

Very stylish, very industrial

Our new industrial-quality touchscreen monitors are good-looking but more importantly they also enable the operator and the maintenance engineer to interact with the machine more effectively. Our smart algorithms mean the touchscreen controller can detect non-standard actions such as false touches, palm rejection, water and cleaning - even if the user is wearing gloves. Very stylish, very industrial.



Features

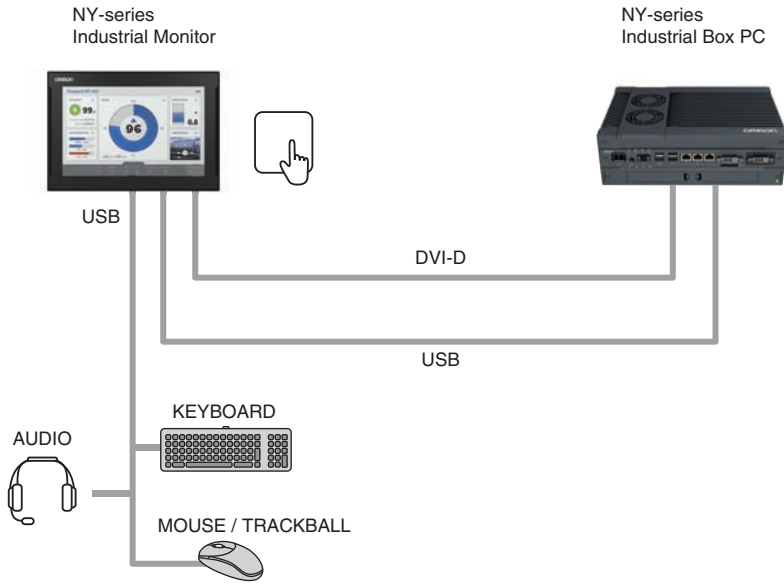
- 12.1 and 15.4 inch industrial display
- Multitouch projected capacitive touchscreen
- Winner iF award for excellent industrial design *1
- False touch detection (palm, water)
- Operator can wear gloves *2
- Backlight control
- Two USB-A, one USB-B (from host), one DVI
- Easy mounting




*1. The iF Product design Award, presented by Hannover-based International Forum Design GmbH, is one of the world's most prestigious design awards. Products are rated on uniqueness, innovation, aesthetic appearance, usefulness and eco-friendliness as well as performance, quality and price.

*2. When using gloves, ensure to use gloves that are functional with this touchscreen.

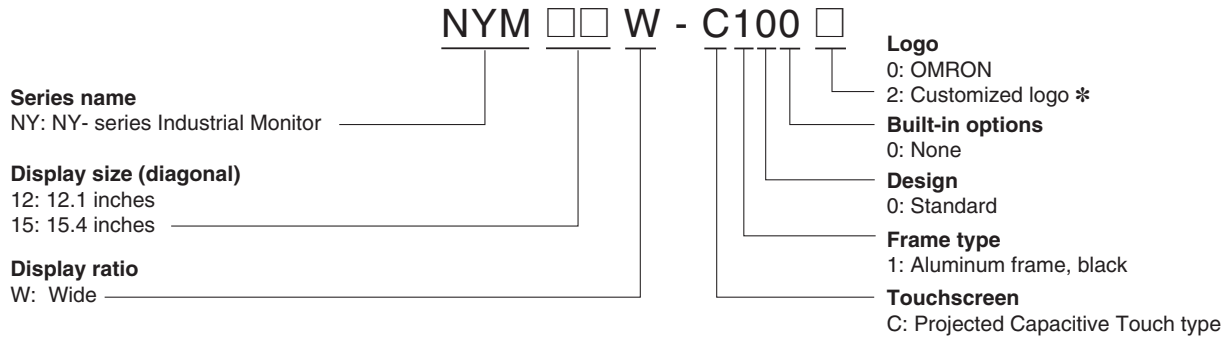
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System Configuration



-  Industrial Monitor Utility
- User interface to control settings and display details of connected Industrial Monitors
-  Industrial Monitor Brightness Utility
- Allows to control brightness of screen backlight and LEDs of all connected Industrial Monitors
-  Industrial PC Tray Utility
- Informs you about the current state of the Industrial Monitor, its related devices and associated software.

