

Enclosure system **apra Rail**



... the perfect shell for valuable electronics



apra Rail MB

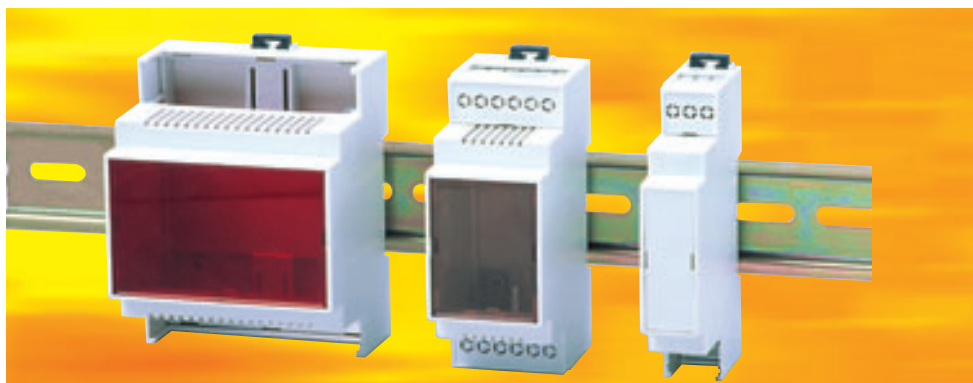
- single parts can be mounted without tools
- mounting on top-hat rail or on wall
- maximum 3 horizontally and 2/4 vertically p.c. boards

