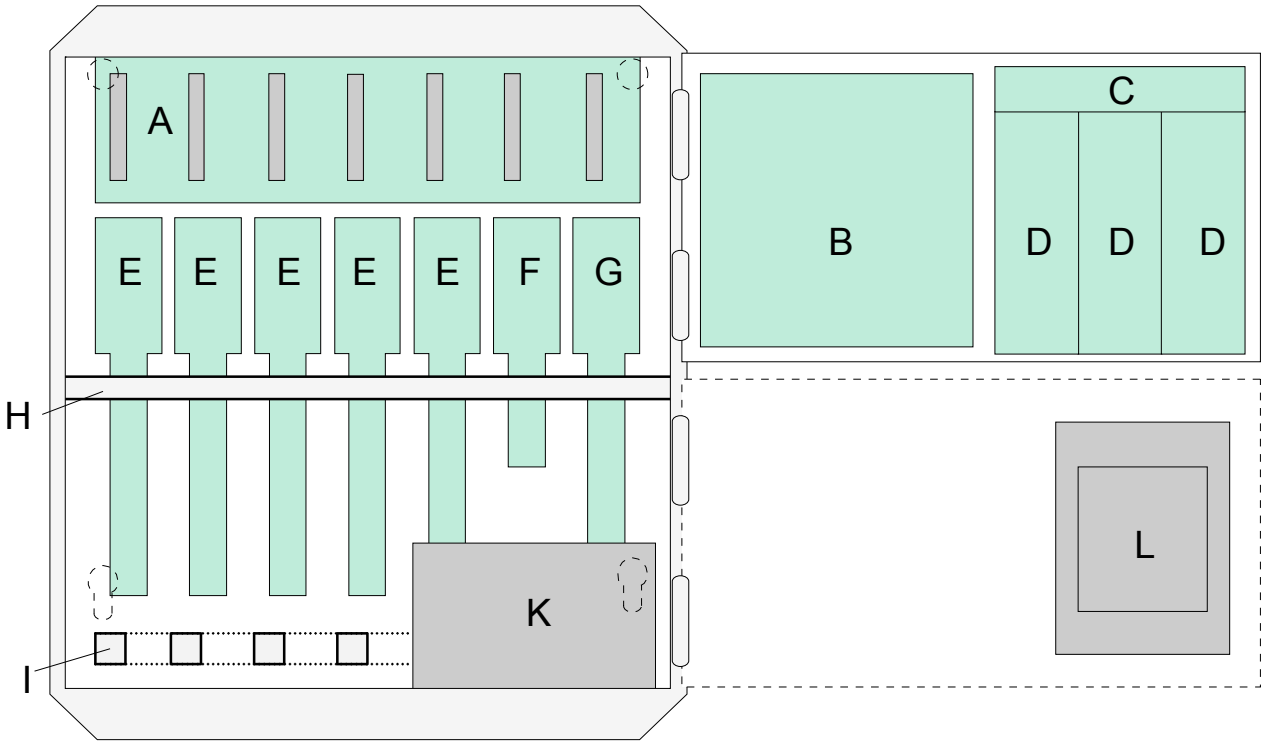
5.3 Location of modules

View with panel housing open, without plug-in cards.

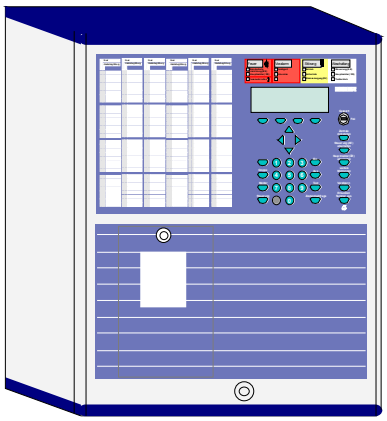


Housing S1 open, showing modules

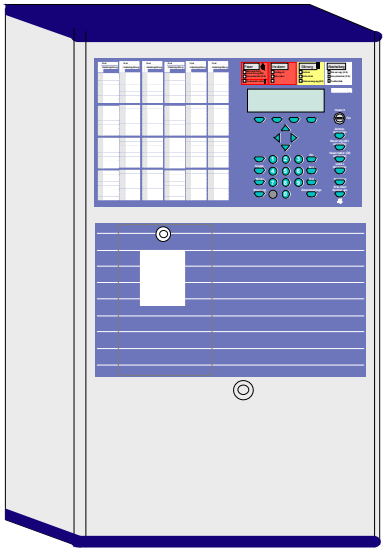
A	Backplane bus board
B	Indicating and operating panel card (A/B card)
C	Bus board-single zone indicator units
D	Single zone indicator units
E	I/O terminal card
F	Power supply terminal card
G	Operating module terminal card
H	Housing cross arm
I	Protective earth (PE), terminal strip
K	Space for 2 batteries (max. 2 x 40 Ah)
L	Integrated heat transfer printer

