

ViewMarq Message Displays



Overview

ViewMarq is an LED Message Display utilizing the latest LED and communications technologies for industry. It utilizes both serial and Ethernet communications. The display can be connected to a PLC or any device capable of sending serial ASCII, Modbus RTU, or Modbus TCP communications. It can accept commands over Modbus and Modbus TCP, or serial ASCII.

Applications

The ViewMarq is used to display real time factory floor data or to display PLC triggered messages. The message display is controlled by any of the following:

- ASCII input strings through the RS-232 or RS-485 port
- Modbus RTU messages through the RS-232 or RS-485 port
- Modbus TCP messages through the Ethernet port

Features

- Low power consumption, high-efficiency switch mode power supply
- Wall mount / cabinet top mount and chain mount - brackets included
- Free, easy-to-use configuration software package
- The display is fully configurable through the ViewMarq software for ease of use.
- Messages can be sent by an ASCII serial string or through Modbus RTU or Modbus TCP
- Store and trigger up to 200 messages

Compliances

- UL508, file number E157382
- CE
- NEMA 12 - Indoor use
- NEMA 4 - Indoor use
- RoHS

Choosing the Right Model

One-Line Displays

- 1-1/4", 2" characters
- Models with 12 or 24 characters per line
- Approximate viewing distance up to 100 ft

MD4-0112T



MD4-0124T



Two-Line Displays

- 1-1/4", 2", 4" characters
- Models with 12 or 24 characters per line
- Approximate viewing distance up to 200 ft

MD4-0212T



MD4-0224T



Four-Line Displays

- 1-1/4", 2", 4", 6", 8" characters
- Models with 12 or 24 characters per line
- Approximate viewing distance up to 400 ft

MD4-0412T

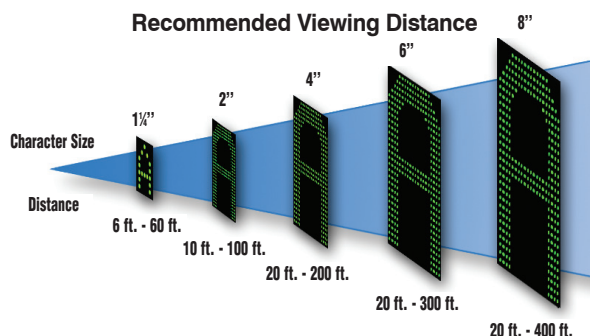
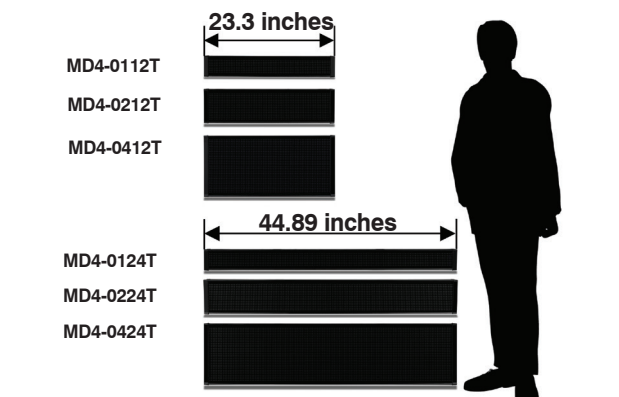


MD4-0424T





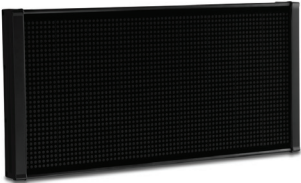



Here are the recommended viewing distances based on the character size that can be used:

| Character Size | Minimum Recommended Viewing Distance | Maximum Recommended Viewing Distance | Displays with these character sizes (Part Numbers) |
|----------------|--------------------------------------|--------------------------------------|--|
| 1.25 in | 6 ft | 60 ft | MD4-0112T MD4-0124T MD4-0212T MD4-0224T MD4-0412T MD4-0424T |
| 2 in | 10 ft | 100 ft | MD4-0112T MD4-0124T MD4-0212T MD4-0224T MD4-0412T MD4-0424T |
| 4 in | 20 ft | 200 ft | MD4-0212T MD4-0224T MD4-0412T MD4-0424T |
| 6 in | 20 ft | 300 ft | MD4-0412T MD4-0424T |
| 8 in | 20 ft | 400 ft | MD4-0412T MD4-0424T |