Material: polycarbonate UL94 V-0

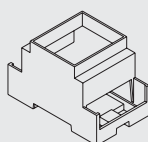
Protection class: IP 20

Delivery: enclosure bottom part, enclosure top part, snap-in clip

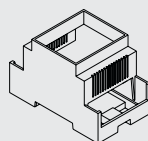
Accessories: p. 33 + 34



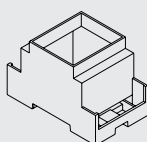
Type I: short side panel



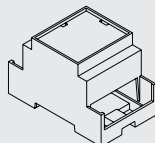
Type II: short side panel, ventilated



Type III: long side panel

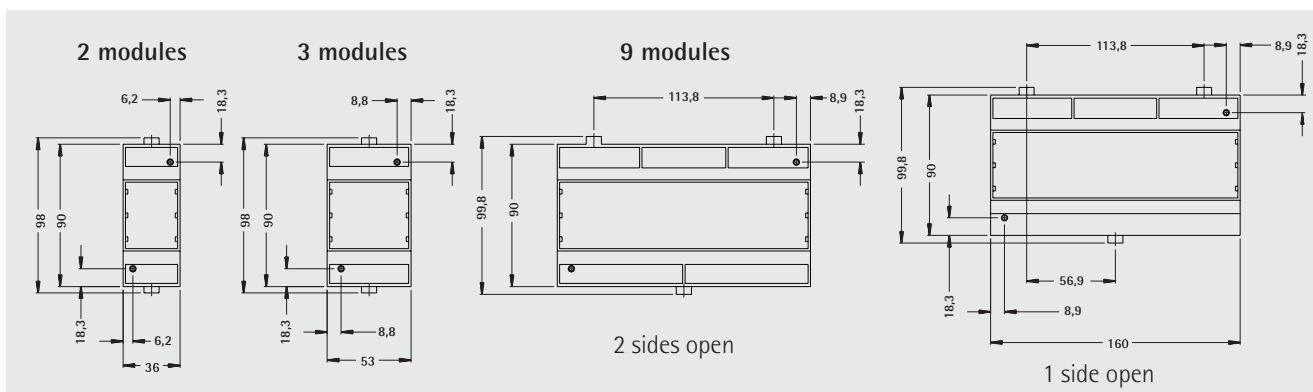


Type IV: short side panel with closed front



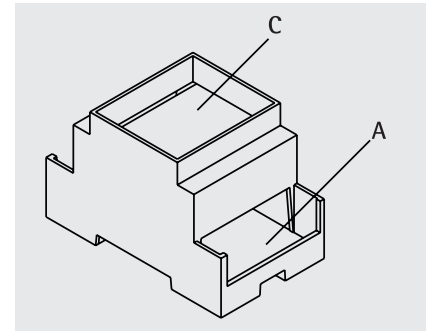
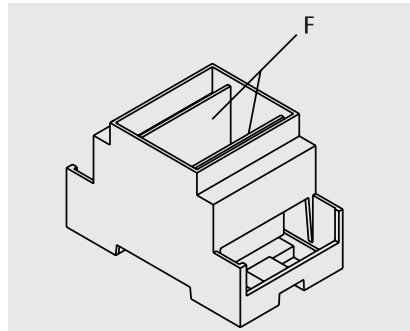
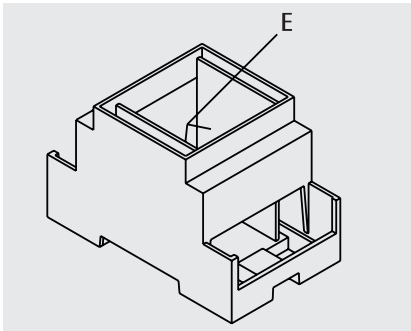
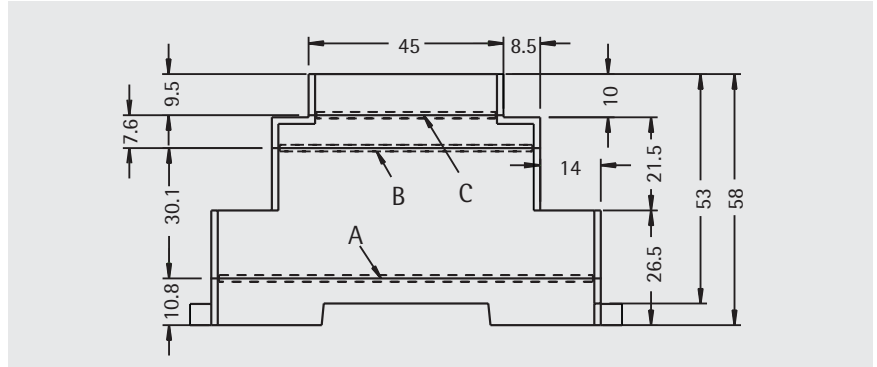
Order data

Description	Type	Modules	External size in mm			Part no.	
			W	H	L	1 side open	2 sides open
apra Rail MB	I	1 module	17,5	90	58	-	44-9110-00
	II					-	44-9110-60
	III					-	44-9110-20
	IV					-	44-9110-40
apra Rail MB	I	2 modules	36	90	58	-	44-9120-00
	II					-	44-9120-60
	III					-	44-9120-20
	IV					-	44-9120-40
apra Rail MB	I	3 modules	53	90	58	-	44-9130-00
	II					-	44-9130-60
	III					-	44-9130-20
	IV					-	44-9130-40
apra Rail MB	I	4 modules	71	90	58	-	44-9140-00
	II					-	44-9140-60
	III					-	44-9140-20
	IV					-	44-9140-40
apra Rail MB	I	5 modules	88	90	58	44-9150-00	44-9150-10
	II					44-9150-60	44-9150-70
	III					44-9150-20	44-9150-30
	IV					44-9150-40	44-9150-50
apra Rail MB	I	6 modules	106	90	58	44-9160-00	44-9160-10
	II					44-9160-60	44-9160-70
	III					44-9160-20	44-9160-30
	IV					44-9160-40	44-9160-50
apra Rail MB	I	9 modules	160	90	58	44-9170-00	44-9170-10
	II					44-9170-60	44-9170-70
	III					44-9170-20	44-9170-30
	IV					44-9170-40	44-9170-50





apra Rail MB p.c. board dimensions



Modules	Position				
	A (horizontally)	B (horizontally)	C (horizontally)	E (vertically)	F (vertically)
1 module	86,5 x 14	57 x 14	41,8 x 14	34 x 59,6	40 x 14,8
2 modules	86,5 x 33	57 x 32	42 x 32	34 x 59,7	40 x 33
3 modules	86,5 x 50	57 x 49	42 x 49	34 x 59,8	40 x 50
4 modules	86,5 x 68	57 x 67	42 x 67	34 x 59,9	40 x 68
5 modules	86,5 x 84	57 x 83	42 x 83	34 x 59,10	40 x 84
6 modules	86,5 x 103	57 x 102	42 x 102	34 x 59,11	40 x 103
9 modules	86,5 x 155	57 x 155,4	42 x 154	34 x 59,12	40 x 155



apra Rail MB terminal cover

- Protection against contacts to mounted connectors
- to cover unused terminals
- closed and perforated versions, versions for open drillings
- Material: polycarbonate UL94 V-0

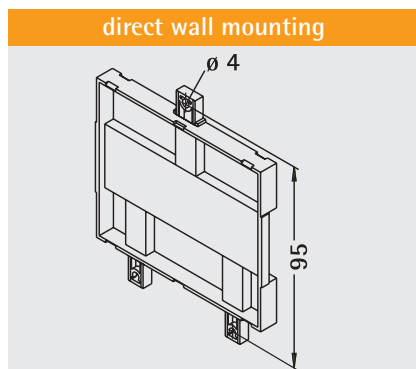
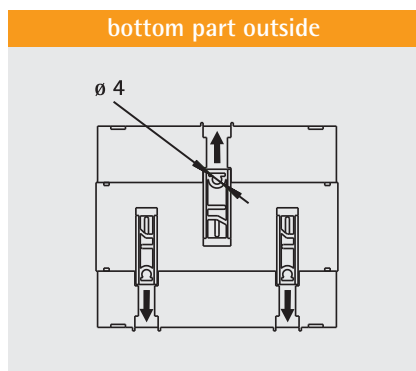
Order data

