OMRON

HMI

Selection Guide









Table of Contents

Choosing an OMRON Human Machine Interface	3
Compact HMI, NB Series	5
Advanced HMI, NA Series	6
Compact IPC with Soft HMI, NYE Series	7
System Level IPC with Soft HMI, NYP Series	9

Choosing an OMRON Human Machine Interface

OMRON's human machine interfaces have been designed to give manufacturing facilities transparent control, deterministic monitoring, and absolute clarity in operator communication by harnessing OMRON Sysmac one controller, one connection, and one software architecture. No matter if an interface is required for a single task or as a hub for an entire production line, the OMRON portfolio of human machine interfaces can be selected to meet today's demands and allow for scalability needs of tomorrow.

When selecting between OMRON Human Machine Interfaces the following categories should be considered.

- <u>Programming Environment</u> Designing, simulating, and managing HMI connectivity is critical to ensuring the HMI meets production requirements. Each series within the OMRON HMI portfolio allows engineers design HMIs in their native OMRON software while each offering a different amount of interoperability reducing or expanding intra-network traffic.
- Operator Functions Limiting the number of potential access points into a network manages the number of vulnerabilities. Each series within
 the Omron HMI portfolio either isolates or greatly expands the functions each operator station has on the factory floor.
- <u>Available Mounting Space</u> Panel size is directly and positively correlated to panel cost. While the depth of each HMI should be considered, this should be balanced with legibility for all operators.
- Ingress Protection The most expensive HMI is the one that fails and stops production. Choosing the right ingress protection for the application increases uptime.
- <u>Controller Platform Compatibility</u> OMRON HMIs are designed for quick installation with a breadth protocol compatibility and ease of programming within OMRON Software. Aligning the HMI with the OMRON Sysmac controllers allows installation teams to maximize intraportfolio or third-party compatibility.

OMRON Human Machine Interface Portfolio

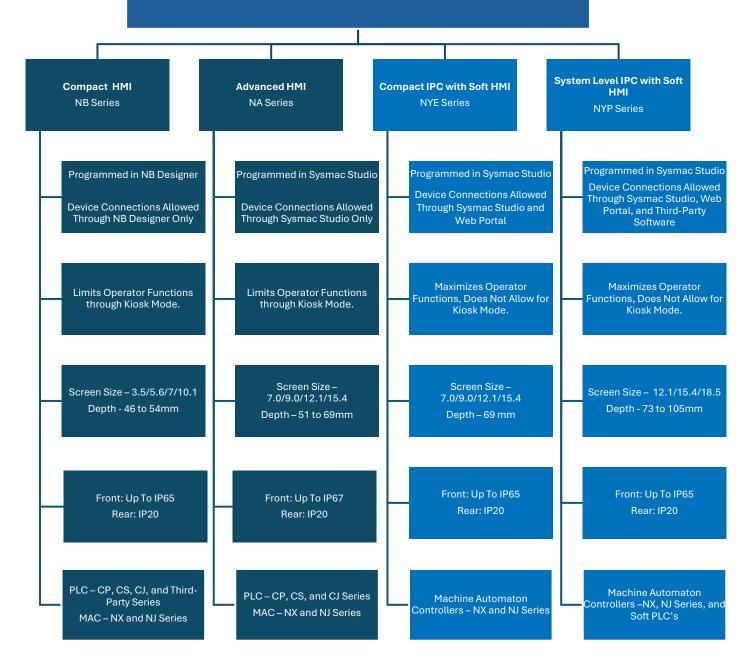


Operator Functions

Available Mounting Space

Ingress Protection

Controller Platform Compatibility



Compact HMI, NB Series

The OMRON NB Series family provides a feature-rich, dependable and economical HMI lineup for machine builders. Available in both black and silver bezels, the NB Series is the best choice interface to use with OMRON CP1 family micro-PLC applications.

No matter the industry, save installation time and accelerate the operator training with extensive graphic, communication, security, and troubleshooting features.

Programmable Terminal

Series	Specifications	Model
	3.5 inch, TFT LCD, Color, 320 × 240 dots	NB3Q-TW00B
NB series	3.5 inch, TFT LCD, Color, 320 × 240 dots, USB Host, Ethernet	NB3Q-TW01B
	5.6 inch, TFT LCD, Color, 320 × 234 dots	NB5Q-TW00B
	5.6 inch, TFT LCD, Color, 320 × 234 dots, USB Host, Ethernet	NB5Q-TW01B
	7 inch, TFT LCD, Color, 800 × 480 dots	NB7W-TW00B
	7 inch, TFT LCD, Color, 800 × 480 dots, USB Host, Ethernet	NB7W-TW01B
	10.1 inch, TFT LCD, Color, 800 × 480 dots, USB Host, Ethernet	NB10W-TW01B
NB-S series	7 inch, TFT LCD, Colors, 800 × 480 dots, RS-232C only	NB7W-TW10B
ID-3 Series	7 inch, TFT LCD, Color, 800 × 480 dots, Ethernet only	NB7W-TW11B



