

# Industrial Automation Guide 2016



Industrial Products & Systems

[industrial.omron.eu](http://industrial.omron.eu)

# Targeted Technologies

## Creating maximum output with minimum input

By identifying the many ways of innovation in specific industries we developed the 'targeted technologies' concept. It's a way of thinking about technology in a prioritized format. Prioritized according to our customers' most pressing needs. The result? A set of solutions that make immediate impact on the core of our customers' businesses. A set of solutions that hit the target every time. Take a look at the examples on our website.

[industrial.omron.eu/technologies](https://industrial.omron.eu/technologies)





## PROplus Line

If you have a complex application or one where you need to address special needs, then the PROplus Line is the answer. That's because PROplus products are designed to be customisable.

The possibility to modify a PROplus product means that your application is unique. However, this does not mean that the PROplus Line is not a ready-made solution. On the contrary, it is a challenge.

For example, the PROplus 4000 series is designed to be modified to meet your needs. It can be modified to meet your needs in terms of I/O, communication, and more. This makes the PROplus 4000 series a challenge.

## EE-NH temperature controller

The new EE-NH series is the most powerful and precise temperature controller. It features a 16-bit ADC and a 16-bit DAC. It also has a 16-bit timer and a 16-bit counter. It is designed to be modified to meet your needs.

## The 361° Approach



OMRON

Industrial Automation Europe

Omron IAB partner

Search

Home News Products Solutions Services & Support Company Info Contact

Products > Technologies

## Technologies

### Creating maximum output with minimum input

Whatever type of automated machinery you are specialized in, you know that there are many ways to innovate. You are already aware that there are many possible areas for improvement. But where do you start? Where do you focus your efforts? Where can you make the biggest difference with the least amount of effort?

At Omron, we asked ourselves these questions too. And by identifying the answers in specific industries we developed the 'targeted technologies' concept. It's a way of thinking about technology in a prioritized format. Prioritized according to our customers' most pressing needs. The result? A set of solutions that make immediate impact on the core of our customers' businesses. A set of solutions that hit the target every time. Take a look at the examples below.

## Technologies

### Sysmac: the all-in-one platform

We know that machine builders prefer different product solutions for different challenges. But this can cause hierarchy headaches and communications issues. That's why we developed Sysmac: a single unified platform that is open, scalable, flexible, and totally focused on maximising the speed and flexibility of machines. A platform that integrates robotic, motion and sequential logic control into a single multitasking system.

[Learn more](#)



### 361°: the perfect match

When it comes to sensors and components, we know that our customers all have different needs. That's why our product development in this area is driven by the 361° Approach. It produces product families that offer a total all-round choice. From quality products suited to standard environments to specialist devices that can handle extremes. A full circle of choice, all with an extra degree of quality and proven reliability.

[Learn more](#)



## The 361° portfolio

**PROplus**  
PROplus products are designed for specific applications or customer demands.

[Learn more](#)



### LITE

LITE sensors are the most effective without any compromise in quality.

[Learn more](#)



### PRO

PRO sensors offer extra performance in your sensors and components. The Omron PRO Line is your perfect choice.

[Learn more](#)



Omron Europe Omron Corporation Terms of Use Privacy Policy Sitemap  
Copyright © Omron Corporation 2013. All rights reserved.

realizing

## Grinding made easy

Sysmac controller provides a flexible platform. With Sysmac, you can manage the entire grinding process. It is designed to be modified to meet your needs.

## Product groups

### Sysmac controller

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs.

### Robotics

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs.

### Sensors

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs.

### Actuators

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs.

### Relays

The Sysmac controller is the heart of the Sysmac system. It is designed to be modified to meet your needs.

## Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

## Related product news



ES16 - Omron's new photo sensors combine simplicity with performance. They are designed to be modified to meet your needs.

Drawing on our experience of manufacturing over a million production sensors a year, we have developed a new generation of photo sensors that combine simplicity, reliability, rugged construction and value for money.

[Learn more](#)

## Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

### Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

### Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

### Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

### Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

### Related product news



With new G2 sensors, you only pay for what you need. The G2 sensors are designed to be modified to meet your needs.

[Learn more](#)

# Welcome to our world

## Our best-in-class devices for your automation system

Welcome to Omron's world of advanced industrial automation. The INDUSTRIAL AUTOMATION GUIDE is your essential tool to select best-in-class devices for your automation system. It highlights our core competences in sensing, control, visualisation, motion and panel components.

Of course, Omron offers a much larger range of products than you can find on the attached DVD. For more information on services and company competence visit our website.

Here you will find:

- Latest product news
- Technical product specifications
- 2D / 3D CAD Library
- Customer references
- Technology concepts
- Supporting product documentation
- Knowledge Base - "myOmron"
- Events Calendar
- Contact information

## Find information fast!

Quick Links shortens your search. Quick Links are unique codes assigned to Omron products listed in this guide. Enter Quick Link codes in the search box on [industrial.omron.eu](http://industrial.omron.eu) to access detailed information on products in this guide.



# Industrial Automation Guide 2016

	Omron at a glance .....	3
	The 361° Approach .....	4
	Sysmac: A fully integrated platform .....	6
	Product selection table .....	8
<b>Automation systems</b>	Machine automation controller .....	12
	Programmable logic controllers (PLC) .....	26
	Remote I/O .....	54
	Human machine interfaces (HMI) .....	68
	I/O cables and terminal blocks .....	82
	Ethernet cables and accessories .....	91
<b>Motion &amp; Drives</b>	Motion controllers .....	96
	Servo systems .....	112
	Robots .....	170
	Frequency inverters .....	202
<b>Sensing</b>	Photoelectric sensors .....	236
	Mark and Color sensors .....	278
	Lightcurtains and area sensors .....	284
	Fiber optic sensors and amplifiers .....	292
	Inductive sensors .....	324
	Mechanical sensors/Limit switches .....	344
	Rotary encoders .....	358
	Cable connectors .....	366
<b>Quality control &amp; Inspection</b>	Inspection & Ident systems .....	370
	Measurement sensors .....	426
<b>Safety</b>	Emergency stop and control devices .....	462
	Safety limit switches .....	472
	Safety door switches .....	480
	Safety sensors .....	506
	Safety logic control systems .....	544
	Safety outputs .....	566
<b>Control components</b>	Temperature controllers .....	574
	Power supplies .....	596
	Uninterruptible power supplies (UPS) .....	614
	Timers .....	622
	Counters .....	632
	Programmable relays .....	642
	Digital panel indicators .....	650
	Energy monitoring devices .....	660
	Photovoltaic .....	674
<b>Switching components</b>	Electromechanical relays .....	682
	Solid state relays .....	696
	Low voltage switchgear .....	706
	Monitoring products .....	722
	Pushbutton switches .....	750
<b>Software</b>	Software .....	766
	Outline of Major Standards .....	772
	Index .....	775

“To the machine the work of the machine,  
to man the thrill of further creation.”

