

Nematron M1900 Industrial Display

19.0" Panel Mount Touchscreen Display

UL/cUL Class I Div 2 Approved

LED Backlit Display

Analog Resistive Touchscreen

Aluminum Front Bezel

NEMA 4/4X/12, IP66

55°C Operating Temp

Industrial Grade Power Supply

Made in USA



Nematron
by COMARK

DS M1900, Rev A

NEMA



Made in USA

Overview

Offering unparalleled value and superb quality, the Nematron brand M-Series are high performance LED-backlit 12.1", 15", 17", 19", 21.5" and 22" widescreen 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 VESA1 video modes 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 & IP65 standards, are UL/cUL listed, and meet CE requirements.

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

Standard Configuration

- 19.0" SXGA Color TFT LED-backlit LCD Display
- 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

- Optional Rack Mount Front Panel (*M1900 only*)
- Simplified mounting clip installation with no studs
- Accepts analog 15-pin video input or DVI input
- 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

Technical Specifications



Physical

Overall Dimensions	15.70" x 18.66" x 2.95" (398.8mm x 474.0mm x 75.0mm)
Panel Mounting Depth	2.7" (68.6mm)
Cutout Dimensions	14.90" x 17.75" (378.5mm x 450.9mm)
Weight	22.5 lbs (10.21kg)
Shipping Weight	27.5 lbs (12.47kg)
Option Weight (SS)*	+4.0 lbs (1.81kg)*

* Additional weight for Stainless Steel option.

Display

Display Diagonal	19.0" (482.6mm)
Display Size H x V	14.82" x 11.85" (376.4mm x 301.0mm)
Native Resolution	SXGA, 1280 x 1024
Aspect Ratio	5:4
Brightness	300 nit
Contrast Ratio	2000:1
Horz/Vert Viewing Angle	178°/178°
Backlight Life / Typical	50,000 hrs
Touchscreen	5-wire Analog Resistive; No Touchscreen option

Peripherals

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

Input Power	35W
AC Input Voltage	100-240 VAC, 50-60 Hz, 1.0 A Maximum
DC Input Voltage	18-36 VDC, 2.0 A Maximum

Technical Specifications

Environmental

	Operating	Non-operating
Temperature ³	0°C to 55°C	-20°C to 70°C
Humidity	20% to 80% RH, noncondensing	20% to 80% RH, noncondensing
Shock ⁴	15g peak acceleration, 11msec	30g peak acceleration, 11msec
Vibration (5-2000 Hz) ⁴	.006" peak to peak displacement, 1.0g maximum acceleration	.015" peak to peak displacement, 2.5g maximum acceleration
Altitude ⁵	Sea level to 10,000 feet	Sea level to 40,000 feet

³ 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.

⁴ Shock & Vibration specifications established with Solid State drives and no rotating media.

⁵ Altitude specification is established by using all internal component specifications.

Compliance

NEMA Rating	NEMA 4/4X/12, IP66
FCC	47 CFR, Part 15, Class A
EU CE Marking	CE, EN 55022: Class A, EN 61000-3-3, EN 61000-6-2, IEC 60950-1
Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012 ⁶ , cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213

* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III; Temp. Code: T5, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

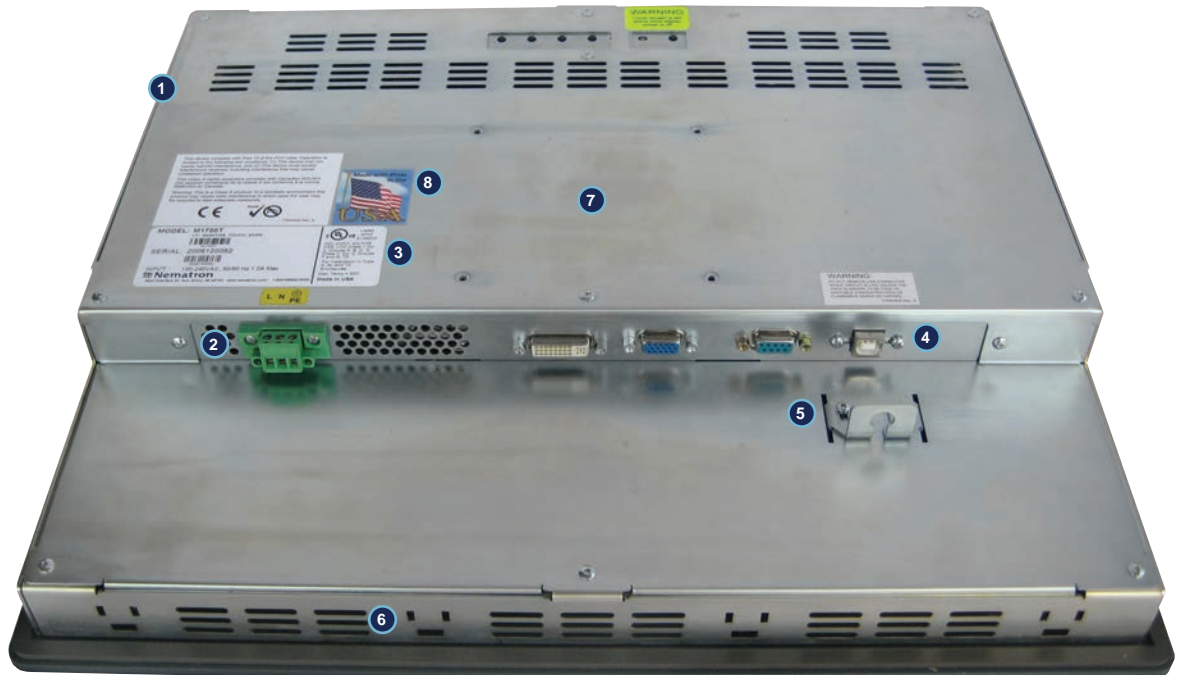
Front Panel

Front Panel Options	Powder-Coated Aluminum Front Panel; with No Logo; Machined 304 Stainless Steel; Rackmount Powder Coated Aluminum (M1900 only) ⁷
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⁷ Rackmount front panel is not NEMA 4/4X/12 and the unit is required to be installed on a rack in a Type 1 enclosure.

Features

- Optional 5-wire Analog Resistive Touchscreen
- Integral 100-240 VAC or 24 VDC Power Supply
- UL/cUL 508, Class I Div 2, CE Approvals
- I/O Connectivity
- USB Touchscreen Retention Cable
- Panel Mounting via Clips
- VESA Mounting M1900 - 100mm
- Made with Pride in the USA



Standard 2-year warranty
- Covers parts and service



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).



M1900

Display Size: _____
1900 19.0" SXGA LCD

Input Options: _____
T Touchscreen
blank Non-Touch clear polycarbonate window

Power Supply: _____
blank 100-240 VAC
-24 24 Volt DC
-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
-RM Rackmount Powder Coated Aluminum (M1900 only) ¹

¹ Rackmount front panel is not NEMA 4/4x/12 and the unit 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.