

M-Series

Industrial Flat Panel Monitors, 12.1"-19" High Performance LCDs



Overview

Offering unparalleled value and superb quality, the M-Series are high performance 12.1", 15", 17" and 19" color TFT flat panel monitors specifically designed for harsh industrial environments including Class I & II, Division 2 Hazardous Locations when mounted in a NEMA enclosure.

M-Series monitors accept standard analog VGA inputs and can display all VESA video modes up to 1280 x 1024 with 16 million colors. An optional 5-wire analog touchscreen is available that offers RS-232 or USB interface capability.

M-Series monitors are housed in heavy duty steel chassis with powder coated machined aluminum bezels. The monitors are certified to NEMA 4/4X/12 standards, are UL/CUL listed, meet CE requirements and are RoHS compliant (M1200 pending).

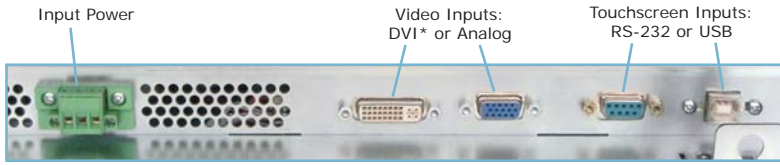
All M-Series monitors are shipped with a power input wiring receptacle, VGA cable, touchscreen cables, mounting hardware, manual and driver software.

Standard Features

- 12.1" SVGA to 19" SXGA Color TFT LCD Display
- Optional 5-wire Analog Resistive Touchscreen
- Ultra-Thin panel mounting depth, less than 2.7" behind bezel
- UL 508 and UL 1604 listed for Hazardous Locations: Class I, Division 2, Groups A, B, C, D and Class II, Division 2, Groups F and G when mounted in a NEMA enclosure (M1200 pending)
- NEMA 4/4X/12 front bezel
- 2-Year warranty
- CE & RoHS Compliant
- Integral 100-240 VAC power supply
- Simplified installation with no studs
- Accepts analog 15-pin video input or DVI input
- VESA compliant - all modes up to SXGA, 16 million colors
- Optional 5-wire resistive touch screen with RS-232 or USB interface
- Optional 304 stainless steel front bezel
- Optional 24 VDC input power

Features & Benefits

Power & VGA Input Panel



* DVI cable sold separately. Consult factory for details.



Ultra-thin,
extremely
compact
design



Optional
5-wire Analog
Resistive
Touchscreen

Made with
Pride in
the USA

UL, cUL 508,
Class I, Div 2,
CE, & RoHS
Approvals
(M1200 pending)

Integral
100-240
VAC or
24 VDC
Power
Supply



Powder Coated
Aluminum or
Stainless Steel
Front Panels



VESA Mounting

- M1200/M1500/1700:
75x75mm
- M1900: 100x100mm
(M4 Threads)



**NEMA Panel
Mounting via
Clips**



**USB Touchscreen
Cable Retention**

- Required when installed
in Class I, Div 2 locations



Meet all RoHS Hazardous
Safety Standards.



Technical Specifications

DISPLAY



	M1200	M1500	M1700	M1900
Display Diagonal	12.1" (307.34mm)	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)
Display Sizes (Active Area H x V)	9.69" x 7.26" (246.0mm x 184.5mm)	11.97" x 8.98" (304.0mm x 228.1mm)	13.30" x 10.64" (337.8mm x 270.3mm)	14.82" x 11.85" (376.4mm x 301.0mm)
Native Resolution	SVGA, 800 x 600	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024
Displayable Colors	262K	16M	16M	16M
Brightness, Typical	400 Nit	250 Nit	300 Nit	300 Nit
Contrast Ratio, Typical	500:1	800:1	800:1	1300:1
Horizon/Vertical View Angle, CR>5, Typical	130°/110°	150°/145°	176°/170°	178°/178°
Backlight Life, Typical	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs

TOUCH SCREEN (all models)

