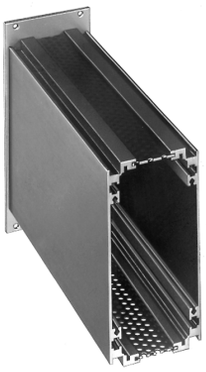
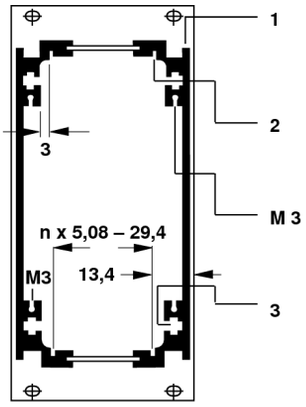
Insert modules for 19" subracks, 3 U

Design A

– standard insert module, with T-grooves for threaded rails, slide nuts or screw head
– rear view without end plate
– dimensioned drawing of the side panel profile **GP 191** → N ?

1 = guide ridge for 19" rack; **2** = slot for Eurocard: distance to guide ridge 2 width-units: 2 x 5,08 mm;
3 = slot for threaded rails, hexagon screws resp. screw nuts M 3



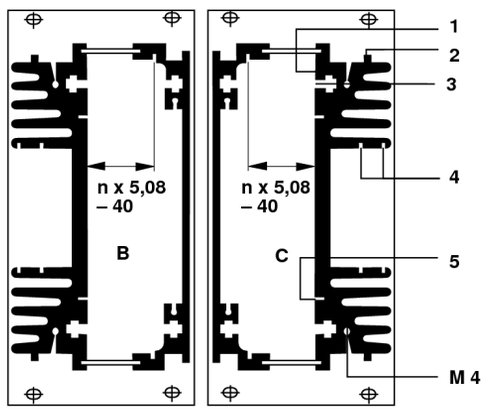


art. no.
A ...

Design B + C

– with T-grooves for threaded strips, slide nuts M 3 or screw heads
– respectively one side of the insert module with heatsink, incl. guide rails for the cover panels or PCBs
– the guide slots of the outer fins fit into 19" racks
– upon request the side panel profile can be drilled to all common used transistor pin layouts
– rear view without end plate
– dimensioned drawing of the side panel profile **GP 191/192** → N ?

1 = guide ridge for 19" cases; **2** = slot for outer plates, cover panels and perforated sheets; **3** = slot for threaded rails, square nuts M 3 and hexagon screws and screw; **4** = slot for integrated circuits, cover panels and perforated sheets; **5** = slot for application of chassis plates, separating plates and PCBs



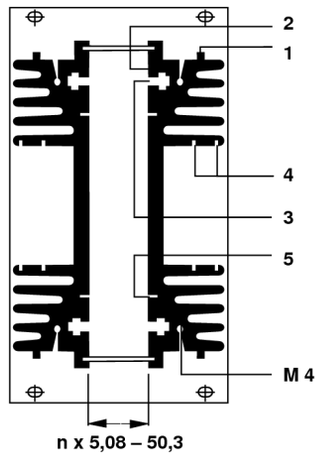
art. no.	art. no.
B ...	**C ...**

Insert modules for 19" subracks, 3 U

Design D

– with T-grooves for threaded strips, slide nuts M 3 or screw heads
– respectively one side of the insert module with heatsink, incl. guide rails for the cover panels or PCBs
– the guide slots of the outer fins fit into 19" racks
– upon request the side panel profile can be drilled to all common used transistor pin layouts
– rear view without end plate
– dimensioned drawing of the side panel profile **GP 192** → N ?

1 = guide ridge for 19" cases; **2** = slot for outer plates, cover panels and perforated sheets; **3** = slot for threaded rails, square nuts M 3 and hexagon screws and screw; **4** = slot for integrated circuits, cover panels and perforated sheets; **5** = slots for application of chassis plates, separating plates and PCB's

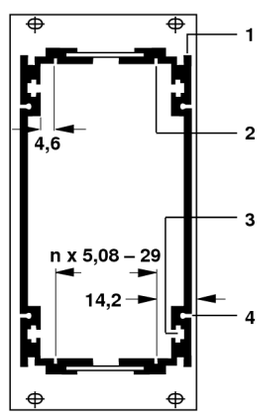


art. no.
D ...

