#### 1-800-633-0405

# ViewMarq 4-Line Message Displays

## Description

ViewMarq models MD4-0412T and MD4-0424T are 4-line, tri-color, 9.5-inch maximum character size LED message displays. Model MD4-0412T is a 4-line x 12 character display. Model MD4-0424T is a 4-line x 24 character display. Each supports red, amber and green characters, embedded string and numeric variables and scrolling (right, left, up and down). There are (1) RS-232 port, (1) RS-485 port and (1) 10/100 BaseT Ethernet port for configuration and external message control. They support serial ASCII, Modbus RTU, and Modbus TCP protocols. The extruded aluminum housing is NEMA 4 / NEMA 12 (Indoor only) rated. They are UL 508 listed and CE marked. Included are 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. The required configuration software (MD-PGMSW) can be downloaded for free or purchased on CD.

## **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.
- Serial RS-232/485 and Ethernet Modbus TCP communications can be used at the same time.
- Store and trigger up to 200 messages









MD4-0424T



## Dimensions

Units: inches [mm]



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## ViewMarq Message Displays Specifications

ViewMarq	ViewMarq 4-Line Message Displays Specifications					
Part Number	MD4-0412T	MD4-0424T				
Description	4 Line X 12 Characters	4 Line X 24 Characters				
Display						
• Туре	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 pix	el 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				
<ul> <li>Power Consumption (MAX)</li> </ul>	74W	123W				
<ul> <li>Maximum Inrush Current (Cold and Hot)</li> </ul>	24A	9.5A				
<ul> <li>Input Fuse Protection (Internal)</li> </ul>	Yes (not user replaceable)					
Output Protection for Overcurrent, Over Voltage and Over Temperature	Yes – Self Resetting					
<ul> <li>Insulation Resistance</li> </ul>	> 10 MOhms	@ 500 VAC				
DC Electrical						
<ul> <li>Input Voltage</li> </ul>	24 VDC (+1	0% / -15%)				
Maximum Current	3.5A	4A				
<ul> <li>Maximum Inrush Current (Cold and Hot)</li> </ul>	10.5A	12A				
<ul> <li>Input Fuse Protection (Internal)</li> </ul>	Yes (not user replaceable)					
Reverse Polarity Protection	Yes					
Communication						
<ul> <li>Serial Communications</li> </ul>	Serial RS-232, RS-485 both ASCII and Modbus, 2400 – 38.4KB - Slave only					
Ethernet Communications	Modbus TCP, 10/100BaseT - Server only					
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 Ambient Temperature	0 to 60 °C (32 to +140 °F)					
Non-Condensing Humidity	5 – 95% non-condensing					
• Altitude	Up to 2000 meters (6562 ft.)					
Enclosure Ratings	UL Rated: Enclosure Type 1, Indoor Use, Dry Locations, 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					

\* Not evaluated by UL

1-800-633-0405

# 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

## ViewMarq Message Display Mounting Options

## **Mounting Options**

Two sets of mounting brackets are included with each ViewMarq Message display.

ViewMarq LED Display Mounting Specifications						
Part Numbers Weight Wall Mount Chain		Weight with Chain Mount Brackets				
<u>MD4-0112T</u>	4.9 lbs (2.2 kg)	6.1 lbs (2.8 kg)	5.4 lbs (2.5 kg)			
<u>MD4-0124T</u>	9.0 lbs (4.1 kg)	10.2 lbs (4.6 kg)	9.6 lbs (4.4 kg)			
<u>MD4-0212T</u>	7.3 lbs (3.3 kg)	8.5 lbs (3.9 kg)	7.8 lbs (3.5 kg)			
<u>MD4-0224T</u>	13.1 lbs (6.0 kg)	14.3 lbs (6.5 kg)	13.6 lbs (6.2 kg)			
<u>MD4-0412T</u>	12.1 lbs (5.5 kg)	13.3 lbs (6.0 kg)	12.6 lbs (5.7 kg)			
<u>MD4-0424T</u>	22.5 lbs (10.2 kg)	23.7 lbs (10.8 kg)	23.0 lbs (10.5 kg)			



## **Viewing Angle**

The ViewMarq display should be mounted for the optimum viewing angle.



## **Viewing Distances**

ViewMarq Message Displays Viewing Distances					
Part Numbers	Font Size	Minimum Recommended Viewing Distance	Maximum Recommended Viewing Distance		
MD4-0112T MD4-0124T MD4-0212T MD4-0224T MD4-0412T MD4-0424T	1-1/4 in	6 ft (1.8m)	60 ft (18m)		
MD4-0112T MD4-0124T MD4-0212T MD4-0224T MD4-0412T MD4-0424T	2 in	10 ft (3.0m)	100 ft (31m)		
<u>MD4-0212T</u> <u>MD4-0224T</u> <u>MD4-0412T</u> <u>MD4-0424T</u>	4 in	20 ft (6.1m)	200 ft (61m)		
<u>MD4-0412T</u> <u>MD4-0424T</u>	6 in	20 ft (6.1m)	300 ft (91m)		
MD4-0412T MD4-0424T	8 in	20 ft (6.1m)	400 ft (122m)		
<u>MD4-0412T</u> <u>MD4-0424T</u>	10 in	20 ft (6.1m)	500 ft (152m)		

## ViewMarq Message Display Replacement Parts

The optional replacement parts can be used to replace damaged, worn or lost ViewMarq message display components.

## Replacement parts at a glance:

ViewMarq Message Display Replacement Parts			
Part Number	Description		
<u>MD-BRK-1</u>	ViewMarq wall mounting bracket assembly, replacement. Package of 2. For use with ViewMarq message display.		
MD-BRK-2	ViewMarq chain mounting brackets, replacement. Package of 2. For use with ViewMarq message display.		
<u>MD-TERM-SET</u>	ViewMarq pluggable terminal block set, replacement. For use with ViewMarq message display. Includes (1) 2-pole DC power connector, (1) 3-pole AC power connector, (1) 10-pole discrete input connector, and (1) 6-pole serial communications connector.		
<u>MD-PWR-COV</u>	ViewMarq power connection cover, replacement. For use with ViewMarq message display. (1) cover and (1) 1/2in NPT cable gland included.		
MD-COM-COV	ViewMarq communications cover, replacement. For use with ViewMarq message display. (1) cover and (2) 1/2in NPT cable gland and (1) 3/4in NPT cable gland with 6mm and 10mm hole plugs included.		

### Wall Mount Bracket Part No. MD-BRK-1



#### Chain Mount Brackets Part No. <u>MD-BRK-2</u>



#### Terminal Block Set Part No. <u>MD-TERM-SET</u>



Power Back Cover w/ Cable Gland Part No. <u>MD-PWR-COV</u>



Communication Back Cover w/ Cable Glands Part No. <u>MD-COM-COV</u>



## 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 inutitive 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, Windows 10

## **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.



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