

M-Series Monitors

Industrial Flat Panel Mount Touchscreen Displays



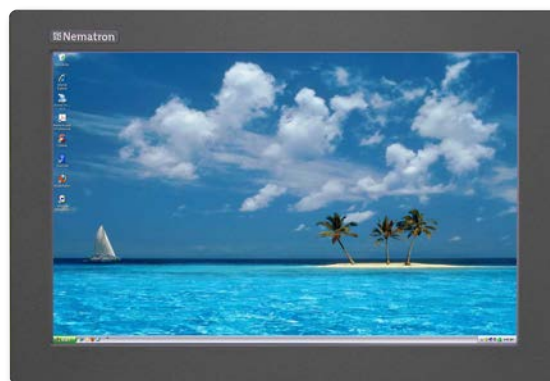
High Definition Widescreen

Standard Definition Widescreen

NEW!
21.5"
Hi
Def



M2100WT - 21.5" HD 1080



M2200WT - 22.0" WSXGA+



Standard Definition



M1200T - 12.1" SVGA



M1500T - 15.0" XGA



M1700T - 17.0" SXGA



M1900T - 19.0" SXGA

Standard Features

- 12.1" SVGA to 22" WSXGA+ Color TFT LED-backlit LCD Displays
- 5-wire Analog Resistive Touchscreen with RS-232 or USB interface
 - Optional non-Touch clear polycarbonate window
- Ultra-Thin panel mounting depth, less than 2.9" behind bezel
- NEMA 4/4X/12 front bezel
 - Optional 304 stainless steel front bezel *
- Integral 100-240 VAC power supply
 - Optional 24 VDC input power
- Simplified mounting clip installation with no studs
- Accepts analog 15-pin video input or DVI input
- Resolutions from SVGA up to 1080 HD (High Def)
- UL and cUL Ordinary Locations Listed
- UL and cUL Hazardous Locations Listed
 - Class I Division 2, Groups A, B, C, & D; Class II Division 2, Groups F & G; Class III when mounted in a NEMA enclosure
- FCC & CE Compliant
- 2-Year warranty

* Check factory for availability of M2100W & M2200W stainless front panels - not always stocked and may take 6 weeks or more for delivery.

Features & Benefits

Power & VGA Input Panel

Input Power

Video Inputs: DVI* or Analog

Touchscreen Inputs: RS-232 or USB

*DVI cable sold separately. Consult factory for details.

Ultra-thin, extremely compact design

Made with Pride in the USA

UL 508, Class I, Div 2, CE Approvals

Integral 100-240 VAC or 24 VDC Power Supply

Optional 5-wire Analog Resistive Touchscreen

Widescreen Back with Cables Connected

Powder Coated Aluminum or Stainless Steel Front Panels

NEMA Panel Mounting via Clips

VESA Mounting (M4 Threads)

- M1200/M1500/M1700: 75x75mm
- M1900/M2100W/M2200W: 100x100mm

USB Touchscreen Retention Cable

- Required when installed in Hazardous Locations

Horizontal or Vertical Orientation - M2100WT & M2200WT



Nematron™ Widescreen displays can be mounted in a horizontal or vertical orientation. This is a good solution for SCADA programs and for displaying control application graphics that need more display size.

High Definition Display for High Resolution Control Application Runtime



See the Difference More Clearly.

The M2100WT 21.5" Widescreen display has a crisp, bright LED-backlit LCD that displays at 1920 x 1080 HD resolution.