Design E

– standard insert module, with T-grooves for threaded strips, slide nuts M 3 or screw heads
– external screw channels prevent shortcircuiting by screw cuttings
– rear view without end plate
– dimensioned drawing of the side panel profile **GP 193** → N ?

1 = guide ridge for 19" rack; **2** = slot for Eurocard; **3** = slot for threaded rails, hexagon screws resp. screw nuts M 3 nuts M 3; **4** = external screw channel M 3



art. no.
E ...

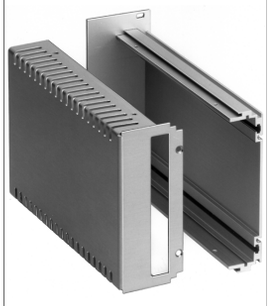
19" case "Plusline" → **N ?**
19" subracks → **N ? – ?**
Part front panels with handle → **N ?**
Part front panels with SMD-brackets → **N ?**
Case with cooling fins → **M ?**
Cooling case → **M ? – ?**
Handles for part front panels → **N ?**
Extractor for part front panels → **N ?**

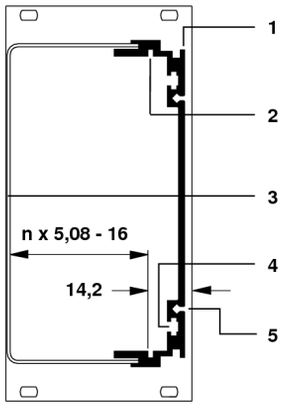
Insert modules for 19" subracks, 3 U

Design F

– with T-grooves for chassis plates, threaded rails for slide nuts or screw heads
– the insert module according to design F consists of one profile type **GP 193** (with external screw channels), one front panel and one cover plate
– the cover plate has cut-outs for cooling
– rear view
– dimensioned drawing of the side panel profile **GP 193** → N ?

1 = guide ridge for 19" subrack; **2** = slot for Eurocard; **3** = cover plate;
4 = slot for threaded rails, hexagon screws resp. screw nuts M 3; **5** = external screw channel M 3



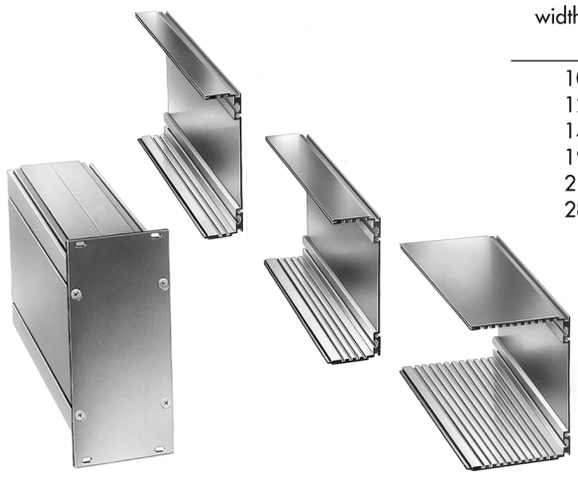


art. no.
F ...

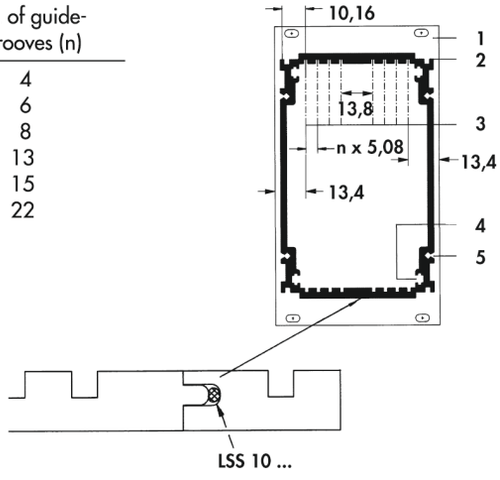
Design HB

– HF-shielded insert module with integrated card guide
– with T-grooves for threaded strips or M 2.5 square nuts
– the insert module HB consists of two aluminium profiles, which are assembled to a tubus, as well as front panel and rear panel
– on request, the profiles of the module can be combined with the profiles of our case series KO
– guide grooves in the aluminium profile allow parallel placing of several Eurocards
– if **TP** (chrome-free transparent passivated) is chosen as surface treatment the module can shield high-frequency radiation
– better shielding by means of insertion of conductive silicone tubes in the nuts art. no. **LSS 10**
– dimensioned drawing of the side panel profile **GP 200/201/202** → N ?