Modules	Closed	Perforated		Open		Perforated		Perforated	
		contacts	grid 5,08	contacts	grid 5,08	contacts	grid 7,5	contacts	grid 10,16
1 module	44-9110-09	3	44-9110-05	3	44-9110-06	2	44-9110-07	2	44-9110-08
2 modules	44-9120-09	6	44-9120-05	6	44-9120-06	4	44-9120-07	3	44-9120-08
3/6/9 modules	44-9130-09	9	44-9130-05	9	44-9130-06	6	44-9130-07	5	44-9130-08
4 modules	44-9140-09	12	44-9140-05	12	44-9140-06	8	44-9140-07	6	44-9140-08
5 modules	44-9150-09	15	44-9150-05	15	44-9150-06	10	44-9150-07	7	44-9150-08



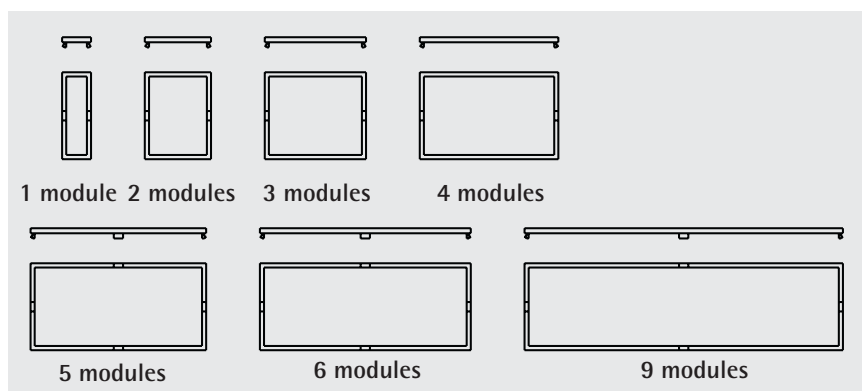
Mounting snap-in clip

- DIN rail fixing EN 60 715 TH 35
- wall mounting



apra Rail MB front panel

- can be clipped on enclosure
- foils can be integrated
- machining possible
- **Material:** polycarbonate



Modules	Grey	Red-transparent	Transparent	Grey-transparent
1 module	44-9110-01	44-9110-02	44-9110-03	44-9110-04
2 modules	44-9120-01	44-9120-02	44-9120-03	44-9120-04
3 modules	44-9130-01	44-9130-02	44-9130-03	44-9130-04
4 modules	44-9140-01	44-9140-02	44-9140-03	44-9140-04
5 modules	44-9150-01	44-9150-02	44-9150-03	44-9150-04
6 modules	44-9160-01	44-9160-02	44-9160-03	44-9160-04
9 modules	44-9170-01	44-9170-02	44-9170-03	44-9170-04

apra Rail MB chamfered cover

- protection against contact of switching elements
- Material: polycarbonate UL94 V-0



Modules	Mounting frame	Chamfered cover with hinge (only to be used with mounting frame)			Chamfered cover without hinge (for direct enclosure mounting)		
		grey	red transparent	transparent	grey	red transparent	transparent
2 modules	44-9120-90	44-9120-91	44-9120-92	44-9120-93	44-9120-81	44-9120-82	44-9120-83
3 modules	44-9130-90	44-9130-91	44-9130-92	44-9130-93	44-9130-81	44-9130-82	44-9130-83
4 modules	44-9140-90	44-9140-91	44-9140-92	44-9140-93	44-9140-81	44-9140-82	44-9140-83
5 modules	44-9150-90	44-9150-91	44-9150-92	44-9150-93	44-9150-81	44-9150-82	44-9150-83
6 modules	44-9160-90	44-9160-91	44-9160-92	44-9160-93	44-9160-81	44-9160-82	44-9160-83
9 modules	44-9170-90	44-9170-91	44-9170-92	44-9170-93	44-9170-81	44-9170-82	44-9170-83



