYAES348SB**
	500	2.6	**NSYAES358SB**
	600	2.9	**NSYAES368SB**

Coupling

PB502097



Coupling kit between Spacial SBMB or SBMC boxes

■ **Description:** Entry boxes or Bus boxes can be coupled with each other through their FL21 cable entry openings. They can be coupled together in any combination.
■ **Ingress protection rating:** IP55.
■ **Supply:** 1 gasket and necessary hardware. For boxes bigger than 500 mm, order the same amount of units as the cable gland plate openings on the face of the box to be coupled, see table on page 14.

Reference
NSYAEUBU148

Mounting accessories

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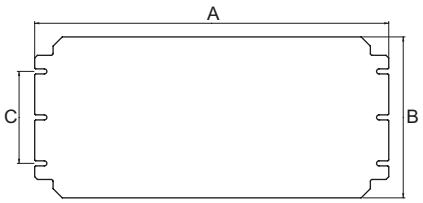


Mounting plates

■ **Material:** galvanised steel.
■ **Installation:** fixing by means of 2* or 4 x Ø 5 mm self-tapping screws, Pozidriv head, ref. NSYAMFSB. Mounting plate fixing points compatible with many other brands of accessories.
■ **Supply:** 1 unit, supplied without screws.
** Only 2 screws for mounting plates with height 150 mm.*

Box		Mounting plate				
Height (mm)	Width (mm)	Dimensions (mm) A	B	C	Thickness	References
150	150	135	135	-	1.5	NSYMM11SB
	200	135	185	-	1.5	NSYMM12SB
	300	135	285	-	1.5	NSYMM13SB
	400	135	385	-	2.0	NSYMM14SB
200	200	185	185	100	1.5	NSYMM22SB
	300	185	285	100	1.5	NSYMM23SB
	400	185	385	100	2.0	NSYMM24SB
	500	185	485	100	2.0	NSYMM25SB
	600	185	585	100	2.0	NSYMM26SB
	800	185	785	100	2.0	NSYMM28SB
300	300	285	285	200	1.5	NSYMM33SB
	400	285	385	200	2.0	NSYMM34SB
	500	285	485	200	2.0	NSYMM35SB
	600	285	585	200	2.0	NSYMM36SB
	800	285	785	200	2.0	NSYMM38SB
400	400	385	385	300	2.0	NSYMM44SB
	500	385	485	300	2.0	NSYMM45SB
	600	385	585	300	2.0	NSYMM46SB
	800	385	785	300	2.0	NSYMM48SB

DB300809



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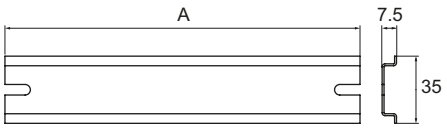


DIN rails

■ **Description:** symmetrical DIN rails 35 x 7.5 mm.
■ **Installation:** fixing by means of 2 x Ø 5 mm self-tapping screws, Pozidriv head, ref. NSYAMFSB.
■ **Supply:** 10 rails, supplied without screws.

Box	DIN rail	
Width (mm)	Length (A) (mm)	References
150	135	NSYAMRD15357SB
200	185	NSYAMRD20357SB
300	285	NSYAMRD30357SB
400	385	NSYAMRD40357SB
500	485	NSYAMRD50357SB
600	585	NSYAMRD60357SB
800	785	NSYAMRD80357SB

DB300810EN



PB502104



Self-tapping screws

■ **Description:** self-tapping, Pozidriv head, screws, for Ø 5 mm holes.
■ **Supply:** 100 units.

Reference
NSYAMFSB

Steel industrial boxes
Specific accessories

Cover accessories

Hinges

PB502102



- **Description:** the hinges allow the cover to open to more than 180°.
They can be installed on all covers in the range.
- **Ingress protection rating:** IP66.
- **Installation:** the box must be drilled before installing the 2 hinges on the body.
3 hinges are required for boxes of width more than 500 mm.
A specific mark on the body helps to locate where the hole should be drilled.
- **Maximum load:** 30 kg/m² on the hinged cover.
- **Supply:** 6 hinges delivered with fixings.

