Operator Interfaces/HMIs
NS

Quick Link
K012

Complete System Navigation with Fault Reset Capabilities

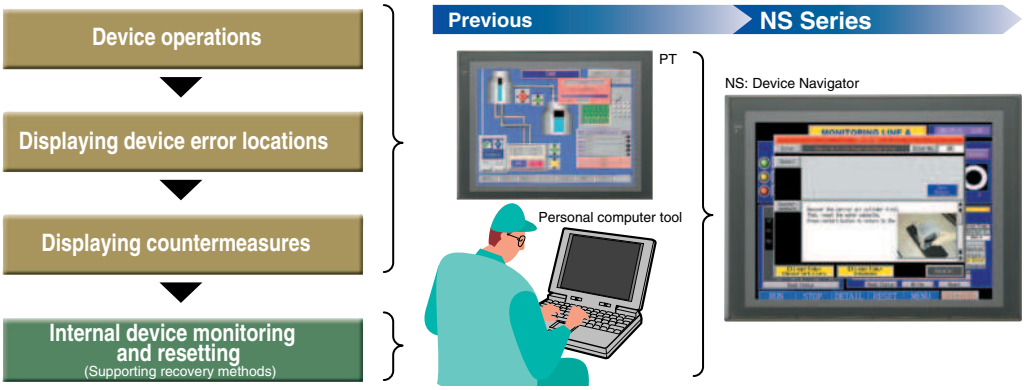
The NS advanced operator interfaces have brilliant display screens that maximize visualization of graphics. They support Omron's Smart Platform for small and medium size manufacturing operations with fully integrated design, programming, operation, monitoring and troubleshooting accessed from a single operator interface. This affordable solution brings the benefits of high-end interoperability within reach to give you a competitive production advantage on the plant floor.



Class I Div 2, Groups A, B, C, and D.

Direct Device Access

Omron's NS-Series touch screen HMIs offer built-in Ethernet communications, exceptional alarming/recipe/data logging capabilities and live video input/display capabilities. By allowing direct resetting of faults, these HMIs save time and effort in troubleshooting and quickly return your lines to production. The NS-Series achieves flexible data access to a variety of devices. It enables operators to reach the devices on the network including special I/O units, intelligent devices, and PLCs.



Reduced Design Time and Costs

We cut your screen project design time from days to a few hours by preprogramming function blocks that easily drag-and-drop into a program. All you do is specify values for key parameters. Omron already invested the hours and expert know-how programming each function block so you concentrate on the unique aspects of your application. The built-in Smart Active Parts library lets you establish communications and parameters for a wide range of Omron products. Just select the product and drag its icon into your project and it automatically sets the correct protocols.

Specifications

Series		NS8	NS10	NS12
Dimensions (W x H x D mm)		232 x 177 x 48.5	315 x 241 x 48.5	315 x 241 x 48.5
Effective display area		8.4 inch	10.4 inch	12.1 inch
Display device		High-definition TFT		
Resolution		640 x 480 pixels	640 x 480 pixels	800 x 600 pixels
View angle		±65° left/right, 50° top, 60° bottom	±60° left/right, 35° top, 65° bottom	±60° left/right, 45° top, 75° bottom
Maximum screen capacity		60 MB	60 MB	60 MB
Number of switches		768	1200	1900
Display colors	Basic colors (objects, background, etc.)	256 colors	256 colors	256 colors
	Image data (BMP or JPG images) Images displayed	32,768 colors	32,768 colors	32,768 colors
Screen data capacity via video input		260,000 color	260,000 colors	260,000 colors
Backlight life expectancy		50,000 hours min.		
Memory card capacity		64 Mbytes		
Expansion interface		Controller Link and video input board		

Series		NS5		
Dimensions (W x H x D mm)		195 x 142 x 54		
Effective display area		5.7 inch		
Display device		STN (monochrome)	STN (color)	TFT (color)
Resolution		320 x 240 pixels		
View angle		±45° left/right, 20° top, 40° bottom	±50° left/right, 45° top, 50° bottom	±70° left/right, 70° top, 50° bottom
Maximum screen capacity		20 MB		
Number of switches		300		
Display colors	Basic colors (objects, background, etc.)	Monochrome/16 gray scale levels	256 colors	256 colors
	Image data (BMP or JPG images) Images displayed	Monochrome/16 gray scale levels	4,096 colors	32,768 colors
Screen data capacity via video input		—		
Backlight life expectancy		50,000 hours min.		
Memory card capacity		64 Mbytes		
Expansion interface		—		