1 = front plate; **2** = guide ridge for 19" subrack; **3** = slot for Eurocard;
4 = slot for threaded strips, resp. square nuts M 2,5; **5** = external screw channell M 3



width unit	no. of guide-grooves (n)
10	4
12	6
14	8
19	13
21	15
28	22



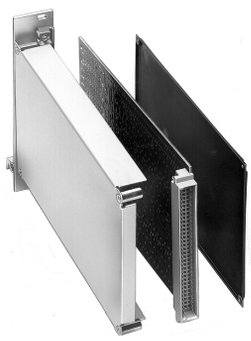
art. no.
HB ...

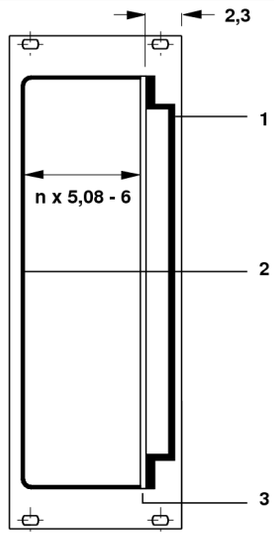
Insert modules for 19" subracks, 3 U

Design I

– shielding panel made of aluminium for your 100 x 160 mm Eurocard
– compatible PCB cover made of plastic and front panels
– rear view

1 = PCB cover; **2** = shielding panel; **3** = Eurocard



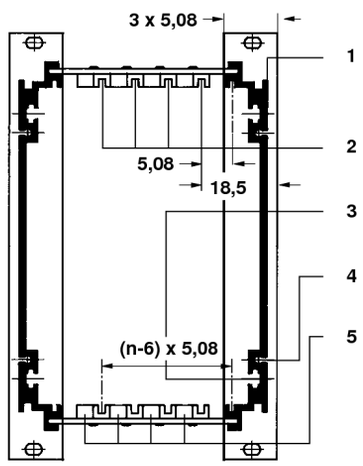


art. no.
I ...

Design L

– with T-grooves for threaded strips, slide nuts M 3 or screw heads
– external screw channels prevent short-circuiting by screw cuttings
– perforated cover panel for ventilation and for application of guide rails **FSB KW 160** → N ?
– several eurocards with mounted part front panel **TFP KG R 3** can be put together as one functional block
– by using the rear panel **R 5** several female connectors can be mounted for the internal wiring of the cards

1 = guide ridge for 19" subrack; **2** = slot for Eurocard; **3** = slot for hole spacing strips, hexagon screws resp. screw nuts M 3
4 = external screw channel M 3; **5** = guide rails for mounting in the perforated cover panel
dimensioned drawing of the side panel profile **GP 190** → N ?



art. no.
L ...

19" case "Plusline" → **N ?**
19" subracks → **N ? – ?**
Part front panels with handle → **N ?**
Part front panels with SMD-brackets → **N ?**
Case with cooling fins → **M ?**
Cooling case → **M ? – ?**
Handles for part front panels → **N ?**
Extractor for part front panels → **N ?**

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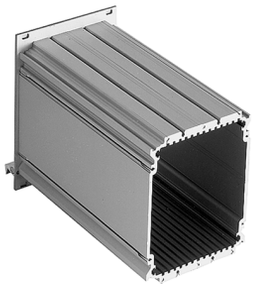
Insert modules for 19" subracks, 3 U

Design N

– grid spacing module consisting of left and right aluminium side profiles and aluminium intermediate profiles acc. to the spacing widths (HP)
– standardised insertion on the left and right side into guide rails
– continuous installation grid space of 1 HP (5.08 mm)
– specially designed for BUS-PCB wiring
– good EMC screening due to narrow screw grid space to the rear and front panels as well as chrome-free transparent passivated surface

