

Vorne



# M1000 Large Alphanumeric Display



M1000  
Large  
Character  
Alphanumeric  
Display

## The M1000 - A Feature Packed Impressively Priced Marquee

Specifically designed for industry, the M1000 gives your data display project the high visibility it deserves. Specially selected, state-of-the-art AlGaAs (Aluminum Gallium Arsenide) LEDs deliver vibrant 2" to 4.5" super-bright display characters that command attention even in the most demanding industrial environments. AlGaAs LEDs also feature very low power consumption, resulting in a cooler running, more reliable display.

Ease of use and powerful advanced features are gracefully combined to deliver a truly innovative marquee display. Unlike many competitive products, the M1000 display field is controlled by a hardware state machine resulting in a visually superior display. Simple yet powerful ASCII commands provide complete control over display functions and are designed for quick and easy integration. Optically isolated serial ports enhance communication reliability and provide optimal electrical noise immunity even when data networks extend thousands of feet.

Intelligently engineered for the tough industrial environment, the M1000 also features a rugged powder coated extruded aluminum enclosure that is sleek, attractive and highly durable. Exceptional appearance, flawless performance and a remarkable price, all backed by a truly dedicated technical support team. Try an M1000 demo unit and discover why Vorne is your first choice for industrial marquee displays!

## Standard Features

- Super bright, red AlGaAs LEDs
- Interfaces to almost any serial output device
- Integrated RS-232 to RS-422 converter
- Convenient ASCII based protocol
- Multi-drop capable with 99 discrete addresses
- User selectable optically isolated I/O ports
- Seven baud rates ranging from 300 to 19.2k
- Font sizes ranging from 2" to 4.5"
- Viewing distances of 150' and beyond
- Four international character sets
- Quick and easy DIP switch setup
- Graphics capable command set
- High efficiency switching power supply
- Rugged extruded aluminum enclosure
- Simple eyebolt hang mounting
- Easy access to wiring terminals
- Free 30-day demonstration/evaluation units
- Free expert technical support

## Pricing

- M1000-120 120 VAC powered marquee — \$1740 each
- M1000-220 220 VAC powered marquee — \$1844 each

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Create exciting graphical images using the powerful graphic mode ASCII command set of the M1000. Unique pixel shading commands add detail and realism to images. Five levels of shading (off, dim intensity, medium intensity, bright intensity or sparkle) can be established within the spectrum of 15 overall levels of display brightness. Cursor and draw commands provide for easy graphical navigation within the M1000 display screen. Sparkle effects add life to images, creating movement for "chasing" movie marquee effects and other attention getting graphics!

### M1000 Display Screen Features

Designed for trouble free operation, long term reliability and remarkable ease of use, the M1000 delivers vibrant 2" to 4.5" characters that satisfy the most demanding large marquee display applications.

### Bright and Efficient AlGaAs LEDs

Outstanding brightness, wide viewing angle and low power consumption are just a few of the reasons we selected Aluminum Gallium Arsenide (AlGaAs) light emitting diodes (LEDs). Superb appearance aside, these LEDs also have an outstanding rated life - nearly 10 years of continuous operation! And the fine pitch pixel spacing means your graphics and messages are crisp and easy to read.

### Flexible Graphics Commands

The M1000 graphic command set provides complete control over each and every pixel in the 16 x 120 pixel matrix. Graphics commands include Absolute Dot Cursor Move, Move Pixel Cursor, and Pixel Draw. Combined with sparkle effects and the five levels of foreground and background shading, a diverse range of graphical effects can be created. Our free of charge M1000 Demo software utility includes an extensive set of font and graphics demonstration screens that can be run on any M1000 display.

### International Character Sets

The M1000 supports a variety of language specific character sets that provide clear, concise communications. The table below outlines the fonts that are available - their language, character height, font style, and the number of display characters that will fit on one screen. Naturally, scrolling allows longer messages to be displayed.

