PELWECKYJ
VIDEOTECHNIK
GmbH

VME1000/32

Video Input Card for the Video Matrix System VM1000

Manual for Installation and Start of Operation

VME1000/32 INPUT CARD
Actual product not shown
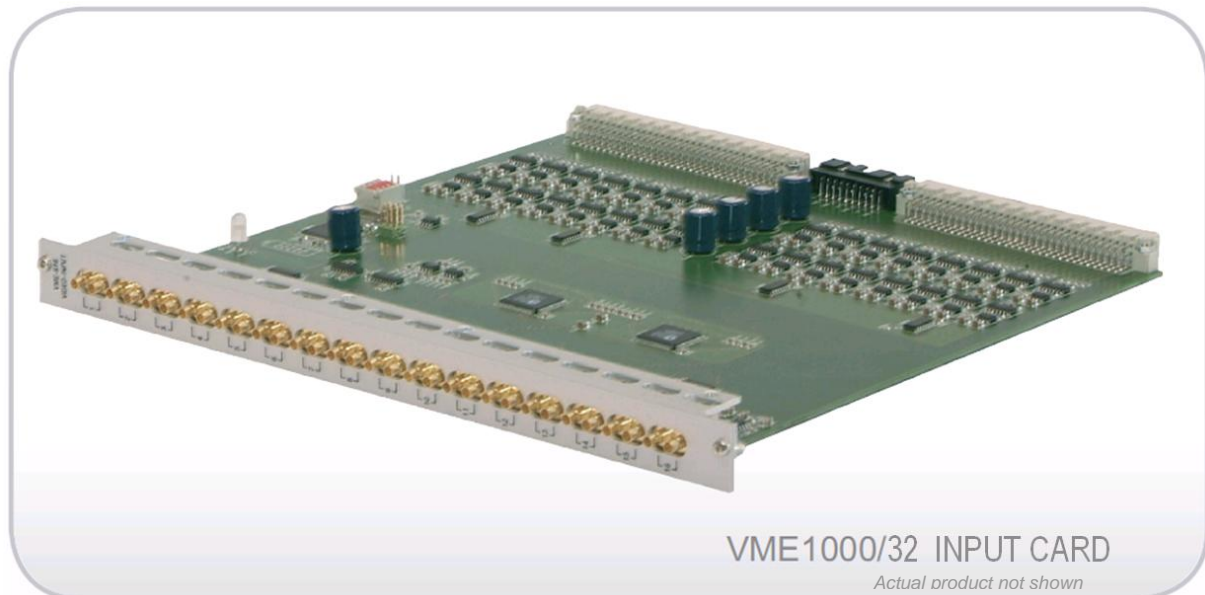
1 Safety

Before starting, read the safety advices for this accessory and for the main device, as well as the entire instruction

Pay attention to the warning notices in the succeeding chapters

Keep this document for later use or for handing it over together with the product

In addition, regard the local safety standards or laws for planning, installation, operation, and proper disposal of the product

1.1 Symbol Meaning

⚠	Dangerous situation
ⓘ	Useful information

1.2 Meaning of Precautionary Statements

The seriousness of a hazard is expressed by the chosen signal word.
Following signal words will be used in case of an appropriate hazard:

Signal word	Meaning
Danger	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
Warning	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
Caution	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

1.3 Authorized Persons

⚠ **Warning**

Danger of life for persons without necessary qualification

‒ Only skilled personnel are allowed to work on the device!

‒ Disregarding this can cause death, serious injury, or considerable property damage.

This document does exclusively address the following target audience:
- installer
- maintainer

Qualification	Function
Has expert knowledge in the field of electric installations and knows electrical hazards of any kind.	Set-up the product
	Maintain the product
	Dismantle the product

Comply with the appropriate safety regulations for low voltage systems, especially general safety and installation regulations.

1.4   Hazards

Warning

Danger of life

— Unconditionally respect the safety instructions for the main device!

- Only use this accessory for the designated main device
- Comply with the installation instructions given by the manufacturer

Warning

Danger of life by electric shock

— Before any work on the main device, disconnect the plug from mains!

— Improper handling of the device can cause death, serious injury, or considerable property damage.

Electrostatic Discharge

Electrostatic discharge can damage or destroy components

— Do not touch parts at risk (e.g. contacts of plugs)

— Before touching a device, discharge your body electrostatically (e.g. by touching a grounded metallic object)

2 Overview

The video input card VMA1000/16 for the video racks of the VM1000 and SIMATRIX SYS video matrix systems provides 16 inputs which can be arbitrarily connected to 32 outputs.

The VME1000/32 provides 32 video inputs, totalling 512 inputs for a fully equipped video rack. Feed-through is only possible by use of external Y-cables.

