NOVAKON

"
HMI-Your Intelligent
IIoT Gateway Solutions
"

NOVAKON

NOVAKON Co., Ltd.

Bldg G, 4F-3, No. 3-1, Yuan Qu Street,
Nankang, Taipei, Taiwan, R.O.C.
Tel : +886-2-7720-0999
E-mail : sales@novakon.com.tw

Website

E-Catalog

Product
Catalog

CONTENT

NOVAKON IIoT Solutions

Bridging the OT and IT systems

SCADA IIoT Gateway

HMI

INDUSTRY 4.0 IIoT

About NOVAKON

Drive Digital Transformation and Shape the Future

Novakon Co., Ltd. is a dedicated HMI (Human-Machine Interface) and IIoT (Industrial Internet of Things) software developer and hardware manufacturer, our exceptional customized services provide clients with a wide array of software tailor-made solutions that facilitate unique day-to-day operations without compromise. Over two decades of experience across a vast array of application verticals enables Novakon to offer robust integration services linking data from legacy devices with modern databases.

Company

Founded
September, 2010

Parent Group

iBASE
Technology Inc.
(TPEx 8050)

Solution

Software
HMI / SCADA Software – iFace-Designer®
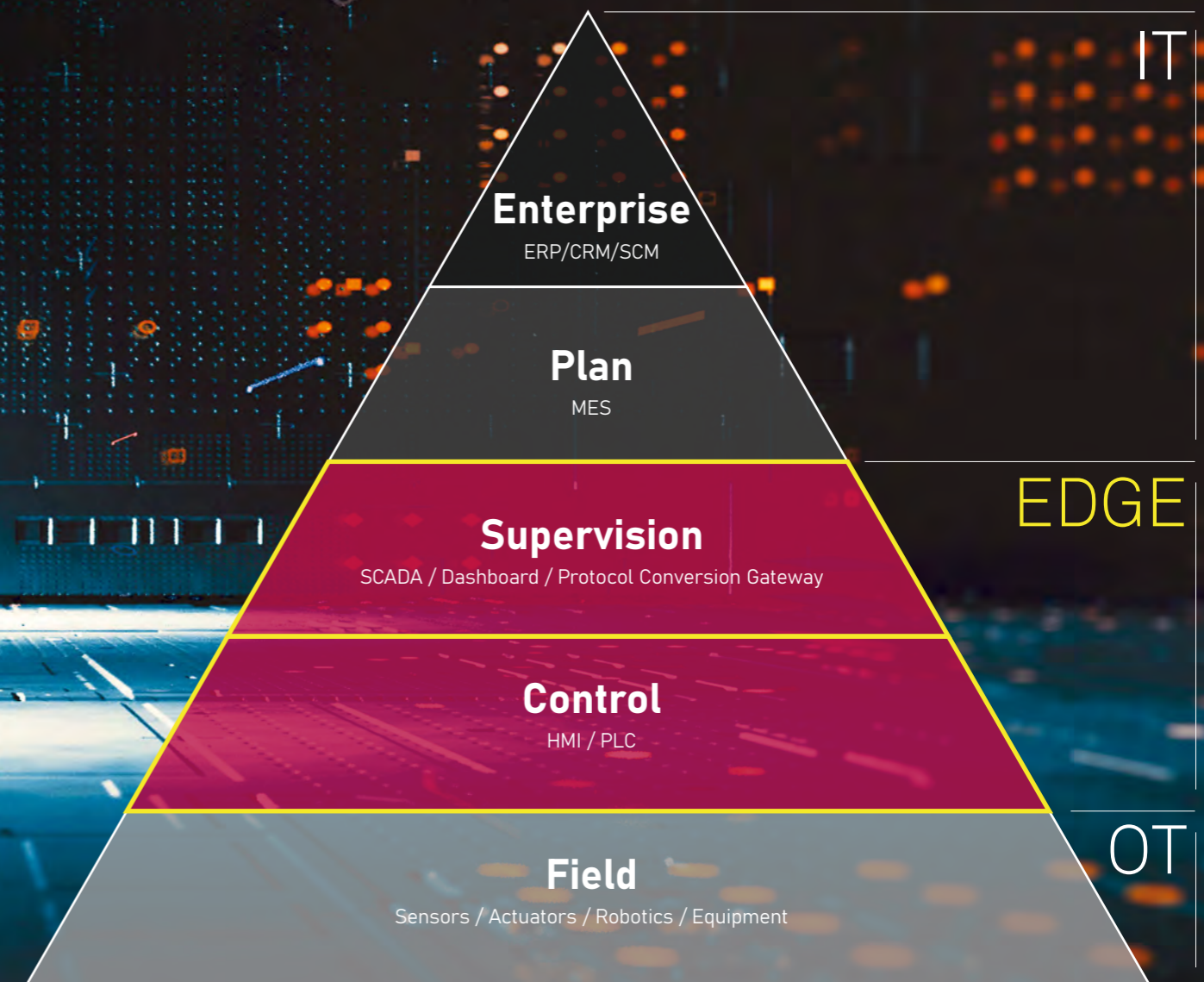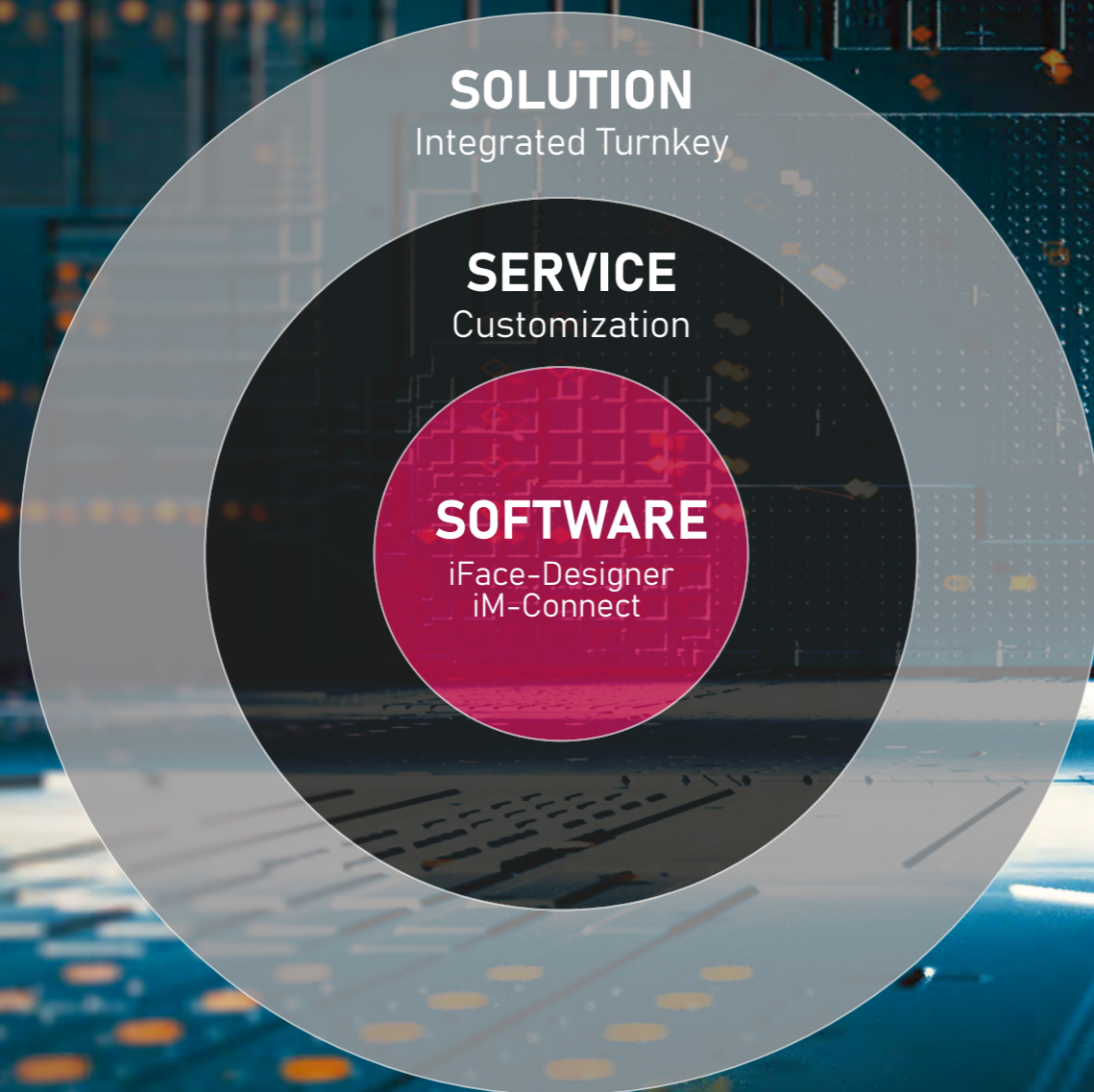Protocol Conversion Gateway Software – iM-Connect®

Hardware
HMI Control Panel
Industrial Panel PC
Industrial IOT Gateway & Box PC
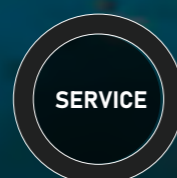
Service
Integration and custom software service

NOVAKON Core Competence

SOLUTION
Integrated Turnkey

SERVICE
Customization

SOFTWARE
iFace-Designer
iM-Connect

SOFTWARE
- iFace-Designer® – HMI Visualization
- iM-Connect® – Protocol Conversion

SERVICE
- Software Programming
- Application Customization

SOLUTION
- Industry domain know-how
- Hardware and software integration

Novakon Focused Area
Computer Integrated Manufacturing

IT

Enterprise
ERP/CRM/SCM

Plan
MES

EDGE

Supervision
SCADA / Dashboard / Protocol Conversion Gateway

Control
HMI / PLC

Field
Sensors / Actuators / Robotics / Equipment

OT

Novakon focuses on the edge layer of CIM pyramid for IT/OT convergence. In addition to delivering SCADA and HMI solutions in CIM control and supervision layers, we also provides ideal solutions and customized services for protocol conversion gateway used for data collection as well as dashboard used for enterprise situation room.