Language	Height	Style	Display Char.
English/Euro	2.0"	Standard	2 x 20
English/Euro	2.2"	Bold	2 x 15
English/Euro	3.5"	Narrow	1 x 15
English/Euro	3.5"	Wide	1 x 12
English/Euro	4.5"	Standard	1 x 10
English/Euro	4.5"	Bold	1 x 8
Cyrillic	2.0"	Standard	2 x 20
Slavic	2.0"	Standard	2 x 20
Katakana	2.0"	Standard	2 x 20

### Display Specifications

Pixel Size	0.2"
Pixel Pitch	0.3"
Pixel Matrix	16 x 120
Pixel Brightness (minimum)	6,300 $\mu$ d
Pixel Brightness (typical)	12,000 $\mu$ d

### M1000 Application Features

#### Optically Isolated Serial Ports

M1000 displays utilize optically isolated serial ports in order to improve electrical noise immunity - even when communications networks extend thousands of feet. Just flip a switch to select between RS-232 and RS-422 formats. There's even a handy, built-in, RS-232 to RS-422 data converter - eliminating cumbersome outboard converter boxes.

#### Stand-alone or Easily Networked

Easily add a display to an existing network, or conveniently establish individual or grouped networks of displays using addressing to control the flow of data to a specific unit. Nearly one hundred individual addresses are available by simply dialing in numbers on the rotary DIP switches in each display. Units with the same address will display identical data while universally addressed units will display all data received.

#### Simple DIP Switch Setup

Convenient DIP switch setup allows for the selection of seven baud rates ranging from 300 to 19.2K baud. Data bits may be selected to be 7 or 8, and any one of six power-up fonts can be selected. The M1000 automatically recognizes carriage return <CR> as a message terminator.

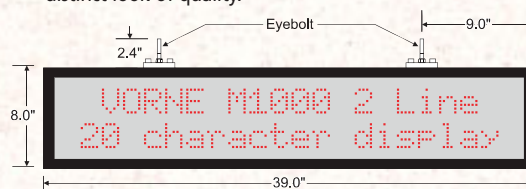
#### Comprehensive Command Set

Simple and intuitive ASCII commands provide flexibility and variety in the presentation of text and graphics so that messages are delivered with maximum visual impact. Three scroll speeds, 255 blinking and inverse blinking speeds, along with intensity, foreground/background shading and sparkle effects provide a wide palette of choices for visual presentation.

### M1000 Mechanical Features

#### Sleek Yet Tough Enclosure

The rugged, thin profile M1000 enclosure is designed specifically for industrial applications. A heavy aluminum extrusion surrounds and protects the internal circuitry, while also locking in the gasketed front and back panels. Four corner keys firmly lock the entire assembly together. The attractive extrusion is black powder coated to resist scratching and corrosion while giving your project a distinct look of quality.



**M1000 Dimensional Drawing**

### Easy Access Wiring

Two gasketed panels with captive mounting screws provide access to removable terminal blocks and setup DIP switches. Heavy-duty Heyco feed through wiring grommets lock power and data cables in place.

### Simple Mounting

Massive steel eyebolts, secured in steel blocks and fixed in a captive T-slot channel provide connection points for suspending the M1000 display.

### Specifications

Operating Power (typical)	30 watts
Operating Power (maximum)	65 watts
Operating Temperature Range	0 to 55 °C
Humidity (non-condensing)	5% to 95%
Weight	25 pounds

### Viewing Distance

The table below outlines recommended viewing distances for the 6 different character matrix formats.

Character Matrix	Character Height	Recommended Viewing	Maximum Viewing
5 x 7	2.0"	Up to 65'	Up to 85'
7 x 8	2.2"	Up to 75'	Up to 100'
8 x 12	3.5"	Up to 85'	Up to 110'
10 x 12	3.5"	Up to 85'	Up to 110'
12 x 16	4.5"	Up to 130'	Up to 175'
15 x 16	4.5"	Up to 150'	Up to 200'

### How to Order

#### Ordering Options

M1000-120	120 VAC power
M1000-220	220 VAC power

#### Models and Pricing

The following prices are for single unit quantities. Volume discounts are available for purchases of 10 units or more.

M1000-120	\$1740
M1000-220	\$1844

#### Software

M1000 Demo Utility	FREE
Serial 97 Data Transfer Utility	FREE

### FREE Trial Units

The M1000 display is available for a FREE 30 day trial. We know of no better way to show you the quality of our products and support than to have you experience it for yourself.

### For More Information

Call us toll free at 1-888-DISPLAYS (1-888-347-7529) and we will be happy to discuss your application, or send you more information.

# Call Today!

## 1-888-DISPLAYS

1-888-347-7529

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