Model Number Structure



* Available in Europe only. Please consult your OMRON representative for details.

Ordering Information

NY-series Industrial PC Platform

Product name	Specifications	Display size	Model
		12.1 inches	NYM12W-C1000
		15.4 inches	NYM15W-C1000

Optional Hardware

Product Item	Specifications	Model
Power Supply	Output voltage: 24 VDC	S8VK-G□□□24
USB Type-A to USB Type-B Cables	Cable length: 2 m USB 2.0 Minimum bend radius: 25 mm	FH-VUAB 2M
	Cable length: 5 m USB 2.0 Minimum bend radius: 25 mm	FH-VUAB 5M
DVI Cables	Cable length: 2 m Supports DVI-D Minimum bend radius: 36 mm	NY000-AC00 2M
	Cable length: 5 m Supports DVI-D Minimum bend radius: 36 mm	NY000-AC00 5M

Software

Item	Descriptions
Industrial Monitor Utility	The Industrial Monitor Utility provides a user interface to control settings and display details of connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor Brightness Utility	The Industrial Monitor Brightness Utility is a small software utility that allows you to control the brightness of the screen backlight of all connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC Tray Utility	The Industrial PC Tray Utility is a software utility that provides information about the current state of the Industrial PC, its related devices, and associated software. It is pre-installed on an Industrial Box PC and the Industrial Panel PC.
Industrial Monitor API	The Industrial Monitor API allows programmers to create applications that can control the hardware features and retrieve information from connected Industrial Monitors. It is pre-installed on the Industrial Panel PC and Industrial Box PC. Install the Industrial Monitor SDK to use the Industrial Monitor API on development PCs.

Specifications

Performance Specifications

Item		Specifications		
		NYM12W-C100□	NYM15W-C100□	
Display	Display panel *1	Display device	TFT LCD	
		Screen size	12.1 inches	15.4 inches
		Surface treatment	Anti glare treatment	
		Surface hardness	Mohs scale: 5 - 6	
		Resolution	1,280 × 800 pixels at 60 Hz (horizontal × vertical)	
		Colors	16,770,000 colors	
		Effective display area	261 × 163 mm (horizontal × vertical)	331 × 207 mm (horizontal × vertical)
		View angles	Left: 60°, Right: 60°, Top: 60°, Bottom: 60°	
		Life	50,000,000 operations min.	
	EMC	Correct touchscreen operation is possible within allowable EMC immunity conditions		
	Touch	Technology	Projected capacitive	
		Touch resolution	Touch accuracy 1.5% (4-5 mm)	
		Multitouch	Up to 5 simultaneous touches	
Features		Water detection *2, hand palm rejection *3, gloves *4		
Backlight	Life	50,000 hours min. *5		
	Brightness adjustment *6	200 levels		
Connectors	Power connector		24 VDC	
	DVI-D connector	Video interface	Digital only	
		Resolution	1,280 x 800 pixels at 60 Hz	
		Maximum cable length	15 m	
	USB Type-A connectors		USB connectors for external device connection	
		Number of ports	2	
		Standards	USB 2.0	
		Current	500 mA max.	
		Maximum cable length	5 m	
	USB Type-B connector		USB connector for connection with the host PC	
		Number of ports	1	
Standards		USB 2.0		
Maximum cable length		5 m		

*1. There may be some defective pixels in the display. This is not a fault as long as the numbers of defective light and dark pixels fall within the following standard range: light and dark pixels 10 or less. (There must not be 3 adjacent light/dark pixels.)

*2. If water is detected the touch functionality will not be available.

*3. If a palm is detected that specific area is neglected.

*4. The touchscreen can be operated when wearing gloves. Confirm the touchscreen can be operated with gloves before actual operation.

*5. This is the estimated time before brightness is reduced by half at room temperature and humidity.

The life expectancy is drastically shortened if used at high temperatures.

*6. If the brightness is set to very dark, it causes flickering or the screen will be too dark to use.

