LN Touch

Human Machine Interface

L&T SWITCHGEAR
SAFE & SURE

About us

Larsen & Toubro infuses engineering with imagination. The Company offers a wide range of advanced solutions in the field of Engineering, Construction, Electrical & Automation, Machinery and Information Technology.

L&T Switchgear, a part of the Electrical & Automation business, is India's largest manufacturer of low voltage switchgear, with the scale, sophistication and range to meet global benchmarks. With over five decades of experience in this field, the Company today enjoys a leadership position in the Indian market with a growing international presence.

It offers a complete range of products including powergear, controlgear, industrial automation, building electricals & automation, reactive power management, energy meters, and protective relays. These products conform to Indian and International Standards.

Switchgear Factory, Mumbai

Switchgear Factory, Ahmednagar

Contents

LN Touch HMI

Human Machine Interface commonly known as HMI are deployed for control and visualization interface between a human and a process, machine, application and appliance. Increasingly, HMIs are becoming an integral part of Factory Automation. L&T introduces its complete range of HMI products that help in improving productivity and system efficiency.

Product Line Up
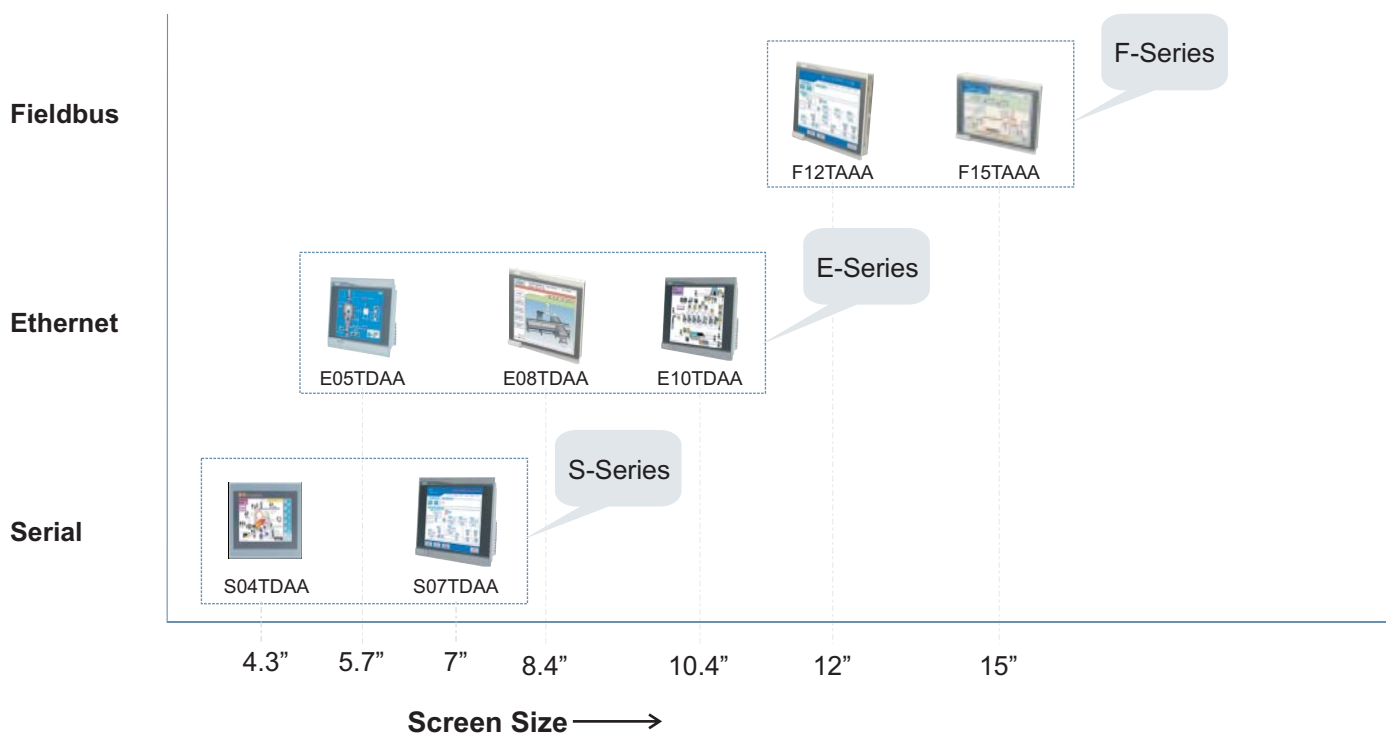
Technical Specifications

Model Name		F15TAAA	F12TAAA	E10TDAA	E08TDAA	E05TDAA	S07TDAA	S04TDAA
Screen Size		15"	12.1"	10.4"	8.4"	5.7"	7"	4.3"
Display Type		TFT Color	TFT Color	TFT Color	TFT Color	TFT Color	TFT Color	TFT Color
Display Color		64K Color	64K Color	64K Color	64K Color	64K Color	64K Color	64K Color
Resolution (pixels)		1024 x 768	800 x 600	640 x 480	640 x 480	320 x 240	800 x 480	480 x 272
Screen memory		26MB	26MB	26MB	26MB	6MB	26MB	6MB
Back up memory		256KB	256KB	256KB	256KB	256KB	256KB	256KB
Serial	RS-232C	☑	☑	☑	☑	☑	☑	☑
	RS-422/485	☑	☑	☑	☑	☑	☑	☑
Ethernet	10/100 Base-T	☑	☑	☑	☑	☑	-	-
USB	USB1.1	☑	☑	☑	☑	☑	-	-
CF Card	Compact Flash	☑	☑	☑	☑	☑	-	-
Print	Roll Printer	☑	☑	☑	☑	☑	☑	☑
Brightness		350 cd / m²	380 cd / m²	350 cd / m²	400 cd / m²	400 cd / m²	350 cd / m²	500 cd / m²
Panel Cut Out (W x H)		355 x 286	306 x 247	260 x 202	222 x 168	158 x 126	199 x 129	121 x 95
Dimension (in mm)		366 x 296.5 x 58	317 x 257 x 58	270 x 212 x 58	232 x 177 x 60	170 x 138 x 60	206 x 136 x 64	128 x 102 x 55

Core HMI System for Factory Automation Field

Benefits

➢ In-Built Networks like Profibus, Ethernet, etc
➢ Facilitates data management
➢ Helps in easy system upgradation

Interface	**Operate / Display**	**Data Control**
	(screen editor S/W) LN Touch Soft	(Data Management S/W) Net View CF Viewer