M2100WT



Standard 2-year warranty

- Covers parts and service



Technical Specifications



Physical	M1200T	M1500T	M1700T	M1900T	M2100WT	M2200WT
Overall Dimensions <i>H x W x D</i>	10.475" x 12.9" x 2.65" (266.1mm x 327.7mm x 67.3mm)	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)	13.9" x 22.1" x 2.57" (353.1mm x 561.3mm x 65.4mm)	15.00" x 22.00" x 2.95" (381.0mm x 558.8mm x 75.0mm)
Panel Mounting Depth	2.4" (61.0mm)	2.4" (61.0mm)	2.6" (66.0mm)	2.7" (68.6mm)	2.82" (71.6mm)	2.7" (68.6mm)
Cutout Dimensions <i>H x W</i>	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)	13.10" x 21.30" (332.7mm x 541.0mm)	14.2" x 21.2" (360.68mm x 538.48mm)
Weight	9.5 lbs (4.31kg)	14.0 lbs (6.35kg)	18.5 lbs (8.39kg)	22.5 lbs (10.21kg)	23.0 lbs (10.43kg)	23.0 lbs (10.43kg)
Shipping Weight	13.0 lbs (5.89kg)	19.0 lbs (8.62kg)	23.5 lbs (10.66kg)	27.5 lbs (12.47kg)	30.0 lbs (13.60kg)	30.0 lbs (13.60kg)
Option Weight (SS)*	+2.5 lbs (1.13kg)*	+3.5 lbs (1.58kg)*	+3.75 lbs (1.70kg)*	+4.0 lbs (1.81kg)*	+6.0 lbs (2.72kg)*	+6.0 lbs (2.72kg)*

* Additional weight for Stainless Steel option.

Display	M1200T	M1500T	M1700T	M1900T	M2100WT	M2200WT
Display Diagonal	12.1" (307.34mm)	15.0" (381.0mm)	17.0" (431.8mm)	19.0" (482.6mm)	21.53" (546.9mm)	22.0" (558.8mm)
Display Size	9.69" x 7.26"	11.97" x 8.98"	13.30" x 10.64"	14.82" x 11.85"	18.77" x 10.56"	18.65" x 11.65"
Active Area Horz x Vert (246.0mm x 184.5mm)	(246.0mm x 184.5mm)	(304.0mm x 228.1mm)	(337.9mm x 270.3mm)	(376.4mm x 301.0mm)	(476.6mm x 258.1mm)	(473.8mm x 296.1mm)
Native Resolution	SVGA, 800 x 600	XGA, 1024 x 768	SXGA, 1280 x 1024	SXGA, 1280 x 1024	HD 1080, 1920 X 1080	WSXGA+, 1680 X 1050
Aspect Ratio	4:3	4:3	5:4	5:4	16:9	16:10
Brightness	450 nit	400 nit	350 nit	300 nit	300 nit	300 nit
Contrast Ratio	600:1	600:1	1000:1	2000:1	5000:1	1000:1
Horz/Vert Viewing Angle	140°/120°	140°/120°	170°/170°	178°/178°	178°/178°	178°/178°
Backlight Life / Typical	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs	50,000 hrs

Typical* Power	M1200T	M1500T	M1700T	M1900T	M2100WT	M2200WT
AC Input Voltage	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz	100-240 VAC, 50/60 Hz
AC Input Current	0.5 A Max	0.5 A Max	1.0 A Max	1.0 A Max	1.0 A Max	1.0 A Max
DC Input Voltage (optional)	18-36 VDC	18-36 VDC	18-36 VDC	18-36 VDC	18-36 VDC	18-36 VDC
DC Input Current (optional)	2.0 A Maximum	2.0 A Maximum	2.0 A Maximum	2.0 A Maximum	4.5 A Maximum	4.5 A Maximum
Input Power	25W	25W	30W	35W	40W	60W

* Typical power is measured per model/per processor and without any additional I/O or expansion inputs. Any additional I/O installed during application can increase this value.

COMMON SPECS

I/O

Available I/O (1) Analog Video Port, (1) Digital Video (DVI) Port, Touchscreen inputs: (1) RS-232, (1) USB

Touchscreen

Technology 5-wire Analog Resistive; No Touchscreen option

Environmental

	Operating	Non-operating
Temperature ¹ / Humidity	0°C to 55°C / 20% to 80% RH, noncondensing	-20°C to 70°C / 20% to 80% RH, noncondensing
Shock	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration (5-2000 Hz)	.006" peak to peak displacement, 1.0g maximum acceleration	.015" peak to peak displacement, 2.5g maximum acceleration
Altitude ²	Sea level to 10,000 feet	Sea level to 40,000 feet

¹ Temperature specifications are for air temp surrounding the unit (i.e. inside any enclosure being utilized). Meets US Federal Requirements specified in 46 CFR 111.01-15 (d) for offshore electrical systems.