Touch Screen Technology	ELO AccuTouch, 5-wire Analog Resistive
Resolution	4096 x 4096
Positional Accuracy (Maximum Error)	0.18" (0.19" M1900) 4.57mm (4.83mm M1900)
Positional Accuracy (Standard Deviation of Error)	< 0.08" (< 2.0 mm)
Expected Life	>35,000,000 Activations

ELECTRICAL

AC Input Voltage	100-240 VAC, 50/60 Hz
AC Input Current	M1200/1500 - 0.5 A Max M1700 - 1.0 A Max M1900 - 1.0 A Max
DC Input Voltage (optional)	18-36 VDC
DC Input Current (optional)	M1200/1500 - 0.75 A Max M1700 - 1.15 A Max M1900 - 1.45 A Max
Input Power	M1200/1500 - 25 W Typical M1700 - 30 W Typical M1900 - 35 W Typical

ENVIRONMENTAL

	Operating	Non-operating
Temp.	0°C to 50°C	-20°C to 60°C
Humidity	20% to 80% RH, noncondensing	
Shock	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration	.006" peak to peak displacement (5-2000 Hz) 1.0g maximum acceleration	.015" peak to peak displacement 2.5g maximum acceleration
Altitude^a	Sea level to 10,000 feet	Sea level to 40,000 feet

^a Altitude specification is established by using all internal component specifications.

AGENCY

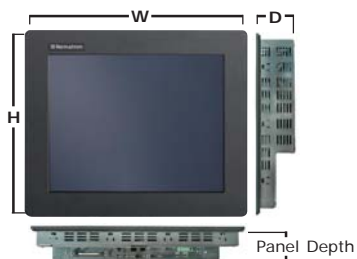
Front Panel NEMA Rating	NEMA 4/4X/12, IP65
FCC	47 CFR, Part 15, Class A
EU CE Marking Compliance	CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1, RoHS compliant
Safety Agency Approvals (M1200 pending)	UL508 Listed, UL 1604 Listed *, cUL Listed CSA C22.2, #142, cUL Listed CSA C22.2, #143 *

* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G; Temp. Code: T4A, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

PHYSICAL

	M1200	M1500	M1700	M1900
Overall Dimensions (H x W x D)	10.475" x 12.9" x 2.6" (266.1mm x 327.7mm x 66.0mm)	12.80" x 15.80" x 2.65" (325.1mm x 401.3mm x 67.3mm)	14.48" x 17.14" x 2.85" (367.8mm x 442.0mm x 72.4mm)	15.70" x 18.66" x 2.95" (398.8mm x 474.0mm x 75.0mm)
Panel Mounting Depth	2.35" (59.7mm)	2.4" (61.0mm)	2.6" (66.0mm)	2.7" (68.6mm)
Cutout Dimensions (H x W)	9.68" x 12.10" (245.9mm x 307.3mm)	12.00" x 15.00" (305.0mm x 381.0mm)	13.70" x 16.35" (348.0mm x 415.3mm)	14.90" x 17.75" (378.5mm x 450.9mm)
VESA Mount Pattern (M4 Threads)	75x75mm	75x75mm	75x75mm	100x100mm
Weight	9.5 lbs (4.31kg)	14.0 lbs (6.35kg)	18.5 lbs (8.39kg)	22.5 lbs (10.21kg)
Shipping Weight	13.0 lbs (5.89kg)	19.0 lbs (8.62kg)	23.5 lbs (10.66kg)	27.5 lbs (12.47kg)
Option Weight (SS)*	+2.5 lbs (1.13kg)*	+3.5 lbs (1.58kg)*	+3.75 lbs (1.70kg)*	+4.0 lbs (1.81kg)*

* Additional weight for Stainless Steel option.