PC

Ethernet

Profibus DP

CF Card, USB

Barcode Reader

Printer

PLC, Inverter
PC, Temperature Controller

VM Unit

F Series

LN Touch : Model Name Terminology

S	04	T	A		
MODEL NAME	**LCD SIZE**	**LCD TYPE**	**POWER**		**RESERVED**
S : Serial	04 : 4.3"	T : TFT Color LCD	A : AC Power		
E : Ethernet	05 : 5.7"		D : DC Power		
F : Fieldbus	07 : 7"				
	08 : 8.4"				
	10 : 10.4"				
	12 : 12.1"				
	15 : 15"				
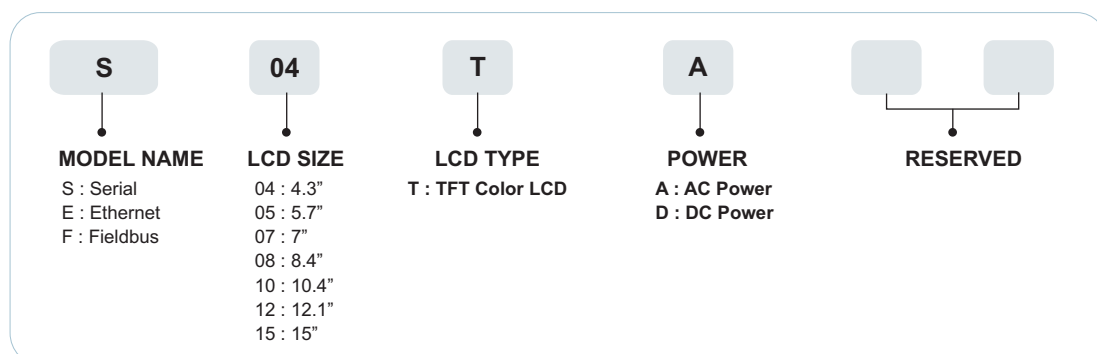
Serial & Fieldbus Network

1. Serial Communication

1:1 Communication

RS-232C/422/485

Connect to CPU port or communication unit of controller by RS-232C/422/485

Two Way Communication

COM1 RS-232C

Slave 1   Slave 2

Master
COM2 RS-232C/422/485
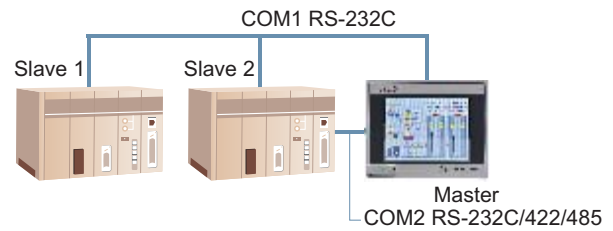
Two channel communication with 2 PLCs separately

N:1 Serial Communication

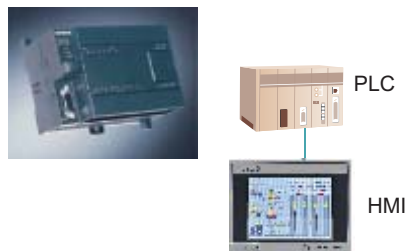Master   Master   Master
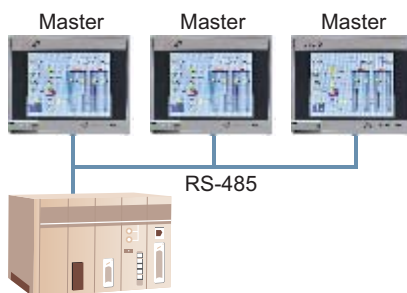
RS-485

- Control only 1 Controller with many HMIs using Token Protocol
- Restrictive to N:1 (HMI : PLC). Supported PLCs only
- RS-485/422 only

Multi Drop

RS-422/485

Slave   Slave

- Communication tag
- Block communication
- Low speed
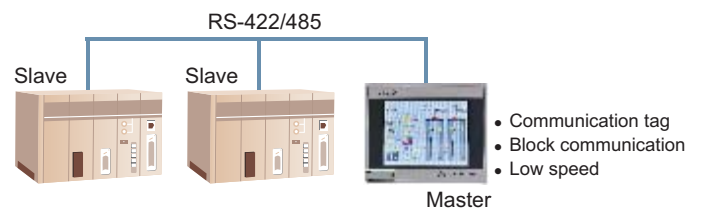
Master

- Master HMI controls several PLCs or Controllers
- Restrictive to 1:N (HMI : PLC) supported PLC only
- RS-485/422 only

MPI Direct Network

PLC

HMI

- High speed communication (Fixed 187, 500bps)
- RS-485
- Long distance communication (Max 1.2km)
- Does not need MPI adapter

Slave

Slave   Slave   Slave

Master PLC controls 1 HMI or several HMIs
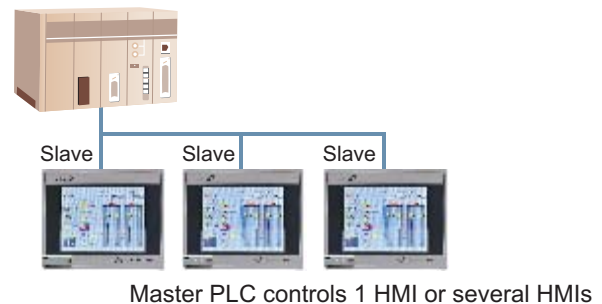
Master-Slave (M/S Protocol)
Controller needs M/S program

2. Fieldbus Network

Profibus DP

Slave   Slave   Slave

Master PLC controls HMI (slave) on Profibus network

CC Link

CC-Link

Slave
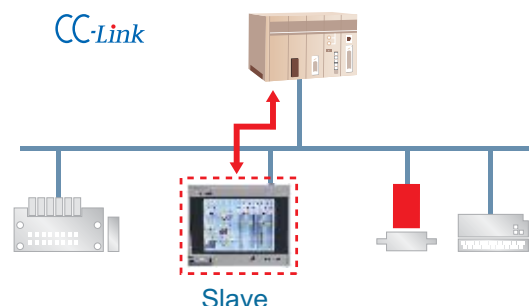
3. Remote Monitoring Service & Application S/W

NetView Client

NetView Monitoring

Intranet(Private Network)

Factory Automation

PLC I/O DDC

NetView Server

Data Management
- Monitoring Status of Communication, Real Time Logging/alarm/Graph, Consumed Memory
- Data Transfer by 1:1 TCP transfer, 1:N Multi Transfer
- Build DB (Store logging and alarm and Build DB)

Internet Network

NetView Client

Busan

NetView Client

Seoul

HMI Solution
- Monitoring terminal screen from remote location
- Remote Control (Restrictive)

Ethernet
- Remote monitoring
- Real time logging and alarm
- High speed transfer (1:N Multi Transfer)
- Shares memory among HMIs

Ethernet

HMI-1   HMI-2   HMI-3

PLC-1   PLC-2   PLC-3   PLC-4

Optional accessories for communication:

- USB CABLE-MINI   : USB program downloading cable for E & F series HMIs
- CC LINK-CARD   : Fieldbus option, CC Link
- PBUS-CARD   : Fieldbus option, Profibus

Features

1. High Image Quality & Clarity

65, 536 Color & Analog Touch


256 Color → 65, 536 Color

High Color TFT LCD supporting wide viewing angle.