² Altitude specification is established by using all internal component specifications.

Agency Approvals

Front Panel NEMA Rating	NEMA 4/4X/12, IP66
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
Safety Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012, cUL Listed CSA C22.2, #142, cUL Listed CSA C22.2, #213

* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III

M-Series M1200, M1500, M1700, M1900, M2200W: Temp. Code: T5, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

M2100W Temp. Code: T4A, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

Options

Front Panel	Powder-Coated Aluminum Front Panel; Optional Front Panel with No Logo or Machined 304 Stainless Steel ³
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³ Check factory for availability and delivery schedule. M2100W and M2200W stainless front panels are not always stocked and may take 6 weeks or more for delivery.

Order Number Generation

Base Unit Configuration: Mxx00(T or WT), where x = 12, 15, 17, 19, 21, or 22 (for display size) NEMA 4/4X/12 panel mount, LED-backlit TFT flat panel monitor with 5-wire analog resistive touch screen, built in AC power supply, and powder coated aluminum front panel. Units ship with AC wiring receptacle, 10' VGA cable, 10' RS-232 cable (touchscreen equipped units only), 3m USB cable (touchscreen equipped units only), mounting hardware, and operator's guide (DVI cable sold separately).

M

Display Size:

1200	12.1" SVGA LCD
1500	15.0" XGA LCD
1700	17.0" SXGA LCD
1900	19.0" SXGA LCD
2100W	21.5" HD 1080 LCD
2200W	22.0" WSXGA+ LCD

Input Options:

T	Touchscreen
blank	Non-Touch clear polycarbonate window

Power Supply:

blank	100-240 VAC
-24	24 Volt DC (N/A on M2100W & M2200W)
-DC	Isolated 24 Volt DC

Front Panel:

blank	Powder Coated Aluminum (with Nematron nameplate)
-NL	Powder Coated Aluminum without Logo
-SS	Machined 304 Stainless Steel ¹
-RM	Rackmount Powder Coated Aluminum (M1900 only) ²

¹ Check factory for availability and delivery schedule. M2100W and M2200W stainless front panels are not always stocked and may take 6 weeks or more for delivery.

² Rackmount front panel is not NEMA 4/4x/12 and is required to be installed on a rack in a Type 1 enclosure.

Accessories

CBL-3-VGA	15-Pin analog VGA cable, 3' length
CBL-10-VGA	15-Pin analog VGA cable, 10' length
CBL-25-VGA	15-Pin analog VGA cable, 25' length
CBL-50-VGA	15-Pin analog VGA cable, 50' length
CBL-3-RS232	Serial RS-232 touch screen cable, 3' length
CBL-10-RS232	Serial RS-232 touch screen cable, 10' length
CBL-25-RS232	Serial RS-232 touch screen cable, 25' length
CBL-50-RS232	Serial RS-232 touch screen cable, 50' length
CBL-3-USB	USB touch screen cable, 3' length
CBL-10-USB	USB touch screen cable, 10' length
CBL-15-USB	USB touch screen cable, 15' length

CBL-3M-DVI	DVI (type D) video cable, 3 m length
CBL-3M-HDMI/DVI	3 meter HDMI to DVI-D video cable
CBL-25-HDMI/DVI	25 feet HDMI to DVI-D video cable
CBL-50-HDMI/DVI	50 feet HDMI to DVI-D video cable
PWR-AC	Plug for field wiring AC power
PWR-DC	Plug for field wiring DC power
MISC-CLIP	Mounting clip kit, includes 16 clips and screws
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.



MTG-DIN-nPC300

DIN Rail Mounting Kit includes DIN Rail bracket that mounts a Nematron nPC300 Node PC to M-Series monitors using the 75mm or 100mm VESA mounting pattern on the rear of the units.



MTG-DIN-nPC20

DIN Rail section for mounting a Nematron nPC20 Node PC to M-Series monitors using the 75mm or 100mm VESA mounting pattern on the rear of the units.

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