For upgrading a SIMATRIX SYS, please regard that per video block only 256 video inputs can be controlled by the SIMATRIX SYS, i.e. no more than 8 VME1000/32 can be controlled within the address range of 0 to 14

Illustration: VME1000/32 card with 32 jumpers for 75 Ohm terminators (left), diagnosis LED (centre) and configuration DIP switch (right).
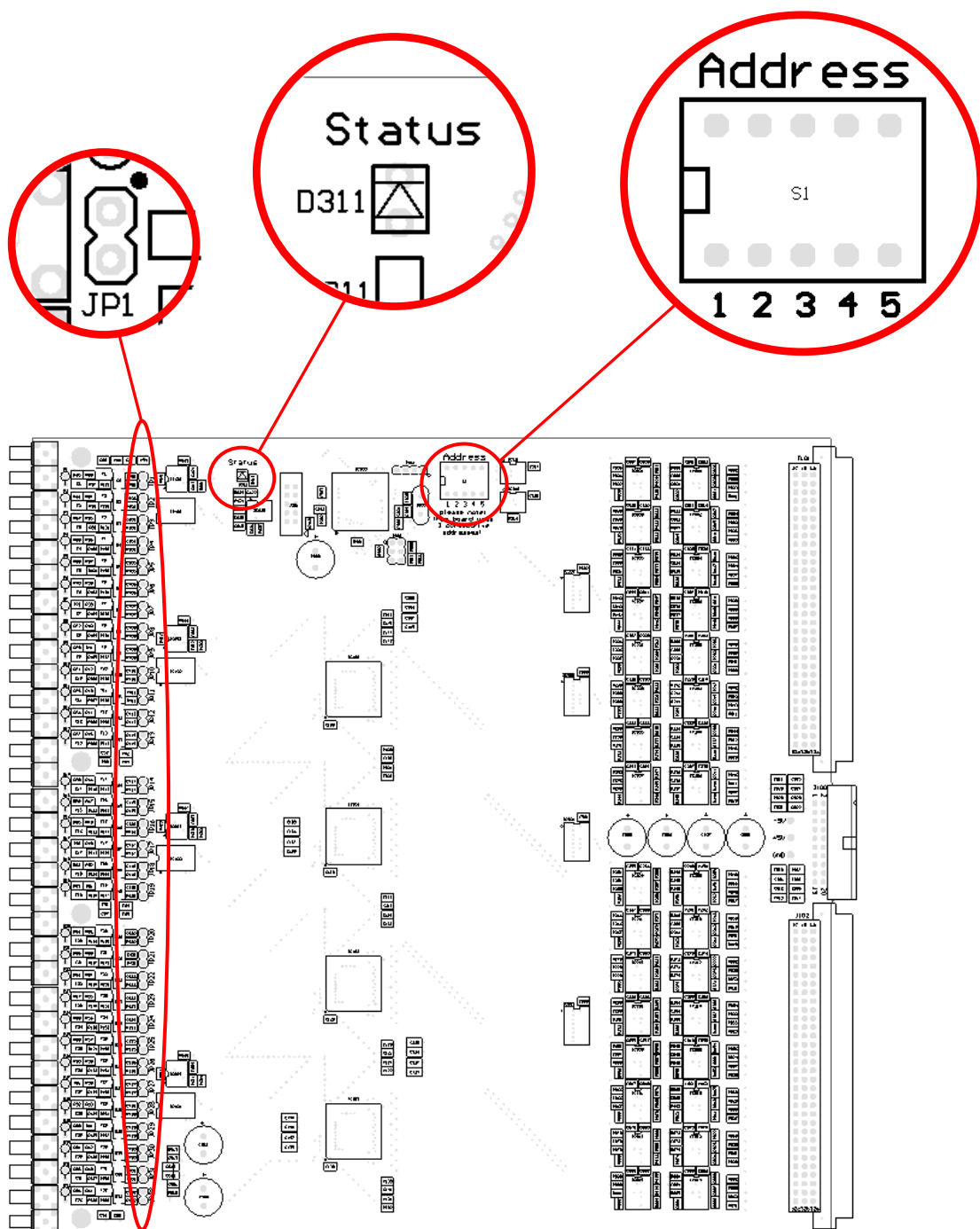
3   Advises for Installation

⚠️

Warning

Danger of life by electric shock

— Before opening the main device, disconnect the plug from mains!

Prior to installing the VMA1000/16, assign it an address (refer to the following section "Configuration").

Plug-in the card into the intended slot of the video rack:

There are 16 card slots, starting from the left of the video rack. At the right-hand edge of the video rack, power supplies and output cards are located.

Be sure to insert the card completely; the final millimetres afford more effort for overcoming the resilience of the multipoint socket connectors of the backplane. If in doubt, impose counter-pressure upon the backplane. If the card is inserted correctly, the distance between front plate of the card and fixing rails will be less than 1 mm. Fasten the cards at the cover plate with fixing 2 screws.