JPG Support

Supports Real JPG as compared to competitor. Available to Tag, Diagram, Function and every object which uses image. File capacity of JPG is reduced to 90% as compared to bitmap file. So it is possible to raise the efficiency of memory consumption.

2. Gridless Screen

Adopts Analog Touch Screen

Matrix Touch Screen   Analog Touch Screen
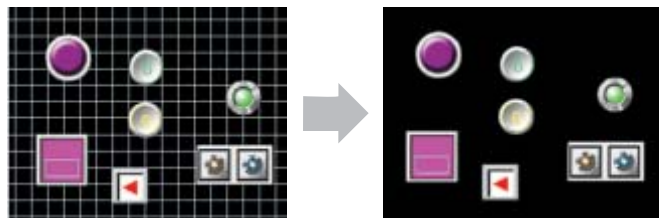
Compared with existing matrix touch screen, designing is possible as it has no grid lines. So user can conveniently arrange objects on the screen.

3. Improved user interface

Multi Language Table

Excel → Multi Language Table

Design for conversion of language in the string table
A string table, which makes it possible to simply set a language for each country, so while working user can change the last designed language in the same table by using the programmable function.

Extend Alarm Functions

Easy indication for easy operating
- Various editor key options to control contents in alarm list
- Display in time & reverse time order on events like occurrence/clearance/acknowledge of alarm
- Setting of Alarm & Subsidiary explanation; shift screen/ display subsidiary explanation by using ex-tag
- Display alarms stored in CF card

Windows Font

Image Font

* Supports windows font in alarm & message

Supports various fonts

Select any font size or style by using the MS Windows Font on the PC.

5

Graphic library available

	Push Buttons				Lamps		Switch		ETC			
	Rectangle	Circle	Arrow	Tenkey	Pilot	Circle frame	Toggle	Selector	Fan	Tank	Value	Pipes
Image												

Adopt graphic images which are often used at sites. Classification by object is easy so it can be used for various product groups. Also supports high quality vector library, makes user interface very convenient.
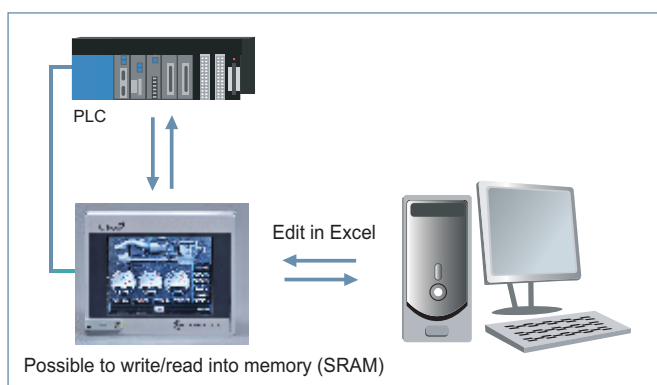
Security setting
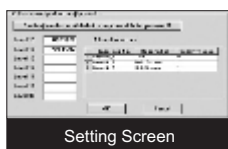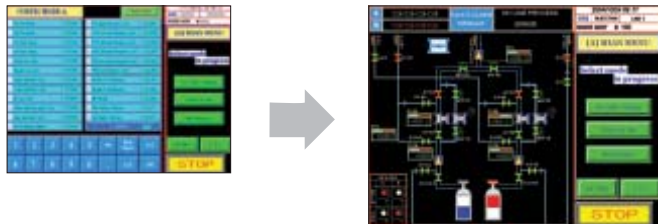
Setting Screen

- Set up password & security level for each screen
- Password ten key to input password like default ten key
- Max. 16 levels of security settings and initialization of levels

Level 1 Screen User Interface Screen		Password input		Level 2 Screen User Interface Screen
Shift to level 2 Screen				

Recipe

PLC

Edit in Excel

Possible to write/read into memory (SRAM)
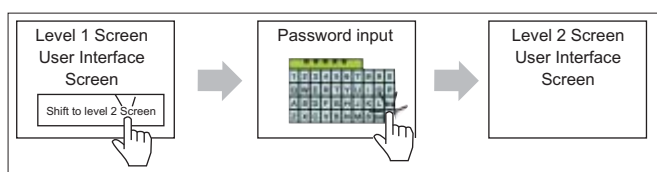
Saving data such as the conditions for mixture or processing of materials into HMIs inner memory (SRAM) and then, to read/write in PLC that need the data. For instance, create data to write in PLC and then, write data values, which are consecutively created from specified device. It offers the function of reading large quantity of device values from PLC that is consecutively connected from a specific device. When power is OFF, recipe maintains the data that was saved last.
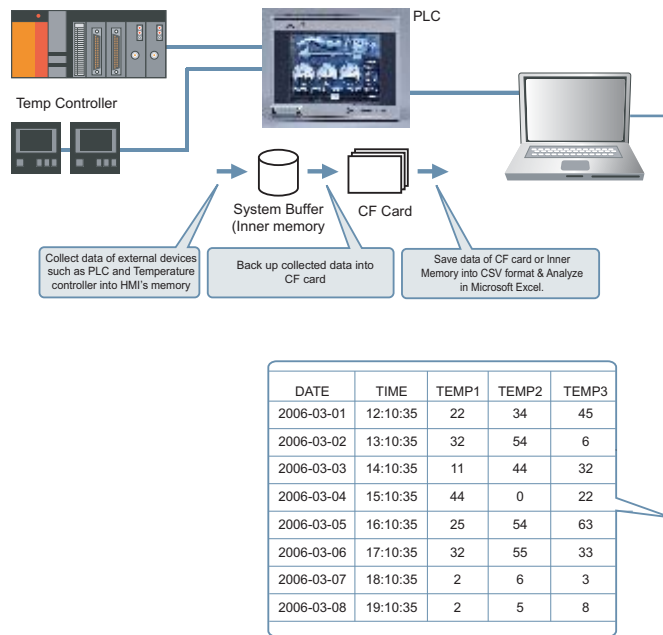
Pass Through

COM 2   COM 1

Summary : Through the PC which is connected to COM 1 Serial port of HMI, control the PLC which is connected to COM 2 Serial port of HMI via HMI

Function :

1. Download, upload, monitoring the program of PLC via COM2 of HMI
2. Direct Communication with Controller via COM1 of HMI

Data Logging

Temp Controller
PLC
System Buffer (Inner memory)
CF Card

Collect data of external devices such as PLC and Temperature controller into HMI's memory	Back up collected data into CF card	Save data of CF card or Inner Memory into CSV format & Analyze in Microsoft Excel.