Kazuma Tateisi, founder of Omron

# Omron at a glance

200.000 products ranging  
input, logic and output

Sensing, Control Systems, Visualization, Drives, Robots, Safety,  
Quality Control & Inspection, Control and Switching Components

7%

Investment in Research & Development

Innovation track  
record of 80 years

Top 150 global patent assignee

1.200 employees dedicated to R&D

11.000 + issued and pending patents

37.000

Employees worldwide

210

Locations worldwide

22

Countries in EMEA

Working for the  
benefit of society



## Close to your needs

Technical training & seminars, technical support, Automation Technology Centers, online community (MyOmron), online catalogues and technical documentation, customer service & sales support, inter-operability labs (Tsunagi), safety services, repairs.

# Your needs, our focus

## Solutions perfectly matching your needs

We asked ourselves: 'What do you need in sensors and components?' Well, first you need reliability. Then a variety and choice of performance levels. You may also want advanced functionality, with special features defined by you – or you may want standardized solutions, with highly competitive prices.

Whatever it is, it can all add up to a wish list that is difficult to fulfil. Until now. That's because our new 361° Approach not only provides a complete all-round offer without gaps, it also puts you at the very centre of the product selection process. It's an approach that leads to a Perfect Match – one with the extra degree of confidence that comes from choosing Omron.

### 361° in one view



Quality



Line-up



Application



Customization



Global availability



Specs

	Quality	Line-up	Application	Customization	Global availability	Specs
<b>PRO<sup>plus</sup></b>	Premium	Tailored	Special	Yes	Yes	Application oriented
<b>PRO</b>	Premium	Complete	Advanced	Yes	Yes	Above Standard
<b>LITE</b>	Premium	Standard	Basic	No	No	Basic
	'Quality' refers to the standard of manufacturing and the materials used – this translates into reliability	'Line-up' refers to the number of model types	'Application' indicates the complexity of the automation	'Customization' is the possibility to modify the product		'Specs' refers to the choice of performance levels



# The extra degree of advantage

## Three distinct lines of sensors and components

### Three distinct lines

361° Approach offers three distinct lines within each sensor or component product category. LITE products are cost-effective without any compromise in quality. PRO products represent the “install & forget” option, offering longer lifetime, higher protection, and more features. While PROplus products are designed for specific applications or customer demands.

### Optimized reliability

All three lines are backed by the Omron commitment to quality, so even when you need a price-competitive advantage, you can be confident that they will never let you down.

### Solutions that perfectly match your needs

The 361° Approach ensures that you can quickly and easily identify the perfect match solution to your needs – nothing more, nothing less.

### Optimized costs

Your sensor and component costs are also minimized – because it eliminates over-specification.

### Why an extra 1°?

The extra degree is what you get when you do business with Omron, and that means different things to different customers – all depending on their needs. For example, if you need specification advice, the extra degree is ‘service’. But ultimately, to everyone it means “an extra degree of confidence in the perfect match”.



# Sysmac: A fully integrated platform

## Integration and Functionality

Sysmac is an integrated automation platform dedicated to providing complete control and management of your automation plant. At the core of this platform, the Machine Controller series offers synchronous control of all machine devices and advanced functionality such as motion, robotics and database connectivity. This multidisciplinary concept allows you to simplify solution architecture, reduce programming and optimize productivity.



Machine Automation Controller

FACTORY  
AUTOMATION

MACHINE  
CONTROL



Motion



Filling line

- Motion Control: Integrated within the IDE, and operating in real-time
- Standard PLCopen Function Blocks plus Omron generated motion FB's
- Direct Synchronous control for Position, Speed and Torque



Safety



Assembly

- All safety related data is synchronized with the whole network
- Safety functions such as muting, guard locking, EDM and valve monitoring are simple to manage

- ✓ **One Integrated Development Environment software** for Configuration, Programming, Simulation and Monitoring



## Information



- Sysmac communicates in real-time with Databases such as SQL
- Secure Data: In the event of a server going down or losing communications, data is automatically stored in internal memory
- Sysmac operates with Databases at high speed [1000 table element/ 100 ms] ensuring realistic Big Data Processing to improve productivity and aid predictive maintenance etc.

### ✓ Integrated Automation Control:

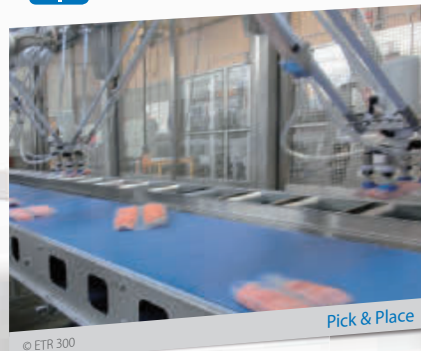
The Sysmac platform is scalable and provides the performance and functionality for a wide range of solutions from simple machines through to manufacturing cells

## Vision



- Higher resolution images available without increasing the vision processing time
- Shape search technology: Provides more stable and accurate object detection for Pick & Place projects

## Robotics



- Up to 8 Delta robots with one controller
- Time-based Robotic Function Blocks make programming easier

## Sensing



- Full control of the process parameter setting and predictive maintenance functions
- High precision detection and positioning data synchronized on the network

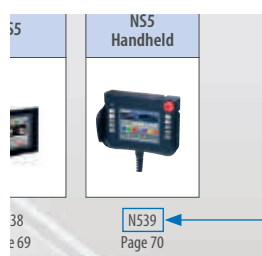
# Product selection table

Automation systems	 12 Machine automation controller	 26 Programmable logic controllers (PLC)	 54 Remote I/O	 68 Human machine interfaces (HMI)
Motion & Drives	 96 Motion controllers	 112 Servo systems	 170 Robots	 202 Frequency inverters
Sensing	 236 Photoelectric sensors	 278 Mark and Color sensors	 284 Lightcurtains and area sensors	 292 Fiber optic sensors and amplifiers
Quality control & Inspection	 370 Inspection & Ident systems	 426 Measurement sensors		
Safety	 462 Emergency stop and control devices	 472 Safety limit switches	 480 Safety door switches	 506 Safety sensors
Control components	 574 Temperature controllers	 596 Power supplies	 614 Uninterruptible power supplies (UPS)	 622 Timers
Switching components	 682 Electromechanical relays	 696 Solid state relays	 706 Low voltage switchgear	 722 Monitoring products
Software	 766 Software			

# Automation systems

## Find information fast!

Quick Links shortens your search. Quick Links are unique codes assigned to Omron products listed in this guide. Enter Quick Link codes in the search box on [industrial.omron.eu](http://industrial.omron.eu) to access detailed information on products in this guide.



