

Electrical installation solutions for buildings

Junction boxes

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Livorno Series emergency consumer units

Technical details designed to facilitate installation

Three degrees of protection IP40, IP55, IP65 allow to install these emergency consumer units in any environment, residential, tertiary or industrial.

The self-extinguishing thermoplastic frame ensures resistance to abnormal heat and fire



The front door is equipped with a protective glass that can be broken in case of need using the glass-breaking hammer (included)

The flush-mounting, wall-mounting or DIN rail versions offer extensive installation choices

Livorno Series emergency consumer units

Technical details designed to facilitate installation



The Livorno Series is a range of emergency consumer units equipped with an emergency breakable glass to quickly and effectively stop systems or services in the case of malfunctions or

dangers that may occur in residential, tertiary or industrial installations.

Made of self-extinguishing thermo-plastic material, these devices are

mainly installed in those environments that have greater risk of fire.

The flush- and wall-mounting versions can be equipped with a luminous button and glass-breaking hammer.

Enclosures

Livorno Series emergency consumer units



Consumer units, technical specifications

Protection class	IP40, IP55 or IP65, according to version.
Version	flush- and wall-mounting.
Colour	RAL 3000 red and RAL 7035 grey.
Installation temperature	-25°C ÷ +60°C.
Resistance to heat	ball thermopressure up to +85°C according to EN 60695-10-2 standard.
Front door	breakable glass 0.75 (IK05 degree).
Material	self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard.
Door lock	coded-type key
Included accessories	module covers (per DIN rail versions) 4 screw cover plugs certification plate

Consumer units with emergency button, technical specifications

Protection degree	IP55.
Version	flush- and wall-mounting
Colour	RAL 3000 red.
Installation temperature	-25°C ÷ +60°C.
Rated operating voltage Ue	250 V.
Utilisation category	AC 12.
Rated operating voltage Ie	2 A.
Rated insulation voltage Ui	250 V.
Pollution degree	3.
Fuses	10 A, gG type, 10.3x38 mm.
Front door	breakable glass 0.75 (IK05 degree).
Material	self-extinguishing thermoplastic material, resistant to abnormal heat and fire up to 650°C (glow wire test), according to IEC 60695-2-11 standard.
Luminous button	with 1 NO contact + 1 NC contact (2 A, 250 V).
Included accessories	glass-breaking hammer.
Optional accessories	12 or 24 V bulb lamp (incandescent), or 250 V (fluorescent).
Conformity	EN 60947-5-1 standard.
Mark of approval	IMQ according to EN 60947-5-1

Enclosures

Livorno Series emergency consumer units



13 183

Description	IP rating	Dimensions WxHxD [mm]	Order details		Pack. pc.
			Type	Order code	
Flush-mounting version					
RAL 3000 red colour. Possible installation on flush-mounting box with 83.5 mm centre distance. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer. Ⓜ	IP55	100x100x50	-	13 183	1/13
RAL 7035 grey colour. With DIN rail x 6 mod.	IP40	200x245x82	-	13 143	1/7

* lamp not included



13 143

Enclosures

Livorno Series emergency consumer units



13 180



13 171 - 13 175

Description	IP rating	Dimensions WxHxD [mm]	Order details		Pack. pc.
			Type	Order code	
Wall-mounting version					
RAL 3000 red colour. Equipped with luminous button (bulb lamp* - 12 V and 24 V incandescent or 250 V fluorescent), with 1 NO contact + 1 NC contact (2 A, 250 V), complete with glass-breaking hammer. (M)	IP55	100x100x50	-	13 180	1/14
RAL 3000 red colour. Equipped with flanges for easy branch connections. With DIN rail x 8 mod.	IP65	205x220x140	-	13 171	1/6
RAL 3000 red colour. Equipped with flanges for easy branch connections. With panel.	IP65	205x220x140	-	13 175	1/6

