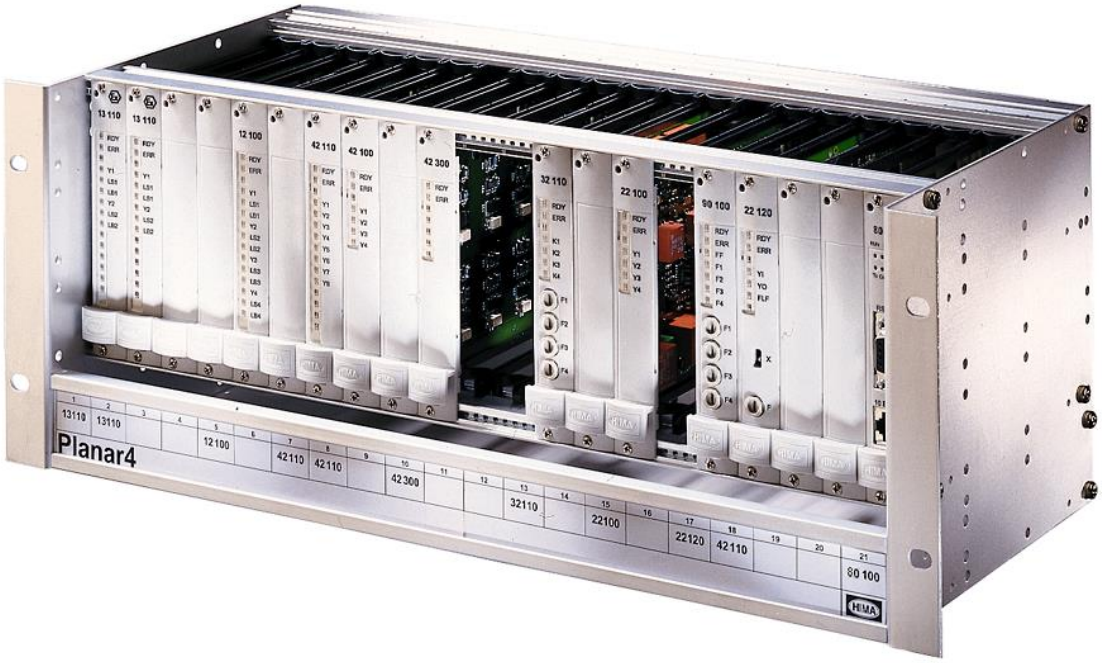
90 900: Subrack with Backplane

for modules of the HIMA Planar4 system

Connectors: Soldering technique



Delivery without modules

Figure 1: Subrack

The subrack is only used for the HIMA Planar4 system. Any of the Planar4 modules can be inserted in slots 1…20; slot 21 is reserved for the communication module.

The backplane on the rear side contains female connectors, terminal blocks (soldering technique) and the bus structure necessary for the following functions:

- Connections for internal communication
- 24 VDC power supply
- Busbar and contact loop for error signals
- An opening to the wiring area on the rear side is available for the connection cable of the data communication module.

The subrack is completely mounted, and includes the label field on the front and a wiring channel on the rear side.

