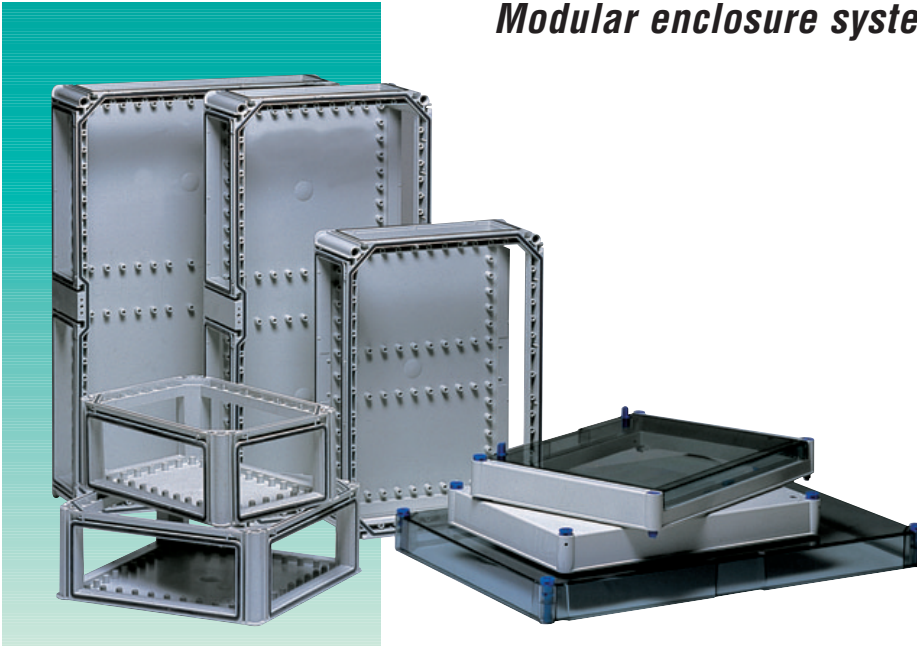


Modular enclosure system



Applications

- Industry
- Public utilities
- Multi motor panels
- Electronic instrumentation
- Low voltage panelboards

Standards

IEC 60439-1
 IEC 60529
 EN 60439-1
 EN 60529
 EN 50298
 DIN VDE 0660 - Teil 500
 BS 5486 Part 1

Approvals



- Single boxes: types 2, 3, 3R, 3S, 5, 12 and 12K

- Modular system: types 2, 3, 3R, 3S, 5, 12 and 12K



- Modular system using 853063: types 2 and 3R

- Boxes with internal hinged cover: types 2, 5, 12 and 12K

- Boxes with external hinges: type 2



Features

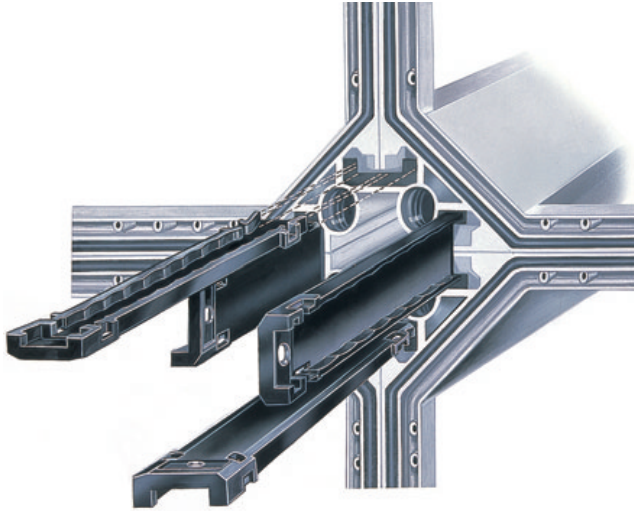
- The range consists of five boxes based on a 100 mm module.
- The innovative coupling concept allows easy, rapid assembly of any combination of units without the need for tools.
- The open bases offer excellent accessibility and wiring space for installation, mounting and cable connection, even after coupling.
- The side panel openings can be closed by either blind or combi end plates. Once mounted, end plates fit perfectly flush with the side panels of the base.
- Each large box is a multiple of a smaller one. Its fixing points in increments of 25 mm in bottom plate and top end are also a multiple of those of a small box.
- The base and end plates are made of light grey (RAL 7035) glassfiber reinforced polycarbonate. The cover is made of either transparent or opaque light grey (RAL 7035) polycarbonate.
- A multiple of accessories like mounting plates, cover plates, depth extension frame, ... makes the VMS a complete system for electrical distribution and control applications.
- VMS boxes are halogen-free, corrosion resistant and require no maintenance.
- VMS boxes provide optimum security to both operations and equipment because they feature total insulation and protection degree IP65 according to IEC 60529 and EN 60529.
- This protection covers the total volume of the enclosure according to EN 50298.