Reference
NSYAEDHSB

Shaped head screws

PB502105



PB502106



- **Description:** the SBM boxes are delivered as standard with Pozidriv head screws optimised for Pz-2 screwdrivers. These screws can be replaced with screws with different standard heads, to discourage unauthorised opening of the cover with normal screwdrivers.
- **Ingress protection rating:** IP66.
- **Installation:** simply replace the standard screw on the box.
- **Supply:** 1 unit.

Description	References
Triangular 6.5 mm (1)	NSYAEDSTSB
Double bar 3 mm	NSYAEDSBSB

(1) CNOMO.

Sealing kit

PB502103



- **Description:** the sealing kit helps to set up a lead-sealed wire for safety traceability of cover opening.
- **Colour:** green.
- **Ingress protection rating:** IP66.
- **Installation:** replaces the standard sealing washer on the box.
- **Supply:** 1 unit.

Reference
NSYPPSB

Steel industrial boxes
Specific accessories

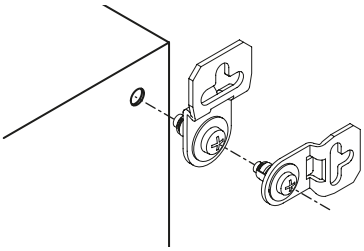
Fixing

External wall-fixing lugs

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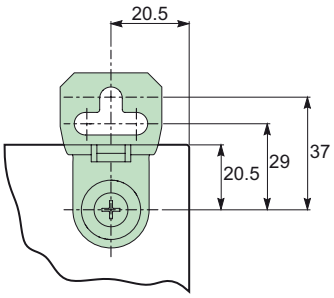
DB300805



■ **Description:** wall-fixing lugs to be mounted directly on the rear of the box, either in horizontal or vertical position. Their versatile design complies with the fixing dimensions of many other enclosures.
■ **Installation:**
□ horizontal or vertical position,
□ distance between wall and enclosure: 10 mm,
□ only requires a screw driver.
■ **Maximum load:** 70 kg.
■ **Supply:** 4 wall-fixing lugs, screws and pre-mounted sealing gaskets.

Reference
NSYAEFPFSB

DB300811EN



Post fastening

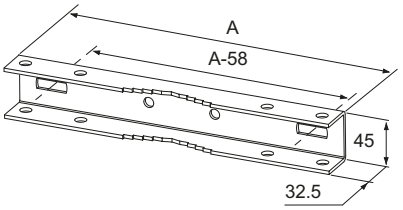
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■ **Description:** rail fixed externally to the rear of the box with 8 mm screws for installation on posts with diameters between 150 mm and 215 mm.
For steel boxes with widths of 150, 200, 300, 400, 500, 600 and 800 mm.
■ **Material:** galvanised steel.
■ **Maximum load:** 100 kg.
■ **Supply:** 1 unit.

Description		
Post fastening for box with:	**A (mm)**	**References**
W 150 mm	145	**NSYSFPSC15**
W 200 mm	195	**NSYSFPSC20**
W 300 mm	295	**NSYSFPSC30**
W 400 mm	395	**NSYSFPSC40**
W 500 mm	495	**NSYSFPSC50**
W 600 mm	595	**NSYSFPSC60**
W 800 mm	795	**NSYSFPSC80**

DB300098EN



FL21 cable entries

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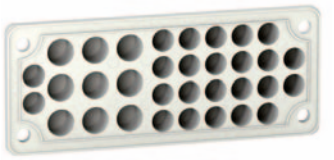
Multi-T

■ **Description:** Sealed cable entries made from insulating material (fire resistance: V0 according to UL 94).
■ Guarantees a degree of protection of IP65.
■ **Colour:** dark grey.
■ Installation on pre-cut plates or direct installation on the enclosures with our specific offer. Please consult us.
■ **3 models:** 7 to 35 cable entries.
■ Cover for cut-out ref. **NSYAECPFLBP**.