ViewMarq Message Displays Selection Guide

| ViewMarq Message Displays | | |
|---------------------------|---|--|
| Part Number | | Description |
| MD4-0112T |  | ViewMarq industrial LED message display, 1 line by 12 characters, tri-color, 2 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |
| MD4-0124T |  | ViewMarq industrial LED message display, 1 line by 24 characters, tri-color, 2 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |
| MD4-0212T |  | ViewMarq industrial LED message display, 2 line by 12 characters, tri-color, 4.75 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |
| MD4-0224T |  | ViewMarq industrial LED message display, 2 line by 24 characters, tri-color, 4.75 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |
| MD4-0412T |  | ViewMarq industrial LED message display, 4 line by 12 characters, tri-color, 9.5 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |
| MD4-0424T |  | ViewMarq industrial LED message display, 4 line by 24 characters, tri-color, 9.5 inch maximum character size. Supports red, amber and green characters, embedded string and numeric variables, scrolling (right, left, up and down). (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control; supports serial ASCII, Modbus RTU, and Modbus TCP protocols. NEMA 4 / NEMA 12 (Indoor only) extruded aluminum housing. UL 508 listed, CE marked. Includes wall mount and chain mount bracket assemblies, 1/2 and 3/4 inch cable glands for input wiring and one seven foot Ethernet patch cable. Requires configuration software (MD-PGMSW) which can be purchased on CD or downloaded for free. |

ViewMarq Message Displays Specifications

| ViewMarq 1-Line Message Displays Specifications | | |
|---|--|------------------------|
| Part Number | MD4-0112T | MD4-0124T |
| Description | 1 Line X 12 Characters | 1 Line X 24 Characters |
| Display | | |
| • Type | LED matrix: Tri-color (Green, Red, Amber) | |
| • LED Life | 100,000 hours | |
| • LED Pitch | 0.19 in [5 mm] | |
| • Center to Center Spacing of each LED | 0.27 in [7 mm] | |
| • Number of Lines | 1 (Based on 5 x 7 pixel sized characters) | |
| • Text Height | 1.25 in, 2 in (Depends on character set selected) | |
| • Character Set | Printable ASCII | |
| • Approximate Viewing Distance | 100 ft | |
| AC Electrical | | |
| • Input Voltage | 100-240 VAC (+10% / -15%), 50 / 60 Hz | |
| • Maximum Current | 0.5A | 0.8A |
| • Power Consumption (MAX) | 22W | 38W |
| • Maximum Inrush Current (Cold and Hot) | 25A | 26A |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Output Protection for Overcurrent, Over Voltage and Over Temperature | Yes – Self Resetting | |
| • Insulation Resistance | > 10 MOhms @ 500 VAC | |
| DC Electrical | | |
| • Input Voltage | 24 VDC (+10% / -15%) | |
| • Maximum Current | 1A | 1.5A |
| • Maximum Inrush Current (Cold and Hot) | 3A | 4.5A |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Reverse Polarity Protection | Yes | |
| Communication | | |
| • Serial Communications | Serial RS-232, RS-485 both ASCII and Modbus, 2400 – 38.4KB | |
| • Ethernet Communications | Modbus TCP, 10/100BaseT | |
| Dimensions / Weight | | |
| • Enclosure Approximate Weight | 4.9 lbs [2.2 kg] | 9.0 lbs [4.1 kg] |
| Environmental | | |
| • Storage Temperature | -30 to +85 °C (-22 to +185 °F) | |
| • Operating Temperature | 0 to 60 °C (32 to +140 °F) | |
| • Humidity | 5 – 95% non-condensing | |
| • Enclosure Ratings | NEMA 12 indoor use only, NEMA 4 indoor use only | |
| • Vibration | IEC 60068-2-6 (Test Fc) | |
| • Shock | IEC 60068-2-27 (Test Ea) | |
| • Noise Immunity | EN61131-2:2007 | |
| • Agency Approvals | UL508 (E157382), NEMA 4, NEMA 12, RoHS, REACH CE (EN61131-2:2007) - Pollution Degree 2, Overvoltage Category II | |