* lamp not included

Enclosures

Livorno Series emergency consumer units



13 190



13 187 - 13 188 - 13 189



13 186

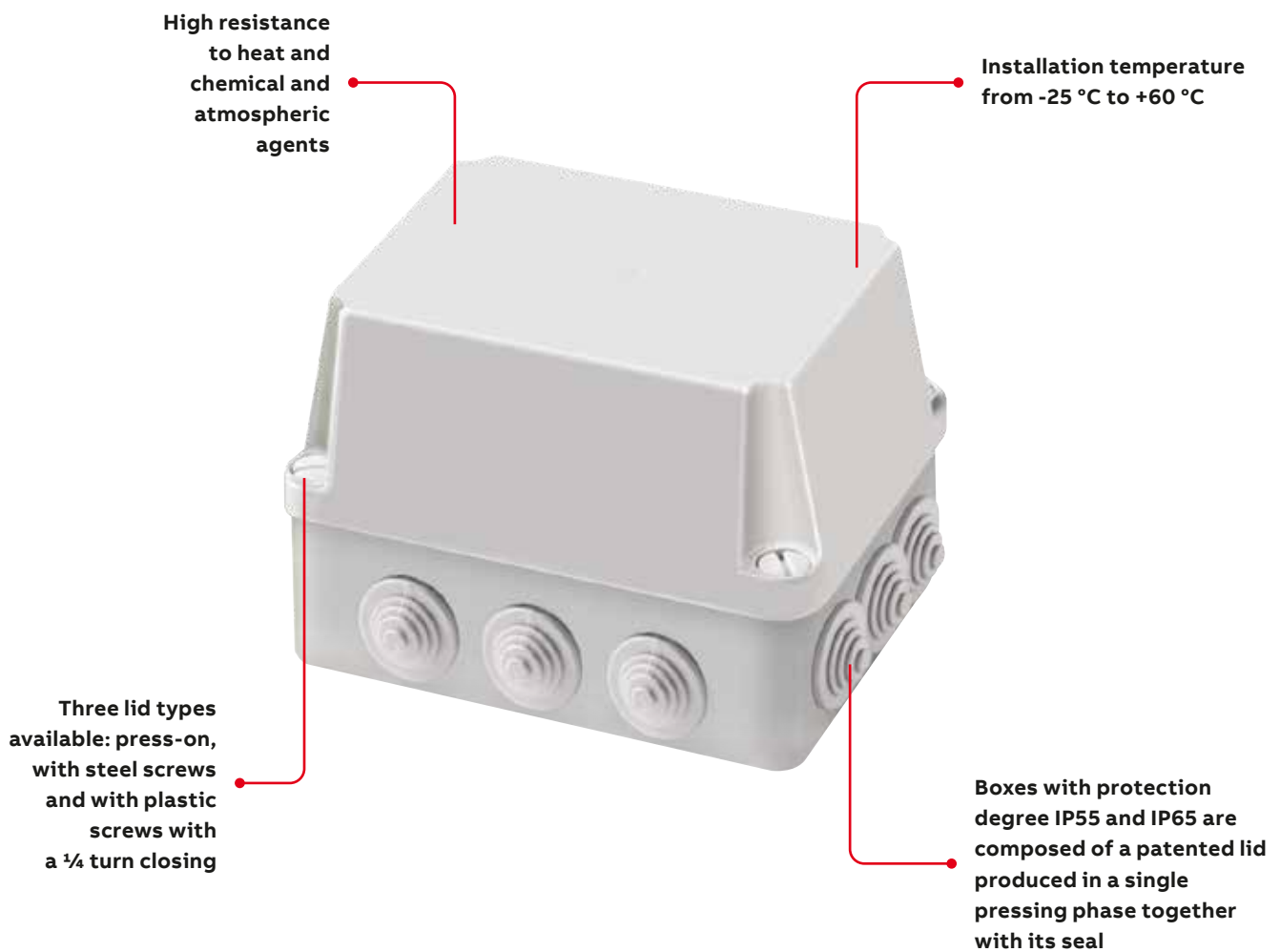


12 858

Description	Order details		Pack.
	Type	Order code	pc.
Accessories			
Spare lid for consumer units with emergency button	-	13 190	10/40
Bulb lamp for 12 V luminous button - incandescent	-	13 187	10/120
Glass-breaking hammer	-	13 186	10/300
Fixing brackets for IP65 insulated consumer units only	-	12 858	20/240