- Overview of the range ● Page C.2
- Dimensional drawings ● Page J.24
- Specifications for tender documents ● Page J.64
- Power dissipation values ● Page J.88

Coupling system

The enclosures are coupled by means of vertical dowels, inserted into the corner shafts. These dowels are universal to all sizes.

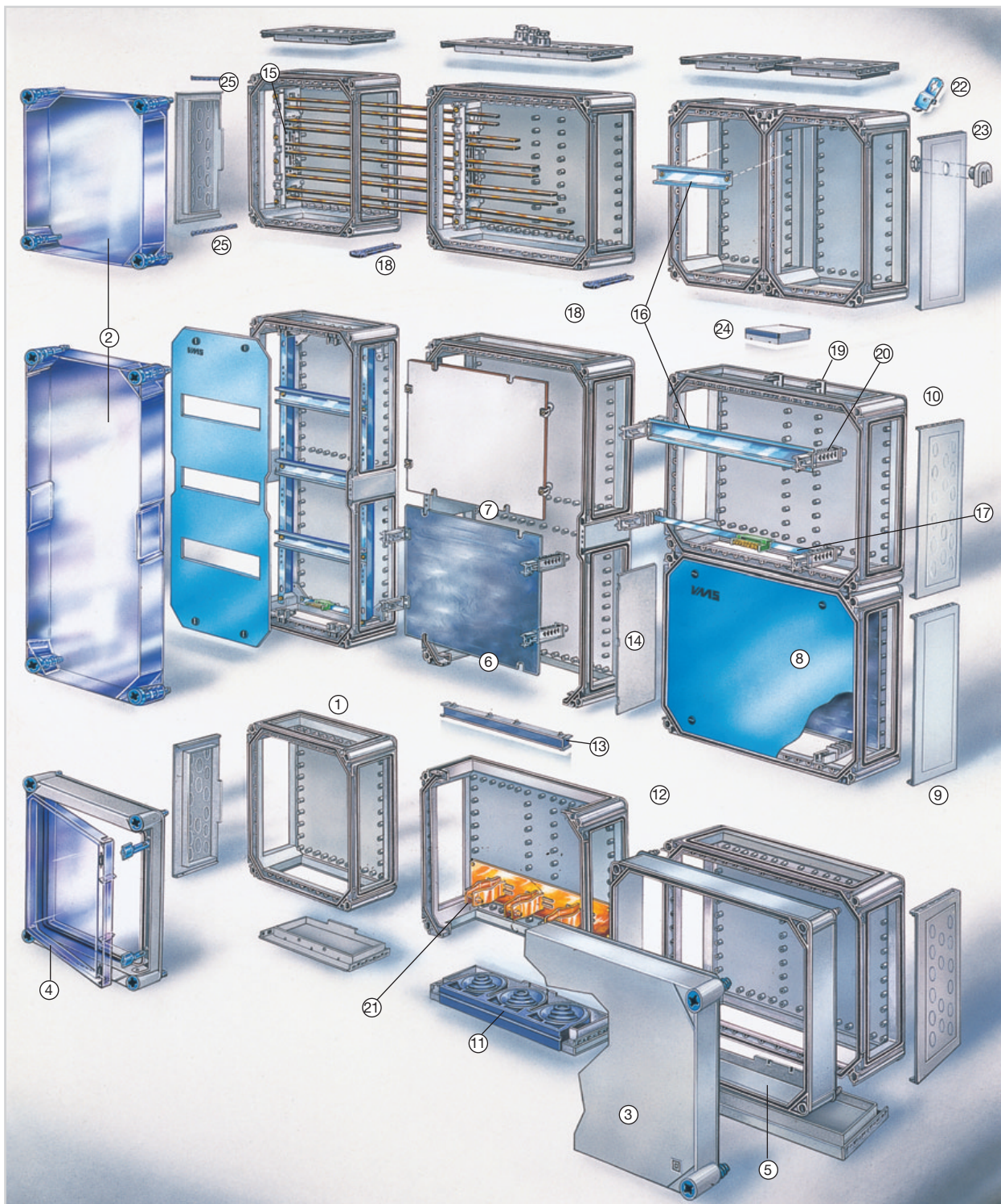


End-plates installation

End-plates, combi or blind, are snapped on from the outside and fixed by means of vertically inserted dowels.



Modular insulated enclosures system

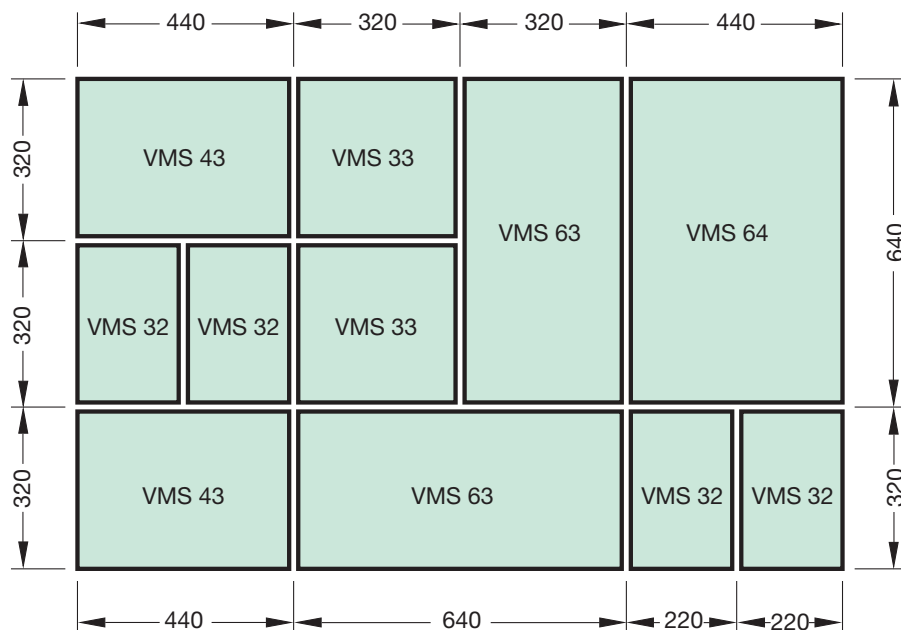


- | | | |
|------------------------------|---------------------------|--------------------------------|
| ① Base | ⑩ Combi end-plate | ⑱ Coupling clamp |
| ② Transparent cover | ⑪ Cable end-plate | ⑳ Universal support |
| ③ Opaque cover | ⑫ Cable stress release | ㉑ Stress relieving cable clamp |
| ④ Hinged cover | ⑬ Bridge | ㉒ Fixing bracket |
| ⑤ Depth extension frame | ⑭ Partition plate | ㉓ Air vent |
| ⑥ Mounting plate in metal | ⑮ Busbar support | ㉔ Coupling set 2 x 220 mm |
| ⑦ Mounting plate in pertinax | ⑯ DIN-profile | ㉕ Locking key |
| ⑧ Blind cover plate | ⑰ Mounting rail 12 x 2 mm | |
| ⑨ Blind end-plate | ⑲ Coupling dowels | |