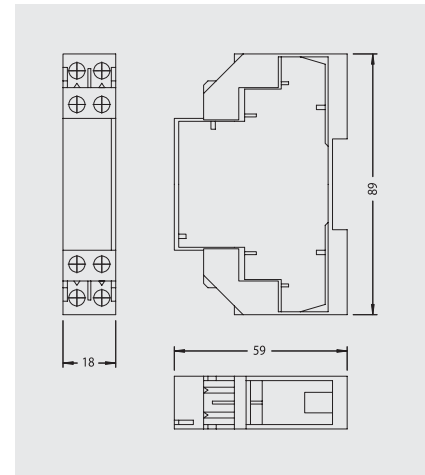
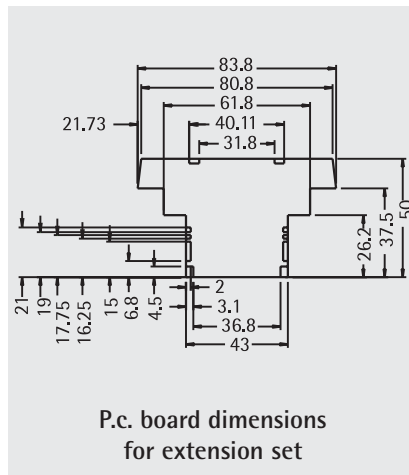
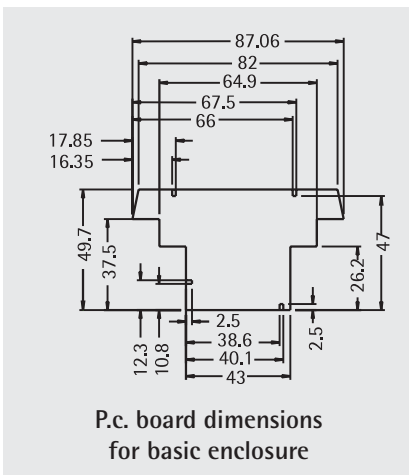
apra Rail EMB

- consists of basic case and detachable side panel
- variable sizes by using extension set
- each unit with 8 removable screw type terminals
- width 17,5 mm
- mounting on top-hat rail or wall mounting

Material: ABS, for a minimum of 1000 pieces also polycarbonate possible

Protection class: IP 20

Description	Part no.
17,5 mm basic enclosure	44-9180-00
extension set	44-9180-10

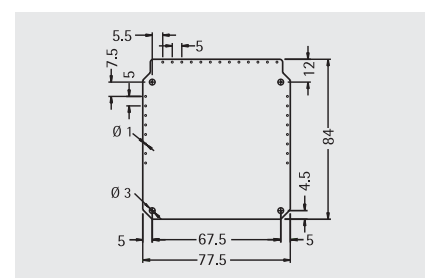


apra Rail VB

- fitting TS35, TS15 and C-rail
- 2 enclosure sizes for pluggable terminals
- cover plates for unused terminal areas
- maximum 12 terminals per side
- dimensions: 22,5 x 82 x 90 mm
45,0 x 82 x 90 mm

Material: polyamide UL94 V-0

Delivery: enclosure shells and cover plates



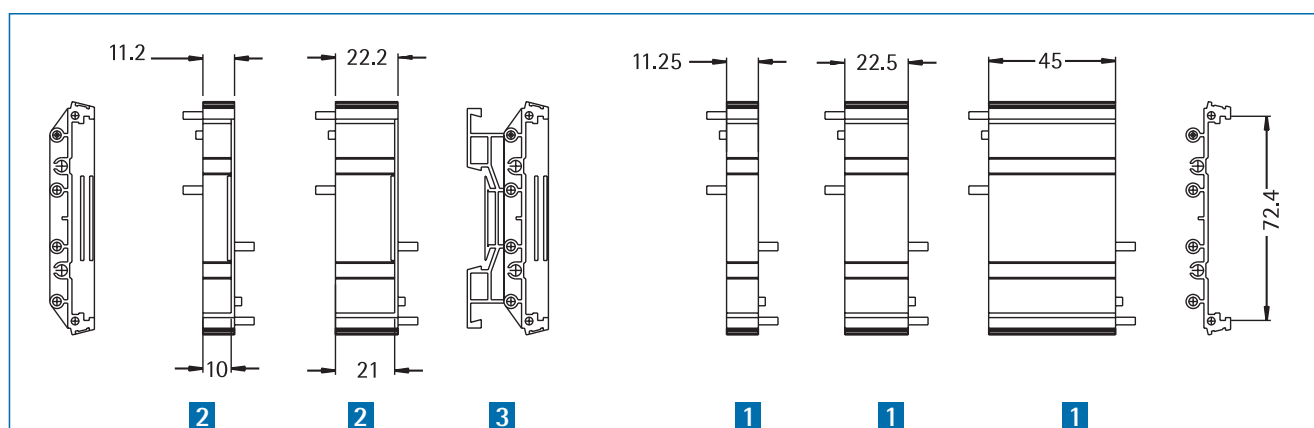
Description	Part no.
apra Rail VB, 22,5 mm	44-9180-20
apra Rail VB, 45 mm	44-9180-25



apra Rail MIS 72 mm

- applicable for 72 mm wide p.c. boards
- high flexibility due to its modular construction
- integrated fixing
- insertion possibility for labelling