IP44, IP55 and IP65 Junction boxes

The details make the difference



IP44, IP55 and IP65 Junction boxes

The details make the difference



A wide range for all needs. There are IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands and IP65 for screw-on lid box with smooth sides.



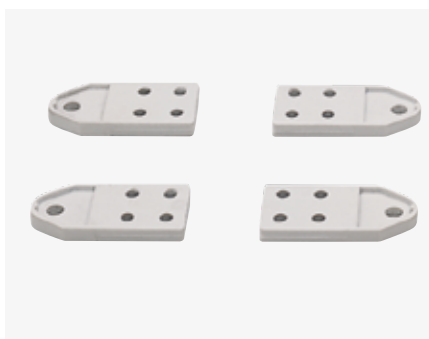
Some versions of the IP44 and IP55 junction boxes are already equipped with cable glands.



Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal.



Now new: All IP65 junction boxes (with smooth sides) are manufactured in halogen free thermoplastic material.



Wall-mounting is also possible. All junction boxes measuring 160x135, 220x170 and 310x240 mm can be mounted on the wall with brackets (accessory; code 12858).



All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960 °C GWT.

Enclosures

IP44, IP55 and IP65 Junction boxes

- IP44, IP55 and IP65 Junction boxes for swimming pool control equipment, washing car centers, garages, building services, automatic garden lighting and watering, traffic signs, photovoltaic installations.
- Protection degree: IP44 for press-on lid boxes with cable glands, IP55 for screw-on lid boxes with cable glands, IP65 for screw-on lid box with smooth sides
- Shock resistant: IK07 for IP44 boxes, IK08 for IP55 and IP65 boxes
- IP44 and IP55 boxes with press-on lids in thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard
- IP65 boxes with screw-on lids in halogen free thermoplastic material, self-extinguishing in compliance with UL 94 HB Standard and resistant to abnormal heat and fire up to 650°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard
- Installation temperature from -25°C to +60°C; Resistant to heat: ball thermopressure up to +85°C for IP44, IP55 and IP65 junction boxes
- Boxes with protection degree IP55 and IP65 are composed of a patented lid produced in a single pressing phase together with its seal
- All junction boxes made in compliance with IEC 60670-1 and IEC 60670-22 Standards
- IP44 and IP55 junction boxes in thermoplastic material obtained the IMQ mark of approval
- All the boxes are RoHS compliance

All IP44, IP55 and IP65 junction boxes are also available in thermoplastic material, self-extinguishing in compliance with UL 94 V2 Standard and resistant to abnormal heat and fire up to 960°C (glow wire flammability index) in compliance with IEC 60695-2-11 Standard.



IP44 boxes



IP44 boxes



IP55

Description	Dimensions HxWxD		Box/Pack No items
	[mm]	Order code	
IP44 boxes - GWT 650°C			
With cable glands and press-on lid			
IP44-Snap-on cover - GWT 650°C	Ø 60 - H 35	00800	240/240
	Ø 80 - H 40	00802	144/144
	65x65x32	00808	168/168
	80x80x40	00810	100/100
IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C			
With cable glands and low screw-on lid RAL 7035			
IP55-Cable glands-low lid-1/4TS GWT 650°C	100x100x50	1SL0816A00	1/54
	105x70x50	1SL0820A00	1/70
	100x100x80	1SL0821A00	1/40
	153x110x66	1SL0822A00	1/32
IP55-Cable glands-low lid-1/4TS GWT 650°C*	160x135x77	1SL0824A00	1/18
	220x170x80	1SL0826A00	1/12
	310x240x110	1SL0828A00	1/6

* Can be wall-mounted using wall brackets code 12858.