Technical specifications

Protection degree according to IEC 60529	
individual and coupled	IP65
with coupling set 2 x 220	IP44
with extension frame	IP65
with cable entries	IP43
with bridges	IP55
Protection degree against external mechanical impacts according to EN50102	
base + end plates	IK08
covers	IK10
Materials	
bases + end plates	reinforced fibre-glass polycarbonate
covers	polycarbonate
cover screws	polyamide
gaskets	PUR, neoprene
Temperature resistance	
materials	see page J.6
continuous use	-20°C up to +80°C
Colours	
bases + end plates	RAL 7035
covers	RAL 7035 / transp.
Protection	Total isolation <input type="checkbox"/>
Rated voltage	690VAC / 800VDC
Rated insulation voltage	690VAC
Rated current	max. 1250A
Rated short time withstand current	max. 30kA (0.3 s.)
Rated peak short-circuit current	max. 65kA peak
Standards	EN 60439-1 DIN VDE 0660 - Teil 500 BS 5486 Part 1 IEC 60439-1

Recommended configuration for optimal modularity

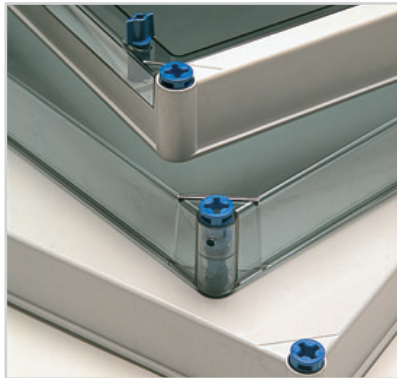


Features and Benefits

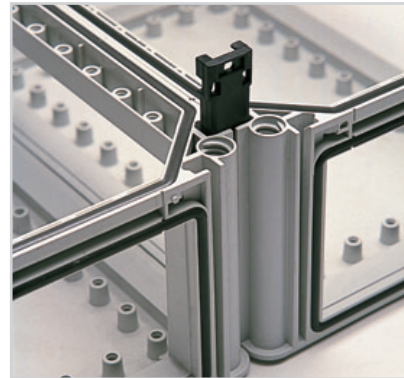


Modular dimensions in increments of 100 mm in height and width, available in five sizes:

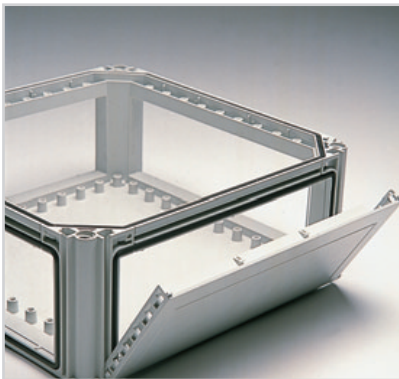
320 x 220 mm	320 x 320 mm
440 x 320 mm	640 x 320 mm
640 x 440 mm	



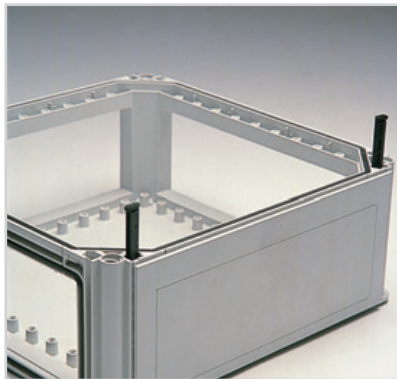
Assorted covers: transparent, opaque, or hinged, common design and depth.