*Quick Link*



# Automation systems

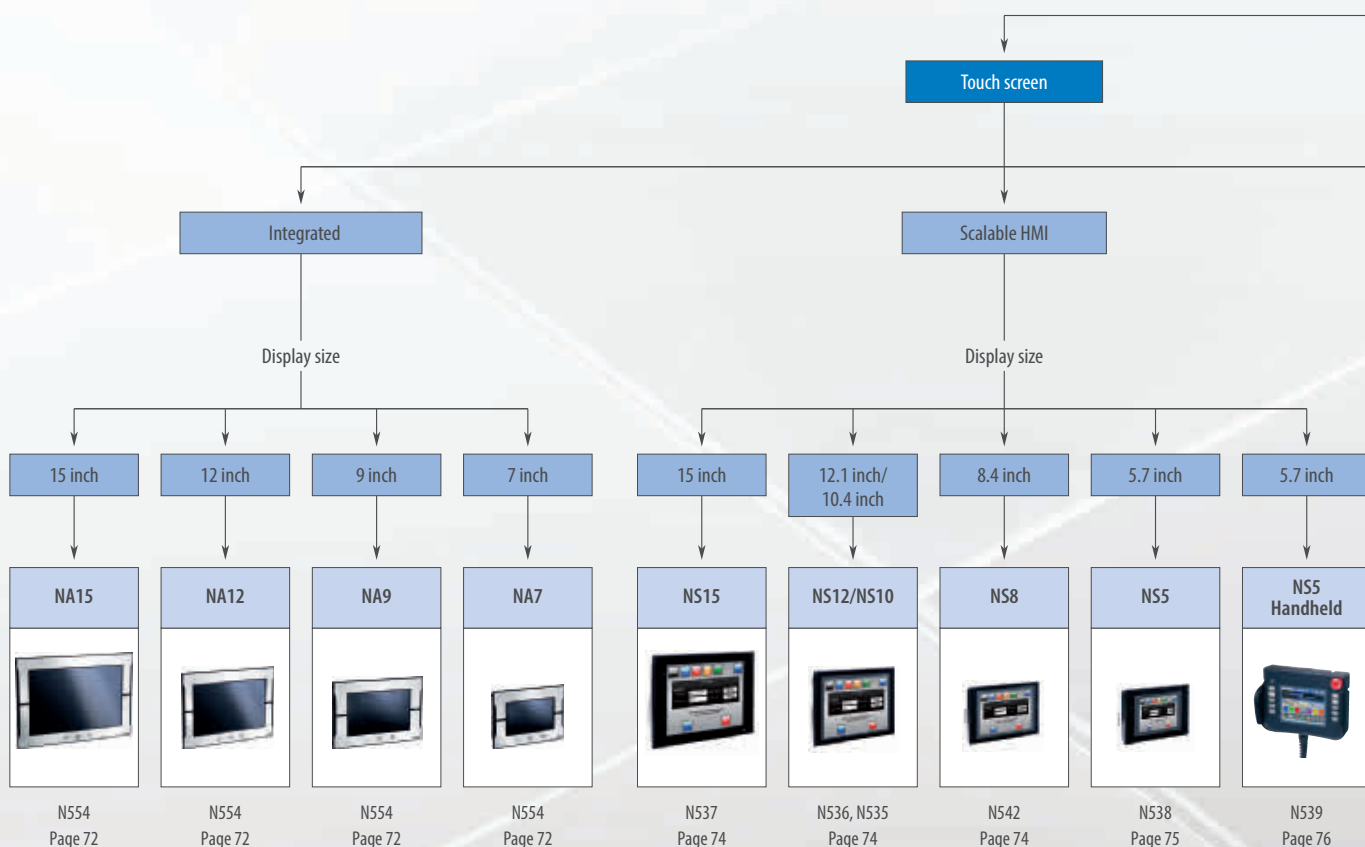
<b>Machine automation controller</b> .....	12	<b>Human machine interfaces (HMI)</b> .....	68
<b>Selection table</b> .....	15	<b>Selection table</b> .....	70
<b>Machine controller</b>		<b>Integrated HMI</b>	
NJ series .....	16	NA7/9/12/15 .....	72
NX7 series .....	23	<b>Scalable HMI</b>	
		NS15/NS12/NS10/NS8 .....	74
		NS5 .....	75
		NS5 handheld .....	76
<b>Programmable logic controllers (PLC)</b> .....	26	<b>Integrated controller/Scalable HMI</b>	
<b>Selection table</b> .....	28	Accessories NS .....	77
<b>Compact PLC</b>		<b>Compact HMI</b>	
CPM2C CPU units .....	30	NB series .....	78
CPM2C expansion units .....	31	<b>Function-key HMI</b>	
CP1E CPU units .....	32	NT11 .....	80
CP1L CPU units .....	34	NT2S .....	81
CP1H CPU units .....	36		
CP1W expansion units .....	37	<b>Cables and accessories</b>	
<b>Modular PLC</b>		I/O cables .....	82
CJ-Series CPU units .....	38	I/O terminal blocks .....	90
CJ-Series power supplies, expansions .....	40	<b>Ethernet cables and accessories</b>	
CJ-Series digital I/O units .....	41	Ethernet cables .....	91
CJ-Series analog I/O and control units .....	42	Accessories .....	92
CJ-Series motion/position control units .....	44	<b>Wireless communication</b>	
CJ-Series communication units .....	46	WE70 .....	93
<b>Rack PLC</b>			
CS-Series CPU units .....	47		
CS-Series power supplies, backplanes .....	48		
CS-Series digital I/O units .....	49		
CS-Series analog and process I/O units .....	50		
CS-Series position/motion control units .....	52		
CS-Series communication units .....	53		
<b>Remote I/O</b> .....	54		
<b>Selection table</b> .....	57		
<b>Remote I/O</b>			
NX-series modular I/O system .....	58		
SmartSlice I/O system .....	61		
Compact I/O GX-series .....	62		
Compact I/O DRT2 .....	63		
Compact I/O CRT1 .....	64		
Compact I/O SRT2 .....	65		
Field I/O DRT2-__C .....	66		
Field I/O SRT2-__C .....	67		

# Human machine interfaces (HMI)

## NA AND NB SERIES

If you are looking for a smart and dependable HMI for use with our compact and modular PLC's, look no further than the NB series. It offers you - among various other features – an LED backlight TFT LCD, a portrait and landscape mode and USB memory stick support. It is available with screen sizes from 3.5 to 10 inches.