The inputs of the VME1000/16 are equipped with SMB sockets, to allow for the packing density of 32 sockets on 6 Us. For connecting conventional BNC cables, BNC-to-SMB adapters are required. They can be ordered as accessories.

Though the VME1000/32 does not have feed-through inputs, this function can be achieved by using a Y-cable adapter, also available as accessory (2 x BNC to 1 x SMB or 2 x SMB to 1 x SMB). For using feed-through inputs, remove the jumpers from the card to deactivate the 75 Ohm terminators.

4   Configuration

Each VME1000/16 installed in a video rack as part of a video matrix system VM1000 must be assigned a unique address. This can be done with the fivefold DIP switch on the card (see illustration).

The video rack can hold up to 16 input cards. Regard that the VME1000/32 allocates 2 addresses, whereat only the lower one must be set for each card on the configuration DIP switch.
Normally, the leftmost card is assigned the address "0", with addresses increased by 2 for each neighbouring card.

Mixed-mode operation with VME1000/16 or VME816 is possible, provided that all addresses are unique.

4.1   Configuration DIP Switch

Card addresses must be set on the DIP switch according to the table below. The card address specifies the range of video-input addresses under which the video inputs can be reached within the system. – Card addresses must be unique within a single video rack.

Table: Card address with switch positions and resulting video input address ranges:

DIP switch / Card address	1	2	3	4	5	Video input address range
0	0	0	0	0	0	1 – 32
1	1	0	0	0	0	17 – 48
2	0	1	0	0	0	33 – 64
3	1	1	0	0	0	49 – 80
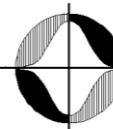
Card address	DIP switch	1	2	3	4	5	Video input address range
4		0	0	1	0	0	65 – 96
5		1	0	1	0	0	81 – 112
6		0	1	1	0	0	97 – 128
7		1	1	1	0	0	113 – 144
8		0	0	0	1	0	129 – 160
9		1	0	0	1	0	145 – 176
10		0	1	0	1	0	161 – 192
11		1	1	0	1	0	177 – 208
12		0	0	1	1	0	193 – 224
13		1	0	1	1	0	209 – 240
14		0	1	1	1	0	225 – 256
15		1	1	1	1	0	241 – 272
16		0	0	0	0	1	257 – 288
17		1	0	0	0	1	273 – 304
18		0	1	0	0	1	289 – 320
19		1	1	0	0	1	305 – 336
20		0	0	1	0	1	321 – 352
21		1	0	1	0	1	337 – 368
22		0	1	1	0	1	353 – 384
23		1	1	1	0	1	369 – 400
24		0	0	0	1	1	385 – 416
25		1	0	0	1	1	401 – 432
26		0	1	0	1	1	417 – 448
27		1	1	0	1	1	433 – 464
28		0	0	1	1	1	449 – 480
29		1	0	1	1	1	465 – 496
30		0	1	1	1	1	481 – 512
(invalid)		1	1	1	1	1	–

NOTICE

Because of the 32 inputs of the VME1000/32, for each set-up address the respective succeeding address is allocated too.

For example, if address 10 is set, address 11 is allocated too, and must not be used by another card.

4.2 Configuration Samples

Example 1: A video rack with eight **VME1000/32** installed, shall be expanded by 8 further **VME1000/32** (expansion by 256 inputs, totalling to 512 inputs).

The already installed cards had been set-up for ever ascending addresses from 0, 2, 4, 6, 8, 10, 12 and 14, thus allocating the input addresses from 1 to 256.

For the new VME1000/32 cards to be installed, card addresses 16, 18, 20, 22, 24, 26, 28, and 30 have to be set up, thus allocating the input addresses from 257 to 512.

Example 2 (mixed mode operation):

A video rack with 5 x **VME1000/16** shall be expanded by 4 x **VME1000/32** (expansion from 80 inputs to 208 inputs).

The already installed cards had been set-up for ever ascending addresses from 0 to 4 (ever ascending), thus allocating the input addresses from 1 to 128. For the new VME1000/32 cards to be installed, card addresses 5, 7, 9, and 11 have to be set up, thus allocating the input addresses from 81 to 208.

5 Start of Operation and Functional Check

For diagnostic purposes the card provides a LED signalling the operational state. The LED is most easily looked at from top or bottom, through the punched plate of the video rack.

After powering-on the video rack the LED shines yellow. As soon as the communication between the controlling VM1000 CPU and the VM1000 video rack has been established, the LED shines green.

NOTICE

Before calling the service line, please note card type, positions of configuration switches, as well as operational state as shown by the LED (yellow or green).
For detailed information refer to the extensive Operation Manual

Subject to technical change