Material: polyamide 66 UL 94 V-0



Pos.	Description	External sizes in mm			P.c. board dimensions		Part no.
		W	H	L	W	L	
1	Intermediate unit	11,25	16	82	11,25	72	44-9310-00
		22,5	16	82	22,5	72	44-9320-00
		45	16	82	45	72	44-9330-00
2	Header unit	11,2	16	82	10	72	44-9310-10
		22,2	16	82	21	72	44-9320-10
3	Header unit with foot	11,2	22,5	82	10	72	44-9310-20
		22,2	22,5	82	21	72	44-9320-20
	Foot unit	-	-	-	-	-	44-9340-00

apra Rail EIS 72 mm

- for 72 mm wide p.c. boards • special lengths possible

Material: polyamide 66 UL 94 V-0

Description	Length*	Part no.
Extruded basic unit	2000 mm	44-9300-10
Header unit		44-9300-20
Foot unit		44-9300-30
Locating screws for header unit		44-9300-40

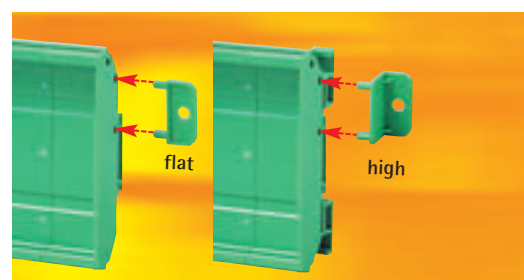
*Other lengths on request, extrusion length = p.c. board length - 4 mm

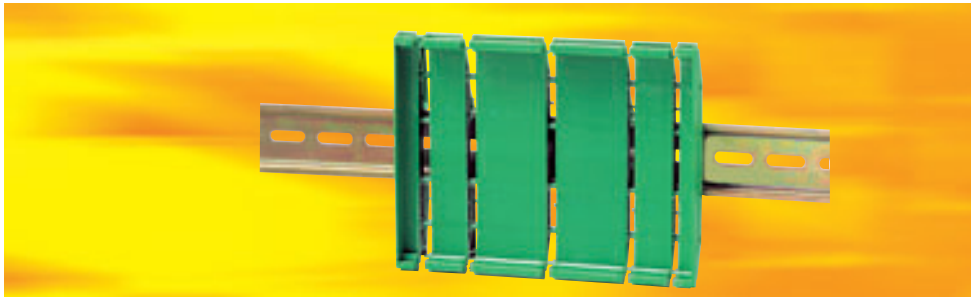


apra Rail MIS 72 mm - adapter for wall mounting-

- flat adapter: wall mounting of units without foot
- high adapter: wall mounting of units with foot