Collect data of external devices such as temperature controller and PLC into HMI's memory according to the conditions for period and device value. Basically logging is saved in SRAM (256KB) or CF card and back up in CF card or USB memory stick. It is possible to represent logged data into graph using recorder tag and extended graph tag. Also possible to convert into CSV format which can be used in PC so it is possible to analyze data in Microsoft Excel.

Logging Table

Display the stored data in designed format of table
- Assignation of title name to each word
- Scroll stored data with up & down, right & left direction
- Display stored data in both SRAM and CF card
- Easy interface of data backup to USB from CF card through file manager program

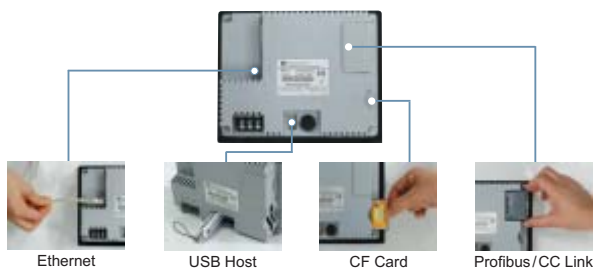| DATE	TIME	TEMP1	TEMP2	TEMP3
2006-03-01	12:10:35	22	34	45
2006-03-02	13:10:35	32	54	6
2006-03-03	14:10:35	11	44	32
2006-03-04	15:10:35	44	0	22
2006-03-05	16:10:35	25	54	63
2006-03-06	17:10:35	32	55	33
2006-03-07	18:10:35	2	6	3
2006-03-08	19:10:35	2	5	8

Recorder

Simple checking of logged data with graph

By adding recorder tag, it is possible to represent the data values, which are saved through the logging function, in graph and then, monitor the past and the present history. It is possible to represent the data values, which are saved through the logging function, and the files, which are saved in not only the inner memory, but also CF cards, in graph. It is possible to show the past information by use of a scroll switch only. It is possible to represent the cursor or the device value and the time the cursor is located.

4. Inbuilt Interface

USB and Ethernet built-in

5.7"~10.4" LCD Model

Ethernet USB Host CF Card Profibus / CC Link

12.1"~15" LCD Model

USB Host Ethernet Profibus / CC Link CF Card
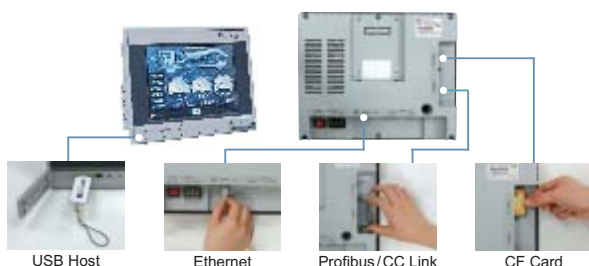
1. **USB Host / Device built-in**
   Through USB interface, connect USB storage (stick) and transfer the data
2. **High speed transfer with PC through Ethernet**
   Upload/download of program and data communication such as logging, alarm, and recipe have become fast and simple. By use of various kinds of Ethernet package software, it becomes possible to remote-monitor and control from PC

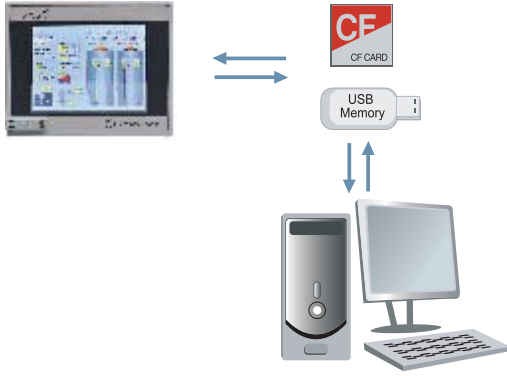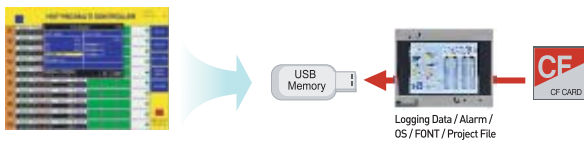## Use of CF card and USB memory

1. Effective use of CF card and USB memory

It is possible to save PLC data in CF card or USB memory, inturn convert them into CSV data when necessary, and then, to make out a daily or a monthly document. (However, in the case of USB, it is possible to save PLC data only if data is copied from CF card.) It is possible to save picture, OS, or font files in CF card or USB memory, and then, to transmit to the HMI's memory. In case there are several HMI's, set-up is possible only by transmitting picture program to each HMI with a CF card or USB memory.

Data management by File List

**1. Data Management Tool for CF card and USB memory**
- Copy data (logging, alarm, OS, fonts, screen program) to both CF card and USB in RUN mode
- Easy interface to data back up & operation by using USB memory & CF card

Barcode reader and roll printer

1. Communication of Barcode reader and roll printer

Save ASCII data, which is read from a barcode reader, in PLC designated by a user or HMI's inner memory (SRAM). It is possible to temporarily designate completion byte which can confirm that barcode data has been successfully read. It is possible to print data by connecting with the roll printer. The above connecting devices all use RS-232C interface to communicate.