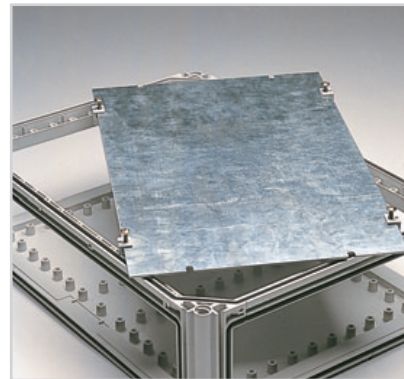
Time saving coupling by means of vertical dowels, inserted into corner slots.



End-plates, combi or blind, are snapped on from the outside and fixed by means of vertically sunk keys.



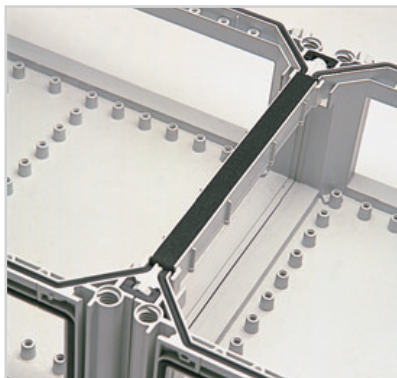
Once mounted, end-plates fit perfectly flush with the side panels of the base.



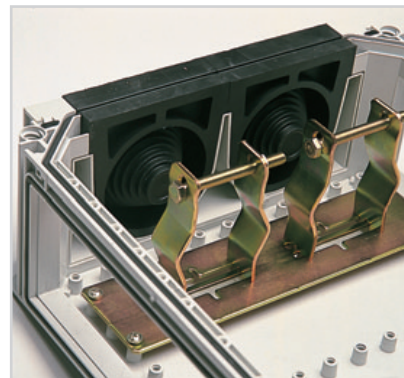
Rectangular mounting plates (2 mm in metal or 5 mm in laminated pertinax) with mounting set. Usable mounting depth is maximised and not dependant on plate thickness.



Universal support for screwless and depth adjustable installation of component rails. The support is simply clicked over the base.



Bridges are inserted after connection of cables (320 and 440 mm sides).



Universal cable entries and stress relieving cable clamps for cables up to Ø 75 mm can be located in any base on side 320 mm (for two cables) or on side 440 mm (for three cables).

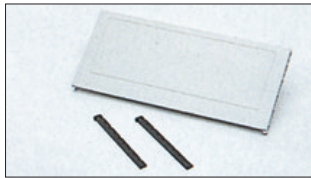
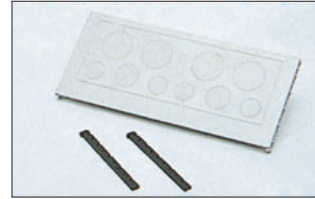
Modular system components

	Type	VMS 32	VMS 33	VMS 43	VMS 63	VMS 64
 <p>Base With four open sides</p>	H x W x D	320 x 220 x 130	320 x 320 x 130	440 x 320 x 130	640 x 320 x 130	640 x 440 x 130
	Ref. No.	853000	853001	853002	853003	853004
	Pack.	4	2	2	1	1
 <p>Transparent cover With slotted screws</p>	H x W x D	320 x 220 x 50	320 x 320 x 50	440 x 320 x 50	640 x 320 x 50	640 x 440 x 50
	Ref. No.	853005	853006	853007	853008	853009
	Pack.	4	2	2	1	1
 <p>Opaque cover With slotted screws</p>	H x W x D	320 x 220 x 50	320 x 320 x 50	440 x 320 x 50	640 x 320 x 50	640 x 440 x 50
	Ref. No.	853010	853011	853012	853013	853014
	Pack.	4	2	2	1	1
 <p>Hinged cover With double closure system</p>	H x W x D	-	320 x 320 x 50	440 x 320 x 50	-	-
	Ref. No.	-	853015	853016	-	-
	Pack.	-	2	2	-	-
 <p>Depth extension frame With fixing screws</p>	H x W x D	320 x 220 x 75	320 x 320 x 75	440 x 320 x 75	640 x 320 x 75	640 x 440 x 75
	Ref. No.	853030	853031	853032	853033	853034
	Pack.	4	2	2	1	1
 <p>Mounting plate Metal, 2 mm With mounting set Pertinax, 5 mm With mounting set</p>	H x W	260 x 160	260 x 260	380 x 260	580 x 260	580 x 380
	Ref. No.	853068	853069	853070	853071	853072
	H x W	260 x 160	260 x 260	380 x 260	580 x 160	580 x 380
	Ref. No.	853113	853114	853115	853116	853117
	Pack.	1-10	1-10	1-10	1-10	1-10
 <p>Plain cover plate Insulated material, 2 mm With mounting set</p>	H x W	301 x 201	301 x 301	421 x 301	621 x 301	621 x 421
	Ref. No.	853103	853104	853105	853106	853107
	Pack.	1-10	1-10	1-10	1-10	1-10