For faster, more efficient control and monitoring, the scalable NA series HMI offers a more natural, proactive machine/operator environment that will evolve to meet your ever-changing needs. Based on the Sysmac Platform, the NA series is fully aware of the total machine and brings together all areas of automation including: logic, motion, vision, safety and visualization. It gives you a clear view in one integrated project. The high resolution wide screens are available in 7" and 9" (800 × 480 pixel ) as well as 12" and 15" (1280 × 800 pixel)





Interaction type

Function keys

Compact HMI

Display size

10.1 inch

7 inch

5.6 inch

3.5 inch

NB10W

NB7W

NB5Q





NB3Q







NT11

NT25

N547  
Page 78N548  
Page 78N549  
Page 78N552  
Page 78N526  
Page 80N527  
Page 81

## Selection table

Integrated HMI				
				
Model	NA15	NA12	NA9	NA7
Display	15 inch widescreen TFT color	12 inch widescreen TFT color	9 inch widescreen TFT color	7 inch widescreen TFT color
Resolution	1280 × 800 pixels	1280 × 800 pixels	800 × 400 pixels	800 × 400 pixels
Colors	24 bit	24 bit	24 bit	24 bit
Communication	3 × USB 2 × Ethernet 1 × RS-232 SD Card 24 VDC	3 × USB 2 × Ethernet 1 × RS-232 SD Card 24 VDC	3 × USB 2 × Ethernet 1 × RS-232 SD Card 24 VDC	3 × USB 2 × Ethernet 1 × RS-232 SD Card 24 VDC
Dimensions in mm (H×W×D)	420×291 391×267 (cut-out)	340×244 309×220 (cut-out)	290×190 260×165 (cut-out)	236×165 196×140 (cut-out)
Page/Quick Link	72/N554			

Scalable HMI						
						
Model	NS15	NS12	NS10	NS8	NS5	NS5 handheld
Display	15 inch TFT color	12.1 inch TFT color	10.4 inch TFT color	8.4 inch TFT color	5.7 inch TFT color	5.7 inch STN color
Resolution	1024 × 768 pixels (XGA)	800 × 600 pixels (SVGA)	640 × 480 pixels (VGA)	640 × 480 pixels (VGA)	320 × 240 pixels (QVGA)	320 × 240 pixels (QVGA)
Number of colors	256 (32,768 for image data)	256 (32,768 for image data)	256 (32,768 for image data)	256 (32,768 for image data)	256 (32,768 for image data)	256 (4,096 for image data)
Memory Size	60 MB screen memory	60 MB screen memory, 32,768 words + 32,768 bits internal memory and 8192 words + 8192 bits retentative memory	60 MB screen memory, 32,768 words + 32,768 bits internal memory and 8192 words + 8192 bits retentative memory	60 MB screen memory, 32,768 words + 32,768 bits internal memory and 8192 words + 8192 bits retentative memory	60 MB screen memory, 32,768 words + 32,768 bits internal memory and 8192 words + 8192 bits retentative memory	60 MB screen memory, 32,768 words + 32,768 bits internal memory and 8192 words + 8192 bits retentative memory
Options	Controller Link, Video input board (NS-CA002)	Ethernet, Controller Link, Video input board (RGB/Composite)	Ethernet, Controller Link, Video input board (RGB/Composite)	Ethernet, Video input board (RGB/Composite)	Ethernet	RS-232 or RS-422 communication depending on cable
Dimensions in mm (H×W×D)	300×400×80	241×315×48.5	241×315×48.5	177×195×48.5	142×195×54	176×223×70.5 (excl. emergency button)
Page/Quick Link	74/N537	74/N536	74/N535	74/N5542	75/N538	76/N539

Compact HMI				
				
Model	NB10W	NB7W	NB5Q	NB3Q
Display	10.1 inch Wide TFT LCD	7 inch Wide TFT LCD	5.6 inch TFT LCD	3.5 inch TFT LCD
Resolution	800 × 480 pixels	800 × 480 pixels	320 × 234 pixels	320 × 240 pixels
Number of colors	65,536	65,536	65,536	65,536
Memory	128 MB (including system area)	128 MB (including system area)	128 MB (including system area)	128 MB (including system area)
Communication ports	Serial Communication	1 × RS-232C & 1 × RS-232C/422A/485	1 × RS-232C & 1 × RS-232C/422A/485	1 × RS-232C/422A/485
	USB (USB Host only on TW01 model)	1 × USB Host & 1 × USB Slave	1 × USB Host & 1 × USB Slave	1 × USB Host & 1 × USB Slave
	Ethernet	1 × Ethernet	1 × Ethernet (TW01 model)	1 × Ethernet (TW01 model)
Dimensions in mm (H×W×D)	210.8×268.8×54.0	148×202×46	142×184×46	103.8×129.8×52.8
Page/Quick Link	78/N547	78/N548	78/N549	78/N552

Function-key HMI				
				
Model	NT11	NT25		
Type of Display	LED backlight LCD	LED backlight LCD		
Number of F-keys	22	6 or 20 depending on model		
Number of characters	20 × 4 lines	16 × 2 lines		
Printer connection	Yes	Depending on model		
Number of screens	250	65,000 (limited by memory)		
Size in mm (H×W×D)	113×218×38.2	6 F-keys 60×109×43 20 F-keys 107×107×43		
Page/Quick Link	80/N526	81/N527		



### Bringing technology to life...

An HMI that is dynamic, intuitive and predictive makes industrial machines more attractive and competitive. Our Sysmac HMI enables faster, more efficient control and monitoring – and a more natural, proactive relationship between operator and machine.

- Complete functionality scalable with widescreen across 7", 9", 12", 15" range
- Available in black or silver
- High resolution (1280 × 800 pixel for 12" and 15", 800 × 480 pixel for 7" and 9")



### Ordering information

#### Machine interface

Display	Colors	Resolution	Frame color	Order code
15.4 inch wide screen, TFT LCD	24 bit full color	1280 × 800 pixels	Silver	NA5-15W101S
			Black	NA5-15W101B
12.1 inch wide screen, TFT LCD		1280 × 800 pixels	Silver	NA5-12W101S
			Black	NA5-12W101B
9 inch wide screen, TFT LCD		800 × 480 pixels	Silver	NA5-9W001S
			Black	NA5-9W001B
7 inch wide screen, TFT LCD		800 × 480 pixels	Silver	NA5-7W001S
			Black	NA5-7W001B

#### Accessories

Type	Specifications	Order code
SD memory card	2 GB	HMC-SD291
	4 GB	HMC-SD491
USB memory	2 GB	FZ-MEM2G
	8 GB	FZ-MEM8G
Replacement battery	Battery life: 5 years (at 25°C). This Battery is provided as an accessory.	
Anti-reflection sheets	Attach a Sheet to the screen to protect against diffused reflections and dirt. The entire Sheet is colorless and transparent. Five Sheets are provided in one set.	For NA5-15W
		For NA5-12W
		For NA5-9W
		For NA5-7W
High pressure waterproof attachment (UL Type 4X)	Use of the high pressure waterproof attachment (PWA) is required to meet UL Type 4X approval where panel thickness is between 1.6 to 4.5 mm. Four PWA models are available for each NA screen size.	For NA5-15W
		For NA5-12W
		For NA5-9W
		For NA5-7W

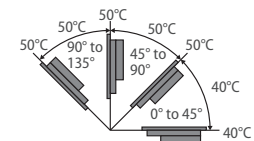
#### Computer software

Specifications	Order code
Sysmac Studio version 1.10 or higher	SYSMAC-SE2_
Sysmac Studio HMI Edition 1.10 or higher	SYSMAC-HE001L