Ordering Information

NS-Series HMI Terminals

Description	Size	Resolution	Memory size	Features	Model
Full system navigation HMI	5-inch STN monochrome	320 x 240	20 MB onboard	—	**NS5-MQ00B-V2**
				Ethernet	**NS5-MQ01B-V2**
	5-inch STN			—	**NS5-SQ00B-V2**
				Ethernet	**NS5-SQ01B-V2**
	5-inch TFT			—	**NS5-TQ00B-V2**
				Ethernet	**NS5-TQ01B-V2**
	8-inch TFT	640 x 480	60 MB onboard	—	**NS8-TV00B-V2**
				Ethernet	**NS8-TV01B-V2**
	10-inch TFT	640 x 480	60 MB onboard	—	**NS10-TV00B-V2**
				Ethernet	**NS10-TV01B-V2**
	12-inch TFT	800 x 600	60 MB onboard	—	**NS12-TS00B-V2**
				Ethernet	**NS12-TS01B-V2**

Software

Software name	Description	Quantity	Model
CX-One	Programming and configuration management software that lets you build, configure and program networks, PLCs, HMIs, motion control systems, temperature controllers and sensors	1 license	**CXONE-AL01C-E**
		3 licenses	**CXONE-AL03C-E**
		10 licenses	**CXONE-AL10C-E**

Accessories

Item	Description	Specifications	Model
Video input unit	Enables HMI to display machine vision and CCTV camera images	Inputs 4 channels of NTSC/PAL to display on NS8, NS10 and NS12 HMIs	**NS-CA001**
		Inputs 2 channels of NTSC/PAL to display on NS8, NS10 and NS12 HMIs	**NS-CA002**
Vision system console cable	Allows manipulation of vision system parameters from HMI	2 m cable	**F150-VKP 2M**
		5 m cable	**F150-VKP 5M**
Controller link interface unit	Establishes HMI as a node for Controller Link communications	Attaches to port on back of HMI	**NS-CLK21**
RS-422A adapter	Enables monitoring of multiple PLCs	500 m total transmission distance	**NS-AL002**
		50 m total transmission distance	**CJ1W-CIF11**
Anti-reflection sheets	For NS10 and NS12 models	5 sheets; applied to screen surface	**NS12-KBA04**
	For NS8 models		**NS7-KBA04**
	For NS5 models		**NT30-KBA04**
Protective covers	For NS10 and NS12 models	5 covers; protects screen surface	**NS12-KBA05**
	For NS8 models		**NS7-KBA05**
	For NS5 models		**NT31C-KBA05**
Chemical resistant covers	For NS5 models	5 covers	**NT30-KBA01**
Memory card	Store screen data and firmware; requires Memory Card Adapter	30 MB	**HMC-EF372**
		64 MB	**HMC-EF672**
Memory card adapter	Enables use of Memory Cards	—	**HMC-AP001**
Battery	Backs up HMI memory	—	**CJ1W-BAT01**

Cables

Function	Connections	Applicable models	Cable length	Model
Connect NS HMIs to printer	USB to USB	NS8, NS10, NS12	2 m	**NS-US22**
			5 m	**NS-US52**
Converts USB to RS-232C	USB to 9-pin D-sub	NS5, NS8, NS10, NS12	0.5 m	**CS1W-CIF31**
Connect NS-V2 HMIs to Omron PLCs	9-pin to PLC mini-peripheral port	CPM2C, CQM1H, CJ1, CS1	10 cm	**CS1W-CN118**
Connect NS-V2 HMIs to Omron PLC	9-pin to 9-pin PLC peripheral port	CPM1A, CPM2A, CQM1, C200H/ C200HE/ C200HG/C200HX	50 cm	**C200H-CN510-EU**
			3 m	**C200H-CN320-EU**
			5 m	**C200H-CN520-EU**
Connect NS-V2 HMIs to a PC	RS-232C serial port 9-pin to 9-pin	All NS-V2 models	2 m	**C200H-CN229-EU** **CBL-202** in Canada
	USB, commercially available	Connects slave port on all NS-V2 models	Various	**—**

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Cat. No. X302-E3-01a 4/06 Specifications subject to change without notice Printed in USA