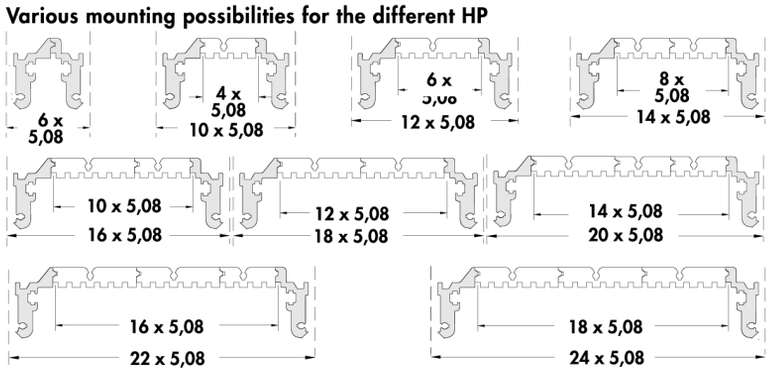
– enhancement of screening features by insertion of a conductive silicon tube Art. no. **LSS 10** into the longitudinal slot
– front panel with continuous aluminium (AG) or plastic (KG) handle (≥16 HP = 2 plastic handles)
– rear panel cut-out R 2 - R 5 up from 10 HP possible
– dimensioned drawing of the side panel profile **GP 206/207/208/209** → N ?

1 = front panel; **2** = guide ridge for 19" subrack; **3** = slot for Eurocard guide; **4** = slot for threaded rails resp. square nut M 2.5; **5** = external screw channel M 3

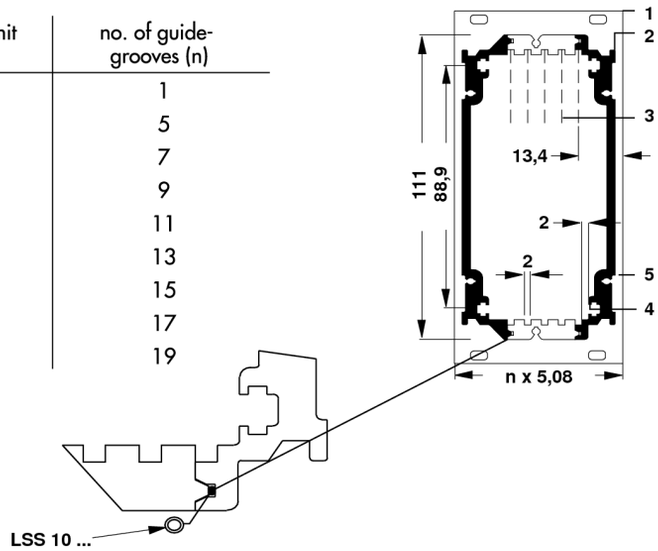


DBP: 195 27 434.2

Various mounting possibilities for the different HP



width unit	no. of guide-grooves (n)
6	1
10	5
12	7
14	9
16	11
18	13
20	15
22	17
24	19



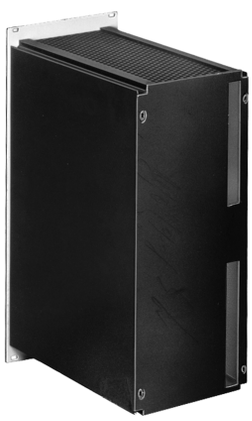
art. no.
N ...

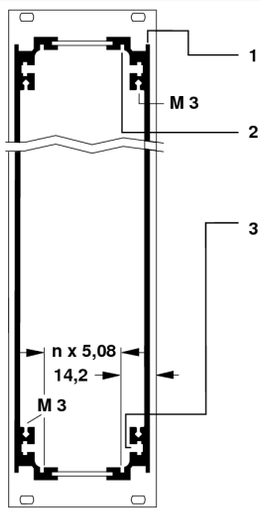
Insert modules for 19" subracks, 6 U

Design S

– 6 U counterpart to design A
– with T-grooves for threaded rails, insertion screws M 3 or screw nuts
– the rear plate consists of one sheet without cutout for rear module rails
– rear view with rear plate
– dimensioned drawing of the side panel profile **GP 196** → N ?