C

Accessories

Combi end-plates				Combi end-plates			
OLD				NEW			
Characteristics PG	Ref. No.	Pack.	Side (mm)	Characteristics Metric	Ref. No.	Pack.	
3 x PG29	853018	1/10	220	3 x M32/M25 + 3 x M20	855029	1/10	
1 x PG42 + 4 x PG16	853019	1/10	220	1 x M50/M40 + 4 x M25/M20	855030	1/10	
6 x PG29	853021	1/10	320				
3 x PG42 + 4 x PG16	853022	1/10	320	3 x M50/M40 + 4 x M16	855032	1/10	
22 x PG13.5	853023	1/10	320	17 x M20	855033	1/10	
4 x PG29 + 2 x PG21 + 4 x PG16	853024	1/10	320	1 x M50/M40 + 2 x M32/M25 + 4 x M25/M20	855034	1/10	
16 x PG16	853025	1/10	320	12 x M25/M20	855035	1/10	
8 x PG21 + 4 x PG16	853026	1/10	320	4 x M40/M32 + 3 x M20	855036	1/10	
26 x PG 16	853028	1/10	440	1 x M40/M32 + 16 x M25/M20	855037	1/10	
4 x PG29 + 4 x PG21 + 6 x PG16	853029	1/10	440	1 x M50/M40 + 2 x M40/M32 + 8 x M25/M20	855038	1/10	



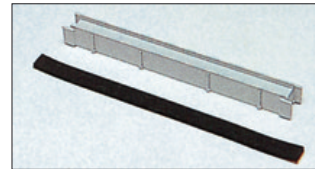
Blind end-plates

Side (mm)	Ref. No.	Pack.
220	853017	1/10
320	853020	1/10
440	853027	1/10

Bridges

Side (mm)	Ref. No.	Pack.
320	853073	1
440	853074	1

For large cross-section cables



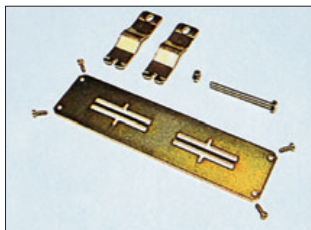
Cable entries

Side (mm)	Ref. No.	Pack.
320	853082	1/5
Ø max. of cable: 2 x 75 mm		
440	853083	1/5
Ø max. of cable: 3 x 75 mm		

Coupling key

Ref. No.	Pack.
853059	20

For base coupling



Cable stress release

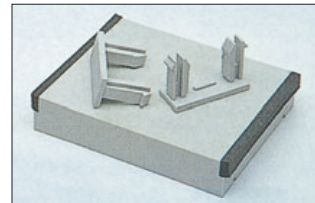
Side (mm)	Ref. No.	Pack.
320	853036	1/5
440	853037	1/5