Data Center
Power Metering

Application Stories

Novakon is the professional HMI solution provider. We offer products and solutions with proven track of records in various industries and vertical applications, including data center power metering, indoor environmental monitoring, building automation, retail store equipment management, pneumatic torque controller, CNC machine, wastewater treatment, IIoT sewing machine, and all kinds of production and process automation machinary, devoted to create a reliable and flexible interface that connects your facilities or business environments to the Industrial IoT ecosystem.

Learn more about our application stories at www.novakon.com.tw

IIoT Sewing
Machine

Wastewater
Treatment
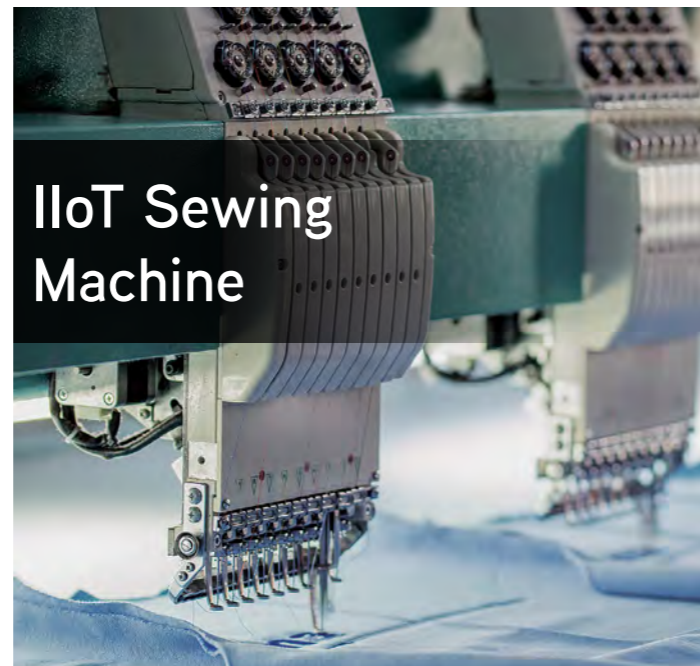
Retail Store
Equipment
Management

CNC
Machine

Indoor
Environmental
Monitoring

Pneumatic Torque
Controller

Building
Automation

Production
Equipment

| HMI | Industrial Panel PC | Protocol Conversion Gateway |

IIoT Solutions

Apps

CLOUD

Clients

Enterprise War Room

Database

ERP/ MES / PLM / SCADA

Data Acquisition

Visualization

EDGE

Robotics

Meter

Programmable
Logic Controller

HVAC

CNC Controller

Motor

I/O Module

Machine Tool

Environmental
Sensors

IT

| CLOUD | ERP | MES |

OT

EQUIPMENT | PLC | SENSOR |

NOVAKONSOFTWARE

iFace-Designer®

Intuitive, **F**unctionality, **A**esthetic, **C**onfigurable, **E**asy

iFace Designer® is a cross-platform visualization software, from which the compiled program can be installed and run on both HMI and Industrial Panel PC. Tabs in ribbun UI make it simple and straightforward to develop projects. With a few clicks you can easily reach functions and properties.

01 Quick Toolbar

Small custom toolbar which can include more frequently used commands.

02 File Tab

A file menu with functions for project management.

03 Screen Tab

Quickly alternate between screens for editing.

04 Screen Manager

Screen can be clicked on for editing, viewing, summarizing current content.

05 Screen Editing Area

Edit the content of each screen in the project

06 Sub-Window Shortcuts

Quick commands to open or to close sub-windows.

07 Multi-language & Widget states

Choose from multiple languages and control states to view and to edit.

08 Software Interface Settings

Change the skins or languages for GUI.

09 Ribbon

The ribbon contains multiple tabs with groups of functions for editing convenience and project management.

10 System Widget Library

A rich and elaborate widget library for user to choose from.

11 User Widget Library

User can also easily create a customized library of widgets.

12 Compiled Results

Compilation error messages appear in this window so that user can quickly debug.

13 Zoom, Grid, and Coordinates

Zoom in or out screens for perfect viewing.
Grid and Coordinates for quickly and easily positioning of the widgets on screen.

Diversified Smart Functions

iFace Designer® provides smart and powerful functions for visualization, automation, IIoT remote communication and monitoring.

Widget Library
Built-in library of refreshingly designed, easy to use widgets, elegant and stylish.

Statistics Charts
Display data logs with charts with a variety of line types and backgrounds.

CODESYS PLC Handler
Built-in PLCHandler for the communication between CODESYS Soft PLCs controller and HMI. CODESYS symbol .xml file import supported.

MQTT
Support both MQTT (Message Queuing Telemetry Transport) server and client for message exchange between publisher and subscriber.

Macro
Powerful yet simple scripting language for data manipulation, data conversion, and data movement.

Trigger Action
According to the programmed conditions to trigger associated actions and alarms.

PLC Pass Through
Create a tunnel for PC to directly monitor and control PLC, upload and download PLC program to PLC through HMI without extra connection.

RESTful API
Sends requests and receives responses in JSON format while avoiding security breaches with HTTPS encryption algorithm.

Data Logger
High precision sampling time and adjustable data refresh rate. Support data with a max of 32 data fields each log.

Report
Data log backup can be further exported into reports in .txt, .csv, or .pdf formats.

VNC
Remote control and monitoring of HMI can be easily achieved through VNC connection.

OPC UA
Built-in OPC UA server and client for data exchange with standardized communication and interoperability.

Scheduler
Automatic actions according to the pre-defined schedules to increase work efficiency.

Recipe
Easy grouping parameters recipe. Each recipe data field can seamlessly link to widgets.

VPN
VPN enables all the remote control and monitoring across firewalls and networks via a secured tunnel.

Line Notify
Alarm and event messages can be sent through Line Notify when the defined condition is met.

Program Simulation
Online and offline simulation to see how your application works with/without connection to controllers right on your PC.

PLC Drivers and industrial protocols
Support standard industrial communication protocols and mainstream PLC drivers just with simple selection and settings.

FTP
Data logs, historical alarm tables, recipes, screen captures, and HMI project can be remotely upload or download via FTP.

Online Upgrade
Support software version as well as PLC driver library online upgrade.

iM-Connect®

Intelligent, **M**achine, **C**onnect

iM-Connect® is a web-based and simple-to-use programming software that supports a variety of industrial communication protocols, PLC drivers, and IIOT cloud connections as a simple but reliable protocol conversion and data acquisition platform for the "Connected" industries.

01 **iM-Connect Menu**

Contains the directory of each iM-Connect functions.

02 **Basic Settings**

The setup of PLC, tag, data logger, and alarm are identical to iFace Designer. Easy hands-on across two softwares without efforts.

03 **Advanced Settings**

Advanced functions including MQTT, Macro, OPCUA, Online Monitor, etc.

04 **Project and System Setup**

Project and system related settings , such as save and compile, download/upload, start/stop of the project; System operating status, network parameters, date and time, and security settings
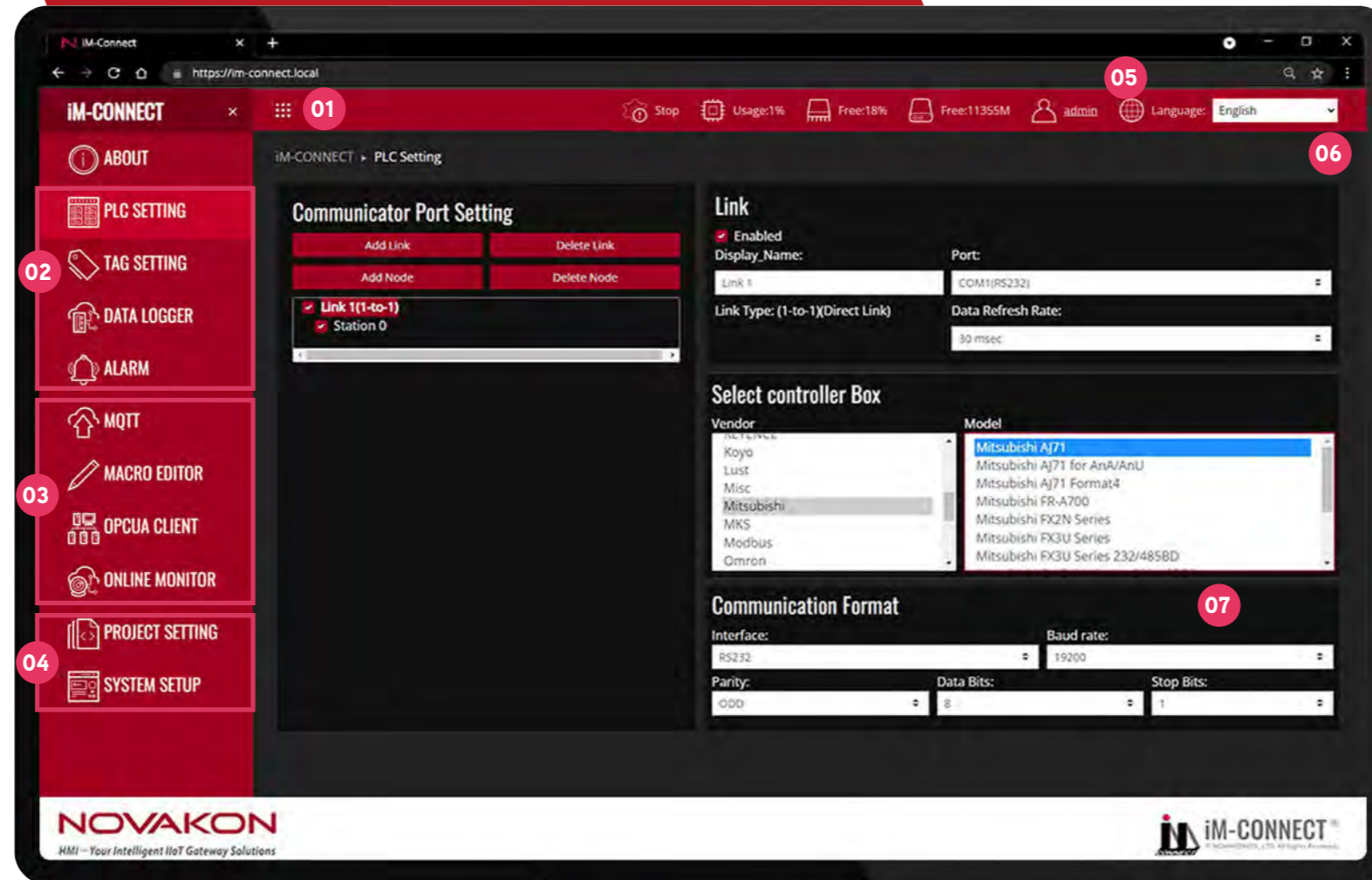
05 **Gateway URL**

Enter the URL into the web browser to access the iM-Connect webpage.