Adapter for wall mounting	Part no.
flat	44-9350-00
high	44-9350-10

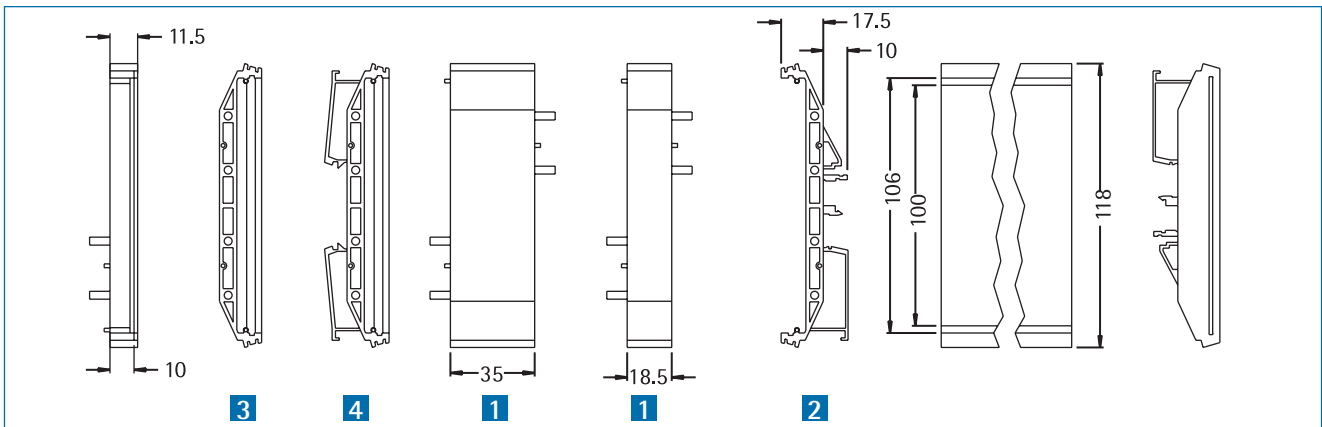




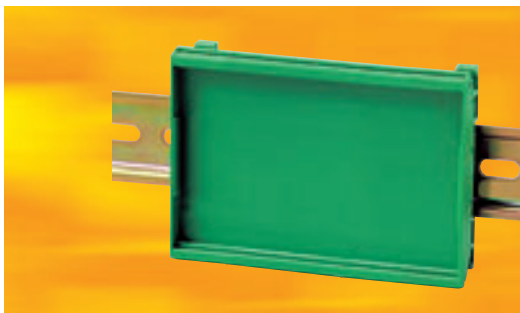
apra Rail MIS 107 mm

- applicable for 107 mm wide p.c. boards
- high flexibility due to its modular construction
- integrated fixing
- insertion possibility for labelling

Material: polyamide 66 UL 94 V-0



Pos.	Description	External sizes in mm			P.c. board dimensions		Part no.
		W	H	L	B	L	
1	Intermediate unit	18,5	17,5	118	18,5	107	44-9220-00
		35	17,5	118	35	107	44-9220-10
2	Intermediate unit with foot	18,5	27,5	118	18,5	107	44-9230-00
		35	27,5	118	35	107	44-9230-10
3	Header unit	11,5	17,5	118	10	107	44-9210-00
4	Header unit with foot	11,5	27,5	118	10	107	44-9210-10



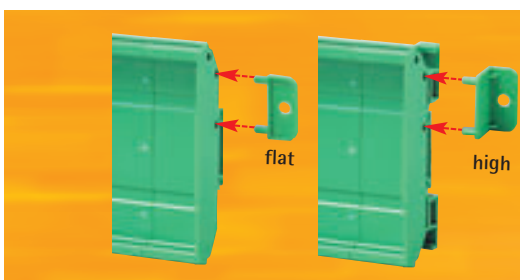
apra Rail EIS 107 mm

- for 107 mm wide p.c. boards • special lengths possible

Material: polyamide 66 UL 94 V-0

Description	Length*	Part no.
Extruded basic unit	2000 mm	44-9300-11
Header unit		44-9300-22
Foot unit		44-9300-33
Locating screws for header unit		44-9300-44

*Other lengths on request, extrusion length = p.c. board length - 4 mm



apra Rail MIS 107 mm - adapter for wall mounting-

- flat adapter: wall mounting of units without foot
- high adapter: wall mounting of units with foot

Adapter for wall mounting	Part no.
flat	44-9240-00
high	44-9240-10



apra Rail CH

- 12 contacts
 - internal card guides
 - interchangeable front panel
 - terminals with pins for a minimum wiring complexity
- Material:** polycarbonate UL94 V-0

Part no.
44-9180-30

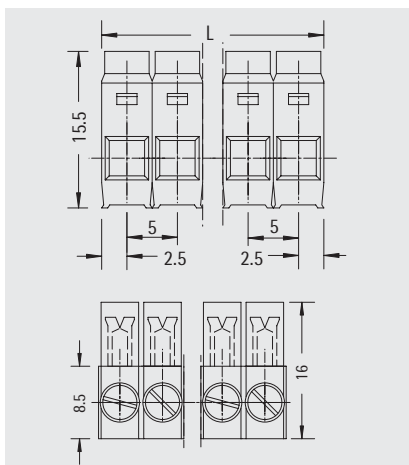


Accessories especially adjusted to apra Rail products

Pluggable terminal strip

- Nominal voltage: 380V
 Nominal current: 13,5A
 Cross section: max. 4 mm²
 Material: Lexan grey, flammability tested acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C, 160°C temporary
 Approval: UL, , CE conformity