1 = guide ridge for 19" rack; **2** = slot for Eurocard; **3** = slot for threaded rails, hexagon screws resp. screw nuts M 3



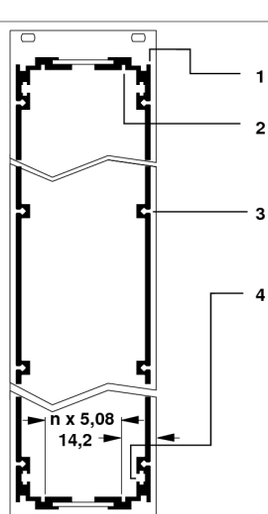


art. no.
S ...

Design T

– 6 U counterpart to design E
– with T-grooves for threaded rails, slide nuts M 3 or screw heads
– external screw channels prevent shortcircuits by screw cuttings
– with space for middle connector carrier
– rear view with rear plate
– dimensioned drawing of the side panel profile **GP 195** → N ?

1 = guide ridge for 19" rack; **2** = slot for Eurocardt; **3** = external screw channel M 3; **4** = slot for threaded rails, hexagon screws resp. screw nuts M 3



art. no.
T ...

Fixing accessories → **N ?**
Fixing material → **N ?**
19" front panels → **N ?**
Part front panels → **N ? – ?**
Part front panels with SMD-brackets → **N ?**
Order example insert moduels → **N 13**
19" benchtop cases → **N ?**

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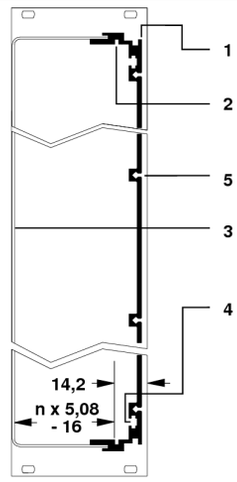
Insert modules for 19" subracks, 6 U

Design V

- the design V forms the 6 U counterpart to design E
- with T-grooves for threaded strips, slide nuts M 3 or screw heads
- the insert module according to design V consists of one profile type **GP 195** (with external screw channel), one front panel and one cover panel
- the cover has cut-outs for cooling
- the insert module is in correspondence to DIN 41494
- the design is provided with space for fixing elements of the subrack
- rear view with rear plate
- dimensioned drawing of the side panel profile **GP 195** → N ?

1 = guide ridge for 19" subrack; **2** = slot for Eurocard; **3** = cover plate;
4 = slot for threaded rails, hexagon screws resp. screw nuts M 3; **5** = external screw channel M 3



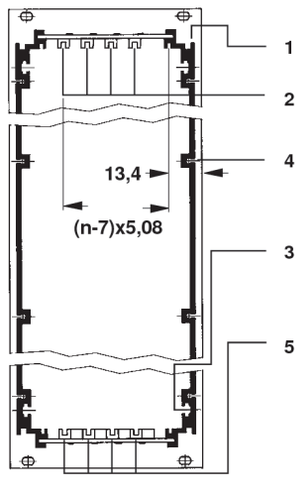
art. no.
V ...

Insert modules for 19" subracks, 6 U

Design W

– external screw channels prevent short-circuiting by screw cuttings
– on one hand the perforations in the cover panels provide a vertical ventilation of the module and on the other hand, for mounting additional Eurocards via guide rails **FSB KW 160** → N ?
– several female connectors can be mounted to the rear panel to enable interwiring of Eurocards
– rear view with end plate
– dimensioned drawing of the side panel profile **GP 197** → N ?

1 = guide ridge for 19" subrack; **2** = slot for Eurocard; **3** = slot for hole spacing strips, hexagon screws resp. screw nuts M 3;
4 = external screw channel M 3; **5** = guide rails for mounting in the perforated cover panel

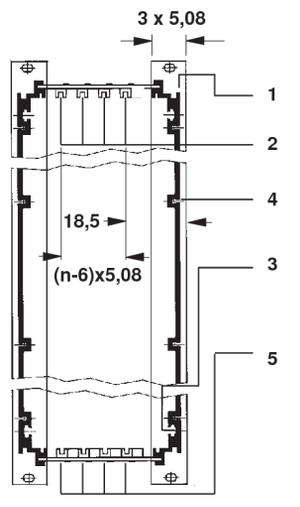


art. no.
W ...