06 **System Status Bar**

View the current usage and remaining capacity of the system as well as runtime status, username and current selected language.

07 **Function Setting Area**

Select and configure the parameters of each functions.

Diversified Smart Functions

iM-Connect® offers an easy-to-use configuration interface on the web browser to empowers the hardware platform with data acquisition and protocol conversion capabilities, which helps the challenging work for legacy equipment upgrade across industries.

Data Logger
High precision sampling time and adjustable data refresh rate. Support data with a max of 32 data fields each log.

PLC Drivers and industrial protocols
Support standard industrial communication protocols and mainstream PLC drivers just with simple selection and settings.

MQTT
Support both MQTT (Message Queuing Telemetry Transport) server and client for message exchange between publisher and subscriber.

Online Monitor
Real-time monitor the current tag values and status from the controllers connected to gateway.

Report
Data log backup can be further exported into reports in .txt, .csv, or .pdf formats.

CODESYS PLC Handler
Built-in PLCHandler for the communication between CODESYS Soft PLCs controller and Gateway. CODESYS symbol .xml file import supported.

RESTful API
Sends requests and receives responses in JSON format while avoiding security breaches with HTTPS encryption algorithm.

Online Upgrade
Support software version as well as PLC driver library online upgrade.

Macro
Based on JavaScript, it's a powerful yet simple tool for data manipulation, data conversion, and data movement.

VPN
VPN enables all the remote control and monitoring across firewalls and networks possible.

OPC UA
Built-in OPC UA server and client for data exchange with standardized communication and interoperability.

Database Connection
Data log can be pushed to Databases, such as MySQL, MS SQL, and SQLite when triggered by condition or at any given interval.

Security
Login with username and password. User can be set to two different security levels for different access: administrator (modified and view) or user (view only).

FTP
Data log backup can be remotely upload or download via FTP.

Email & Line Notify
Alarm and event messages can be sent through Email and Line Notify when the defined condition is met.

SECS/GEM
Different equipment data can be collected and converted to meet Semiconductor and PCB industry specific standard.

Custom Software Services

Servicing the industries and catering to every UNIQUE demand

Novakon Co., Ltd. is a dedicated HMI and IIoT software developer and hardware manufacturer, our exceptional customized services provide clients with a wide array of software tailor-made solutions that facilitate unique day-to-day operations without compromise.
Over two decades of experience across a vast array of application verticals enables Novakon to offer robust integration services linking data from legacy devices with modern databases.

- Programming Services
- Application Customization Services
- Legacy Upgrade & Replacement Services

Any custom software requirement, please contact us at
sales@novakon.com.tw

NOVAKON

S Series
Performance

P Series
Standard

N Series
Entry

Gateway

GW Series
Protocol Conversion

HMI

Blue LED power indicator

Brushed silver, metal-look frame

Bright, Wide viewing angle, Full color TFT

Customizable Status Bar

Customizable home key (min. 100,000 cycles)

GW01

HMI

DC Power
Isolated Design
24V ± 20%

GPIO

USB (master)

WiFi

GPIO

5V/3.3V	2	1	nSPI_CS0
GND	4	3	nSPI_INT0
SPI1_SCLK	6	5	nSPI_CS1
SPI1_DO	8	7	nSPI_INT1
SPI1_D1	10	9	nSPI_CS2
UART_TX	12	11	nSPI_INT2
UART_RX	14	13	nSPI_CS3
nSPI_CS4	16	15	nSPI_INT3
GND	18	17	I2C1_SCL
3.3V	20	19	I2C1_SDA

COM 1-3
Isolated Design
All support up to 187.5Kbps

SD Card

Ethernet
1 & 2 (option)

USB (device)

SW1	SW2	SW3	SW4	Main Function
ON	ON	ON	ON	Normal Operation
ON	ON	ON	OFF	Bypass Self-Test
ON	ON	OFF	OF	Reserved
ON	ON	OFF	OFF	System Menu
ON	OFF	X	X	Reserved
OFF	ON	X	X	COM Port Test
OFF	OFF	OFF	OFF	Bench Test
OFF	OFF	OFF	ON	Individual Function Test
OFF	OFF	ON	X	Reserved

DC Power
Isolated Design
24V ± 20%

DIN-rail Clip

Recovery USB Drive

COM
RS-232
RS-422/485
*1 connector split to 2 types of serial connections

LAN1
10/100 Mbit Ethernet Port
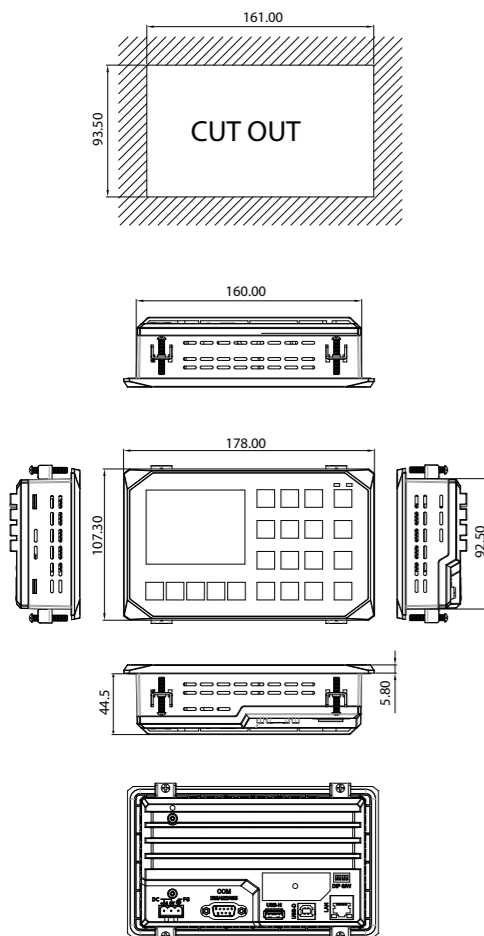
LAN2
10/100 Mbit Ethernet Port

Features

- ARM 9 (400 MHz)
- 3.5" TFT 320 x 240, 300 cd/m², 20,000 hours
- Come with function and numeric keys
- 19.2 ~ 28.8V, Isolated Power
- Plastic chassis, fan-less design
- Panel mount, IP65 front bezel
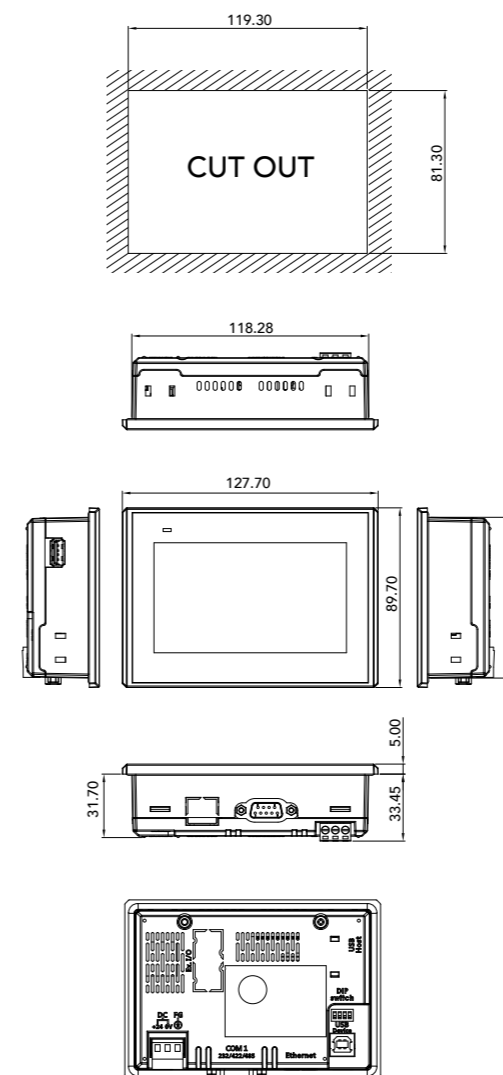- Suitable for industrial applications

Features

- ARM 9 (400 MHz)
- 4.3" TFT 480 x 272, 500 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Plastic chassis, fan-less design
- Panel mount, IP65 front bezel
- Suitable for industrial applications

ARM **IP65**

ARM **IP65**

Specifications

CPU	ARM 9 (400 MHz)
Memory	128MB SDRAM
Storage	128MB NAND Flash
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 1 x RS232 1 x RS422/485, COM1 Function keys (F1 ~ F11) Numeric Keys (0~9 , A~F)
Display	3.5" TFT, 320 x 240 Luminance 300 (cd/m²) View angle 140/130 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	-
Power	19.2 ~ 28.8V Isolated Power
Construction	Plastic
Net Weight(Kgs)	0.33 Kg
Mounting	Panel mount
Dimensions (mm)	178(W) x 107.3(H) x 49.5(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Specifications

CPU	ARM 9 (400 MHz)
Memory	128MB SDRAM
Storage	128MB NAND Flash
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 1 x RS232 1 x RS422/485, COM1 1 x 10/100 Mbit Ethernet Port
Display	4.3" TFT, 480 x 272 Luminance 500 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Plastic IP65 front bezel
Net Weight(Kgs)	0.25 Kg
Mounting	Panel mount
Dimensions (mm)	127.7(W) x 89.7(H) x 36.7(D)
Operating Temp.	0℃~ 45℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