Number of cable entries	Diameter of the cable entry (Ø mm)											References
	5-7	6-10	8-12	8-16	10-14	12-18	14-20	17-32	20-26	24-54	30-60	
0												**NSYAECPFLBP***
7				4						2	1	**NSYAECPFLT7**
25	4		4		12		4		1			**NSYAECPFLT25**
35		2	14		16	2		1				**NSYAECPFLT35**

** Metallic plate.*

PB501696



Multi-A

■ **Description:** installation on cut-out cable-entry plates with FL21 cut-outs or direct installation on enclosures with our specific offer. Please consult us.
■ **Material:** TPE, SBS, SEBS and PP co-polymer – halogen free.
■ **Certificates:**
□ Cable anchorage pull test: EN 50262.
□ Long term UV-resistance: ASTM G 154-06.
■ **Degree of protection:** IP65.
■ **Temperature range:** -40 to +85°C.
■ **Resistance/Cable retention (daN):** > 20 daN.

Type	Nb of entrances	13	14	15	16	18	21	30	References
FL 21	25		16			6		3	**NSYAECPFLA25**
FL 21	33		24			9			**NSYAECPFLA33**

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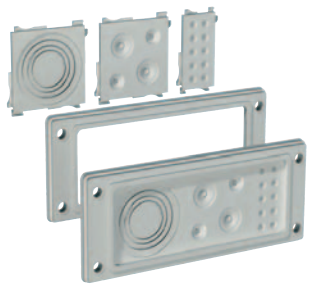


Multi-H

■ **Description:** 1 model (4 x 12 + 4 x 12/20 + 4 x 16/25) colour RAL 7035. Installation on cable-gland plates (FL21 models) or direct installations on the enclosures with our specific offer. Please consult us.
■ **Material:** polycarbonate, glass-fiber reinforced.
■ **Flame resistance:** UL 94 - V1.
■ **Temperature range for normal operation:** -40… +80ºC.
■ **Temperature range for a short time:** -40… +120ºC.
■ **Degree of protection:** IP65.

Size	L1 (mm)	L2 (mm)	H (mm)	H2 (mm)	Reference
FL21	215	85	10	~ 35	**NSYTSAKFL**

PB500945



Multi-F

■ **Material:** fibreglass-reinforced polypropylene and TPE - Halogen Free.
■ **Certificates:** UL-approved materials.
■ **Fire resistance:** UL 94 HB.
■ **Degree of protection:** IP65.
■ **Temperature range:** -20°C to +125°C (1).

(1) "Pop-out" membranes only.

FL	M16 (5-10 mm) (2)	M20 (6-13 mm) (2)	M25 (8-17 mm) (2)	M32 or M40 or M50 (3)	References
21	2	2	2	1	**NSYAECPKFL7A**
21		6		1	**NSYAECPKFL7B**
21	4	2	4		**NSYAECPKFL10**

(2) "Pop-out" membranes or cable gland installation.
(3) Knock out system.

Earthing accessories

PB500084

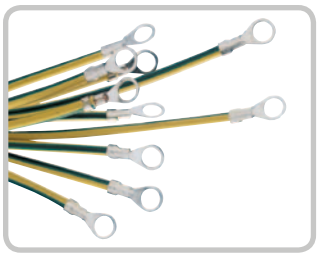


Earth braids

■ **Description:** earth connection braid for high frequencies. Avoid the disturbing electric currents that are produced.
■ **Material:** tinned copper.
■ **Supply:** 10 earth braids (nuts and washers not included).
■ Reference by unit. Order by multiples of 10 (10, 20, 30…).

Length (mm)	Width (mm)	Section (mm²)	Terminal Ø (mm)	References
150	12	6	6.5	**NSYEB156D6**
150	17	10	6.5	**NSYEB1510D6**

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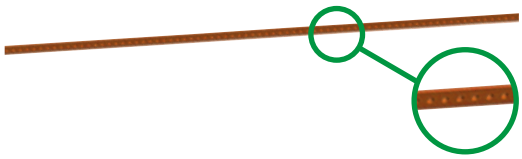


Earth cables

■ **Description:** make it easier to install a safe earth connection, with a perfect contact, with optimised length.
■ **Material:** brass and copper alloy terminal, green and yellow PVC insulating sheath.
■ **Supply:** 10 earth cables (nuts and washers not included).
■ Reference by unit. Order by multiples of 10 (10, 20, 30…).