Matching polarising clips: see p. 38

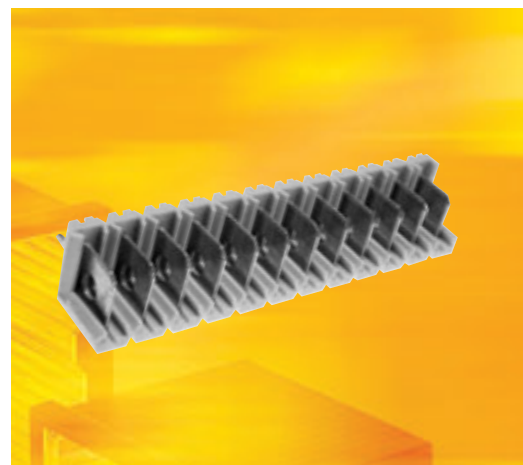
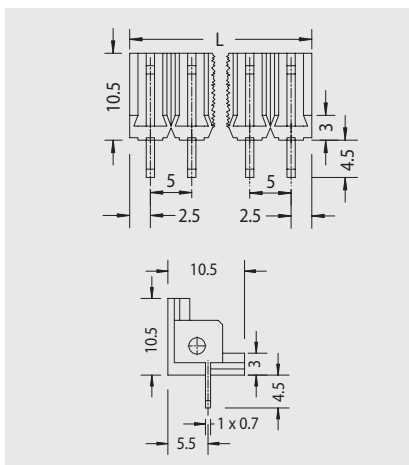


Description	Contacts	Length L	Raster	Part no.
Pluggable terminal strip	36	180 mm	5,0	44-9410-01

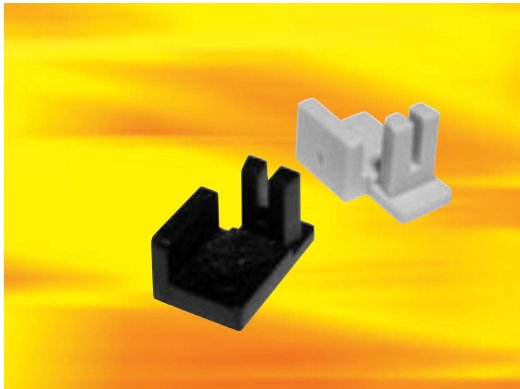
Terminal pin

- Nominal voltage: 380V
 Nominal current: 13,5A
 Material: Lexan grey, flammability tested acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C, 160°C temporary
 Approval: UL, , CE conformity

Matching polarising clips: see p. 38



Description	Contacts	Length L	Raster	Part no.
Terminal pin	36	180 mm	5,0	44-9410-02

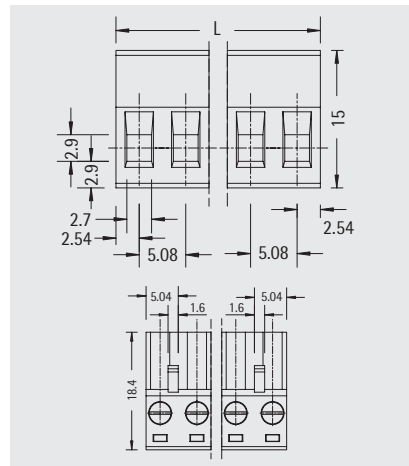
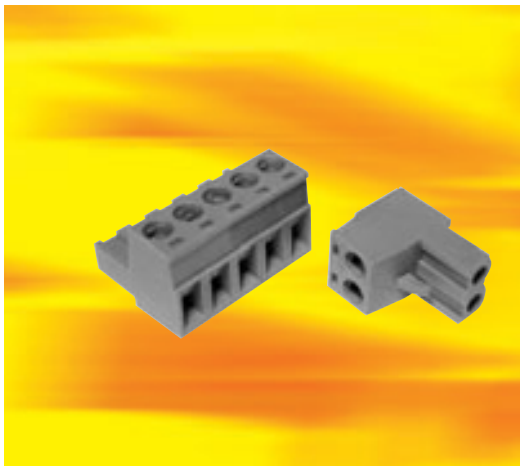


Polarising Clips

Material: Lexan grey, flammability tested acc. to UL 94-V0
 Working temperature: -20°C up to 125°C, 160°C temporary
 Approval: UL, , CE conformity

Fitted to each end of the terminal pin the polarising clip ensures correct vertical or horizontal orientation of the pluggable terminal strip.

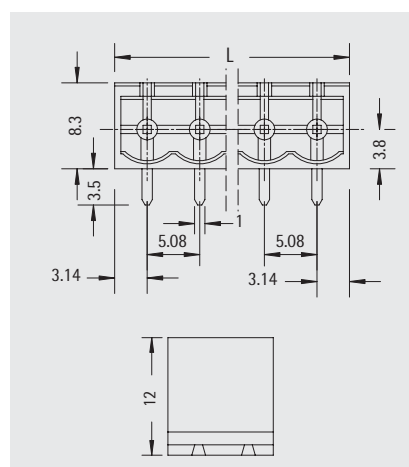
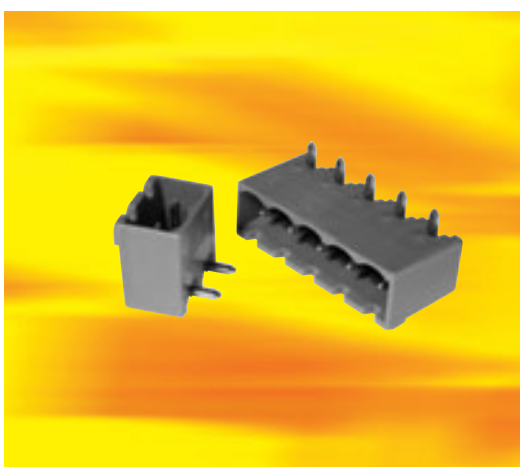
Description	Part no.
Polarising clips 1 pair	44-9410-03