ViewMarq Message Displays Specifications

| ViewMarq 2-Line Message Displays Specifications | | |
|--|--|------------------------|
| Part Number | MD4-0212T | MD4-0224T |
| Description | 2 Line X 12 Characters | 2 Line X 24 Characters |
| Display | | |
| • Type | LED matrix: Tri-color (Green, Red, Amber) | |
| • LED Life | 100,000 hours | |
| • LED Pitch | 0.19 in [5 mm] | |
| • Center to Center Spacing of each LED | 0.27 in [7 mm] | |
| • Number of Lines | 2 (Based on 5 x 7 pixel sized characters) | |
| • Text Height | 1.25 in, 2 in, 4 in (Depends on character set selected) | |
| • Character Set | Printable ASCII | |
| • Approximate Viewing Distance | 200 ft | |
| AC Electrical | | |
| • Input Voltage | 100-240 VAC (+10% / -15%), 50 / 60 Hz | |
| • Maximum Current | 1A | 2A |
| • Power Consumption (MAX) | 38W | 74W |
| • Maximum Inrush Current (Cold and Hot) | 26A | 24A |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Output Protection for Overcurrent, Over Voltage and Over Temperature | Yes – Self Resetting | |
| • Insulation Resistance | > 10 MOhms @ 500 VAC | |
| DC Electrical | | |
| • Input Voltage | 24 VDC (+10% / -15%) | |
| • Maximum Current | 2A | 3.5A |
| • Maximum Inrush Current (Cold and Hot) | 10.5A | |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Reverse Polarity Protection | Yes | |
| Communication | | |
| • Serial Communications | Serial RS-232, RS-485 both ASCII and Modbus, 2400 – 38.4KB | |
| • Ethernet Communications | Modbus TCP, 10/100BaseT | |
| Dimensions / Weight | | |
| • Enclosure Approximate Weight | 7.3 lbs [3.3 kg] | 13.1 lbs [6.0 kg] |
| Environmental | | |
| • Storage Temperature | -30 to +85 °C (-22 to +185 °F) | |
| • Operating Temperature | 0 to 60 °C (32 to +140 °F) | |
| • Humidity | 5 – 95% non-condensing | |
| • Enclosure Ratings | NEMA 12 indoor only, NEMA 4 indoor only | |
| • Vibration | IEC 60068-2-6 (Test Fc) | |
| • Shock | IEC 60068-2-27 (Test Ea) | |
| • Noise Immunity | EN61131-2:2007 | |
| • Agency Approvals | UL508 (E157382), NEMA 4, NEMA 12, RoHS, REACH CE (EN61131-2:2007) - Pollution Degree 2, Overvoltage Category II | |

ViewMarq Message Displays Specifications

| ViewMarq 4-Line Message Displays Specifications | | |
|---|--|------------------------|
| Part Number | MD4-0412T | MD4-0424T |
| Description | 4 Line X 12 Characters | 4 Line X 24 Characters |
| Display | | |
| • Type | LED matrix: Tri-color (Green, Red, Amber) | |
| • LED Life | 100,000 hours | |
| • LED Pitch | 0.19 in [5 mm] | |
| • Center to Center Spacing of each LED | 0.27 in [7 mm] | |
| • Number of Lines | 4 (Based on 5 x 7 pixel sized characters) | |
| • Text Height | 1.25 in, 2 in, 4 in, 6 in, 8 in (Depends on character set selected) | |
| • Character Set | Printable ASCII | |
| • Approximate Viewing Distance | 400 ft | |
| AC Electrical | | |
| • Input Voltage | 100-240 VAC (+10% / -15%), 50 / 60 Hz | |
| • Maximum Current | 2A | 2A |
| • Power Consumption (MAX) | 74W | 123W |
| • Maximum Inrush Current (Cold and Hot) | 24A | 9.5A |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Output Protection for Overcurrent, Over Voltage and Over Temperature | Yes – Self Resetting | |
| • Insulation Resistance | > 10 MOhms @ 500 VAC | |
| DC Electrical | | |
| • Input Voltage | 24 VDC (+10% / -15%) | |
| • Maximum Current | 3.5A | 4A |
| • Maximum Inrush Current (Cold and Hot) | 10.5A | 12A |
| • Input Fuse Protection (Internal) | Yes (not user replaceable) | |
| • Reverse Polarity Protection | Yes | |
| Communication | | |
| • Serial Communications | Serial RS-232, RS-485 both ASCII and Modbus, 2400 – 38.4KB | |
| • Ethernet Communications | Modbus TCP, 10/100BaseT | |
| Dimensions / Weight | | |
| • Enclosure Approximate Weight | 12.1 lbs [5.5 kg] | 22.5 lbs [10.2 kg] |
| Environmental | | |
| • Storage Temperature | -30 to +85 °C (-22 to +185 °F) | |
| • Operating Temperature | 0 to 60 °C (32 to +140 °F) | |
| • Humidity | 5 – 95% non-condensing | |
| • Enclosure Ratings | NEMA 12 indoor only, NEMA 4 indoor only | |
| • Vibration | IEC 60068-2-6 (Test Fc) | |
| • Shock | IEC 60068-2-27 (Test Ea) | |
| • Noise Immunity | EN61131-2:2007 | |
| • Agency Approvals | UL508 (E157382), NEMA 4, NEMA 12, RoHS, REACH CE (EN61131-2:2007) - Pollution Degree 2, Overvoltage Category II | |