Design X

– the design X forms the 6 U counterpart to design L
– external screw channels prevent short-circuiting by screw cuttings
– perforated cover panel for ventilation and for application of guide rails **FSB KW 160** → N ?
– several eurocards (also with mounted part front panel) can be put together as one functional block
– female connectors can be mounted to the rear panel for the internal wiring of the cards
– dimensioned drawing of the side panel profile **GP 197** → N ?

1 = guide ridge for 19" subrack; **2** = slot for Eurocard; **3** = slot for hole spacing strips, hexagon screws resp. screw nuts M 3;
4 = external screw channel M 3; **5** = guide rails for mounting in the perforated cover panel



art. no.
X ...

Fixing accessories → **N ?**
Fixing material → **N ?**
19" front panels → **N ?**
Part front panels → **N ? – ?**
Part front panels with SMD-brackets → **N ?**
Order example insert moduels → **N 13**
19" benchtop cases → **N ?**

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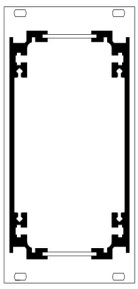
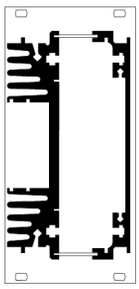
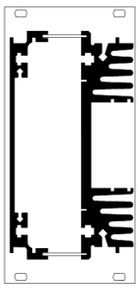
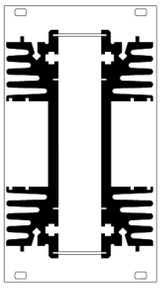
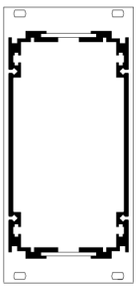
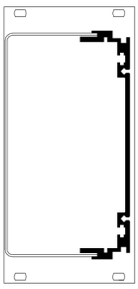
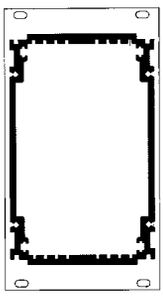
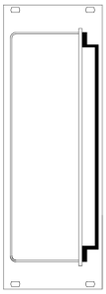
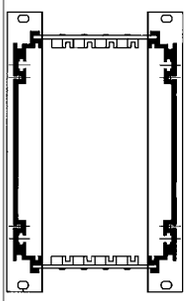
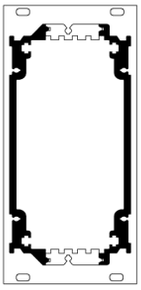
Insert modules for 19" subracks

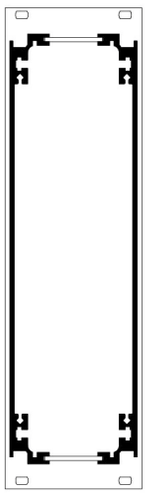
3 U insert module designs

– available width units

						
A	**B**	**C**	**D**	**E**	**F**	**HB**
8 9 10 12 14 16 20 21 24 28 42	9 10 12 14 16 20 21 24 28 42	9 10 12 14 16 20 21 24 28 42	12 14 16 20 21 24 28 42	10 12 14 16 20 21 24 28 42	6 7 8 9 10 12 14	10 12 14 19 21 28
						