Master Screen
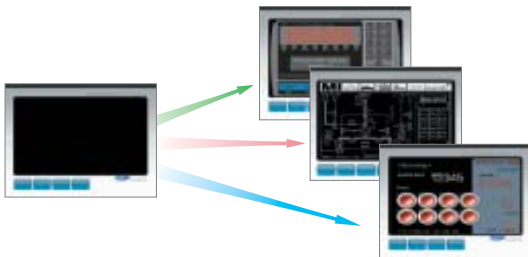
- Can set Master Screen (No limit of diagram, Tags)
- Can be applied in each base screen
- Can not be applied in special designed based screen
- Increase the efficiency of memory consumption by using master screen

Frame

- Supports 4 Frame settings without any limit on its number
- Available to raise the efficiency of memory consumption to use frame
- Support Frame Editor Mode conversion in base screen with Icon
- Assign the area of Frame with drag of mouse and register tags and diagrams in Frame Editor mode
- Select Frame which is registered and apply them to base screen

LN Touch Soft

Group ON/OFF

- Available to set the group of object (diagram, Tags) visible or invisible
- After setting the group, user can assign them for Bit condition
- Support object to pop up without window screen and window tag

Recipe transfer via CF card
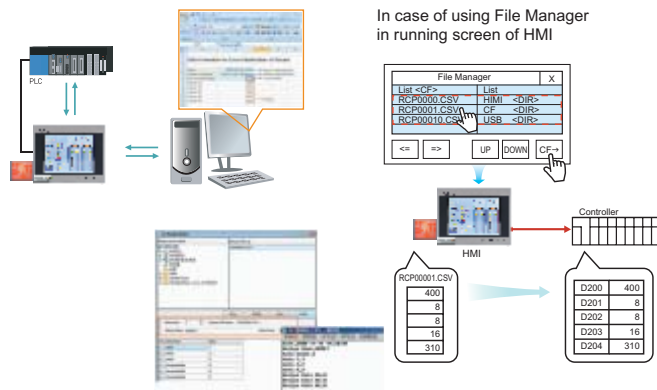
- Save CSV format data to CF card in MS excel
- Transfer above CSV data to HMI or PLC
- Provide easy interface so that user can edit the data in MS excel
- Moreover CF Recipe maker supply solution to easy interface as below

Library Viewer

- Support drag & drop interface
- High speed browsing
- Support detail information of image
- Adding images by drag & drop from Windows explorer

Address Input/Auto Completion

- Input address by keyboard
- Various tooltip appears according to device
- Support auto-completion
- Also traditional keypad is possible

Figure & Tag Specification

- Real-time previews
- Clear, easy-to-understand Specification

Memory Viewer

- Address assignment can be visually shown, ensuring by icon efficiency
- By clicking on the used address, the Tag IDs where the address are used will be displayed

Project Manager

- Support Multiple project files
- Copy with screens or list
- Import/Export
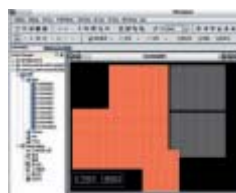
Multiple Language Table

- Simple copy & paste functions to place data into the text table after translation in CSV or Excel
- The language of other countries input is possible regardless of a language of the OS by supporting Unicode

Alarm / Message Table

- Input address by keyboard
- Excel compatible
- Image text/Text table possible

Fast Editing

- Regardless of plentiful tags or drawings or images, drawing and registration are comfortable

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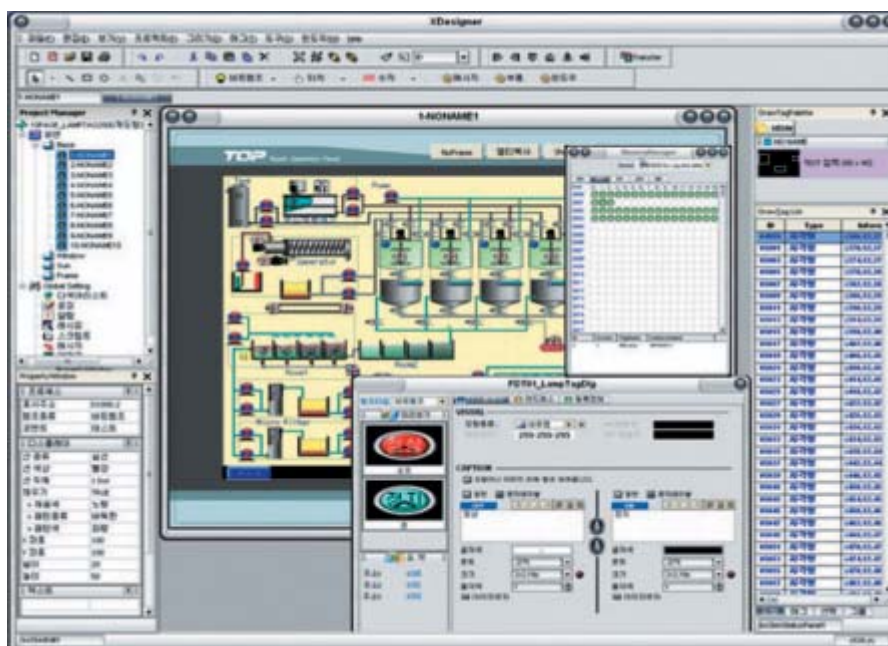
❶ Project manager
- Intuitive and easy interface
- Manage two or more projects

❺ My Clipboard
- Managing user libraries
- All tags, drawings, groups and images are possible

❷ Convenient User Interface
- Support standard MDI Type & Tab Type

❻ Information list
- All objects registered are shown
- The fastest view

❸ Menu, Toolbar
- Simple/Convenient layout of Icon
- Grouping tags with similar themselves

❼ Tag dialog
- Support previews
- Changed all of olders

❹ Memory View
- Address assignment can be visually shown

❽ Property list
- Summarize properties of selected objects

- ▶ Open/manage multiple project files simultaneously
- ▶ The most fastest editing of numerous objects in screens
- ▶ Memory map
- ▶ Support My Clipboard
- ▶ As specification, Preview can be done
- ▶ Support image-libraries of vector
- ▶ Support Layer
- ▶ Support snap to object
- ▶ Support lock/unlock each object
- ▶ A wide variety of attractive libraries are prepared
- ▶ Change tags within familiar tags
- ▶ Make/Modify date/time of object can be issued
- ▶ Guideline alignment
- ▶ OFF-Line simulation
- ▶ Text table in Unicode
- ▶ New script editor
- ▶ Fix and Hide (Not transferred) function in all objects
- ▶ Resolution converter
- ▶ Input address by keyboard with completion automatically
- ▶ Support variables of address