Ordering Information

NK03-P

3.5" TFT 320 x 240 fan-less keypad HMI with ARM 9 (400 MHz) CPU, 128MB RAM, 128M Flash, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel

Ordering Information

N04F-N

4.3" TFT 480 x 272 fan-less HMI with ARM 9 (400 MHz) CPU, 128MB RAM, 128M Flash, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, plastic chassis and IP65 front bezel
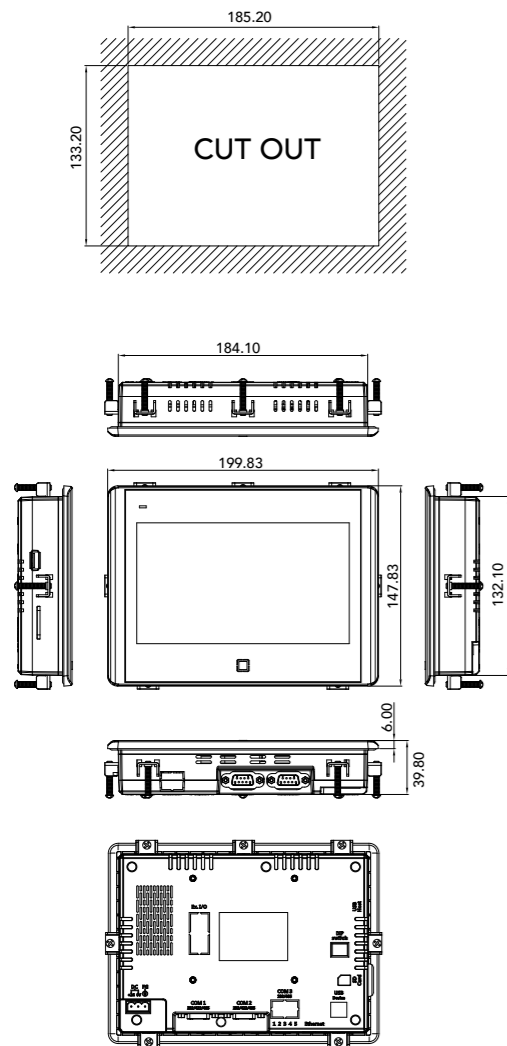
Features

- ARM 9 (400 MHz)
- 7" TFT 800 x 480, 250 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

ARM IP65 ESD

Specifications

CPU	ARM 9 (400 MHz)
Memory	128MB SDRAM
Storage	128MB NAND Flash
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 1 x 10/100 Mbit Ethernet Port 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 250 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic IP65 front bezel
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

185.20
133.20
CUT OUT

184.10
199.83
147.83
132.10
6.00
39.80

Ordering Information

N07F-N

7" TFT 800 x 480 fan-less HMI with ARM9 (400 MHz) CPU, 128MB RAM, 128M Flash, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel
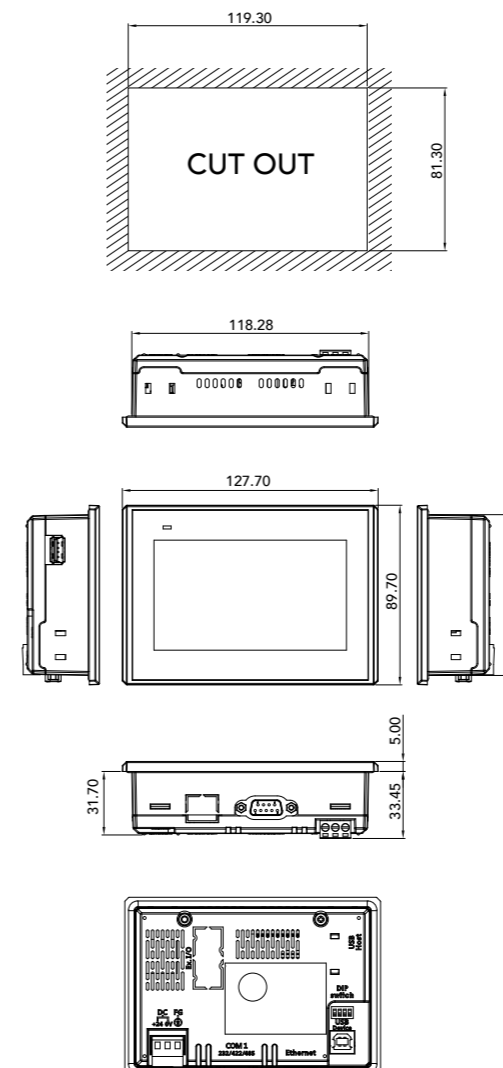
Features

- TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
- 4.3" TFT 480 x 272, 500 cd/m², 20,000 hours
- 19.2 ~ 28.8V, Isolated Power
- Plastic chassis, fan-less design
- Panel mount, IP65 front bezel
- Suitable for industrial applications

ARM IP65 WiFi

Specifications

CPU	TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
Memory	512MB
Storage	4GB eMMC
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 1 x RS232 1 x RS422/485, COM1 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port
Display	4.3" TFT, 480 x 272 Luminance 500 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Plastic
Net Weight(Kgs)	0.25 Kg
Mounting	Panel mount
Dimensions (mm)	127.7(W) x 89.7(H) x 36.7(D) mm
Operating Temp.	0℃~ 45℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

119.30
81.30
CUT OUT

118.28
127.70
89.70
80.28
31.70
33.45
5.00

Ordering Information

P04F-N

4.3" TFT 480 x 272 fan-less HMI with ARM Cortex-A8(1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, plastic chassis and IP65 front bezel

Industrial HMI Operator Panel
P07

Industrial HMI Operator Panel
P10

ARM | **IP65** | **WiFi** | **ESD** | **DUAL LAN**
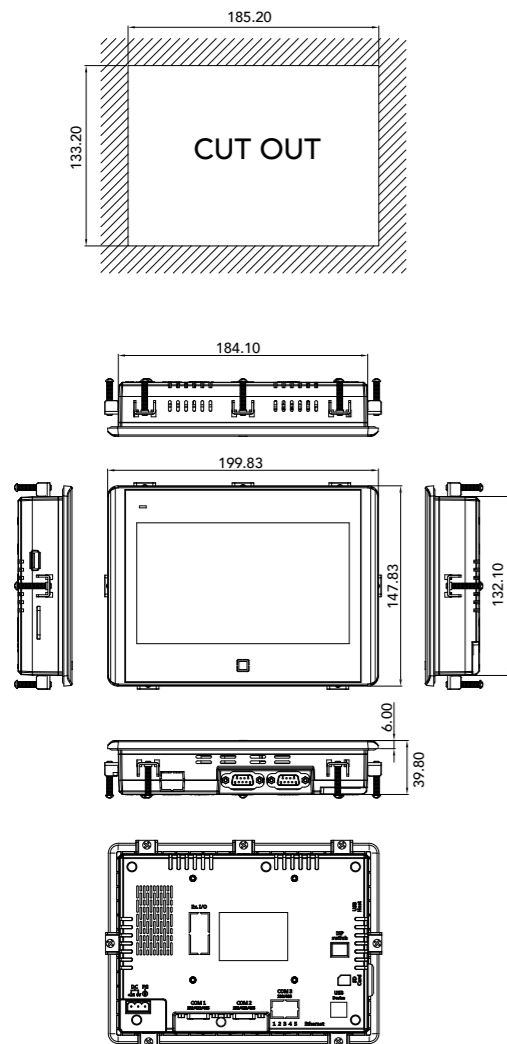
Features

· TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
· 7" TFT 800 x 480, 250 cd/m², 20,000 hours
· 19.2 ~ 28.8V, Isolated Power
· Painted plastic chassis, fan-less design
· Panel or VESA 75mm x 75 mm mount, IP65
  front bezel
· ESD Protection : Level 4 (Contact Discharge
  8KV, Air-Gap Discharge 15KV), Class A
· Suitable for industrial applications

Specifications

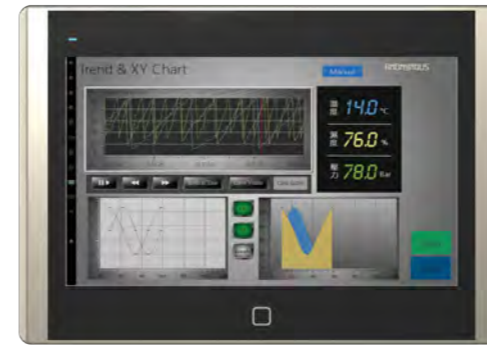| CPU	TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port or 2 x 10/100 Mbit (Option) 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 250 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 500:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

Ordering Information

P07F-N

7" TFT 800 x 480 fan-less HMI with ARM Cortex-A8(1GHz) CPU,
512MB RAM, 4GB eMMC, resistive touchscreen, Ethernet, 19.2 ~ 28.8V
isolated power, painted plastic chassis and IP65 front bezel

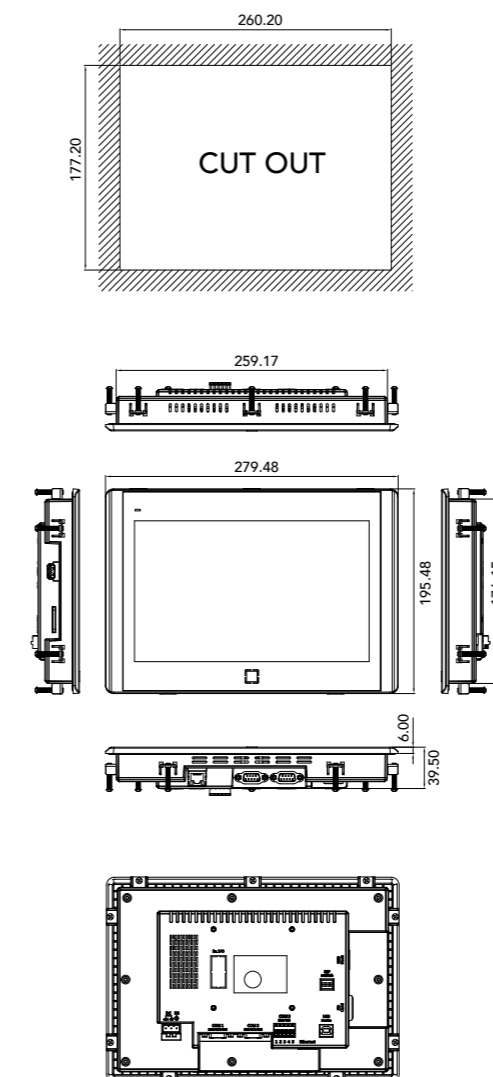**ARM** | **IP65** | **WiFi** | **ESD** | **DUAL LAN**