Advanced HMI, NA Series

OMRON's NA Series HMI enables faster, more efficient control and monitoring. As part of the SYSMAC automation platform, it transforms machine data into actionable information. With a widescreen displaying, with more than 16 million display colors (24-bit full color) and resistive touch, the NA Series is ideal for environments that requires clear displays and single touch commands. Even when where operators wear gloves and waterproof technology is needed.

The NA Series is dynamic, intuitive, and predictive with both function keys and indicator lights while being directly connected to SYSMAC controllers. Keeping production going and operators always in control.

Product name	Specifications	Model *1
NA5-15W	15.4 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Silver	NA5-15W101S-V1
	15.4 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Black	NA5-15W101B-V1
NA5-12W	12.1 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Silver	NA5-12W101S-V1
	12.1 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 1280 × 800 dots, Frame color : Black	NA5-12W101B-V1
NA5-9W	9 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Silver	NA5-9W001S-V1
	9 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Black	NA5-9W001B-V1
NA5-7W	7 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Silver	NA5-7W001S-V1
	7 inch wide screen, TFT LCD, 16,770,000 colors (24 bit full color), 800 × 480 dots, Frame color : Black	NA5-7W001B-V1
High-pressure Waterproof Attachment		NA-15WATW01
	This metal frame is for high-pressure waterproofing. Install it to conform to UL Type 4X standards.	NA-12WATW01
	UL Type 4X is the rating for high-pressure wash-down applications with a flow rate of 246 liter/min.	NA-9WATW01
		NA-7WATW01



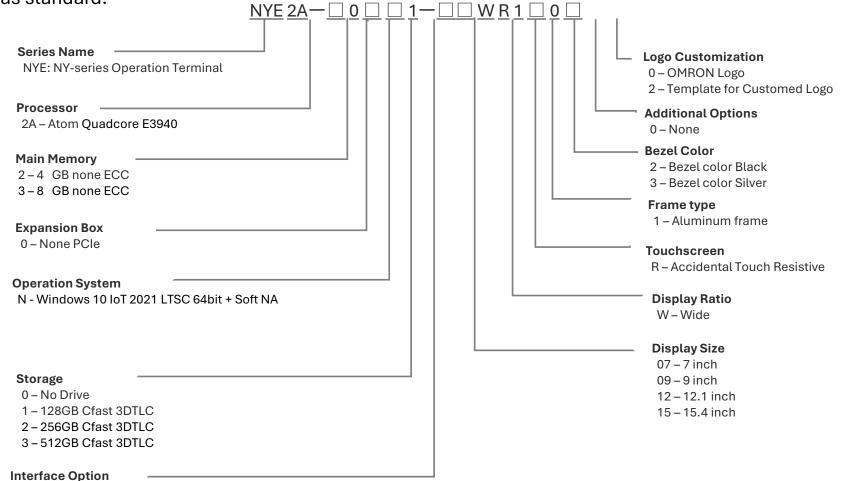
^{*1.} For information on the product whose model number does not end with -V1, refer to the Programmable Terminal NA Series Datasheet (Cat. No. V413).

Compact IPC with Soft HMI, NYE Series

1 - RS232C

OMRON NYE Series Industrial PCs are designed with the Sysmac principles of creating the highest degree of machine performance while empowering users through data. Visualizing data is the key to leveraging operation technology data to implement OEE improvements to achieve next-level process efficiency.

The NYE Series Industrial Panel PC sets the standard for the IPC terminal through a powerful CPU, breadth of connectivity and industry-proven housings all as standard.



