

## Nematron M1500-IECEEx Industrial Display

### 15.0" Panel Mount Touchscreen Display

IECEEx / ATEX Zone 2/22 Approved

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 M1500-IECEEx, 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" and 22" widescreen color TFT flat panel monitors specifically designed for harsh industrial environments including IECEEx and ATEX Zone 2 & 22 when mounted in an ATEX approved enclosure.

M-Series monitors accept standard analog VGA inputs and can display VESA1 video modes up to 1680 x 1050 with 16 million colors. A 5-wire analog touchscreen comes

standard 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 & IP66 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

- 15.0" XGA Color TFT LED-backlit LCD Display
- 5-wire Analog Resistive Touchscreen with RS-232 or USB interface
- Ultra-Thin panel mounting depth, less than 2.9" behind bezel
- NEMA 4/4X/12, IP66 powder coated aluminium front bezel
  - Optional 304 stainless steel front bezel
- Integrated isolated 24 VDC power supply
- Simplified mounting clip installation with no studs
- Accepts analog 15-pin video input or DVI input
- IECEEx and ATEX Zone 2/22 approved when installed in an ATEX approved enclosure as described in DEMKO 14 ATEX 1374X and UL 16.0058X
- 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
- 2-Year warranty

## Technical Specifications



### Physical

Overall Dimensions	12.80" x 15.80" x 2.65" (325.1mm x 401.3mm x 67.3mm)
Panel Mounting Depth	2.4" (61.0mm)
Cutout Dimensions	12.00" x 15.00" (305.0mm x 381.0mm)
Weight	14.0 lbs (6.35kg)
Shipping Weight	19.0 lbs (8.62kg)
Option Weight (SS)*	+3.5 lbs (1.58kg)*

\* Additional weight for Stainless Steel option.

### Display

Display Diagonal	15.0" (381.0mm)
Display Size H x V	11.97" x 8.98" (304.0mm x 228.1mm)
Native Resolution	XGA, 1024 x 768
Aspect Ratio	4:3
Brightness	400 nit
Contrast Ratio	600:1
Horz/Vert Viewing Angle	140°/120°
Backlight Life / Typical	50,000 hrs
Touchscreen	5-wire Analog Resistive

### 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	25W
DC Input Voltage	18-36 VDC
DC Input Current	2.0 A Maximum

The DEMKO certificate is available online for downloading: [http://www.comarkcorp.com/atex/demko\\_1374x\\_r2.pdf](http://www.comarkcorp.com/atex/demko_1374x_r2.pdf)

The IECEx UL certificate is available online for downloading at: [http://www.comarkcorp.com/iecex/ul\\_16\\_0058x\\_r0.pdf](http://www.comarkcorp.com/iecex/ul_16_0058x_r0.pdf)

# Technical Specifications

## Environmental

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

<sup>3</sup> 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.

<sup>4</sup> Shock & Vibration specifications established with Solid State drives and no rotating media.

<sup>5</sup> 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
IECEX Compliance	UL 16.0058X
ATEX Compliance	ATEX Zone 2/22 approved when installed in an approved enclosure as described in the certificate DEMKO 14 ATEX 1374X
Agency Approvals *	UL508 Listed, ANSI/ISA 12.12.01-2012 <sup>6</sup> , cUL Listed CSA C22.2, #142, cUL Listed CSA 22.2, #213

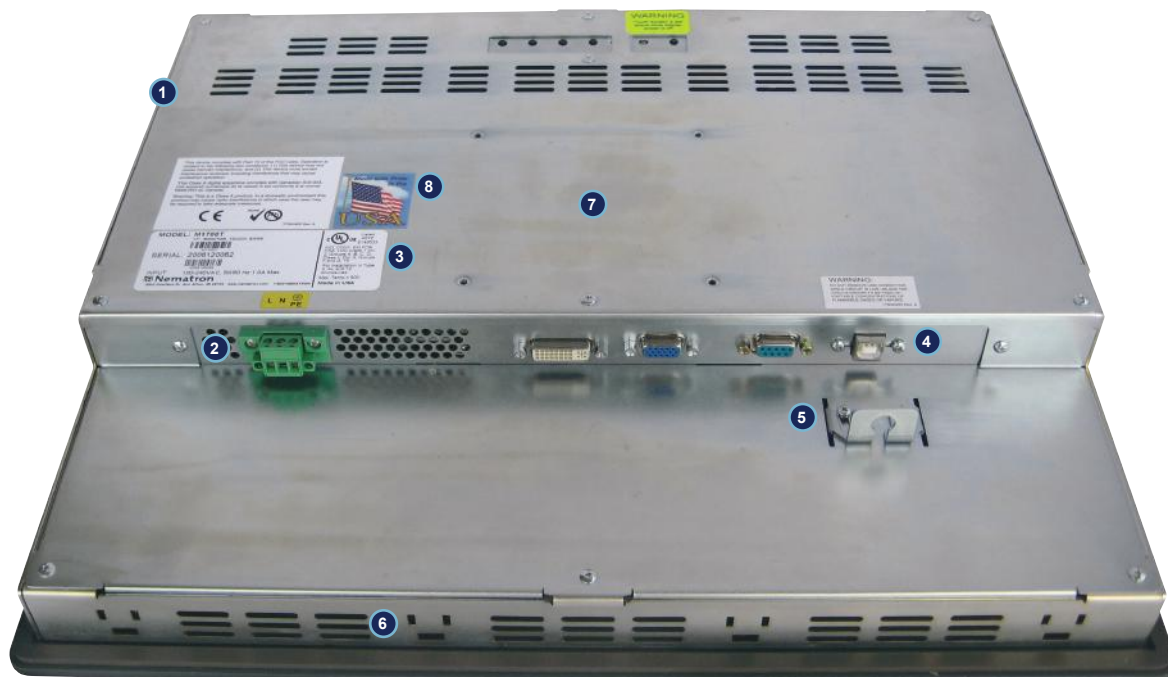
\* Class I Division 2, Groups A, B, C, D; Class II, Division 2, Groups F & G; Class III; Temp. Code: T5, when installed on a flat surface of a Type 1, 4, 4X, or 12 enclosure.

## Front Panel

Front Panel Options	Powder-Coated Aluminum Front Panel; with No Logo; Machined 304 Stainless Steel
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## Features

- Optional 5-wire Analog Resistive Touchscreen
- Integrated isolated 24 VDC Power Supply
- IECEX, ATEX Zone 2/22, UL/cUL 508, Class I, Div 2, CE Approval Label
- I/O Connectivity
- USB Touchscreen Retention Cable
- Panel Mounting via Clips
- VESA Mounting M1500 - 75mm
- Made with Pride in the USA



Standard 2-year warranty  
- Covers parts and service



# Order Number Generation

**Base Unit Configuration: Mxx00(T or WT)-DC-IECEx**, where x = 12, 15, 17, 19, or 22 (for display size) NEMA 4/4X/12/ IP66 panel mount, LED-backlit TFT flat panel monitor with 5-wire analog resistive touch screen, built in isolated 24 VDC power supply, and powder coated aluminum front panel. Units ship with DC 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).



M1500T-IECEx

	M1500	-T	-DC	-IECEx
Display Size:				
1500	15.0" XGA LCD			
Input Options:				
T	Touchscreen			
Power Supply:				
-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			

## 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.