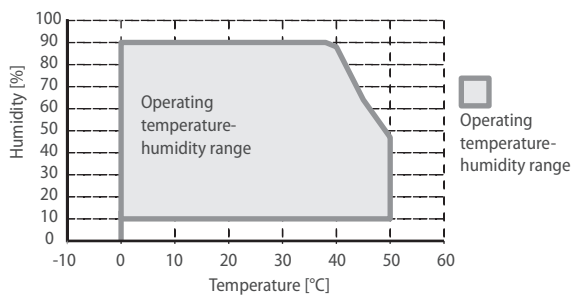
## Specifications

Item	Specification			
	NA5-15W_	NA5-12W_	NA5-9W_	NA5-7W_
Rated supply voltage	24 VDC			
Allowable power supply voltage range	19.2 to 28.8 VDC (24 VDC $\pm 20\%$ )			
Power consumption	47 W max.	45 W max.	40 W max.	35 W max.
Ambient operating temperature	0 to 50°C <sup>*1 *2</sup>			
Ambient storage temperature	-20 to +60°C <sup>*3</sup>			
Ambient operating humidity	10 to 90% <sup>*2</sup> Must be no condensation.			
Atmosphere	Must be free from corrosive gases.			
Pollution degree	2 or less: JIS B 3502, IEC 61131-2			
Noise immunity	2 kV on power supply line (Conforms to IEC 61000-4-4.)			
Vibration resistance (during operation)	Conforms to IEC 60068-2-6. 5 to 8.4 Hz with 3.5 mm half amplitude and 8.4 to 150 Hz with 9.8 m/s <sup>2</sup> for 100 minutes each in X, Y, and Z directions (Time coefficient of 10 minutes $\times$ coefficient factor of 10 = total time of 100 min.)			
Shock resistance (during operation)	Conforms to IEC 60028-2-27. 147 m/s <sup>2</sup> 3 times each in X, Y, and Z directions			
Dimensions (W×H×D)	420 × 291 × 69 mm	340 × 244 × 69 mm	290 × 190 × 69 mm	236 × 165 × 69 mm
Panel cutout dimensions	392 <sup>+1</sup> <sub>0</sub> × 268 <sup>+1</sup> <sub>0</sub> mm (horizontal × vertical) Panel thickness: 1.6 to 6.0 mm	310 <sup>+1</sup> <sub>0</sub> × 221 <sup>+1</sup> <sub>0</sub> mm (horizontal × vertical) Panel thickness: 1.6 to 6.0 mm	261 <sup>+1</sup> <sub>0</sub> × 166 <sup>+1</sup> <sub>0</sub> mm (horizontal × vertical) Panel thickness: 1.6 to 6.0 mm	197 <sup>+0.5</sup> <sub>0</sub> × 141 <sup>+0.5</sup> <sub>0</sub> mm (horizontal × vertical) Panel thickness: 1.6 to 6.0 mm
Weight	3.2 kg max.	2.3 kg max.	1.7 kg max.	1.3 kg max.
Degree of protection	Front-panel controls: IP65 oil-proof type, UL type 4X (using a high pressure waterproof attachment (PWA))			
Battery life	Battery life: 5 years at 25°C The RTC will be backed up for 5 days after the battery runs low. The RTC will be backed up by a super capacitor for 5 minutes after removing the old battery. (This assumes that the power is first turned ON for at least 5 minutes and then turned OFF.)			
International standards	UL 508/CSA standard C22.2 No.142 <sup>*4</sup> EMC Directive (2004/108/EC) EN 61131-2:2007 Shipbuilding standards LR, DNV, and NK IP65 oil-proof, UL type 4X (front panel only and using a high pressure waterproof attachment (PWA)) ANSI 12.12.01 Class 1 Division 2/CSA standard C22.2 RoHS Directive (2002/95/EC) KC Standards KN 61000-6-2:2012-06 for EMS and KN 61000-6-4:2012-06 for EMI RCM			

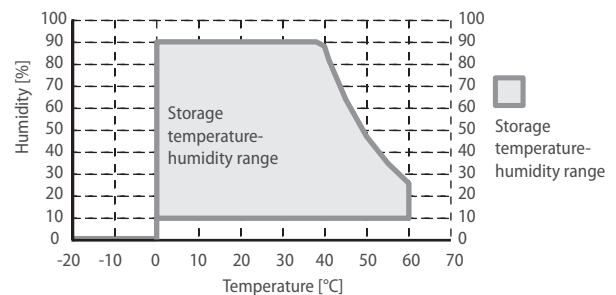
- <sup>\*1</sup> The ambient operating temperature is subject to the following restrictions, depending on the mounting angle.
- The ambient operating temperature is 0° to 40°C when the mounting angle is 0° or more and less than 45° to the horizontal.
  - The ambient operating temperature is 0° to 50°C when the mounting angle is 45° or more and 90° or less to the horizontal.
  - The ambient operating temperature is 0° to 50°C when the mounting angle is 90° or more and 135° or less to the horizontal.



- <sup>\*2</sup> Use the Programmable Terminal within the following temperature and humidity ranges.



- <sup>\*3</sup> Store the Programmable Terminal within the following temperature and humidity ranges.



- <sup>\*4</sup> Use power supply Class 2 to conform to UL Standards.



## One-touch machine management

The NS-series is our advanced HMI series that covers a large range from 5.7" Monochrome STN to 15" TFT. Easily programmed it offers advanced features like, multiple communication possibilities, good synergy with our PLC's and other devices with Ladder monitor, Smart Active Parts and proven reliability.

- Perfect clarity and fast switching screens
- Extremely long backlight life (up to 50,000 hours)
- Support all European languages, Asian and Cyrillic
- Easy data logging on compact flash
- Large Memory size (60 MB)
- Support for several non-Omron PLC's

## Ordering information

Type			Order Code
TFT, 15", 1024 x 768 pixels	with Ethernet	Black	NS15-TX01B-V2
		Silver	NS15-TX01S-V2
TFT, 12", 800 x 600 pixels	no Ethernet	Black	NS12-TS00B-V2
		Ivory	NS12-TS00-V2
	with Ethernet	Black	NS12-TS01B-V2
		Ivory	NS12-TS01-V2
TFT, 10", 640 x 480 pixels	no Ethernet	Black	NS10-TV00B-V2
		Ivory	NS10-TV00-V2
	with Ethernet	Black	NS10-TV01B-V2
		Ivory	NS10-TV01-V2
TFT, 8.4", 640 x 480 pixels	no Ethernet	Black	NS8-TV00B-V2
		Ivory	NS8-TV00-V2
	with Ethernet	Black	NS8-TV01B-V2
		Ivory	NS8-TV01-V2