With one clamp
Ø max. of cable: 75 mm

Coupling set 2 x 220

Ref. No.	Pack.
853063	1

To couple 2 sides of 220 mm to one side of 440 mm
With mounting accessories



Cable clamp

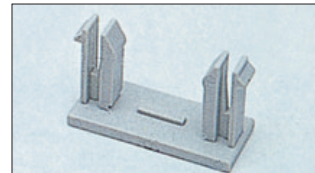
Ref. No.	Pack.
853035	1

To mount on cable stress release
Ø max. of cable: 75 mm

Coupling clamp

Ref. No.	Pack.
853062	10

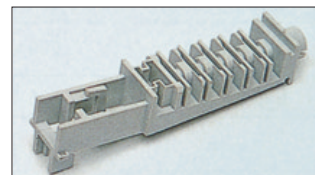
For coupling in special cases



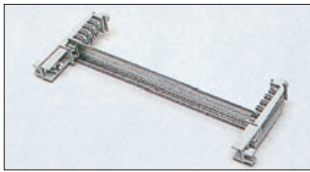
Universal support

Ref. No.	Pack.
853060	10

To fit: - mounting plates (metal or synthetic)
- cover plates
- copper rail 15 x 3
- copper rail 9 x 6.5
- mounting rail 12 x 2 mm



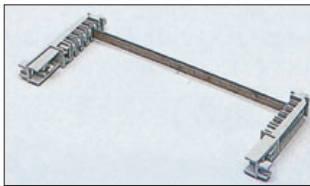
Accessories (continued)



Symmetrical DIN-profiles

Side (mm)	Part Number	Quantity
220	853094	1
320	853095	1
440	853096	1

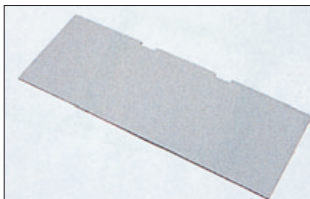
Always supplied with two universal supports



Mounting rail 12 x 2 mm

Side (mm)	Part Number	Quantity
220	853097	1
320	853098	1
440	853099	1

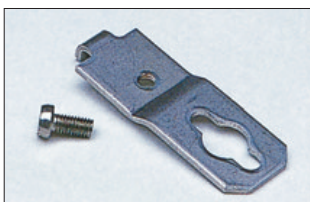
To fit connection terminal blocks
Always supplied with two universal supports



Partition plates

Side (mm)	Part Number	Quantity
220	853065	1
320	853066	1
440	853067	1

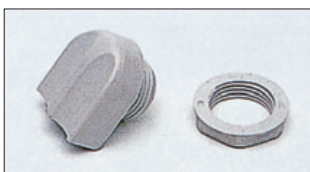
For full compartmentalisation of coupled bases



Fixing brackets

Part Number	Quantity
853064	1

Set of four brackets with screws
- Stainless steel
- For external fixing points
- Direct fitting through the corner shafts of the base
- To be installed prior to extension frame or hinge installation
- Three optional mounting positions (0°, 45°, 90°)



Air vent

Part Number	Quantity
853123	1

Install two air vents per enclosure to allow ventilation and prevent condensation.
Set of 2 pieces.

Hinge screw

Part Number	Quantity
853061	1

Base must be fixed prior to hinge installation
Set of 2 pieces.



Hinges

Part Number	Quantity
853340	1

In order to enable hinge mounting, holes must be drilled in the cover and in the base. Templates for drilling are supplied with each set. Each set consists of two hinges, screws, a drilling template, the mounting instructions and spacer shims.
Set of 2 pieces.



Thumb grip

Part Number	Quantity
853058	1

For cover screw or hinge screw.
Set of 4 pieces.



Self-tapping screws

Size	Part Number	Quantity
5 x 13	853100	50
5 x 16	853101	50
5 x 22	853102	50

For fixation in the base.



Size	Part Number	Quantity
6 x 16	851384	500

Size	Part Number	Quantity
6 x 22	851385	500

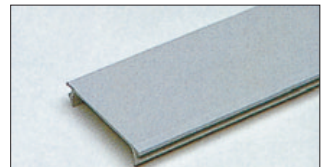
To fasten components to metallic mounting plates.



Blanking plate

Part Number	Quantity
828056	1m

For 45 mm cut-out



Marking strip

Part Number	Quantity
851321	1m

Self-adhesive