Enclosures

IP44, IP55 and IP65 Junction boxes



IP65



IP65



IP55



IP65



IP65

Description	Dimensions HxWxD		Box/Pack No items
	[mm]	Order code	
IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free			
With smooth sides and low screw-on lid RAL 7035			
IP65-Smooth-low lid-1/4TS GWT 650°C halogen free	100x100x50	1SL0846A00	1/60
	105x70x50	1SL0850A00	1/100
	100x100x80	1SL0851A00	1/40
	153x110x66	1SL0852A00	1/32
IP65-Smooth-low lid-1/4TS GWT 650°C halogen free*	160x137x77	1SL0854A00	1/24
	220x170x80	1SL0856A00	1/12
	310x240x110	1SL0858A00	1/6
With smooth sides and transparent low screw-on lid			
IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free	153x110x66	1SL0872A00	1/34
IP65-Smooth-low transparent lid-1/4TS GWT 650°C halogen free*	160x135x77	1SL0874A00	1/24
	220x170x80	1SL0876A00	1/12
	310x240x110	1SL0878A00	1/6
IP55 waterproof boxes with steel screws - GWT 650°C			
With cable glands and high screw-on lid RAL 7035			
IP55- Cable glands-low lid - GWT 650°C	100x100x50	00816	1/54
	105x70x50	00820	1/70
	100x100x80	00821	1/40
	153x110x66	00822	1/32
IP65 waterproof boxes with steel screws - GWT 650°C halogen free			
With smooth sides and high screw-on lid RAL 7035			
IP65- Smooth W.-low lid - GWT 650°C halogen free	100x100x50	00846	1/60
	105x70x50	00850	1/100
	100x100x80	00851	1/40
	153x110x66	00852	1/34
With Smooth sides and transparent high screw-on lid			
IP65- Smooth W.-transparent. low lid-153X110X66 GWT 650°C halogen free	151x110x66	00872	1/34

* Can be wall-mounted using wall brackets code 12858.

Enclosures

IP44, IP55 and IP65 Junction boxes



IP55



IP65



IP65

Description	Dimensions HxWxD		Box/Pack No items
	[mm]	Order code	
IP55 waterproof boxes with plastic 1/4 turn screws - GWT 650°C			
With Cable glands and high screw-on lid RAL 7035			
IP55-Cable glands-high lid -1/4TS GWT 650°C	160x135x150	1SL0830A00	1/16
	220x170x150	1SL0832A00	1/8
	310x240x160	1SL0834A00	1/4
IP65 waterproof boxes with plastic 1/4 turn screws - GWT 650°C halogen free			
With Smooth sides and high screw-on lid RAL 7035			
IP65-Smooth-high lid -1/4TS GWT 650°C halogen free	160x135x150	1SL0860A00	1/16
	220x170x150	1SL0862A00	1/8
	310x240x160	1SL0864A00	1/4
With Smooth sides and transparent high screw-on lid			
IP65-Smooth-high transparent lid -1/4TS GWT 650°C halogen free*	160x135x150	1SL0880A00	1/16
	220x170x150	1SL0882A00	1/8
	310x240x160	1SL0884A00	1/4

* Can be wall-mounted using wall brackets code 12858.