Note: For the accessories, please refer to page 77

## Specifications

Item	NS15	NS12	NS10	NS8
Display type	15 inch color TFT	12 inch color TFT	10 inch color TFT	8 inch color TFT
Display resolution	1024×768 (XGA)	800×600 (SVGA)	640×480 (VGA)	
Number of colors	256 (32,768 for image data)			
Backlight	2×CCFL	1×LED		
Backlight lifetime	Min. 50000 hours			
View angle	Left/right ±85°, Top 70°, Bottom 80°	Left/right ±60°, Top 45°, Bottom 75°	Left/right ±60°, Top 35°, Bottom 65°	Left/right ±65°, Top 50°, Bottom 60°
Touch panel	Analog resistive touch	Matrix resistive touch		
Number of functional keys	3	–		
Dimensions in mm (H×W×D)	304×405×75.8	241×315×48.5		177×232×48.5
Weight	4.2 kg max.	2.5 kg max.		2.0 kg max.
Screen data capacity	60 MB			
Internal memory	Bit memory: 32,767 bits, Word memory: 32,767 words, Retentative memory: 8,192 bits and 8,192 words.			
Memory card interface	1 slot ATA Compact Flash card			
Printer connection	PictBridge support			
Serial (COM1)	1×RS-232			
Serial (COM2)	1×RS-232/422/485	1×RS-232		
USB Slave	For programming & printing			
Ethernet	IEEE 802.3u 10Base-T/100Base-TX			
Expansion module	Optional network/video unit			Optional video unit
Line voltage	24 VDC ±15%			
Power consumption	45 W max.	25 W max.		
Battery	CJ1W-BAT01			
Battery lifetime	5 years (at 25°C)			
Enclosure rating (front side)	IP65F (equivalent to NEMA4)			
Obtained standards	UL 1604 Class 1 Diff. 2, cUL, CE, Lloyds, DNV			
Operating environment	No corrosive gases			
Noise immunity	Conforms to IEC61000-4-4, 2 KV (power lines)			
Ambient operating temperature	0 to 50°C <sup>*1</sup>			
Ambient operating humidity	35% to 85% (0 to 40°C) with no condensation, 35% to 60% (40 to 50°C) with no condensation			

<sup>\*1</sup> see manual for details.



### More power, smaller size

The smallest NS HMI is available in two brightness variations, both with a vivid color TFT touchscreen. It is equipped with a USB connection for project download/upload and the possibility to communicate over Ethernet. One great advantage with the NS is that you can make use of Omron's unique Smart Active Parts (SAP) that save you time when configuring, commissioning and maintaining your machine. SAP are pre-programmed, pre-tested visualisation objects with embedded communication code, bringing 'drag and drop' simplicity to HMI design.

- Perfect clarity and fast switching screens
- Extremely long backlight life (up to 75,000 hours)
- Support all European languages, Asian and Cyrillic
- Easy data logging on compact flash
- Large Memory size (60 MB)
- Support for several non-Omron PLC's

### Ordering information

Type				Order Code
NS5-TQ	TFT, 5.7", 320×240 pixels	no Ethernet	Black	NS5-TQ10B-V2
			Ivory	NS5-TQ10-V2
		with Ethernet	Black	NS5-TQ11B-V2
			Ivory	NS5-TQ11-V2
NS5-SQ	TFT, 5.7", 320×240 pixels	no Ethernet	Black	NS5-SQ10B-V2
			Ivory	NS5-SQ10-V2
		with Ethernet	Black	NS5-SQ11B-V2
			Ivory	NS5-SQ11-V2

Note: For the accessories, please refer to page 77

### Specifications

Item	NS5-TQ	NS5-SQ
Display type	5.7 inch color TFT	
Display resolution	340×240 (QVGA)	
Number of colors	256 (32,768 for image data)	
Backlight	LED	
Backlight lifetime	Min. 75000 hours	
View angle	Left/right ±80°, Top 80°, Bottom 60°	
Touch panel	Matrix resistive touch	
Number of functional keys	–	
Dimensions in mm (H×W×D)	142×195×54	
Weight	1.0 kg max.	
Screen data capacity	60 MB	
Internal memory	Bit memory: 32,767 bits, Word memory: 32,767 words, Retentative memory: 8,192 bits and 8,192 words.	
Memory card interface	1 slot ATA Compact Flash card	
Printer connection	PictBridge support	
Serial (COM1)	1×RS-232	
Serial (COM2)	1×RS-232	
USB Slave	For programming & printing	
Ethernet	IEEE 802.3u 10Base-T/100Base-TX	
Expansion module	–	
Line voltage	24 VDC ±15%	
Power consumption	15 W max.	
Battery	CJ1W-BAT01	
Battery lifetime	5 years (at 25°C)	
Enclosure rating (front side)	IP65F (equivalent to NEMA4)	
Obtained standards	UL 1604 Class 1 Diff. 2, cUL, CE, Lloyds, DNV	
Operating environment	No corrosive gases	
Noise immunity	Conforms to IEC61000-4-4, 2 KV (power lines)	
Ambient operating temperature	0 to 50°C <sup>*1</sup>	
Ambient operating humidity	35% to 85% (0 to 40°C) with no condensation, 35% to 60% (40 to 50°C) with no condensation	

<sup>\*1</sup> See manual for details.



### NS5 handheld, suitable for use in harsh conditions

The NS series has evolved into a mobile format. Based on the standard 5.7" TFT color version, we can offer a handheld version of the NS series. Offering 10 Function keys for the most used functions and with a protection degree of IP65 it is the product to use in harsh environment where freedom of movement is needed.

- 10 Function keys, 4 hardwired for inching
- Emergency switch on front plus enable switch on back of unit
- Well protected against water, IP65
- Compact Flash, Serial and USB interface

### Ordering information

Type			Order code
NSH5	TFT, 5.7", 320×240 pixels	Black	NSH5-SQR10B-V2

### Accessories

Type	Order code
Bracket NS handheld protecting emergency button from accidental activation	NSH5-ATT01
Bracket NS handheld for wall mounting	NSH5-ATT02
Cable NS handheld, RS-422, 10m UL	NSH5-422UL-10M
Cable NS handheld, RS-232, 10m UL	NSH5-232UL-10M
Cable NS handheld, RS-232, 3m UL	NSH5-232UL-3M

### Specifications

Memory card interface	1 slot ATA Compact Flash card
Serial (COM1)	1×RS-232/RS-422A
USB Slave	For programming
Line voltage	24 VDC ±15%
Power consumption	10 W max.
Battery	CJ1W-BAT01
Battery lifetime	5 years (at 25°C)
Enclosure rating	IP65 <sup>*1</sup>
Obtained standards	UL 1604 Class 1 Diff. 2, cUL, CE, NEMA equivalent
Operating environment	No corrosive gases
Noise immunity	Conforming to IEC 61000-4-4: 2 kV (power supply line)
Ambient operating temperature	0 to 40°C
Ambient operating humidity	35% to 85% max. (with no condensation)
Vibration resistance (during operation)	10 to 57 Hz with amplitude of 0.075 mm, 57 to 150 Hz with acceleration of 9.8 m/s <sup>2</sup> three minutes each in X, Y, and Z directions
Shock resistance (during operation)	147 m/s <sup>2</sup> three times each in X, Y, and Z directions
Drop test <sup>*1</sup>	Dropped from 1 m. Conforming to JIS B 3502/IEC61131-2

<sup>\*1</sup> see manual for details.