Fig. 48: S1 housing with modules

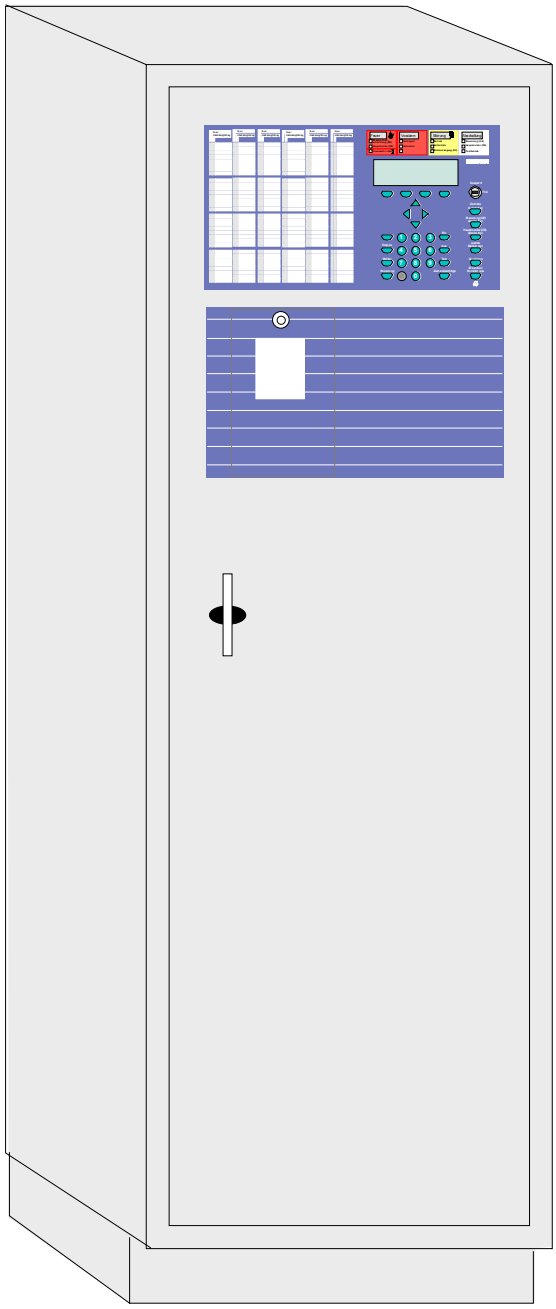
5.4 Kit / housing variants



Housing S1
(w x h x d)
486 x 643 x 293 (mm)



Housing S1-E
(w x h x d)
486 x 643 x 293 (mm)



Upright cabinet
(w x h x d)
700 x 2000 x 525 (mm)

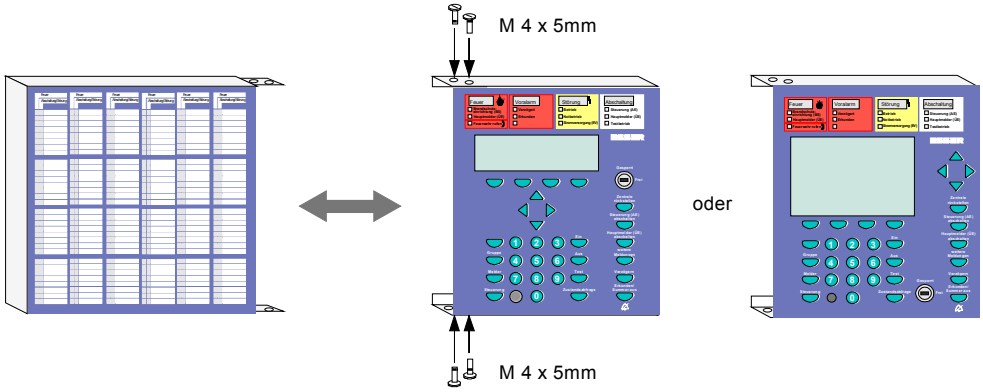
Fig. 49: 8008 fire alarm computer variants

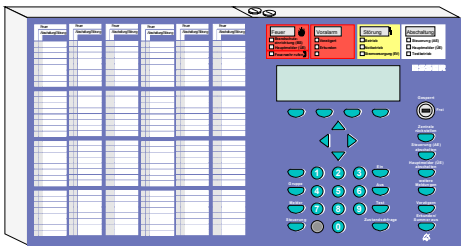
For further information about 19-inch installations refer to manual 798635.