Enclosures

IP 44, IP 55 and IP 65 junction boxes in thermoplastic material



IP44



IP44



IP55



IP65

Description	Dimensions HxWxD		Box/Pack No items
	[mm]	Order code	
IP 44 boxes - GWT 960 °C			
With cable glands and press-on lid	Ø 60 - H 35	1SL0900A00	240/240
	Ø 80 - H 40	1SL0901A00	144/144
	65x65x32	1SL0902A00	168/168
	80x80x40	1SL0903A00	100/100
IP 55 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C			
With cable glands and low screw-on lid RAL 7035	100x100x50	1SL0916A00	1/54
	100x100x80	1SL0921A00	1/40
	153x110x66	1SL0922A00	1/32
	160x135x77	1SL0924A00*	1/18
	220x170x80	1SL0926A00*	1/12
	310x240x110	1SL0928A00*	1/6
IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C			
With smooth sides and low screw-on lid RAL 7035	100x100x50	1SL0946A00	1/60
	100x100x80	1SL0951A00	1/40
	153x110x66	1SL0952A00	1/32
	160x137x77	1SL0954A00*	1/24
	220x170x80	1SL0956A00*	1/12
	310x240x110	1SL0958A00*	1/6

* Can be wall-mounted using wall brackets code 12 858.

Enclosures

IP 44, IP 55 and IP 65 junction boxes in thermoplastic material

IP55



IP65

Description	Dimensions HxWxD		Box/Pack No items
	[mm]	Order code	
IP 65 waterproof boxes with plastic 1/4 turn screws - GWT 960 °C			
With smooth sides and high screw-on lid RAL 7035	160x135x150	1SL0960A00	1/16
	220x170x150	1SL0962A00	1/8
	310x240x160	1SL0964A00	1/4

Enclosures

Accessories for IP44, IP55 and IP65 Junction boxes

Technical characteristics of metric cable clamps:

Protection degree IP68

Material: polyamide 6.6, self-extinguishing material according to UL94V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard

Operational temperature: from -20°C up to +120°C (short period of time)

Colour: RAL 7035 grey;

Neoprene seal;

Thread pitch: 1.5 mm; Thread angle: 60°

Tightening with a plate crown on the whole diameter of cable (excluded the possibility to damage the cable itself)

Possibility to recover the cable clamp without compromising its efficiency.

Technical characteristics nuts of with metric pitch collar

Material: polyamide 6.6, self-extinguishing material according to UL94 V2 Standard and resistant to abnormal heat and to fire up to 750°C (glow wire test) according to IEC 60695-2-11 Standard

Operational temperature: from -20°C up to +120°C (continuous) from -20°C up to +120°C (short period of time)

Colour: RAL 7035 grey

Thread pitch: 1.5 mm; Thread angle: 60°.



PG pitch



PG pitch



metric pitch



metric pitch

Cable glands and nuts - PG pitch

Pitch	Torque values	For cables diameter		Cable gland		Nut x cable gland	Cable clamp Box/pack	Nuts x cable Box/pack
		Min (mm)	Max (mm)	Order code	Price			
Pg 9	3.75	6.5	8.5	00931		00941	100/500	100/3000
11	3.75	8	10	00932		00942	100/500	100/3000
13.5	3.75	8	11	00933		00943	50/500	50/1500
16	5	11	14	00934		00944	50/300	50/1500
21	7.5	14.5	18	00935		00945	50/300	50/1500
29	7.5	19	26	00936		00946	25/150	50/600
36	7.5	30	34	00937		00947	25/75	25/300
42	7.5	30	38	00938		00948	15/60	25/300

In compliance with CEI EN 50262 Standard.

Cable glands and nuts - metric pitch

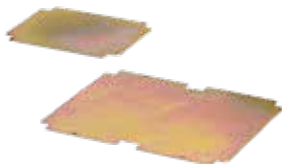
Pitch	Torque values	Cables diameter		Cable gland		Nut	Box/pack	Cable clamp Box/pack
		Min (mm)	Max (mm)	Order code	Price			
12 x 1.5	2.7	3.5	7	00951		00961	100/1200	100/3000
16 x 1.5	5	5.5	10	00952		00962	100/500	100/3000
20 x 1.5	7	7	13	00953		00963	100/500	50/1500
25 x 1.5	7.5	10	17	00954		00964	50/250	50/1500
32 x 1.5	8	12	21	00955		00965	25/150	50/500
40 x 1.5	8	19	28	00956 *		00966	25/75	25/300
50 x 1.5	10	27	35	00957 *		00967	15/60	25/300
63 x 1.5	10	34	45	00958 *		00968	10/40	20/100

In compliance with CEI EN 50262 Standard.