Electrical Specifications

Item	Specifications	
	NYM12W-C100□	NYM15W-C100□
Rated power supply voltage	24 VDC	
Allowable power supply voltage range	19.2 to 28.8 VDC	
Grounding method	Ground to less than 100 Ω	
Power consumption	25 W max.	
Inrush current	At 24 VDC: 5 A / 10 ms max.	
Overvoltage category	JIS B3502 and IEC 61131-2: Category II	
EMC immunity level	IEC 61132-2: Zone B	

Components and functions

The Industrial Monitor is intended to be used as a display and touch interface for the Industrial PC Platform variants. The Industrial Monitor allows the user to interact through touch interactions on the LCD display.

Display

The high resolution and a high brightness provide clarity and high visibility.

Modern Design

Winner of iF design award for excellent industrial design.

Multi-touch functionality

Up to 5 simultaneous touches to increase operator efficiency by offering a natural user interface.

Backlit Logo indicator

The product logo is provided with a controllable backlight to increase visibility.

Status LED indicator

The Industrial Monitor includes one LED indicator on the front of the product.

Mounting method

Mounting brackets inside the housing with spring mechanism for easy built-in.

Mechanics

Solid die-cast aluminum front housing with industrial black coating.



DVI-D single link visual interface

The video interface for the Industrial Monitor is provided with a DVI-D dual link connector for connection to the host PC.

USB Type-B port for host PC

The USB Type-B port supports USB2.0 specifications. This port allows the host PC to communicate with multiple internal USB devices within the Industrial Monitor as well as external devices connected to the two USB Type-A ports.

USB Type-A ports for slave devices

Two USB Type-A ports are available for connection to external USB devices such as keyboards, memory sticks, or other peripheral hardware.

Programmable brightness control

Use the host PC to control the Industrial Monitor's LCD brightness automatically.

Operation Environment Specifications

Item	Specifications
Ambient operating temperature	0 to 55°C *1
Ambient storage temperature	-20 to 70°C *1
Ambient operating humidity	10% to 90% with no condensation *1
Ambient storage humidity	10% to 90% with no condensation *1
Operating atmosphere	No corrosive gases
Altitude	2,000 m max.
Pollution degree	2 or less: Conforms to JIS B3502 and IEC 61131-2
Noise resistance (during operation)	Conforms to IEC61000-4-4, 2kV (power lines)
Vibration resistance (during operation)	Conforms to IEC 60068-2-6. 5 to 8.4Hz with 3.5 mm single amplitude and 8.4 to 150 Hz with 9.8 m/s ² for 10 times each in X, Y and Z directions
Shock resistance (during operation)	Conforms to IEC 60028-2-27. 147 m/s ² , 3 times in each X, Y and Z directions
Degree of protection	Front of product: IP65 *2
Applicable standards *3	EU Directives: EMC Directive 2014/30/EU (EN 61131-2), KC Registration, RCM

*1. See *Temperature and Humidity Specifications* on page 6 for details.

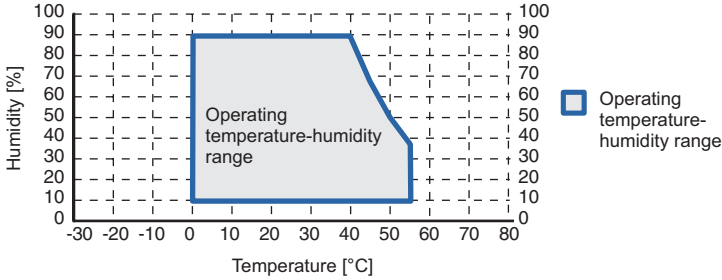
*2. The Industrial Monitor may not operate properly in locations subjected to oil splashes for extended periods of time.

*3. Refer to the OMRON website (www.ia.omron.com) or contact your OMRON representative for the most recent applicable standards for each model.

Temperature and Humidity Specifications

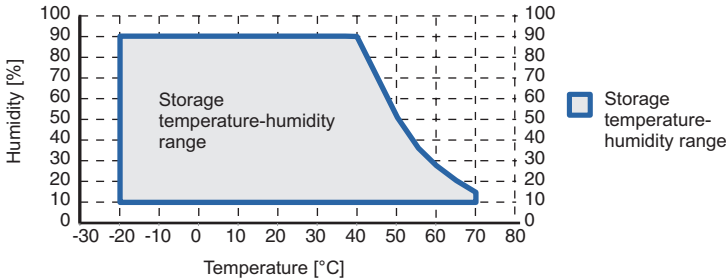
The allowed ambient temperature and humidity conditions during operation and storage for the Industrial Monitor are specified in the following graphs.