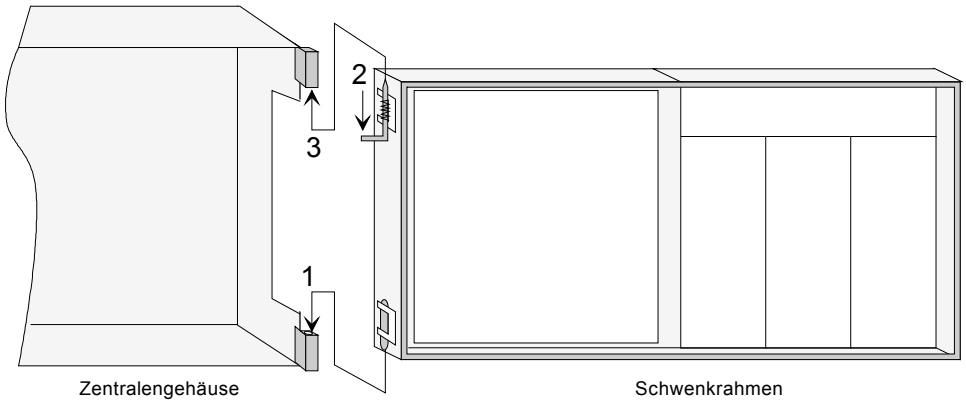
5.5 Assembly of the operating panel slide-in module

Example

Quantity	Description	Part No.
3	GEA module (64 zones)	784141
1	Operating panel standard (German) or ¼ VGA operating panel (German)	768420 or 768414







1. Insert the bolt in the bracket of the control panel housing.
2. Press the spring contacts together and
3. allow to lock into the bracket of the control panel housing.

Fig. 50: Mounting reference of operating panel slide-in module

5.6 Cable entry

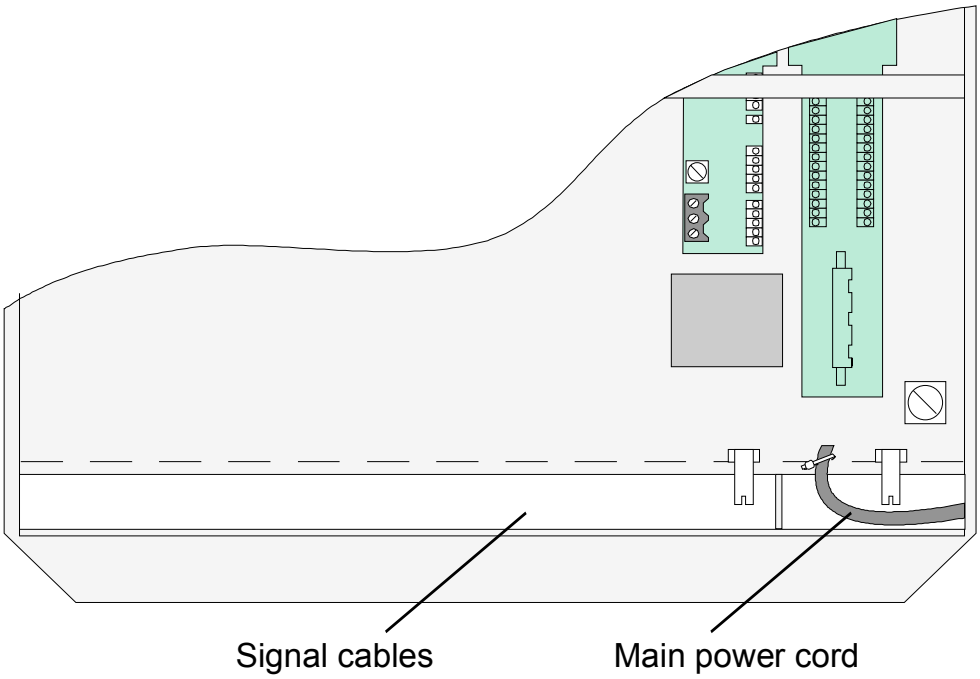


Fig. 51: Cable entry

1. Lead the 230V main power cord through the wall and the cable entry provided in the rear of the unit (see illustration). Fasten it using appropriate devices, e.g. plastic cable straps.