Dimensions and Specifications

S04TDAA

Front View

Side View

Rear View

Input Power Terminal

COM2: RS-232C, RS-422/RS-485

Reset Switch

COM1: (1) PS/2 Connector RS-232C
(2) Serial to USB Convertor Pay extra Goods

S07TDAA

Front View

Side View

Rear View

Reset
Cont
COM2
COM1
24V FG
+ −

6 Reset Switch
2
3 COM:2
4 COM:1
5 Input Power Terminal
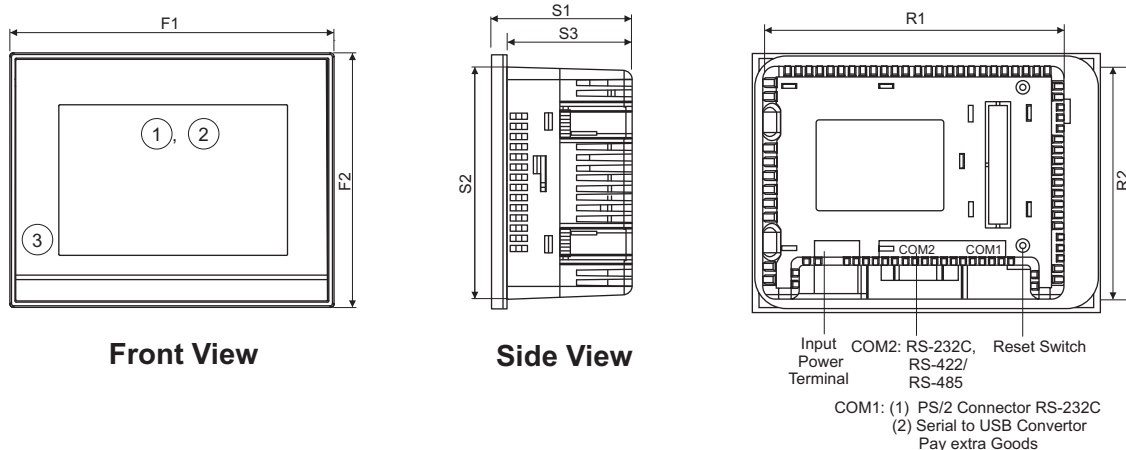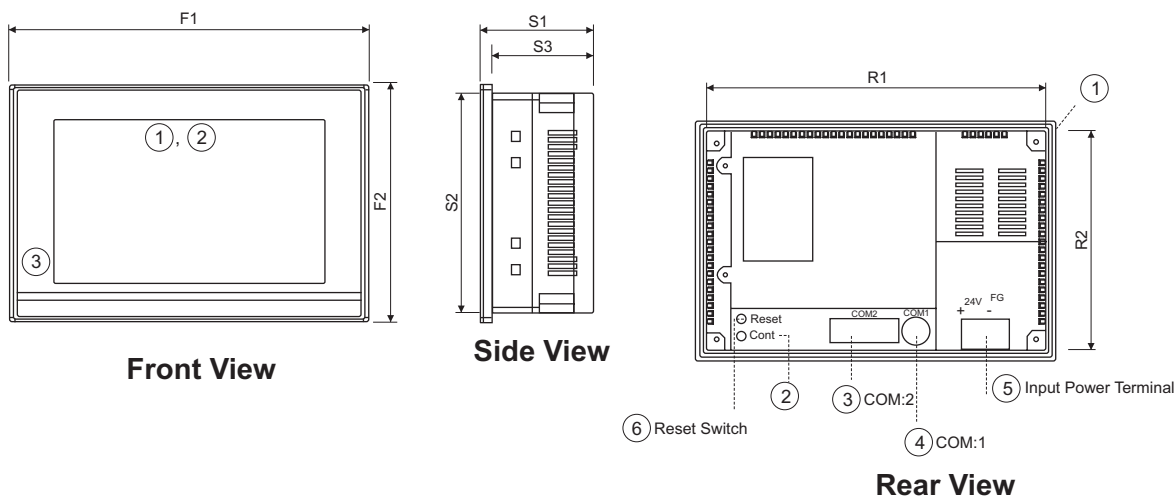
Outer Dimension

Model	Front		Side			Rear	
	F1	F2	S1	S2	S3	R1	R2
S04TDAA	128	102	55	92.3	50	118.3	92.3
S07TDAA	206	136	64.5	125	57.5	194.5	125

Front Part Names and Specifications

No.	Title		Feature	
1	LCD	Model	S04TDAA	S07TDAA
		Type	TFT 65, 536 COLOR LCD	
		Brightness	500 cd/m^2	350 cd/m^2
		Screen Size	4.3inch	7inch
		Resolution	480 X 272	800 X 480
2	Touch Panel	Touch Type	Analog	
3	Front Sheet	Front vinyl cover sheet for damp proof and dust proof		

E05TDAA / E08TDAA

Front View

Side View

Rear View
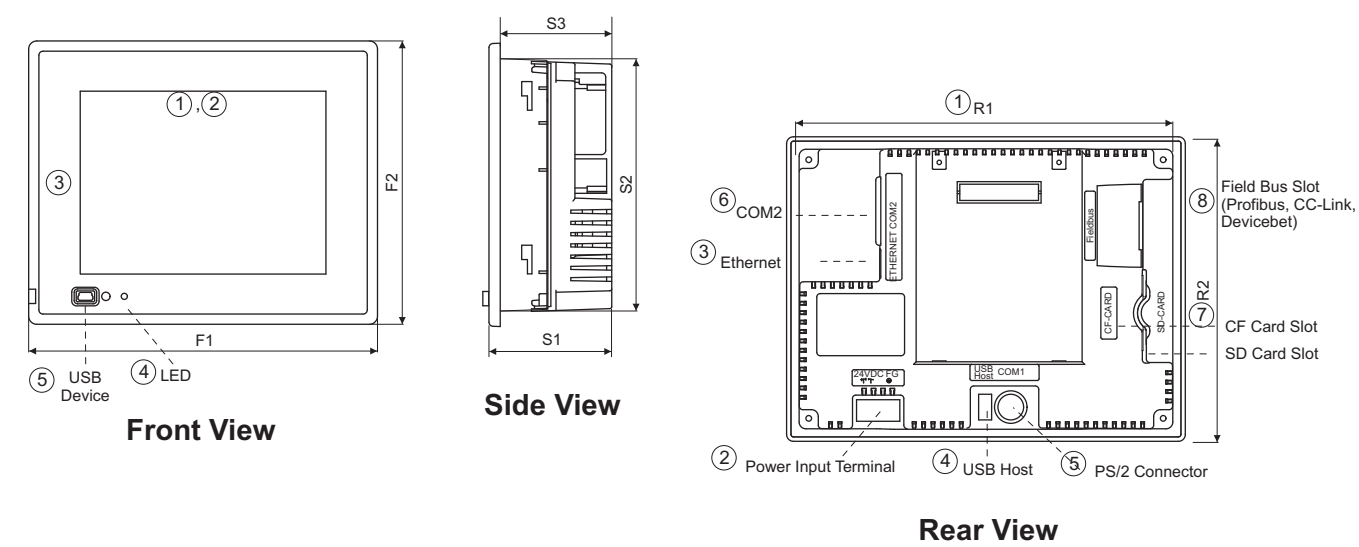
Outer Dimension

Model	Front		Side			Rear	
	F1	F2	S1	S2	S3	R1	R2
E05TDAA	170	138	60	123	54.5	155.5	123.3
E08TDAA	232	177	60	165	54.5	220	165