## Ordering information

Type	Description		Order code
Cable	Serial programming cable		XW2Z-S002
	USB programming cable, 2 m		CP1W-CN221
PT-to-PLC Connecting Cable	PT connection: 9 pins	Length: 2 m	XW2Z-200T
	PLC connection: 9 pins	Length: 5 m	XW2Z-500T
Accessories	Video input	Inputs: 4 channels NTSC / PAL	NS-CA001
		Inputs: 2 channels NTSC / PAL, 1 channel RGB	NS-CA002
	Cable to connect NS-CA00_ to Video console unit		F150-VKP (2 m)
			F150-VKP (5 m)
	Controller link interface unit		NS-CLK21
	RS-422A/485 adapter (50 m)		CJ1W-CIF11
	RS-422A adapter (500 m)		NS-AL002
	Anti-reflection sheets (5 sheets)	NS15	NS15-KBA04
		NS12/10	NS12-KBA04
		NS8	NS7-KBA04
		NS5	NT30-KBA04
	Anti-reflection protective covers (5 pack)	NS12/10	NS12-KBA05
		NS8	NS7-KBA05
		NS5	NT31C-KBA05
	Transparent protective covers (5 pack)	NS15 (1 cover)	NS15-KBA05N
		NS12/10	NS12-KBA05N
		NS8	NS7-KBA05N
		NS5	NT31C-KBA05N
	Chemical-resistant cover (1 cover)	NS5	NT30-KBA01
	Attachment adapter	(NT625C/631/631C series to NS12 series)	NS12-ATT01
		(NT625C/631/631C series to NS12 series) Black	NS12-ATT01B
		(NT620S/620C/600S series to NS8 series)	NS8-ATT01
		(NT600M/600G/610G/612G series to NS8 series)	NS8-ATT02
	Memory card	128 MB	HMC-EF183
		256 MB	HMC-EF283
		512 MB	HMC-EF583
	Memory card adapter for PC		HMC-AP001
	Battery		CJ1W-BAT01



### The feature-rich, cost-effective HMI

The combination of high quality and rich features add up to give outstanding value for an HMI in the economy class. The NB-Designer software to create your HMI application is free of charge and can be downloaded from our website.

- More than 65,000 display colors TFT touch screen
- Available in sizes ranging from 3.5 to 10 inches
- Long-life LED backlight
- Serial, USB or Ethernet communication
- USB memory stick support (TW01 model only)
- 128 MB internal memory
- Vector and bitmap graphics

### Ordering information

#### HMI panels

Product name	Specifications	Order code
NB3Q	3.5 inch, TFT LCD, Color, 320 × 240 dots	NB3Q-TW00B
	3.5 inch, TFT LCD, Color, 320 × 240 dots, USB Host, Ethernet	NB3Q-TW01B
NB5Q	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
NB7W	7 inch, TFT LCD, Color, 800 × 480 dots	NB7W-TW00B
	7 inch, TFT LCD, Color, 800 × 480 dots, USB Host, Ethernet	NB7W-TW01B
NB10W	10.1 inch, TFT LCD, Color, 800 × 480 dots, USB Host, Ethernet	NB10W-TW01B

#### Options

Product item	Specifications	Order code
NB-to-PLC Connecting cable	For NB to PLC via RS-232C (CP/CJ/CS), 2m	XW2Z-200T
	For NB to PLC via RS-232C (CP/CJ/CS), 5m	XW2Z-500T
	For NB to PLC via RS-422A/485, 2m	NB-RSEXT-2M
Software	Supported Operating Systems: Windows 7, Windows Vista®, Windows XP* <sup>1</sup> (SP1 or higher). Download from the Omron website.	NB-Designer* <sup>2</sup>
Display protective sheets	For the NB3Q contains 5 sheets	NB3Q-KBA04
	For the NB5Q contains 5 sheets	NB5Q-KBA04
	For the NB7W contains 5 sheets	NB7W-KBA04
	For the NB10W contains 5 sheets	NB10W-KBA04
Attachment	Mounting bracket for NT31/NT31C series to NB5Q series	NB5Q-ATT01

\*<sup>1</sup> Except for Windows XP 64-bit version

\*<sup>2</sup> The NB5Q-TW01B and NB7W-TW01B are supported by NB-Designer version 1.10 or higher.  
The NB3Q-TW01B and NB10W-TW01B are supported by NB-Designer version 1.20 or higher.

Model	Panel cutout (H × V mm)
NB3Q	119.0 (+0.5/-0) × 93.0 (+0.5/-0)
NB5Q	172.4 (+0.5/-0) × 131.0 (+0.5/-0)
NB7W	191.0 (+0.5/-0) × 137.0 (+0.5/-0)
NB10W	258.0 (+0.5/-0) × 200.0 (+0.5/-0)

Note: Applicable panel thickness: 1.6 to 4.8 mm.

## Specifications

## HMI

Specifications	NB3Q		NB5Q		NB7W		NB10W
	TW00B	TW01B	TW00B	TW01B	TW00B	TW01B	TW01B
Display type	3.5 inch TFT LCD		5.6 inch TFT LCD		7 inch TFT LCD		10.1 inch TFT LCD
Display resolution (H×V)	320×240		320×234		800×480		800×480
Number of colors	65,536						
Backlight	LED						
Backlight lifetime	50,000 hours of operating time at the normal temperature (25°C) <sup>*1</sup>						
Touch panel	Analog resistive membrane, resolution 1024×1024, life: 1 million touch operations						
Dimensions in mm (H×W×D)	103.8×129.8×52.8		142×184×46		148×202×46		210.8×268.8×54.0
Weight	310 g max.	315 g max.	620 g max.	625 g max.	710 g max.	715 g max.	1,545 g max.

<sup>\*1</sup> This is the estimated time when the luminous intensity is decreased by 50% per LED at room temperature and humidity. It is a typical value.