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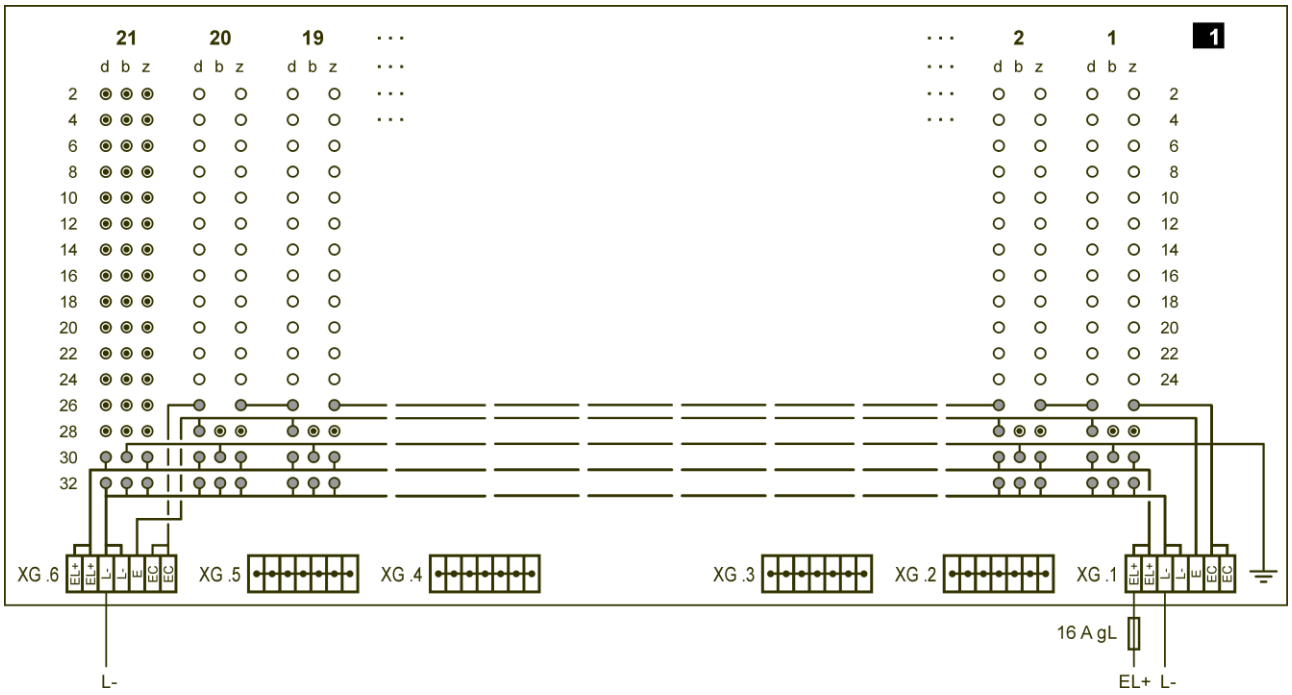
English translation of the German original document: HI 804 031 D, 90 900 (1647)

Material	Aluminum, chromated
Width	482.6 mm (19 inches)
Height	177 mm (4 RU)
Depth	270 mm
Horizontal pitch	84 HP (1 HP = 5.08 mm)
Modules	In accordance with DIN 41494, 4 HP each
Connectors	In accordance with DIN 41612, design F, with rows z and d
Type of connection	Soldering
Weight	Approx. 3.5 kg

Backplane Principle

Rear view



1 Slot no.

◇ Function wiring connection

● Connection to the backplane

◉ Used for communication

E Rail for ERR error signal

EC Contact loop for error signal

Figure 2: Subrack Backplane, Schematic Diagram

Supply voltage EL+ is connected directly via a fuse with a maximum rating of 16 A (wire cross-section 2.5 mm²) and not through a fuse module. For safety reasons, reference pole L- must be connected to two separate terminals on both plug-in terminal blocks XG.1 and XG.6 (loop).

To avoid high total currents, the second clamp terminals for EL+ and L- on XG.1 and XG.6 should not be used for supplying additional subracks.

The plug-in terminal blocks, XG .2, XG .3, XG .4 and XG .5, are potential-free; the connection pins on the individual blocks are bridged on the backplane. The blocks may be used as needed. Separate supply lines with suitable wire cross-sections should be used for L+ and L- to supply power outputs via the plug-in terminal blocks XG.2...XG.5; refer to the safety and system manual (HI 804 003 E) for details. The current load is limited to a maximum of 16 A.

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To keep mechanical stress on the soldered joints at the connection pins to a minimum, pull the plug-in terminal blocks out of their sockets prior to connecting or removing wires.

Ground terminals b30 are electrically connected to the metal parts of the subrack. Pins z28, b28, d28, z30, … , d32 of the back terminal blocks are not connected to the backplane.

If the contact loop for the error signal is used, pins z26-d26 on unused slots must be bridged or connected to one of the EC terminals.

Terminal blocks 32 poles, part no. 52 0032415

(Ex)i modules of the Planar4 system may be used if the terminal blocks on the rear side of the backplane are replaced by (Ex) types and a coding pin is used on d6 of the female connector.

Terminal blocks (Ex)i	28 poles, part no. 52 0028420
Coding pin	Part no. 52 0000458

i If the data transfer feature is not exploited, standard subracks with 32-pole female connector can also be used for the Planar4 system.