Features

· TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
· 10.2" TFT 800 x 480, 350 cd/m², 20,000 hours
· 19.2 ~ 28.8V, Isolated Power
· Painted plastic chassis, fan-less design
· Panel or VESA 75mm x 75 mm mount, IP65 front bezel
· ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap
  Discharge 15KV), Class A
· Suitable for industrial applications

Specifications

CPU	TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port or 2 x 10/100 Mbit (Option) 1 x SD Card Slot
Display	10.2" TFT, 800 x 480 Luminance 350 (cd/m²) View angle 130/110 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 300:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Painted Plastic
Net Weight(Kgs)	1.1 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	279.5(W) x 195.5(H) x 39.5(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)/UL

Ordering Information

P10F-N

10.2" TFT 800 x 480 fan-less HMI with ARM Cortex-A8 (1GHz) CPU,
512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V
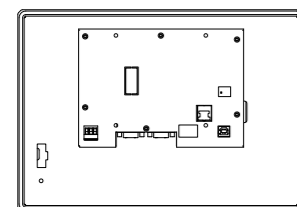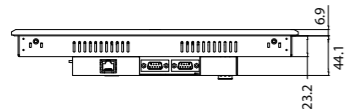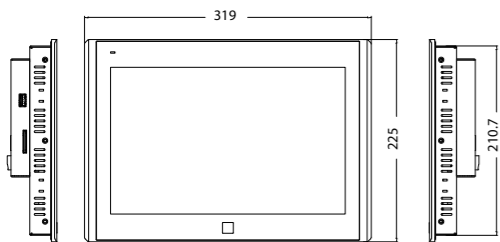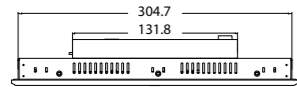isolated power, painted plastic chassis and IP65 front bezel
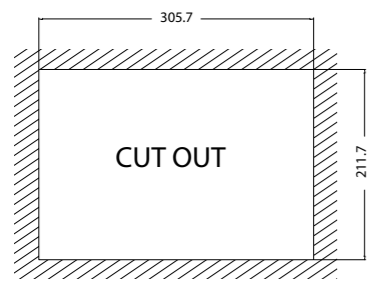
Industrial HMI Operator Panel
P12

Features

· TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
· 12.1" TFT 1280 x 800, 600 cd/m², 50,000 hours
· 19.2 ~ 28.8V, Isolated Power
· Aluminum IP65 front bezel and steel chassis
· Panel or VESA 100 mm x 100 mm mount
· ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
· Suitable for industrial applications

ARM | IP65 | ESD | DUAL LAN | WiFi

Specifications

CUT OUT

305.7
211.7

304.7
131.8

319
225
210.7

6.9
44.1
23.2

CPU	TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port or 2 x 10/100 Mbit (Option) 1 x SD Card Slot
Display	12.1" TFT, 1280 x 800 Luminance 600 (cd/m²) View angle 176/176 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 1000:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Aluminum IP65 front bezel and steel rear chassis
Net Weight(Kgs)	4.3 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	319.0(W) x 225.0(H) x 50.6(D)
Operating Temp.	0°C~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Ordering Information

P12F-N

12.1" TFT 1280 x 800 fan-less HMI with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis

---

Industrial HMI Operator Panel
P15

Features

· TI ARM® Cortex ™ A8, Sitara ™ AM3352 (1GHz)
· 15.6" TFT 1366 x 768, 500 cd/m², 50,000 hours
· 19.2 ~ 28.8V, Isolated Power
· Aluminum IP65 front bezel and steel chassis
· Panel or VESA 100 mm x 100 mm mount
· ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
· Suitable for industrial applications

ARM | IP65 | ESD | DUAL LAN | WiFi

Specifications

CUT OUT

394.5
246.62

394.5
185.5

408.8
260.92
246.62

6
44.6
20.8

CPU	TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)
Memory	512MB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100 Mbit Ethernet Port or 2 x 10/100 Mbit (Option) 1 x SD Card Slot
Display	15.6" TFT, 1366 x 768 Luminance 500 (cd/m²) View angle 160/150 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 600:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Aluminum IP65 front bezel and steel chassis
Net Weight(Kgs)	5.8 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	408.8(W) x 260.9(H) x 50.6(D)
Operating Temp.	0°C~ 50°C
Storage Temp.	-20°C ~ 60°C
Humidity	10% to 90% @ 40°C, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Ordering Information

P15F-N

15.6" TFT 1366 x 768 fan-less HMI with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis
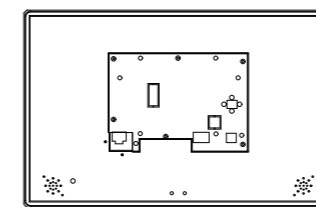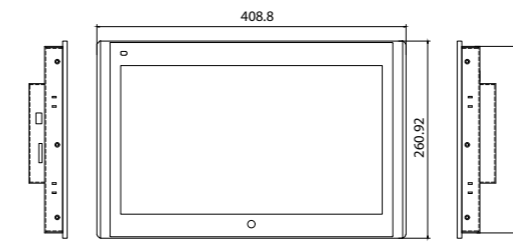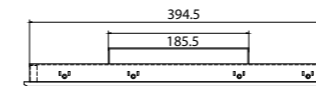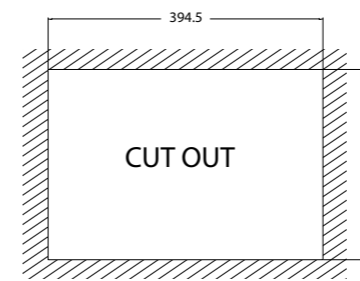
Industrial HMI Operator Panel
S07

Industrial HMI Operator Panel
S10

Features

- NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
- 7" TFT 800 x 480, 250 cd/m², 20,000 hours
- 19.2 ~ 28.8V Isolated Power Input
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

Specifications

CPU	NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
Memory	1GB SDRAM
Storage	4GB eMMC
I/O	1 x USB 1.1 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100/1000 Mbit Ethernet Port 1 x SD Card Slot
Display	7" TFT, 800 x 480 Luminance 250 (cd/m²) View angle 140/120 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 300:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power Input
Construction	Painted Plastic
Net Weight(Kgs)	0.68 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	199.8(W) x 147.8(H) x 39.8(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Ordering Information

S07F-N

7" TFT 800 x 480 fan-less HMI with ARM Cortex-A9 (1GHz Dual-Lite) CPU, 1GB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel
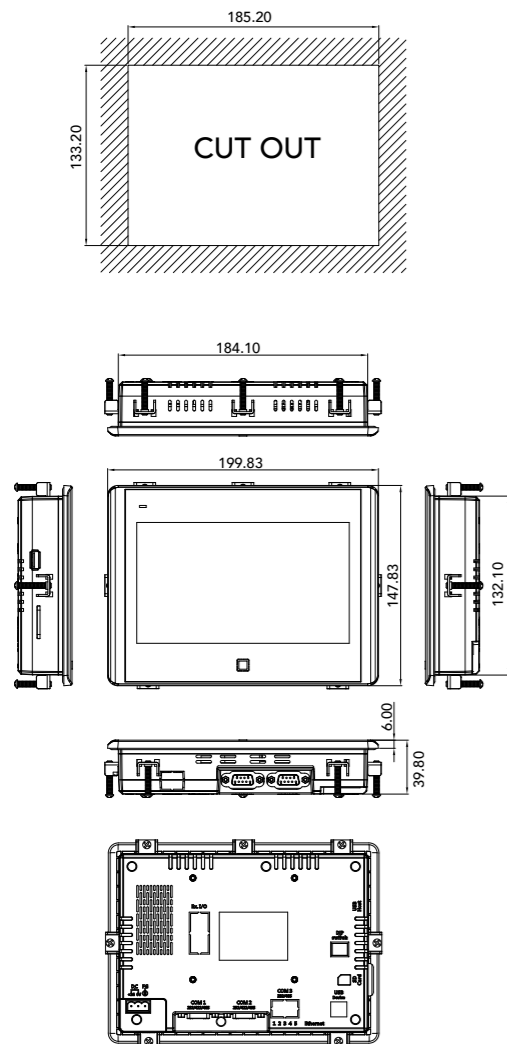
Features

- NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
- 10.2" TFT 800 x 480, 350 cd/m², 20,000 hours
- 19.2 ~ 28.8V Isolated Power Input
- Painted plastic chassis, fan-less design
- Panel or VESA 75mm x 75 mm mount, IP65 front bezel
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

Specifications

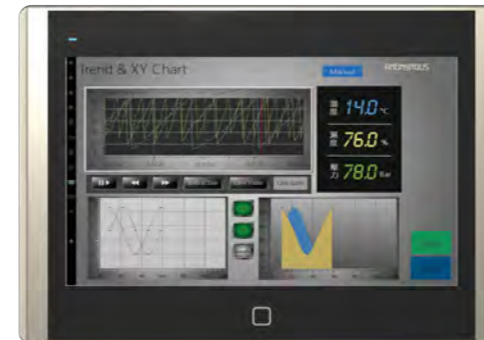|	
CPU	NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
Memory	1GB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100/1000 Mbit Ethernet Port 1 x SD Card Slot
Display	10.2" TFT, 800 x 480 Luminance 350 (cd/m²) View angle 130/110 (H°/V°) Backlight Lifetime 20,000 hours Contrast ratio 300:1
Touch Screen	4-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power Input
Construction	Painted Plastic
Net Weight(Kgs)	1.1 Kg
Mounting	Panel or VESA 75 x 75 mount
Dimensions (mm)	279.5(W) x 195.5(H) x 39.5(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