* Cable clamps and M40, M50 and M63 nuts are available on request.

Enclosures

Accessories for IP44, IP55 and IP65 Junction boxes



Metal base plates



Cable Clamps



Conduit clamps

Description	Box/Pack No items	
	Order code	
Metal base plates		
Metal base plate for boxes with dimensions 160x135x77	900	1/10
Metal base plate for boxes with dimensions 220x170x80	902	1/5
Metal base plate for boxes with dimensions 310x240x110	904	1/5
All metal base plates listed above are equipped with fixing screws type 3.5x9.5.		
Cable Clamps - Protection Degree: IP55		
Cable clamp for conduit Ø 20 mm	908	100/1500
Cable clamp for conduit Ø 25 mm	910	100/1000
Cable clamp for conduit Ø 32 mm	912	50/400
Conduit clamps - Box Connector - Protection Degree: IP67		
Conduit clamp Ø 16 mm	00430	500/500
Conduit clamp Ø 20 mm	00431	300/300
Conduit clamp Ø 25 mm	00432	150/150
Conduit clamp Ø 32 mm	00433	100/100
Conduit clamp Ø 40 mm	00434	50/50
Conduit clamp Ø 50 mm	00435	50/50

Europa65 junction boxes

Technical details designed to facilitate installation

Bi-material flanges allow easy entry of cables or conduits

Convenient mounting brackets (optional) on the back side allow to fix the box to the wall in a quick and accurate way

Accessories include base plates or DIN rails to better integrate different types of devices

The front cover is provided with captive-type plastic clamping screws to ensure greater ease of use



Europa65 junction boxes

Technical details designed to facilitate installation



Rigid on one side and bi-material flange on the other to facilitate input of conduits and cables. The flanges are removeable and interchangeable.



The Polycarbonate GWT 960 ensure unique mechanical performances (Shock resistance IK10) and ensure high resistance against UV rays.



Perfectly symmetrical consumer units with the possibility of attaching the door hinge onto the front (by means of the special articulated screws supplied) on the right or left with 140° opening.



Different type of devices can be installed in an integrated and rational manner thanks to the many accessories such as base plates or a DIN rail.



The frame that can be fitted onto the consumer unit makes semi-flush mounting possible, guaranteeing an attractive finish.



The consumer unit can be fitted with Neutral (N) or Earth (E) terminals, by combining the copper terminal bars to the corresponding plastic terminal holders.

Europa65 junction boxes

Technical characteristics

- protection degree IP 65
- insulation class II
- available in RAL 7035 grey
- in polycarbonate material, self-extinguishing and resistant to abnormal heat and fire up to 960 °C (glow wire test) in compliance with IEC 60695-2-11 Standard
- installation temperature from -25 °C to +60 °C
- resistant to heat: ball thermopressure up to +125 °C in compliance with EN 60695-10-2 Standard
- rated insulation voltage: 1000 V AC; 1500 V DC
- shock resistance 20 Joules (IK level 10)
- perfectly symmetrical junction boxes with possibility of attaching the lid hinges, (using the special articulated screws supplied) on the right or left with 140° opening
- boxes code 12 808, 12 812, 12 814, 12 816 and 12 818 fitted with one rigid and one bi-material flange for facilitated input of conduits and cables
- junction boxes produced in compliance with CEI 23-49 (1996) + V1 + V2, CB certificate IEC 60670-24 Standards
- boxes are supplied complete with:
 - 4 screw-cover caps to guarantee
 - accessories for attaching the hinges on the front
 - 1 certification plate
 - instruction sheet
- use 3.5x9.5 self-tapping screws to fix the components on the back