Front Part Names and Specifications

No.	Title		Feature	
1	LCD	Model	E05TDAA	E08TDAA
		Type	TFT 65, 536 COLOR	
		Brightness	400 cd/m^2	
		Screen Size	14cm / 5.7inch	21cm / 8.4inch
		Resolution	320 X 240	640 X 480
2	Touch Panel	Touch Type	Analog	
3	Front Sheet		Front vinyl cover sheet for damp proof and dust proof	
4	Status LED		Status of Power, Communication and CPU	
5	USB Port		USB Download Port	

E10TDAA / F12TAAA / F15TAAA

Front View

Side View

Rear View

USB Device

① CF/SD CARD Slot
⑩ Fieldbus Slot : Profibus CC-Link
② Power Switch
④ USB Host
③ Power Input Terminal
⑤ Ethernet
⑥ AUX
⑦ RS232C/422C Terminal
⑧ PS/2 Connector
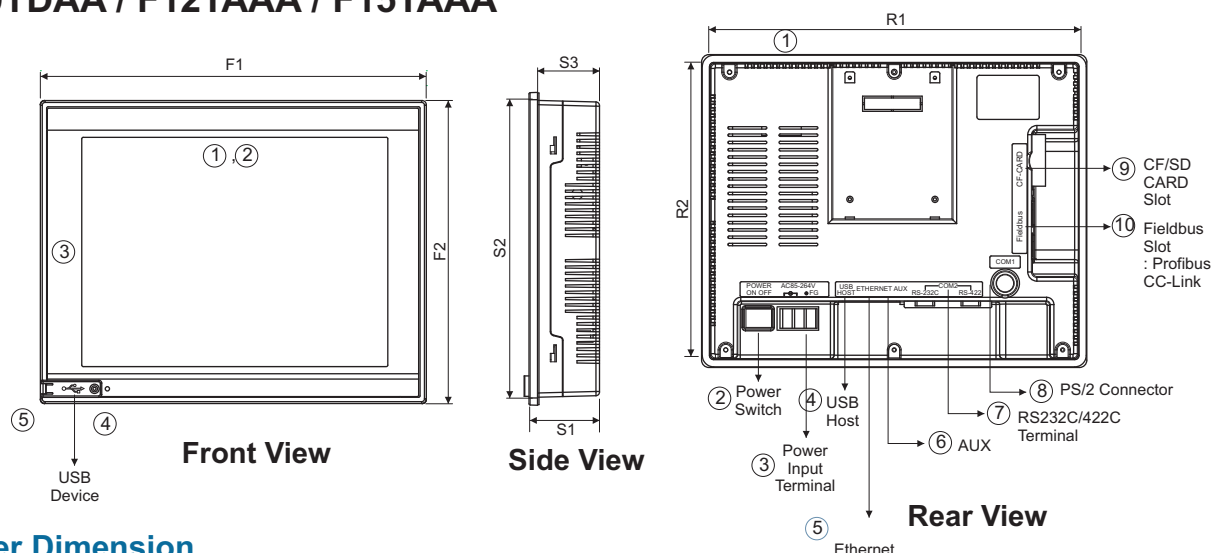
Outer Dimension

Model	Front		Side			Rear	
	F1	F2	S1	S2	S3	R1	R2
E10TDAA	270	212	58	199.9	49.8	257.9	199.9
F12TAAA	317	257	58	244.3	51	303.8	244.3
F15TAAA	366	296.5	58	283.5	51	352.8	283.8

Front Part Names and Specifications

No.	Title		Feature		
1	LCD	Model	E10TDAA	F12TAAA	F15TAAA
		Type	TFT 65, 536 Color LCD		
		Brightness	350 cd/m^2	380 cd/m^2	350 cd/m^2
		Screen Size	26cm / 10.4inch	31cm / 12.1inch	38cm / 15inch
		Resolution	640 X 480	800 X 600	1024 X 768
2	Touch Panel	Touch Type	Analog		
3	Front Sheet		Front vinyl cover sheet for damp proof and dust proof		
4	Status LED		Status of Power, Communication and CPU		
5	USB Port		USB Download Port		

Specifications

Item	Model	F15TAAA	F12TAAA	E10TDAA	E05TDAA	E08TDAA	S07TDAA	S04TDAA
Power Supply	Input Voltage	AC (85-264V)		DC24V (20-28V)				
	Power Consumption	25W or less	20W or less	15W or less				
	Voltage Sag	Within 10ms		Within 10ms				
	Insulation Resistance	500V DC, 10 M ohm						
	Operation Temperature	0 ~ +50^0 C						
Environment & conditions (Physical/ Mechanical/ Electrical)	Storage Temperature							
	Ambient Humidity	-10 ~ +60^0 C		85%RH or less -20 ~ +60^0 C				
	Atmosphere	No corrosive gas						
	Vibration Endurance	Amplitude: 10<F<25Hz (2G) X, Y, Z direction for 30 minutes						
	Noise Immunity	1500Vp-p (Pulse width 1s)		1000Vp-p (Pulse width 1s)				
	ESD Immunity	Contact : ±6KV		Conforms to IEC61000-4-2, Contact : ±4KV				
	Shock Endurance	10G, X, Y, Z direction for 3 times						
	Electricity Endurance	Confronting to IEC801-2						
	Ground Connection	Class 3 (100 ohm or less)						
	Protection Classification	Confronting to IP65 (*1)						

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*1 : Although we confirm the IP65F conformity according to test standard of concern, we don't assure it in all conditions.