Ordering Information

S10F-N

10.2" TFT 800 x 480 fan-less HMI with ARM Cortex-A9 (1GHz Dual-Lite) CPU, 1GB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, painted plastic chassis and IP65 front bezel

CUT OUT

185.20
133.20
184.10
199.83
147.83
132.10
6.00
39.80

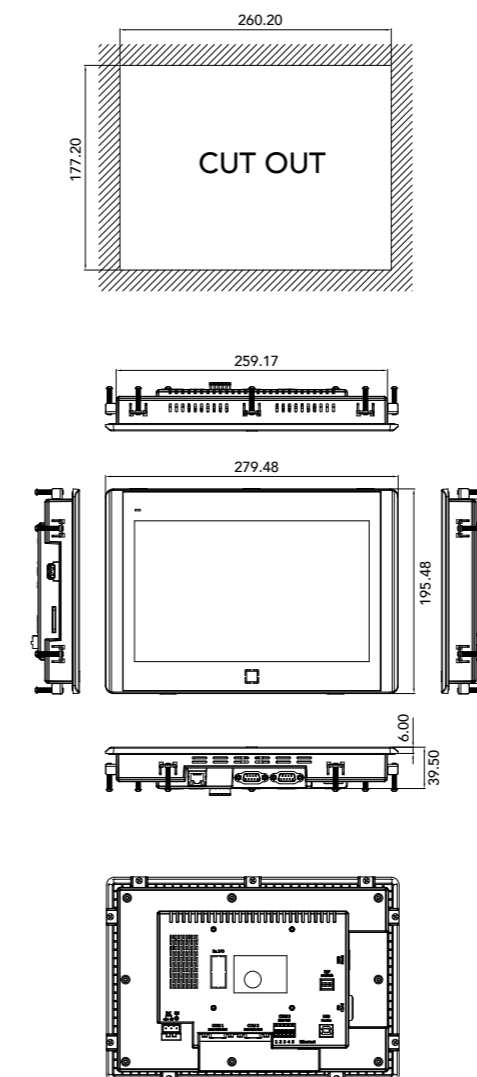CUT OUT

260.20
177.20
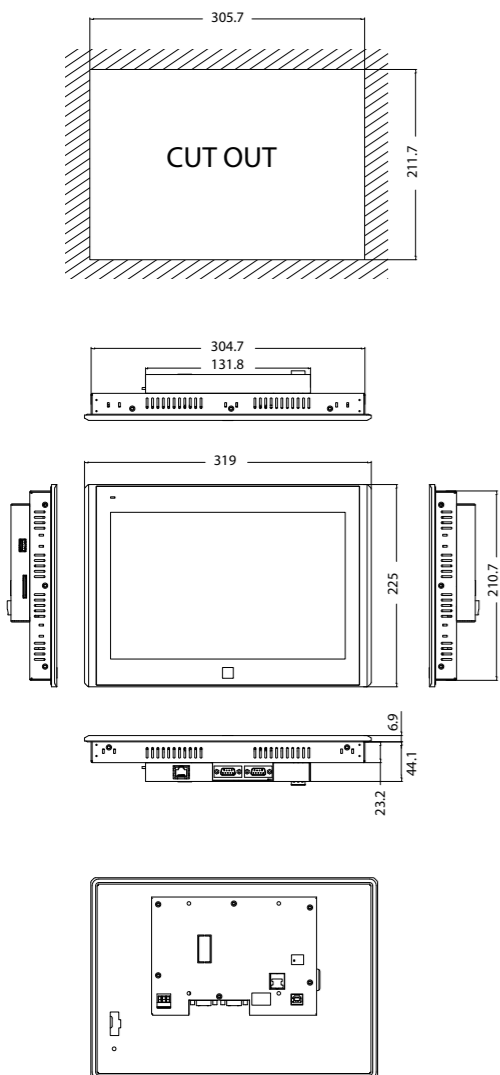259.17
279.48
195.48
176.15
6.00
39.50

Features

- NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
- 12.1" TFT 1280 x 800, 600 cd/m², 50,000 hours
- 19.2 ~ 28.8V Isolated Power Input
- Aluminum IP65 front bezel and steel chassis
- Panel or VESA 100 mm x 100 mm mount
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

ARM   **IP65**   **ESD**

Specifications

CPU	NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
Memory	1GB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100/1000 Mbit Ethernet Port 1 x SD Card Slot
Display	12.1" TFT, 1280 x 800 Luminance 600 (cd/m²) View angle 176/176 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 1000:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power Input
Construction	Aluminum IP65 front bezel and steel rear chassis
Net Weight(Kgs)	4.3 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	319.0(W) x 225.0(H) x 50.6(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

CUT OUT

305.7   211.7   304.7   131.8   319   225   210.7   6.9   44.1   23.2

Ordering Information

S12F-N

12.1" TFT 1280 x 800 fan-less HMI with ARM Cortex-A9 (1GHz Dual-Lite) CPU, 1GB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis

Features

- NXP ARM® Cortex™-A9 , i.MX 6Dual Lite (1GHz)
- 15.6" TFT 1366 x 768, 500 cd/m², 50,000 hours
- 19.2 ~ 28.8V Isolated Power
- Aluminum IP65 front bezel & steel rear chassis
- Panel or VESA 100 mm x 100 mm mount
- ESD Protection : Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
- Suitable for industrial applications

ARM   **IP65**   **ESD**

Specifications

CPU	NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)
Memory	1GB SDRAM
Storage	4GB eMMC
I/O	1 x USB 2.0 host Type A 1 x USB 2.0 device Type B 2 x RS232/422/485, COM1, COM2 1 x RS232/485, COM3 or CAN Bus (Option) 1 x 10/100/1000 Mbit Ethernet Port 1 x SD Card Slot
Display	15.6" TFT, 1366 x 768 Luminance 500 (cd/m²) View angle 160/150 (H°/V°) Backlight Lifetime 50,000 hours Contrast ratio 600:1
Touch Screen	5-wire resistive touch
Power	19.2 ~ 28.8V Isolated Power
Construction	Aluminum IP65 front bezel and steel rear chassis
Net Weight(Kgs)	5.8 Kg
Mounting	Panel or VESA 100 x 100 mount
Dimensions (mm)	408.8(W) x 260.9(H) x 50.6(D)
Operating Temp.	0℃~ 50℃
Storage Temp.	-20℃ ~ 60℃
Humidity	10% to 90% @ 40℃, (non-condensing)
ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)

CUT OUT

394.5   246.62   394.5   185.5   408.8   260.92   246.62   6   44.6   20.8

Ordering Information

S15F-N

15.6" TFT 1366 x 768 fan-less HMI with ARM Cortex-A9 (1GHz Dual-Lite) CPU, 1GB RAM, 4GB eMMC, resistive touch screen, Ethernet, 19.2 ~ 28.8V isolated power, aluminum front bezel, steel rear chassis

SELECTION GUIDE

HMI
SERIES

SELECTION GUIDE
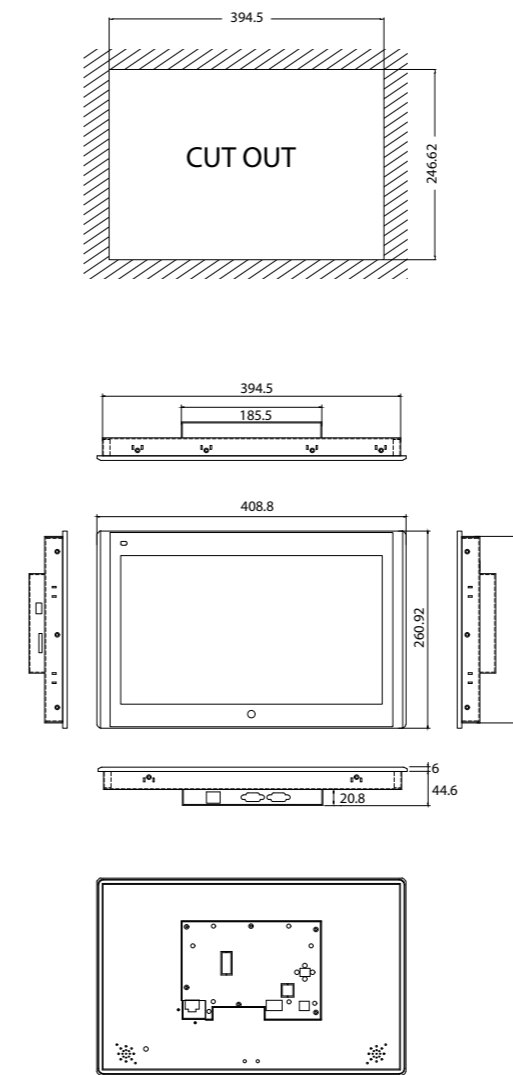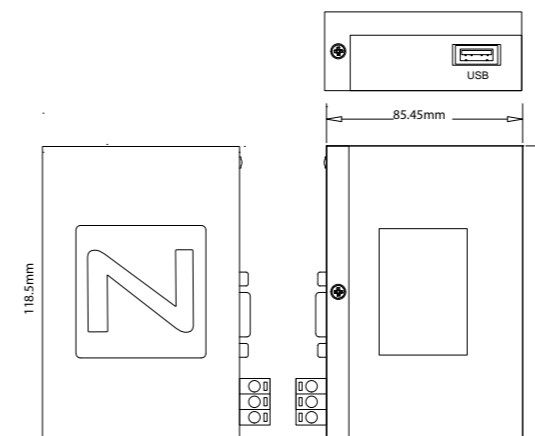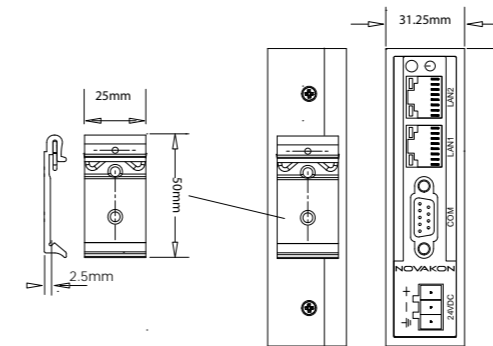
HMI
SERIES