ViewMarq Message Display Configuration Software

Free Software!

Part Number: MD-PGMSW

ViewMarq LED message display Windows-based configuration software. Requires Windows XP (Service Pack 3), Vista, Windows 7 (32 and 64-bit) or Windows 8 (32 and 64-bit). Requires serial or Ethernet connection to the ViewMarq display. Available for purchase on CD or can be downloaded for free from AutomationDirect Web site. Ethernet cable ships with display.



Built-in Message Simulator

- Runs the message on your PC as you type.
- Test all of your messages before downloading
- Time savings saves you money!

Simple Message Creation

- Message creation and editing is made simple and fast with intuitive software. Easy-to-find tools help change the character color, add blinking, and insert embedded variables.

Text Editor

- Simple and intuitive text message creation, editing and formatting.

Command String Viewer

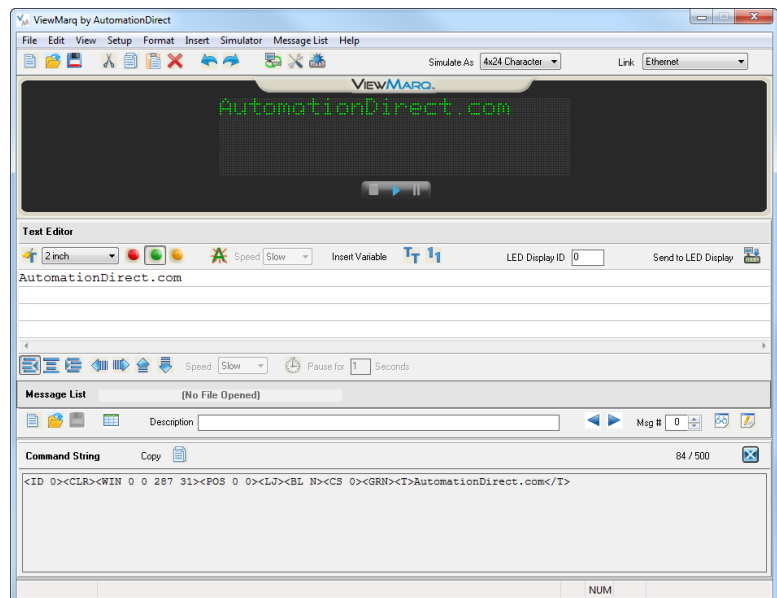
- Allows you to copy and paste the command string needed for your PLC ladder code.

Message Lists

- Create message lists that can be downloaded to the LED Display and triggered by a PLC or by discrete inputs.

PC Requirements

- Personal Computer with a 333 MHz or higher processor (CPU) clock speed recommended; Intel® Pentium/Celeron family, or AMD® K6/Athlon/Duron family, or compatible processor recommended
- Keyboard and Mouse or compatible pointing device
- XVGA color video adapter and monitor with at least 1024 x 768 pixels required, 64K color minimum
- 50 MB free hard-disk space
- 512 MB free RAM
- CD-ROM or DVD drive if installing software from the CD
- Serial Port or Ethernet 10/100 Mbps port for configuring LED Display
- Operating System - Windows XP SP3, Windows Vista, Windows 7, Windows 8



Download the Software!

The Viewmarq Configuration Software can be downloaded at no charge from the AutomationDirect Web site, or a CD version may be purchased by ordering p/n MD-PGMSW. Help files are included in the software.

TOPCO
It's all about control

topcoinfo@topco.co.il