Pluggable terminal strip

Nominal voltage: 380V
 Nominal current: 12A
 Cross section: max. 2,5 mm²
 Material: PA66 green, flammability tested acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C, 160°C temporary
 Approval: UL, , VDE, CE conformity

Description	Contacts	Length L	Raster	Part no.
Pluggable terminal strip	3	15,24 mm	5,08	44-9420-03
Pluggable terminal strip	6	30,48 mm	5,08	44-9420-06
Pluggable terminal strip	9	45,72 mm	5,08	44-9420-09
Pluggable terminal strip	12	60,96 mm	5,08	44-9420-12




Banded pin terminal

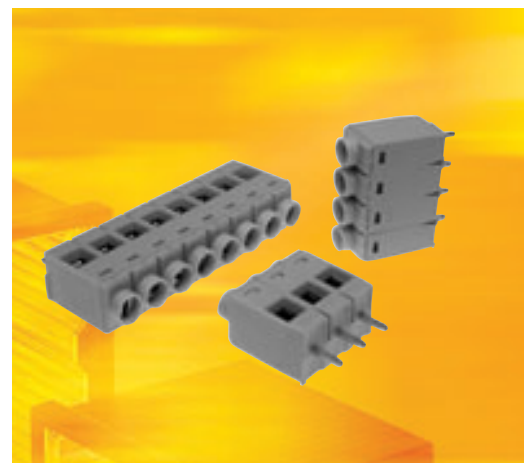
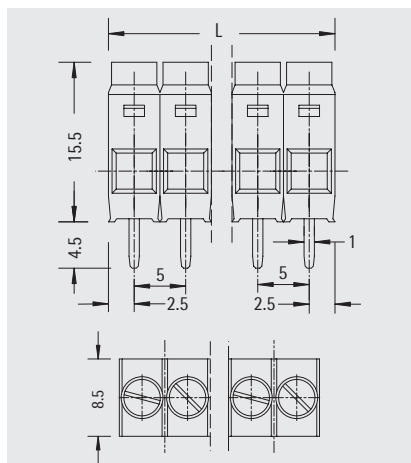
Nominal voltage: 380V
 Nominal current: 12A
 Material: PA66 green, flammability tested acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C, 160°C temporary
 Approval: UL, , VDE, CE conformity

Description	Contacts	Length L	Raster	Part no.
Banded pin terminal	3	15,24 mm	5,08	44-9430-03
Banded pin terminal	6	30,48 mm	5,08	44-9430-06
Banded pin terminal	9	45,72 mm	5,08	44-9430-09
Banded pin terminal	12	60,96 mm	5,08	44-9430-12



Terminal clamp

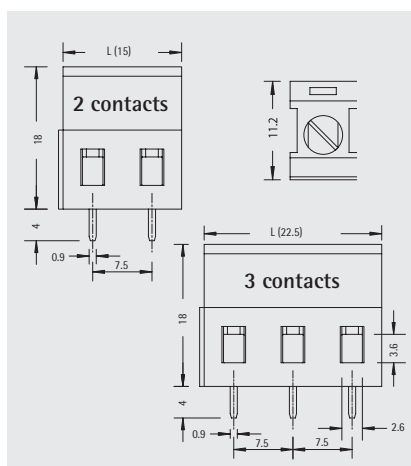
Nominal voltage: 380V
 Nominal current: 17,5A
 Cross section: max. 4 mm²
 Material: Lexan grey,
 flammability tested
 acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C,
 160°C temporary
 Approval: UL, , VDE,
 CE conformity



Description	Contacts	Length L	Raster	Part no.
Terminal clamp	36	180 mm	5,0	44-9410-00

Terminal clamp

Nominal voltage: 750V
 Nominal current: 24A
 Cross section: max. 4 mm²
 Material: PA66 green,
 flammability tested
 acc. to UL 94-V0
 Insulating resistance: >5 MOhm
 Working temperature: -20°C up to 125°C,
 160°C temporary
 Approval: UL, VDE,
 CE conformity



Description	Contacts	Length L	Raster	Part no.
Terminal clamp	2	15 mm	7,5	44-9440-02
Terminal clamp	3	22,5 mm	7,5	44-9440-03