N-SERIES

	Model	NK03	N04	N07
		NK03-P	N04F-N	N07F-N
Display	Display type	3.5" TFT	4.3" TFT	7" TFT
	Resolution	320 X 240	480 x 272	800 x 480
	Color depth		16.7M	
	Backlight type		LED	
	Luminance (cd/m²)	300	500	250
	Backlight lifetime		20,000 hours	
	Viewing angle (H°/V°)	140/130	140/120	140/120
	Contrast		500:1	
	Dimming		20 levels	
System	CPU		ARM9 (400 MHz)	
	Storage		128MB NAND Flash	
	Memory		128MB	
	RTC		Yes	
Interface	Touch Screen	-	4-wire resistive type	
	COM1	1 x RS232, 1 x RS422/485		RS232/422/485
	COM2	-		RS232/422/485
	COM3	-		RS232/485
	Ethernet	-	1 x 10/100Mbit	
	USB	1 x Type A (Host), 1 x Type B (Device)		
	Memory card	-		SD Card
Ratings	Power supply voltage	19.2 ~ 28.8V, Isolated Power		
	Power consumption	6W		8W
	Weight (kg)	0.33	0.25	0.68
	Battery	CR2032 Replaceable		
Environment	Operation temperature	0 ~ 50°C	0 ~ 45°C	0 ~ 50°C
	Storage temperature	-20 ~ 60°C		
	Humidity	10% ~ 90% (non-condensing)@40°C		
Mechanical	Construction	Plastic		
	Protection	IP65 (Front)		
	Mounting (mm)	Panel Mount		Panel Mount, VESA 75 x 75
	Dimension (mm)	178(W) x 107.3(H) x 49.5(D)	127.7(W) x 89.7(H) x 36.7(D)	199.8(W) x 147.8(H) x 39.8(D)
	Cut-out (mm)	161(W) x 93.5(H)	119.3(W) x 81.3(H)	185.2(W) x 133.2(H)
Approvals	ESD Protection	-		Level 4 (Contact Discharge 8KV, Air-Gap 15KV), Class A
	Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)	CE / FCC (EN 61000-6-4, EN 61000-6-2) / UL	CE / FCC (EN 61000-6-4, EN 61000-6-2) / UL
Software		iFace Designer®		

P-SERIES

	Model	P04	P07	P10	P12	P15
		P04F-N	P07F-N	P10F-N	P12F-N	P15F-N
Display	Display type	4.3" TFT	7" TFT	10.2" TFT	12.1" TFT	15.6" TFT
	Resolution	480 x 272	800 x 480		1280 x 800	1366 x 768
	Color depth			16.7M		
	Backlight type			LED		
	Luminance (cd/m²)	500	250	350	600	500
	Backlight lifetime		20,000 hours		50,000 hours	
	Viewing angle (H°/V°)	140/120		130/110	176/176	160/150
	Contrast	500:1		300:1	1000:1	600:1
	Dimming			20 levels		
System	CPU		TI ARM® Cortex™-A8, Sitara™ AM3352 (1GHz)			
	Storage		4GB eMMC			
	Memory		512MB			
	RTC		Yes			
Interface	Touch Screen	4-wire resistive type			5-wire resistive type	
	COM1	1 x RS232, 1 x RS422/485 or CAN bus (option)	RS232/422/485			
	COM2	-	RS232/422/485			
	COM3	-	RS232/485 or CAN bus (option)			
	Ethernet	1 x 10/100 Mbit	1 x 10/100 Mbit or 2 x 10/100 Mbit (option)			
	USB	1 x Type A (Host), 1 x Type B (Device)				
	Memory card	-	SD Card			
Ratings	Power supply voltage	19.2 ~ 28.8V Isolated Power				
	Power consumption	6W	8W	10W	22W	28W
	Weight (kg)	0.25	0.68	1.1	4.3	5.8
	Battery	CR2032 Replaceable				
Environment	Operation temperature	0 ~ 45°C	0 ~ 50°C			
	Storage temperature	-20 ~ 60°C				
	Humidity	10% ~ 90% (non-condensing) @ 40°C				
Mechanical	Construction	Plastic			Aluminum front bezel and steel chassis	
	Protection	IP65(Front)				
	Mounting (mm)	Panel Mount	Panel Mount, VESA 75 x 75		Panel Mount, VESA 100 x 100	
	Dimension (mm)	127.7(W) x 89.7(H) x 36.7(D)	199.8(W) x 147.8(H) x 39.8(D)	279.5(W) x 195.5(H) x 39.5(D)	319.0(W) x 225.0(H) x 50.6(D)	408.8(W) x 260.9(H) x 50.6(D)
	Cut-out (mm)	119.3(W) x 81.3(H)	185.2(W) x 133.2(H)	260.2(W) x 177.2(H)	305.7(W) x 211.7(H)	394.5(W) x 246.62(H)
Approvals	ESD Protection	-	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A			
	Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)	CE / FCC (EN 61000-6-4, EN 61000-6-2) / UL		CE/FCC (EN 61000-6-4, EN 61000-6-2)	
Optional Accessories		Wi-Fi USB Dongle (802.11b/g/n) & Wi-Fi Antenna RP-SMA M-F Connector				
Software		iFace Designer®				

SELECTION GUIDE

HMI
SERIES

Protocol Conversion Gateway
GW-01

Gateway
SERIES

S-SERIES

Model		S07	S10	S12	S15
		S07F-N	S10F-N	S12F-N	S15F-N
Display	Display type	7" TFT	10.2" TFT	12.1" TFT	15.6" TFT
	Resolution	800 x 480		1280 x 800	1366 x 768
	Color depth	16.7M			
	Backlight type	LED			
	Luminance (cd/m²)	250	350	600	500
	Backlight lifetime	20,000 hours		50,000 hours	50,000 hours
	Viewing angle (H°/V°)	140/120	130/110	176/176	160/150
	Contrast	500:1	300:1	1000:1	600:1
	Dimming	20 levels			
System	CPU	NXP ARM® Cortex™-A9, i.MX 6Dual-Lite (1GHz)			
	Storage	4GB eMMC			
	Memory	1GB			
	RTC	Yes			
Interface	Touch Screen	4-wire resistive type		5-wire resistive type	
	COM1	RS232/422/485			
	COM2	RS232/422/485			
	COM3	RS232/485 or CAN bus (option)			
	Ethernet	1 x 10/100/1000 Mbit			
	USB	1 x Type A (Host), 1 x Type B (Device)			
	Memory card	SD card			
Ratings	Power supply voltage	19.2 ~ 28.8V Isolated Power			
	Power consumption	8W	10W	22W	28W
	Weight (kg)	0.68	1.1	4.3	5.8
	Battery	CR2032 Replaceable			
Environment	Operation temperature	0 ~ 50°C			
	Storage temperature	-20 ~ 60°C			
	Humidity	10% ~ 90% (non-condensing) @ 40°C			
Mechanical	Construction	Plastic		Aluminum front bezel and steel chassis	
	Protection	IP65(Front)			
	Mounting (mm)	Panel Mount, VESA 75 x 75		Panel Mount, VESA 100 x 100	
	Dimension (mm)	199.8(W) x 147.8(H) x 39.8(D)	279.5(W) x 195.5(H) x 39.5(D)	319.0(W) x 225.0(H) x 50.6(D)	408.8(W) x 260.92(H) x 50.6(D)
	Cut-out (mm)	185.2(W) x 133.2(H)	260.2(W) x 177.2(H)	305.7(W) x 211.7(H)	394.5(W) x 246.62(H)
Approvals	ESD Protection	Level 4 (Contact Discharge 8KV, Air-Gap Discharge 15KV), Class A			
	Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2)			
Optional Accessories		Wi-Fi USB Dongle (802.11b/g/n) & Wi-Fi Antenna RP-SMA M-F Connector			
Software		iFace Designer®			

Features

- TI Sitara™ AM3352 ARM® Cortex™-A8 1GHz CPU
- Ethernet ports x 2 ; COM port x 2 (DB9 x1)
- 19.2 ~ 28.8V, Isolated Power
- Isolated Communication Port
- Fan-less, compact design
- PCB conformal coating protection
- -20°C~70°C wide operating temperature
- Metal chassis, DIN-rail mounting
- Powered by Novakon Software iM-Connect®

Specifications

CPU	TI Sitara™ AM3352 ARM® Cortex™-A8 1GHz CPU
Memory	512MB SDRAM (1GB option)
Thermal Design	Fanless
Conformal Coating	Yes
Storage	4GB eMMC (8GB option)
USB Host	1
Serial Port	1 x RS-232, 1 x RS-422/485
Ethernet	2 x 10/100 Mbit Ethernet Port
Power Connector	3-Pin terminal block
Dimensions (mm)	120 x 85.45 x 31.25
Net Weight (kgs)	0.45
Power Input Range	19.2 ~ 28.8V, Isolated Power
LED Indicator	1
Chassis Material	SECC
Mounting	25mm DIN-rail mounting
Accessories	Setup Manual x 1, 25mm DIN Rail Clip x 1, M3x6mm flat head screw x 2, Recovery USB Drive x 1
Operating Temp.	-20°C~70°C
Storage Temp.	-20°C~80°C
Storage Humidity	10%~90% @40°C (non-condensing)
ESD Protection	Contact Discharge 4kV, Air Discharge 8kV
Certification	CE/FCC (EN 61000-6-4, EN 61000-6-2, EN55032, EN55035), Class A
Software	iM-Connect®

Ordering Information

GW-01

Compact DIN-rail Gateway with ARM Cortex-A8 (1GHz) CPU, 512MB RAM, 4GB eMMC, dual Ethernet ports, 19.2 ~ 28.8V isolated power, metal chassis, iM-Connect®