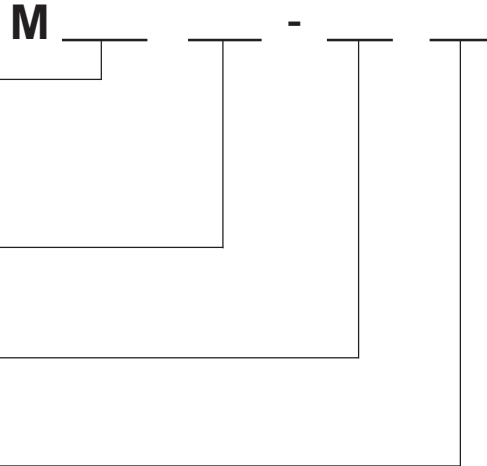


Cutout Dimensions

M1200	M1500	M1700	M1900
12.10" (W) 307.3mm	15.00" (W) 381.0mm	16.35" (W) 415.3mm	17.75" (W) 450.9mm
9.68" (H) 245.9mm	12.00" (H) 305.0mm	13.70" (H) 348.0mm	14.90" (H) 378.5mm

Order Number Generation

Example unit configuration: Mx00T-24-SS, where **x** = 12, 15, 17, or 19 (for display size) NEMA 4/4X/12 Panel mount, TFT flat panel monitor with 5-wire analog resistive touch screen, 24V DC power supply, and Machined 304 Stainless Steel Front Panel. Ships with AC wiring receptacle, 10' VGA cable, 10' RS-232 cable, 10' USB cable, driver software, mounting hardware and operator's guide (DVI cable sold separately).



Display Size:

1200	12.1" SVGA LCD
1500	15.0" XGA LCD
1700	17.0" SXGA LCD
1900	19.0" SXGA LCD

Input Options:

T	Touchscreen
blank	None

Power Supply:

blank	120-240 VAC
-24	24 Volt DC

Front Panel:

blank	Powder Coated Aluminum
-NL	Powder Coated Aluminum w/o Logo
-SS	Machined 304 Stainless Steel w/o Logo
-RM	Rackmount powder-coated aluminum (19.0" only) ¹

¹ Rackmount front panel is not NEMA 4/4X/12 and the unit is not approved for Hazardous Locations.

Accessories

CBL-10-VGA	15-Pin analog VGA cable, 10' length	MTG-RM-1500	Rackmount adapter plate for M1500/M1500T
CBL-25-VGA	15-Pin analog VGA cable, 25' length	MTG-RM-1700	Rackmount adapter plate for M1700/M1700T
CBL-50-VGA	15-Pin analog VGA cable, 50' length	MTG-CAP-5015	Cutout adapter plate for mounting an M1500 in a Xycom 5015T or 5015T/R2 cutout. Requires drilling 16 mounting holes around the present cutout.
CBL-10-RS232	Serial RS-232 touch screen cable, 10' length	MTG-CAP-5017	Cutout adapter plate for mounting an M1700 in a Xycom 5017 cutout. Requires drilling 16 mounting holes around the present cutout.
CBL-25-RS232	Serial RS-232 touch screen cable, 25' length	PWR-AC	Plug for field wiring AC power
CBL-50-RS232	Serial RS-232 touch screen cable, 50' length	PWR-DC	Plug for field wiring DC power
CBL-10-USB	USB touch screen cable, 10' length	MISC-CLIP	Mounting clip kit, includes 16 clips and screws
CBL-15-USB	USB touch screen cable, 15' length	CBL-PWR-AC	6' AC wiring cable with standard 3-prong US end on one side and Phoenix Power Wiring connector with cover on other end. NOTE: NOT allowed for use in Hazardous Conditions.
CBL-2M-DVI	DVI (type D) video cable, 2 m length		
CBL-3M-DVI	DVI (type D) video cable, 3 m length		

Additional Models

Nematron offers additional models which are cut out compatible with units from other suppliers. These are for replacement installations only and are not recommended for new applications. Consult info@nematron.com for more details. Some examples are:

- Nematron M1900 replaces the Viewtronix SXT1811 and Xycom 5019
- Nematron M1502 replaces the Viewtronix/Xycom XT1502
- Nematron M1040 replaces the Viewtronix/Xycom VT1040



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