Driver List

Maker	Series	CPU Type	CPU Port	Link	(1:N)	Ethernet
LS	GLOFA - GM	GM1 / 2 / 3 / 4 / 6 / 7	●	◆	●	●
	Master - K	10S1 / 10 / 30 / 60 / 100S	●	◆		
		80 / 120 / 200 / 300 / 1000S	●	◆	●	●
		60 / 200H	●			
		500(H) / 1000	●	◆		
	XGT	XGI / XGR	●	◆	●	●
		XGK / XGB	●	◆	●	●
Samsung	FaraN	N70 / 700 alpha, 7000	●	◆		
		NX70 / 700	●	◆		
		N70 / 700 plus	●			
	SPC	SPC - 10 / 100 / 120S / 300	●			
Mitsubishi	Melsec - A	A1N / 2N / 3N	●	◆	●	
		A1S(H) / 2S(H) / AOJ2(H)	●	◆	●	
		A2A / 3A / 2A - S1	●	◆	●	
		A2U / 3U / 4U / 2USH	●	◆	●	
	Melsec - QnA	Q2A / 2AS / 2ASH / 3A/4AR	●	◆	●	●
	Melsec FX	FX0 / 1/2 /1S / 1N / 2N / 2NC	●	◆	●	
	Melsec Q	00/01 / 02 / 02H / 06 / 12 / 25H	●	◆	●	●
Omron	SYSMAC C	C200H / 200HS / 500 / 1000	●			
		CQM1 / 1H	●	◆		
		CPM1 / 2A / 2C	●	◆		
	SYSMAC CS	CS1G / 1H	●	◆		●
	SYSMAC CJ	CJ1G / 1M	●	◆		●
Rockwell (AB)	PLC5	PLC5 / 11 / 20 / 30 / 40 / 40L / 60 / 60L	●			●
	SLC500	SLC5 / 03 / 04	●			●
	Control Logix	1756	●			●
	Compact Logix	1769	●			
	Micro Logix	1000 Series	●			
Siemens	SIMATICS5	90 / 95 / 100 / 115 / 135 / 155U		◆		
	SIMATICS7 - 200	212 / 214 / 215 / 216 / 221 / 222 / 224	●			
	SIMATICS7 - 300	312IFM / 313 / 314 / 315 / 315 - 2DF	●	◆		●
	PC/HMI adapter		●			
GE-Fanuc	Fanuc 90 - 30	311 / 331	●	◆		
	Fanuc 90 - 70	731 / 732 / 771 / 772 / 781 / 782	●			
Hitachi	HIDIC - H	EH - 150	●	◆	●	
		Micro EH	●		●	
Fuji	Micrex - F	F80 / 120H / 250 / 120 / 140 / 150S		◆		
KEYENCE	KV	KV-700 / 1000	●			
KOYO	DL - 205 / 305 / 405	D2240 / 330 / 430	●			
Matsushita	MEWNET	FPx	●	◆		
Modicon (Schneider)	Modbus	884 / 984A / 984B / 984X		◆	●	
		Slot - mount 984		◆	●	
	TWIDO	LCAA10 / 16 / 24DRF	●	◆	●	
		LMDA20 / 40DTK	●	◆	●	
		LMDA20 / 40DUK	●	◆	●	
		LMDA20DRT	●	◆	●	
		Modbus TCP				●
Honeywell	Honeywell	HC900	●		●	
Yaskawa	PROGIC - 8	PROGIC - 8	●		●	
	MP900	MP920 / 930	●		●	
	Control Pack	CP - 9200SH		◆	●	
Yokogawa	FACTORY - ACE	FA - M3	●	◆		●

Maker	Series	CPU Type	CPU Port	Link	(1:N)	Ethrnet
SAIA	SAIA	PCD2	●	◆		
Delta	DVP	DVP - ES	●			
FATEK	Facon FB	20MC	●			
Compile	Tiny	TCP32 / 37 / 9X	●			
POSCON	POSFA - A	POSFA - A		◆		
DDC	DDC	DDC	●		●	
Speedtech	DDC	ST / PS, ST / RS, ASIC / 2 - 7040	●		●	
KDT	XP	CM1 - XP1A / 2A / 3A / 4A	●	◆		
KDT	CP	CM1 - CP1A / 2A / 3A / 4A	●	◆		●
KDT	BP	CM2 - BP16 / 32	●	◆		
Emerson	EC20	EC20	●			

Inverter / Motion Controller

Maker	Series	CPU Type	CPU Port	Link	(1:N)	Type
LS	SV - iG5	SV - iG5	●		●	Inverter
ABB	ACS	ACS140 / 400 / 500	●		●	Inverter
Metronix	Any pack	Any pack	●		●	Servo
ROBOSTAR	Newro	RCS6000 / RCM	●		●	Motion
DASA Tech	iMS-J	iMS - J	●		●	Motion
Delta-Tau	PMAC	Mini - PMAC	●			Motion
Emotiontek	MCU	MCU - MA/MP / XA / XP	●			Motion
Emotiontek	MCU2	MCU - MA2 / MP2 / XA2 / XP2	●			Motion
Emotiontek	MCS	MCS - 80A4 / P4 / A8 / P8	●			Motion
Gidding & Lewis	MMC	MMC	●			Motion
Mistubishi	FX2N	FX2N - 10 / 20GM	●			Motion
Mistubishi	MR	J3 / J2 / C / J2M / E	●			Servo
Rexroth Indramat	Visual Motion	Vm7, Vm8	●		●	Motion
Hyundai	Hi4	Hi4	●			Motion
IMO	Jaguar	CUB / VXSM / VXM	●			Inverter
Sanken	SAMCO-i	ihf / ipf / QS / lt / iF	●		●	Inverter
Huropec	HC	HC	●			Motion
FEBA	UDICON	UDICON	●		●	Motion
FEBA	SMARTCON	SMARTCON	●		●	Motion

Measurement

Maker	Series	CPU Type	CPU Port	Link	(1:N)	Type
AND	AD	AD4326 / 4327 / 4328 / 4329	●		●	Indicator
CHIMEI	CB920X	CB920X	●			Indicator
IMO	DTP	DTP				
Sewha	SI3000		●		●	Indicator
Yoko gawa	Temp Controller	ut / up / um	●			Temp Control
RKC	CB100Z	Cb100 / 400 / 500 / 700 / 900Z	●		●	Temp Control
RKC	SR - Mini		●		●	
Hanyoung	PX		●		●	Temp Control
Hanyoung	NX		●		●	
Hanyoung	UX100		●		●	
Hanyoung	MP3		●		●	Panel Meter

Other Automation Products

Lμ1000 Relay

AC Servo System

AC Inverter Drives

DC Drives

PLCs

Soft Starters

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*P*roduct improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.