I	**L**	**N**				
4 5 6 7 8 9 10	14 21 24 26 28 42	6 10 12 14 16 18 20 22 24				

6 U insert module designs

– available width units

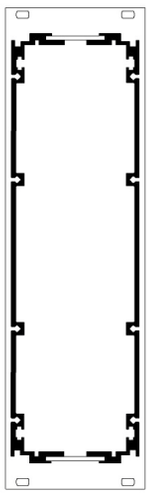


S

8

12
14

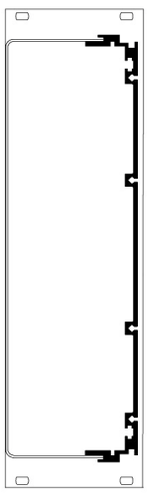
21
24
28
42



T

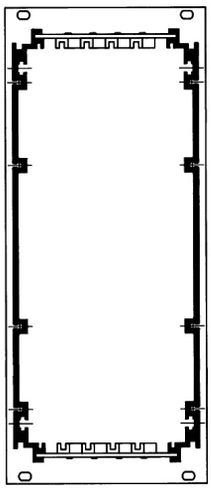
12
14

21
24
28
42



V

6
7
8
9
10

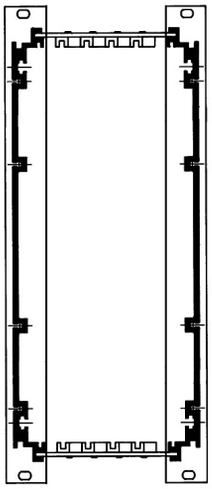


W

14

21

28
42



X

14

21

28
42

19" front panels → N ?
19" handles → N ? – ?
Fixing accessories → N ?
Fixing material → N ?

PCB covers → N ?
Profiles for insert modules 3 U → N ? – ?
Profiles for insert modules 6 U → N ?
Profiles for subracks → N ? – ?

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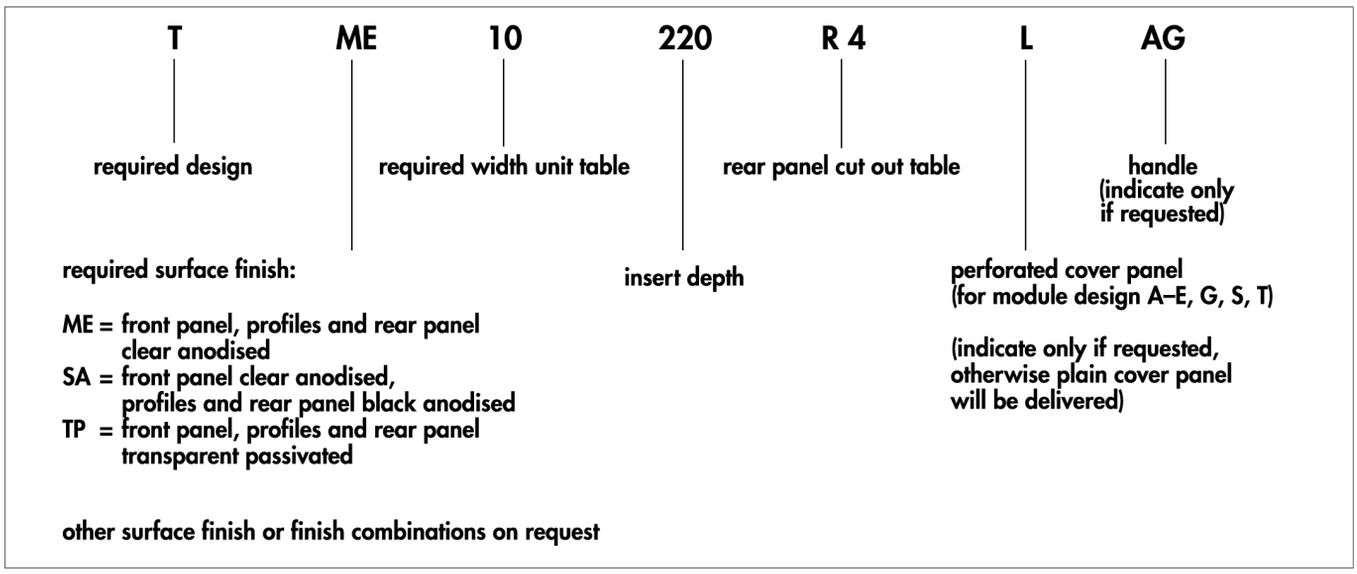
Insert modules for 19" subracks