Length (mm)	Section (mm²)	Terminal Ø (mm)	References
130	6	6.4	**NSYEL136D6**
160	6	6.4	**NSYEL166D6**
220	6	6.4	**NSYEL226D6**
250	10	6.4	**NSYEL2510D6**

PB500948



Earthing strip

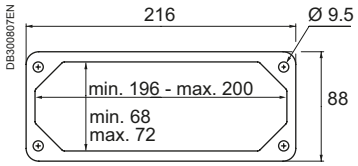
■ **Description:** perforated brass bar, 15 x 3 mm. 1 m long. 87 connection points, M5 drill holes.
■ **Composition:** 1 earthing strip and fixing elements.

Reference
NSYECB1M153

Steel industrial boxes
Technical characteristics

Box			Extension box	FL21 cable gland*		Power dissipation**	Sheet thickness
Height (mm)	Width (mm)	Depth (mm)	Total depth (mm)	Along Height (mm)	Width (mm)	(W)	(mm)
150	150	80				13.5	1
		120				17.2	1
	200	80				16.6	1
		120				20.8	1
	300	80				22.8	1
		120			1+1	28.1	1
	400	80				29.0	1
		120			1+1	35.3	1
200	200	80	160			20.6	1
		120	200			25.6	1
	300	80	160			28.2	1
		120	200		1+1	34.2	1
	400	80	160			35.7	1
		120	200		1+1	42.8	1
	500	80	160			43.3	1.2
		120	200			51.4	1.2
	600	80	160			50.8	1.2
		120	200		2+2	60.1	1.2
	800	120			2+2	77.3	1.2
300	300	120	200	1+1	1+1	46.4	1
	400	120	200	1+1	1+1	57.8	1
	500	120	200			69.1	1.2
	600	120	200	1+1	2+2	80.4	1.2
	800	120		1+1	2+2	103.0	1.2
400	400	120		1+1	1+1	72.7	1
	500	120				86.7	1.2
	600	120		1+1	2+2	100.7	1.2
	800	120		1+1	2+2	128.7	1.2

** Only on SBMB and SBMC boxes.*
*** Power dissipation calculated for a box mounted on a wall, at external temperature 25°C and maximum internal temperature 55°C.*



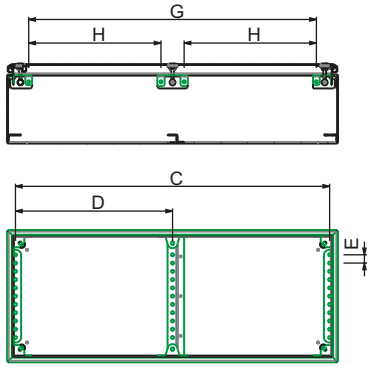
Steel industrial boxes
Dimensions

External fixing of the box and mounting accessories

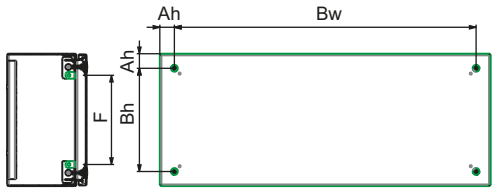
Box		Fixing			Mounting					
Height (mm)	Width (mm)	Ah (mm)	Bh (mm)	Bw (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)
150	150	20.5	109	109	125	-	12.5	85	85	-
	200	20.5	109	159	175	-	12.5	85	135	-
	300	20.5	109	259	275	-	12.5	85	235	-
	400	20.5	109	359	375	-	12.5	85	335	-
200	200	20.5	159	159	175	-	12.5	135	135	-
	300	20.5	159	259	275	-	12.5	135	235	-
	400	20.5	159	359	375	-	12.5	135	335	-
	500	20.5	159	459	475	-	12.5	135	435	200
	600	20.5	159	559	575	-	12.5	135	535	250
	800	20.5	159	759	775	387.5	12.5	135	735	350
300	300	20.5	259	259	275	-	12.5	235	235	-
	400	20.5	259	359	375	-	12.5	235	335	-
	500	20.5	259	459	475	-	12.5	235	435	200
	600	20.5	259	559	575	-	12.5	235	535	250
	800	20.5	259	759	775	387.5	12.5	235	735	350
400	400	20.5	359	359	375	-	12.5	335	335	-
	500	20.5	359	459	475	-	12.5	335	435	200
	600	20.5	359	559	575	-	12.5	335	535	250
	800	20.5	359	759	775	387.5	12.5	335	735	350

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Section A-A



Section B-B



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