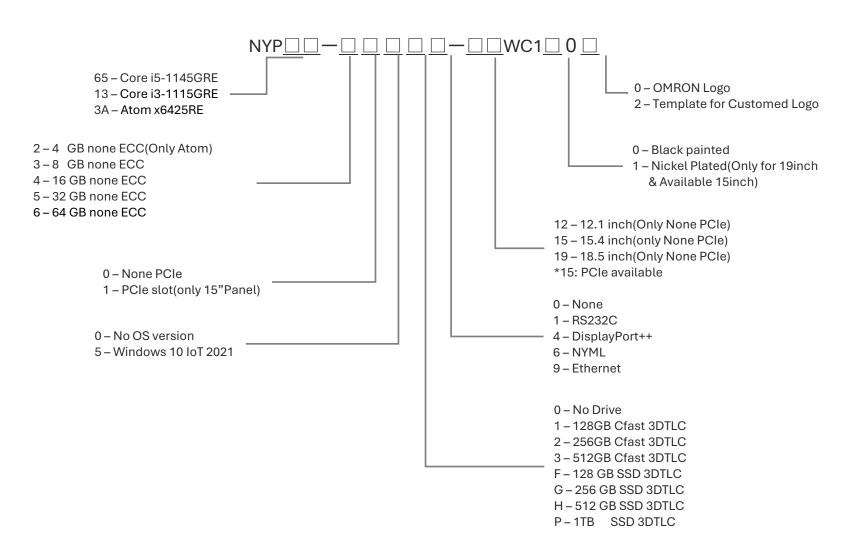
Compact IPC with Soft HMI, NYE Series

Product name		Model		
Product flame	Display size			
		Windows 10 IoT Enterprise 2021	Black	NYE2A-20511-15WR1200
		Windows 10 IoT Enterprise 2021	Silver	NYE2A-20511-15WR1300
	15.4 Inch	Windows 10 IoT Enterprise 2021 LTSC	Black	NYE2A-20F11-15WR1200
	15.4 IIIGII -	Windows 10 IoT Enterprise 2021 LTSC - 64	Silver	NYE2A-20F11-15WR1300
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Black	NYE2A-20N11-15WR1200
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Silver	NYE2A-20N11-15WR1300
	12.1 Inch	Windows 10 IoT Enterprise 2021	Black	NYE2A-20511-12WR1200
Industrial Panel PC		Windows 10 IoT Enterprise 2021	Silver	NYE2A-20511-12WR1300
industriai Panei PC		Windows 10 IoT Enterprise 2021 LTSC	Black	NYE2A-20F11-12WR1200
		Windows 10 IoT Enterprise 2021 LTSC - 64	Silver	NYE2A-20F11-12WR1300
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Black	NYE2A-20N11-12WR1200
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Silver	NYE2A-20N11-12WR1300
	9.0 Inch	Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NAt	Black	NYE2A-20N11-09WR1200
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Silver	NYE2A-20N11-09WR1300
	7.0 Inch	Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Black	NYE2A-20N11-07WR1200
		Windows 10 IoT Enterprise 2021 LTSC - 64 bit with Soft-NA	Silver	NYE2A-20N11-07WR1300

System Level IPC with Soft HMI, NYP Series

OMRON NY Series Industrial PCs are designed with the Sysmac principals of creating the highest degree of machine performance while empowering users through data. Visualization of data is the key to utilizing operations technology data to implement change and achieve next level process efficiency.

The NY Series Industrial Panel PC elevates the capabilities of the IPC through: visualization designed for collaboration, 11th Generation CPU performance, breadth of connectivity, and industry proven housings as standard.





System Level IPC with Soft HMI, NYP Series

Boo doort or one	Specifications							
Product name	Display size	Operating system	CPU type	RAM memory (non-ECC type)	Storage size	Interface option	PCIe-slot	Model
Industrial Panel PC	12.1 inch	Windows 10 IoT Enterprise 2021 LTSC - 64bit	Intel® Core™ i3-1115GRE	16 GB	128 GB CFast type (MLC)	No	No	NYP13-40520-12WC1000
			Intel® Atom® x6425RE Processor	8 GB	256 GB CFast type (3DTLC)	No	No	NYP3A-3-520-12WC1000
	15.4 inch	Windows 10 IoT Enterprise 2021 LTSC - 64bit	Intel® Core™ i5-1145GRE	16 GB	512 GB CFast type (MLC)	No	No	NYP65-40530-15WC1000
			Intel® Atom® x6425RE Processor	16 GB	256 GB CFast type (3DTLC)	No	No	NYP3A-40520-15WC1000
	18.5 inch¹	Windows 10 IoT Enterprise 2021 LTSC - 64bit	Intel® Core™ i5-1145GRE	16 GB	256 GB CFast type (3DTLC)	No	No	NYP65-40520-19WC1000
			Intel® Core™ i3-1115GRE	16 GB	256 GB CFast type (3DTLC)	No	No	NYP13-40520-19WC1000

^{1. 18.5} inch models also available with Nickel Plating front.

Soft-NA

Product name	Specifications	Number of licenses	Media	Model
Soft-NA	The Soit-NA fulls of the following U.S.	1 license	USB dongle	NA-RTLD01
		3 licenses		NA-RTLD03
		10 licenses		NA-RTLD10

Note: Soft-NA should be ordered in addition to the Industrial Panel PCs to use the unit as an HMI.