Order example

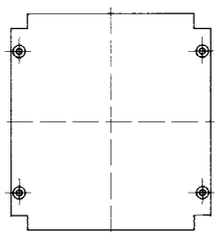
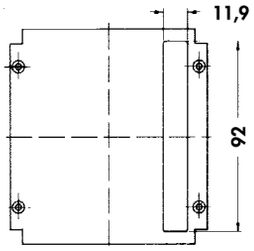
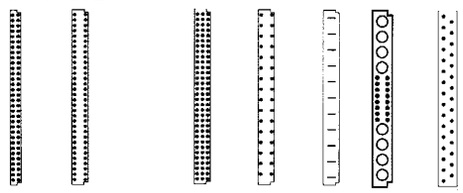
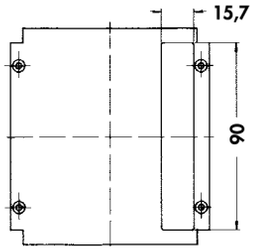
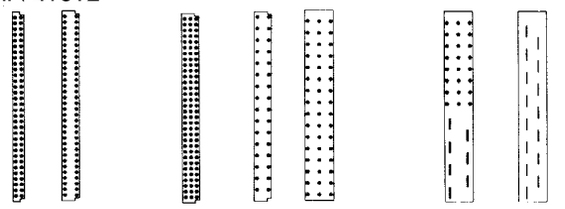
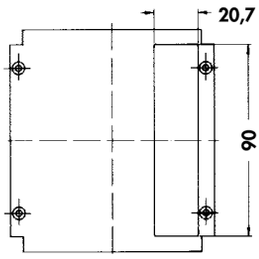
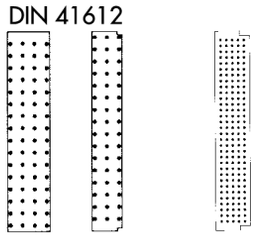
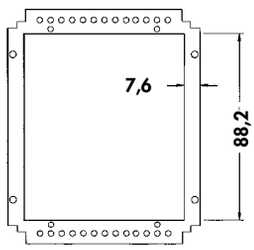


Insert modules for 19" subracks

Available rear panels

– when viewed from the rear, the male and female connector cut-outs are located on the right hand side

1 = no. for order example; **2 =** dimensioned drawing; **3 =** suitable for connectors

1	2	3
R 1		
R 2		DIN 41612 DIN 41617  **B 64 C 64 (32) C 96 D 32 H 11 M 31-polig**
R 3		DIN 41612  **B 64 C 64 (32) C 96 D 32 F 48 (32) F 24/H 7 H 15**
R 4		DIN 41612  **G 64 E 48 E 160**
R 5		**suitable for all connectors complying to DIN 41612 and for insert modules L, W, X**

19" front panels → **N ?**
19" handles → **N ? – ?**
Fixing accessories → **N ?**
Fixing material → **N ?**
PCB covers → **N ?**
Profiles for insert modules 3 U → **N ? – ?**
Profiles for insert modules 6 U → **N ?**
Profiles for subracks → **N ? – ?**

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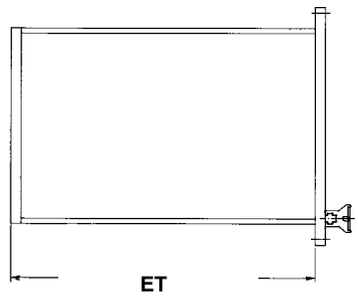
Insert modules for 19" subracks

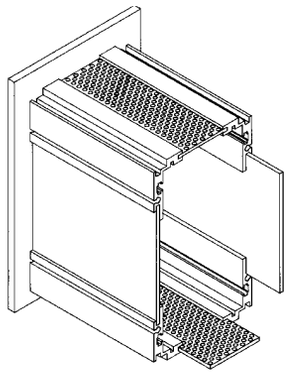
Insert depth (ET)

– **160** = insert depth $168^{+0,5}$ mm, suitable for Eurocards 100 x 160 mm / 233,4 x 160 mm
– **220** = insert depth $228^{+0,5}$ mm, suitable for Eurocards 100 x 220 mm / 233,4 x 220 mm



Perforated cover panel

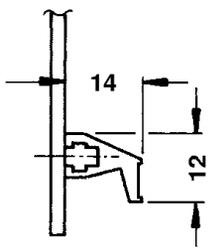
– hole diameter 3.2 mm only for designs **A, B, C, D, E, S** and **T**



Handles

– **AG** = front panel with anodised aluminium-handle and fixing material
– **KG** = front panel with plastic-handle, anodised aluminium-insert strip and fixing material

AG



KG