2. Make sure that the mains and signal cables don't interfere with the rear panel of the cabinet or the cabinet frame which is mounted on the rear panel.

To prevent short circuits
All power and signal lines connected to the base module must be secured using appropriate fasteners, e.g. plastic cable binders.
Make sure the mains cable will not move and touch the signal lines. Remove all power (mains and battery) from the fire alarm system before any work is carried out.

Cable Isulation
Make sure to lead all cables complete with their outer sheaths intact into the cabinet. Only remove the insulation from those sections which are inside the cabinet.

Power supply

The fuses of the panel or external power supply units cannot prevent an unexpected fault in electrical modules; rather, these fuses are intended to protect users and their surroundings from damage.
Therefore, never repair or bridge the fuse that is installed (e.g. T1A H/250V) or replace it with anything other than the stated type!

5.7 Location of plug-in cards

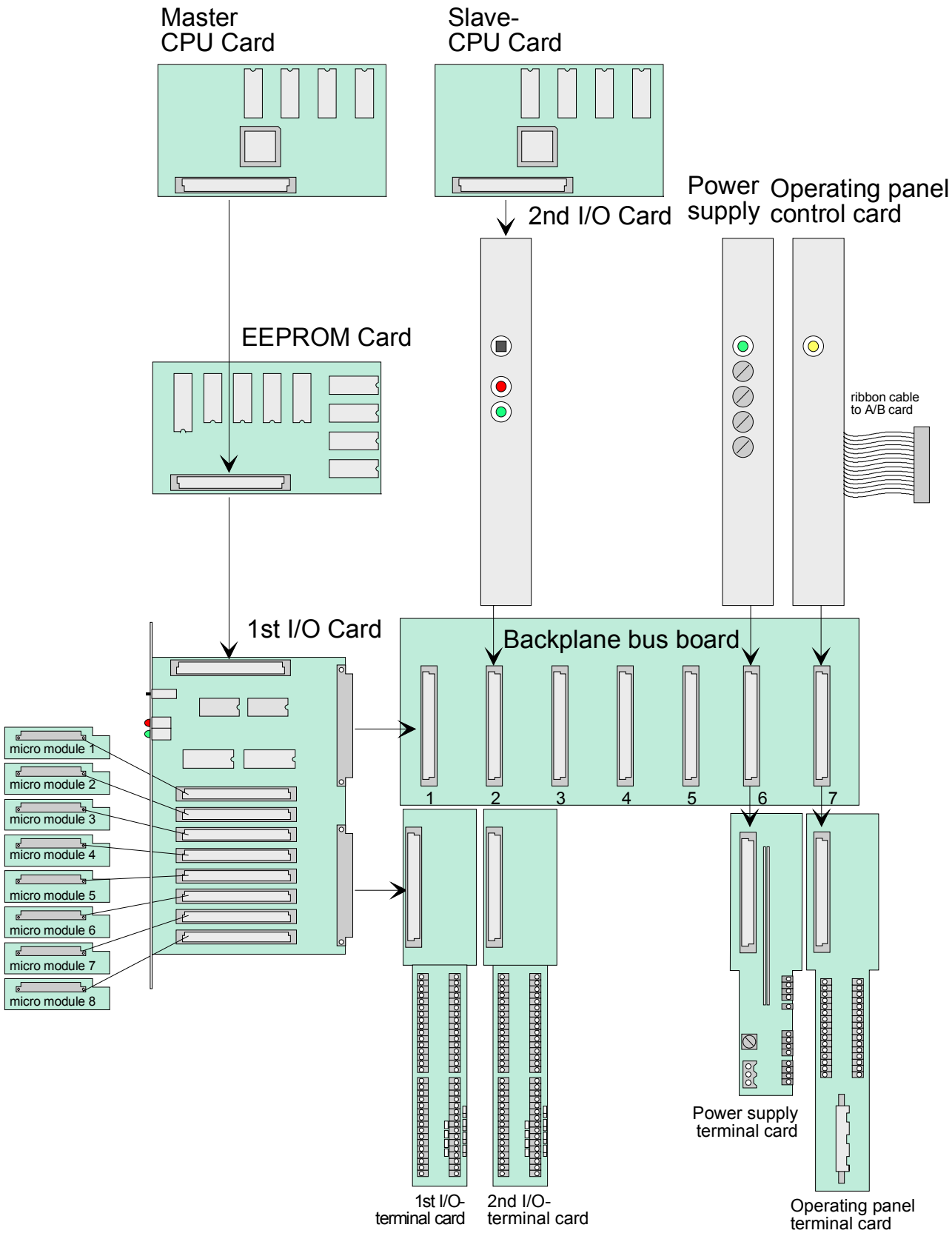


Fig. 52: Location of plug-in cards

The basic control panel configuration comprises:

Part No.	Description	Quantity
772330	Wall case assy	1
772440	Indicating and operating panel card (A/B card)	1
771456	Operating module control card	1
771478	Operating module terminal card	1
771451	Backplane bus	1
771796	I/O card	1
771450	I/O terminal card	1
771794	CPU card	1
771671	Power supply terminal card	1
772186	Filler panel (not necessary with integral printer)	1
771788	EEPROM card	1

A second CPU card is not required for normal, non-redundant operation.

Configuration of redundant control panel

A second CPU card may be used for operating the redundant control panel. This configuration relates to specific national requirements or systems featuring more than 512 detectors per control panel in accordance with the guidelines of the *Association of German Property Insurance Companies (VdS, Cologne*).
To operate a redundant control panel, a second I/O card and an additional CPU card with special system software (for slave mode operation) is required.

Part No.	Description
771749	CPU card, selectively Master/Slave
770392	Operating system (Master)
770393	Operating system (Slave)

PC programming for control panel configuration

Control panel processor configuration is programmed with the PC program for entering customer data Customer data editor 8008. The programmed number of I/O cards as well as slot assignment for the I/O cards with the various micromodules must match the actual configuration of the control panel.

Customer data programming must be modified accordingly if micromodules or other extension cards are subsequently added to the functional fire alarm control panel.