Europa65 junction boxes

Order codes



12804



12808



12812



12814



12816



12818

Description	Dimensions WxHxD	Order code	Packaging
	[mm]		
Europa65 junction boxes	140x220x140	12804	1/14
Europa65 junction boxes	205x220x140	12808	1/9
Europa65 junction boxes	275x220x140	12812	1/6
Europa65 junction boxes	275x370x140	12814	1/4
Europa65 junction boxes	275x570x140	12816	1/2
Europa65 junction boxes	380x570x140	12818	1/2

Europa65 junction boxes, accessories

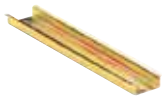
Order codes



Aluminium-plated metal base plates



Insulated base plates



DIN metal rails



Wall fixing brackets



Spare flanges



Universal cutter

Description	For boxes		Packaging
	[type]	Order code	
Base plates			
In aluminium-plated metal	12 804	12842	10/120
	12 808	12844	10/10
	12 812	12845	10/10
	12 814	12846	5/5
	12 816	12847	5/5
	12 818	12848	5/5
	In insulated material	12 804	12832
12 808		12834	10/10
12 812		12835	10/10
12 814		12836	5/5
12 816		12837	5/5
12 818		12838	5/5
DIN metal rails			
Complete with fixing screws	12 804	12852	50/600
	12 808	12854	30/360
	12 812 - 12 814 12 816	12855	50/200
	12 818	12856	50/200
	Wall fixing brackets		
In insulated material	-	12858	20/240
Spare flanges			
Bi-material flange - 8 modules per row	-	12600	30/120
Bi-material flange - 12 modules per row	-	12601	20/80
Bi-material flange - 18 modules per row	-	12602	20/80
Rigid flange - 8 modules per row	-	1SL0550A00	30/120
Rigid flange - 12 modules per row	-	1SL0551A00	20/80
Rigid flange - 18 modules per row	-	1SL0552A00	20/80
Universal cutter for drill			
To be use for side branch connections	-	12894	1/30

Europa65 junction boxes, accessories

Order codes

Terminal blocks

The complete terminal blocks are composed of a combination of terminal holders and terminal bars as shown in the description, with the terminal bars already mounted on terminal holders. The complete terminal blocks are standard configurations. For different requirements (customized terminal blocks), the terminal holders and the terminal bars must be purchased separately in the versions given in the table.



Terminal blocks

Description	For boxes	Order code	Packaging
	[type]		
Composed of 12538x2 + 12531x2	12804	12490	10/60
Composed of 12539x2 + 12531x2	12808	12491	10/60
Composed of 12540x1 + 12531x1 + 12532x1	12812	12492	10/40
Composed of 12540x2 + 12533x2	12814	12494	10/40
Composed of 12540x2 + 12534x2	12816	12493	10/40
Composed of 12543x2 + 12535x2	12818	12497	10/40

Terminal holder

The construction of the terminal block is completed by combining the terminal holders with the necessary terminal bars, taking care to separate the latter from one another.



Terminal holder

Description	For boxes	Order code	Packaging
	[type]		
Terminal holder	12 804	12538	12/360
Terminal holder	12 808	12539	12/360
Terminal holder	12 812 - 12 814 12 816	12540	12/144
Terminal holder	12 818	12543	12/108

Terminal bars

The terminal bars can be installed on any type of terminal holder; they can be hooked by means of 2 snap-on clips through two additional holes at the ends of the bar itself.



Terminal bars

Description	Order code	Packaging
No. of holes x Ø holes [mm] + No. of holes x Ø holes [mm]		
5x4,5	12531	20/240
10x4,5 + 3x5,6	12532	20/240
16x4,5 + 3x5,6	12533	20/240
15x4,5 + 6x5,6	12534	20/240
19x4,5 + 6x5,6	12535	20/240