- Operate the Industrial Monitor within the following ambient temperature and humidity ranges.

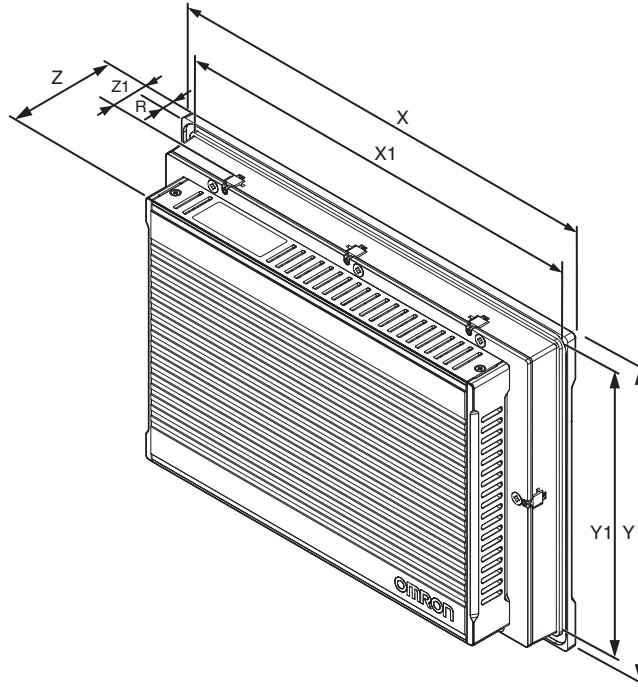


The ambient operating temperature specifications do not depend on the mounting angle, orientation or display size.

- Store the Industrial Monitor within the following ambient temperature and humidity ranges.



Dimensions



Item	Specifications	
	12.1 inch models	15.4 inch models
Panel cutout dimensions	Cutout Width X1 = 314 ⁻⁰⁺¹ mm Cutout Height Y1 = 216 ⁻⁰⁺¹ mm	Cutout Width X1 = 383 ⁻⁰⁺¹ mm Cutout Height Y1 = 259 ⁻⁰⁺¹ mm
Panel thickness range *	Panel thickness range Z1 = 1.6 to 6.0 mm	Panel thickness range Z1 = 1.6 to 6.0 mm
Dimensions	Width X = 332 mm Height Y = 234 mm Depth Z = 66 mm	Width X = 401 mm Height Y = 277 mm Depth Z = 66 mm
Monitor thickness on top of panel	Rim thickness R = 8.0 mm	
Weight	3.3 kg	4.3 kg

* The minimum panel thickness depends on the panel material.

Recommended Related Products



Industrial Box PC
NY-series

The Industrial Box PC is designed to meet the specific needs of the industrial environment. Design simplification and future-proof architecture minimize the risk of failure.



Industrial Panel PC
NY-series

The Industrial Panel PC intelligently combines the functionality of the Industrial Box PC and Industrial Monitor. No cables are used between the two components, which ensures optimal signal distribution and reliable operation in industrial environments.

Related Manuals

The following manuals are related. Use these manuals for reference.

Manual name	Cat. No.	Model numbers	Application	Description
Industrial Box PC User's Manual	W553	NYB□□-□□□□□	Learning all basic information about the Industrial Box PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Box PC.	An introduction to the Industrial Box PC is provided along with the following information: <ul style="list-style-type: none"> • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Monitor User's Manual	W554	NYM□□W-C100□	Learning all basic information about the Industrial Monitor. This includes introductory information with features, hardware overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Monitor.	An introduction to the Industrial Monitor is provided along with the following information: <ul style="list-style-type: none"> • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Panel PC User's Manual	W555	NYP□□-□□□□□-□□□□□□□□	Learning all basic information about the Industrial Panel PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Panel PC.	An introduction to the Industrial Panel PC is provided along with the following information: <ul style="list-style-type: none"> • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance

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