5.8 I/O-card

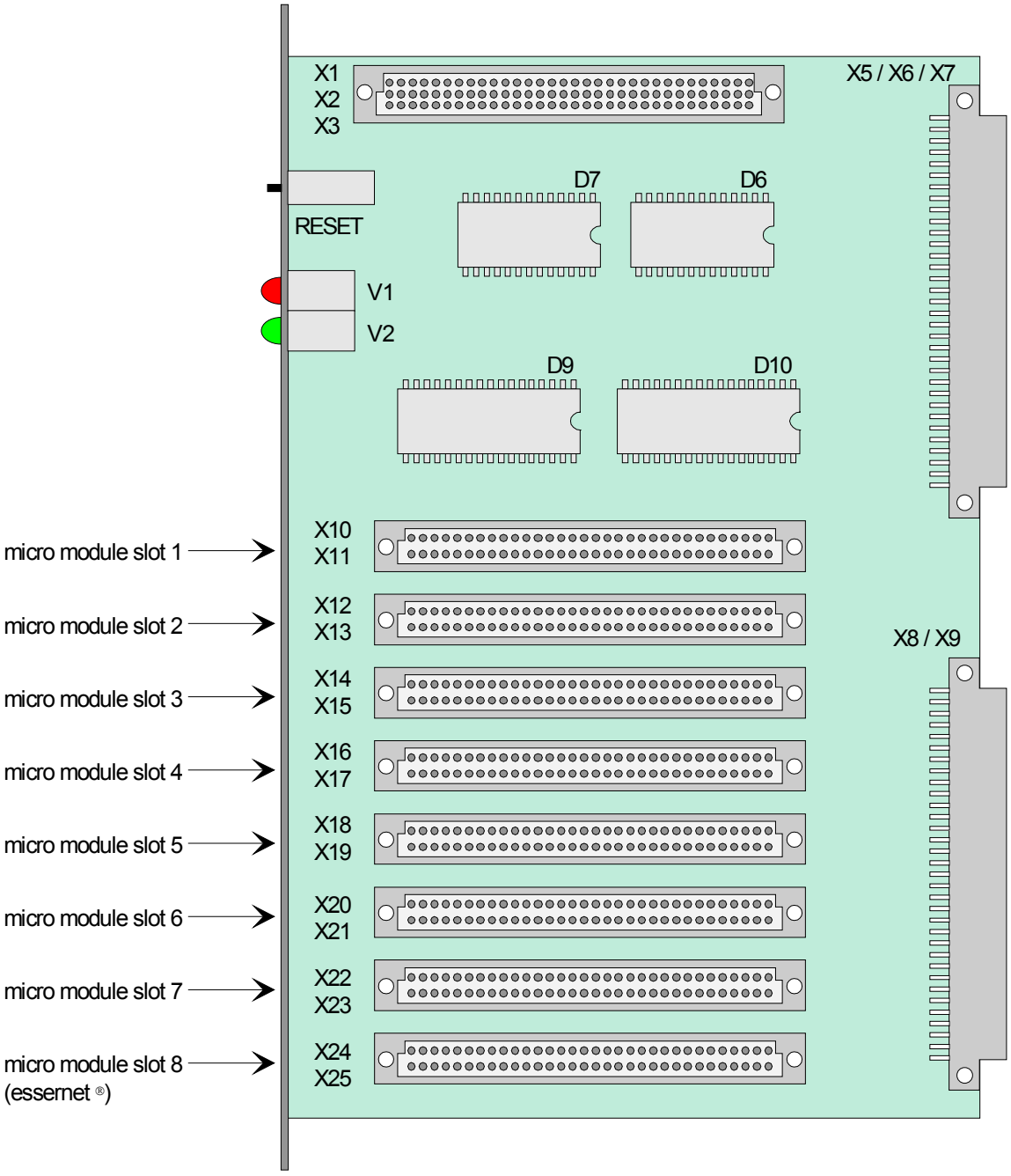


Fig. 53: I/O card

The FACP 8008 is able to accommodate five I/O cards. Each I/O card has eight micromodule slots for micromodules in freely selectable configuration.

X 1/2/3	Slot for CPU card and/or EEPROM card
X 5/6/7	96-way connector strip to backplane bus board
X 8/9	64-way connector strip to I/O terminal card
X 10 to X 25	Eight slots for freely selectable micromodules. Please note the restrictions underlying slot assignment for master module and the essernet® Module (refer to Section on *Micromodules*)
Reset	A control panel reset (warm start) may be initiated by pressing the reset button of any I/O card
V 1/ V2	LED to indicate function and operating mode of the CPU card fitted to this I/O card (refer to table below)

CPU card

The CPU card is fitted at slot *X1,2,3* on the first I/O card of each 8008 fire alarm control panel. The CPU card accommodates the microprocessor and the (master) operating system software for controlling the functions of the control panel.

If a redundant control panel configuration is required, you must install a second CPU card with special (slave) operating system software. This second CPU card is fitted to slot *X1,2,3* on the second I/O card *(also refer to Section on CPU card)*

EEPROM card

The EEPROM card is fitted to slot *X1,2,3* of a freely selectable I/O card in the FACP 8008. The EEPROM card is imperative for operating the fire alarm control panel. If the control panel is configured with only one I/O card, the EEPROM card may be fitted between the CPU card and the I/O card. *(Also refer to Section on CPU card)*

Reset function

If a reset is initiated with the cover contact open (outer housing), all interfaced primary loops/detector zones will be switched on and controls set to the initial position programmed in the customer data. When the control panel is put into operation, you should initiate the reset function after connecting the mains or battery voltage. This will set the control panel to a defined initial position.

I/O-card (for activating a master box)

Micromodules in freely selectable configuration may be fitted to any of the I/O-cards (five max.) in a control panel. This means that in full configuration an FACP 8008 comprises forty (5 I/O cards x 8 micromodules per I/O card) freely selectable micromodules.

Master box interface module (for activating a master box)

A maximum of ten master boxes may be connected in one fire alarm control panel and in one control panel system interlinked via the essernet®. The ten master box interface modules necessary for this purpose are only supported at the micromodule slots of the first two I/O cards (I/O card no. 1 and no. 2). Master box interface modules cannot be operated on I/O card no. 3 to no. 5.

essernet®-module (for linking several fire alarm control panels)

The essernet® micromodule can only be operated at the lower micromodule slot no. 8 of an I/O card. For this slot, the EMC protection provided on the I/O terminal card may be jumpered. It is necessary to jumper the EMC protection to operate the essernet® micromodule. EMC protection must be provided for the essernet® loop (LAN cable) in accordance with the local installation requirements using external protection modules, e.g., medium or coarse protection.

Only use protection modules approved for EMC protection. Refer to information sheet on Lighting and overvoltage protection for hazard alarm systems.

If no essernet® micromodule is used on the I/O card, micromodule slot no. 8 may be used for another micromodule. Jumpering the EMC protection is not permissible for any other micromodule. If jumpered, the EMC protection must be reinstated for this micromodule slot.

Connecting micromodules

Each I/O card in the control panel must have a separate I/O terminal card. This terminal card has eight screw terminals for each micromodule slot to connect external devices and controls. Assignment of these eight screw terminals will depend on the micromodule used.

Assignment of the eight screw terminals for each micromodule is described in the Section on *Micromodules*.