## Functionality

Specifications	NB3Q		NB5Q		NB7W		NB10W
	TW00B	TW01B	TW00B	TW01B	TW00B	TW01B	TW01B
Internal memory	128MB (including system area)						
Memory interface	–	USB Memory	–	USB Memory	–	USB Memory	USB Memory
Serial (COM1)	RS-232C/422A/485 (not isolated), Transmission distance: 15m Max. (RS-232C), 500m Max. (RS-422A/485), Connector: D-Sub 9-pin		RS-232C, Transmission distance: 15 m Max., Connector: D-Sub 9-pin				
Serial (COM2)	–		RS-232C/422A/485 (not isolated), Transmission distance: 15m Max. (RS-232C), 500m Max. (RS-422A/485), Connector: D-Sub 9-pin				
USB Host	Equivalent to USB 2.0 full speed, type A, Output power 5V, 150mA						
USB Slave	Equivalent to USB 2.0 full speed, type B, Transmission distance: 5m						
Printer connection	PictBridge support						
Ethernet	–	10/100 base-T	–	10/100 base-T	–	10/100 base-T	10/100 base-T

## General

Specifications	NB3Q		NB5Q		NB7W		NB10W
	TW00B	TW01B	TW00B	TW01B	TW00B	TW01B	TW01B
Line voltage	20.4 to 27.6 VDC (24 VDC –15 to 15%)						
Power consumption	5 W	9 W	6 W	10 W	7 W	11 W	14 W
Battery lifetime	5 years (at 25°C)						
Enclosure rating (front side)	Front operation part: IP65 (Dust proof and drip proof only from the front of the panel)						
Obtained standards	EC Directives, KC, cUL508						
Operating environment	No corrosive gases.						
Noise immunity	Compliant with IEC61000-4-4, 2KV (Power cable)						
Ambient operating temperature	0 to 50°C						
Ambient operating humidity	10% to 90% RH (without condensation)						

## Applicable Controllers

Brand	Series	Brand	Series
OMRON	Omron C Series Host Link	Schneider	Schneider Modicon Uni-TelWay
	Omron CJ/CS Series Host Link		Schneider Twido Modbus RTU
	Omron CP Series	Delta	Delta DVP
Mitsubishi	Mitsubishi Q-QnA (Link Port)	LG (LS)	LS Master-K Cnet
	Mitsubishi FX-485ADP/485BD/422BD (Multi-station)		LS Master-K CPU Direct
	Mitsubishi FX0N/1N/2N/3G		LS Master-K Modbus RTU
	Mitsubishi FX1S		LS XGT CPU Direct
	Mitsubishi FX2N-10GM/20GM		LS XGT Cnet
	Mitsubishi FX3U	GE Fanuc Automation <sup>*1</sup>	GE Fanuc Series SNP
	Mitsubishi Q series (CPU Port)		GE SNP-X
	Mitsubishi Q00J (CPU Port)	Modbus	Modbus ASCII
Panasonic	FP series		Modbus RTU
Siemens	Siemens S7-200		Modbus RTU Slave
	Siemens S7-300/400 (PC Adapter Direct)		Modbus RTU Extend
Allen-Bradley <sup>*1</sup> (Rockwell)	AB DF1		Modbus TCP
	AB CompactLogix/ControlLogix		

<sup>\*1</sup> AB and GE will be supported by NB-Designer version 1.20 or higher.

Note: For details, refer to NB Series Host Connection Manual (Cat.No V108).



### HMI with four text lines and 22 F-keys

The NT11 is a Function key HMI with four text lines that can each hold up to 20 characters. It has a parallel printer connection next to a serial port for connection to a PLC. It has a LED backlight that has a life expectancy of at least 50,000 hours.

- Easy programming software.
- Small size and installation depth.
- Customisable F-Keys
- Printer connection.
- Cost effective solution.

### Ordering information

Type			Order code
STN monochrome	Ten-key type	Ivory	NT11-SF121-EV1
		Black	NT11-SF121B-EV1

### Accessories

Type	Description			Order code
Cables	For screen transfer			XW2Z-S002
	For PLC connection	PT: 9-pin	Cable length: 2 m	XW2Z-200T
		PLC: 9-pin	Cable length: 5 m	XW2Z-500T
		PT: 9-pin PLC: Mini-peripheral	Cable length: 2 m	NT-CN221

### Software

Type	Order code
NTST Version 4.8	NTZJCAT1EV4
Upgrade NTST Version 4.8	NTZJCAT1EV4S

### Specifications

Size in mm (H×W×D)	113×218×38.2
Effective display area	100×40mm (160×64 pixels)
Line voltage	24 VDC ±15%
Function keys	22 keys
Touch panel	–
Obtained standards	CE, cULus
No. of display characters (standard characters)	20 characters × 4 lines
No. of registered screens	250
Screen data capacity (standard)	32 KB
Expansion memory	–
Memory card interface	–
Printer connection	Supported
Backlight life	50,000 hours average



### HMI with two text lines, 6 or 20 F-keys and up to two serial ports

The NT2S is the smallest HMI that we can offer you. It is based on a 16 × 2 lines LCD display with 6 or 20 Function keys. It offers IP65 protection, an optional RTC and printer connection.

- Easy and free programming software.
- Small size and installation depth.
- Real Time Clock (depending on model).
- Printer connection (depending on model).
- Cost effective solution.

### Ordering information

Type			Order code
STN monochrome	Programmable	6-key type, Black	NT2S-SF121B-EV2
			NT2S-SF122B-EV2
			NT2S-SF123B-EV2
	PLC controlled	20-key type, Black	NT2S-SF125B-E
			NT2S-SF126B-E
	PLC controlled		NT2S-SF127B-E

### Accessories

Type	Description	Order code
NT2S-SF121/125 and NT3S	peripheral port CPM series except CPM2C, 2 m	NT2S-CN212-V1
NT2S-SF121/125 and NT3S	peripheral port CPM series except CPM2C, 5 m	NT2S-CN215-V1
NT2S-SF122/SF123/SF126/SF127	peripheral port CPM series except CPM2C, 2 m	NT2S-CN222-V1
NT2S-SF122/SF123/SF126/SF127	peripheral port CPM series except CPM2C, 5 m	NT2S-CN225-V2
NT2S-SF121/125 and NT3S	mini-peripheral port CJ1/CS1 and CPM2C series, 2 m	NT2S-CN223-V2
NT2S-SF122/SF123/SF126/SF127	mini-peripheral port CJ1/CS1 and CPM2C series, 2 m	NT2S-CN224-V1
NT2S-SF121/125 and NT3S	serial port CJ1/CS1/CP1/CPM2/CQM1(H), 2 m	NT2S-CN232-V1
NT2S-SF121/125 and NT3S	serial port CJ1/CS1/CP1/CPM2/CQM1(H), 5 m	NT2S-CN235-V1
NT2S-SF122/SF126	serial port CJ1/CS1/CP1/CPM2/CQM1(H), 2 m	NT2S-CN242-V1
All NT2S and NT3S models	serial programming cable, 2 m	NT2S-CN002

### Software

Type	Order code
This software is provided free of charge and features Windows fonts, a Multi language import/export utility, a character map to design your own characters and can be used to place bitmaps in your application.	NTXS

### Specifications

Size in mm (H×W×D)	60×109×43 (6 F-keys), 107×107×43 (20 F-keys)
Effective display area	56×11 mm
Line voltage	24 VDC ±10%
Touch panel	–
Obtained standards	CE, cULus
No. of display characters (standard characters)	16 characters x 2 lines
No. of registered screens	65,000 max.
Screen data capacity (standard)	24 KB in Programmable models
Expansion memory	–
Memory card interface	–
Internal memory	1K words data, 1K words retentative memory
Printer connection	Supported
Multi-Vendor support	Supported for several non-Omron PLCs. *1
Backlight life	LED, min. 50,000 hours

\*1 Please contact Omron for a list of available drivers.