Industrial Panel PC
X12/X15/X17/X21

Industrial Panel PC
X12/X15/X17/X21

Intel® Celeron® Processor J1900 Panel PC
HMI / SCADA

Features

- 12.1" XGA ~ 21.5" FHD LED Panel with Resistive or Projected Capacitive Touch Display
- Low power consumption
- Fanless design, Panel and VESA Mounting
- 9~36V Wide input voltage range support
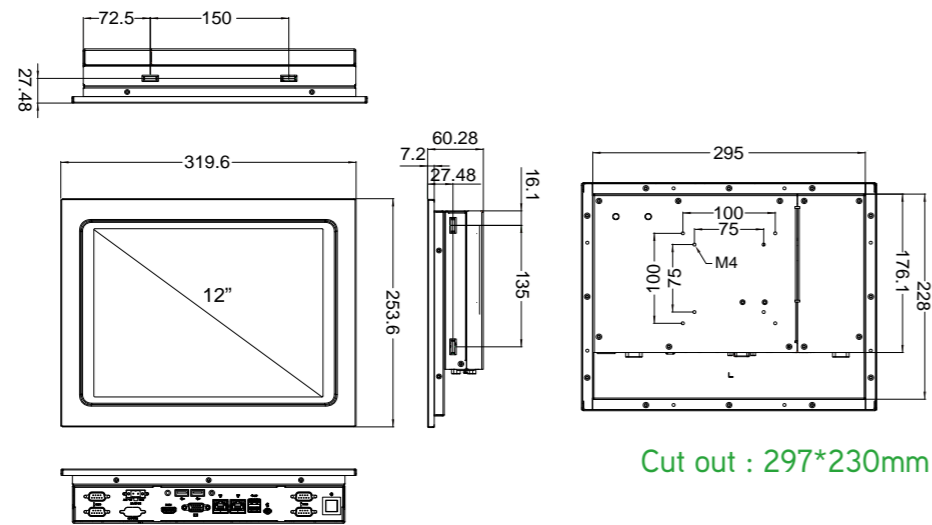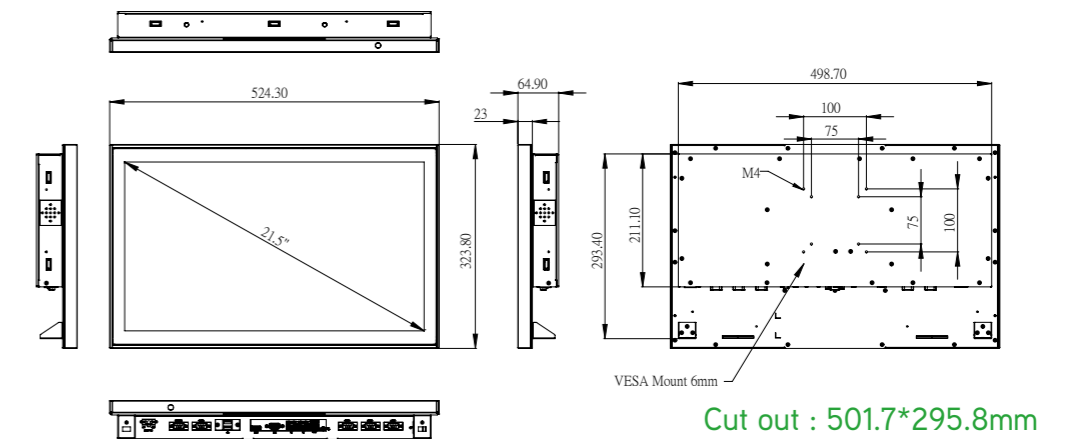- Suitable for HMI / SCADA applications with iFACE Designer®

FANLESS   IP54   Wide Voltage   Low Power

I/O View

X12

X15

X17

X21

- X21 front view

Model No.		X12P	X12R	X15P	X15R	X17P	X17R	X21P
Processor System	CPU	Intel® Celeron® Processor J1900						
	Frequency	Quad-Core up to 2.0 GHz						
	L2 Cache	2 MB						
	BIOS	UEFI						
Memory	Technology	DDR3L 1333 MHz SDRAM						
	Max. Capacity	8 GB (Default 4GB)						
	Socket	1 (204-pin SO-DIMM)						
Display	Panel Size	12.1" LED Panel		15" LED Panel		17" LED Panel		21.5" LED Panel
	Resolution	1024 x 768 (XGA)				1280 x 1024 (SXGA)		1920 x 1080 (FHD)
	Viewing Angle	80 x 80 (H) x 80 x 80 (V)				80 x 80 (H) x 60 x 80 (V)		85 x 85 (H) x 80 x 80 (V)
	Luminance (cd/m²)	450		300		350		250
	Color Support	16.2M				16.7M		
	Contrast Ratio	700:1		800:1				1000:1
	Response Time	35 (msec)		8 (msec)		30 (msec)		5 (msec)
	VGA	Up to 1920 x 1200						
	HDMI	HDMI 1.4a up to 1920 x 1200						
	Dual Display	LCD + VGA or LCD + HDMI						
Touchscreen	Type	Projected Capacitive	5-Wire Resistive	Projected Capacitive	5-Wire Resistive	Projected Capacitive	5-Wire Resistive	Projected Capacitive
	Surface Hardness	7 Mohs	3 Mohs	7 Mohs	3 Mohs	7 Mohs	3 Mohs	7 Mohs
	Durability	-	10 million times	-	36 millions times	-	36 millions times	-
	Transparency	90% (±3%)	80% (±3%)	90% (±3%)	80% (±3%)	90% (±3%)	80% (±3%)	90% (±3%)
I/O Interface	USB	2 USB 3.0, 2 USB 2.0						
	Serial Port	4 X COM (3 X RS-232, 1 X RS-232/422/485)						4 X COM (2 X RS-232, 2 X RS-232/422/485)
	Digital I/O	Optional : 8-pin Digital I/O (DB-9 connector, Option)						
	Expansion	2 Mini PCIe (1 full-size Mini PCIe or mSATA, selected by jumper setting; 1 half-size Mini PCIe)						
Ethernet	Controller	Dual GbE, 10/100/1000 Mbps (Realtek RTL8111G-CG)						
Audio	Chipset	Realtek ALC662 High Definition Audio (HD)						
	Connector	Line out						
Storage	mSATA	Supports either mSATA or full-size Mini PCIe, selected by jumper setting						
	SATA II	1 Internal 2.5" HDD/SSD						
Power	Power Input	Supports 9-36 V DC input(Phoenix Connector)						
	Power Consumption (Typical)	1.45A @ 12V (17.4W)		1.53A @ 12V (18.4W)		2.5 A @ 12 V (30 W)		1.6 A @ 12 V (19.2 W)
	Power Consumption (Max)	1.72A @ 12V (20.7W)		1.8A @ 12V (21.6W)		3 A @ 12 V (36 W)		2.75 A @ 12 V (33 W)
Environment	Operating Temperature	0~50°C (-20~60°C w/ Extended Operation Temp. RAM and Storage)						
	Storage Temperature	-20~60° C						
	Humidity	5~95% @ 40° C, Non-condensing						
	Vibration	5-500 Hz, 0.026 G²/Hz, 2.16 Grms, X, Y, Z, 1 hour per axis						
	Certification	CE, FCC Class A		CE, FCC Class A, CCC		CE, FCC Class A		-
General	Ingress Protection	Front Panel IP54 Protection						
	Dimensions (mm)	319.6 x 253.6 x 60.28		364.6 x 290.6 x 58.7		411.4 x 337.5 x 70.1		524.3 x 323.8 x 64.9
	Weight (kg)	3.30	3.26	4.37	4.31	6.58	6.50	6.99
	Software	iFace Designer® (Optional)						
	Operating System	Windows 7/8.1/10, WES7-E/P, WE8S, Ubuntu 14.04						

Industrial Panel PC
X12/X15/X17/X21

Industrial Panel PC
X SERIES

Industrial Panel PC
X12/X15/X17/X21

Industrial Panel PC
X SERIES

X12

Cut out : 297*230mm

X15

Cut out : 342*267mm

X17

Cut out : 388.6*313.7mm

X21

VESA Mount 6mm

Cut out : 501.7*295.8mm

Ordering Information

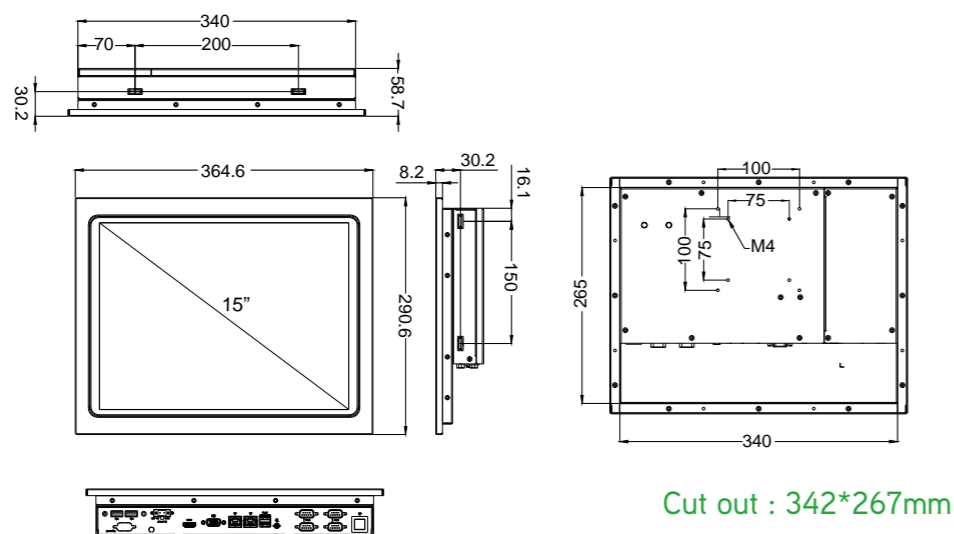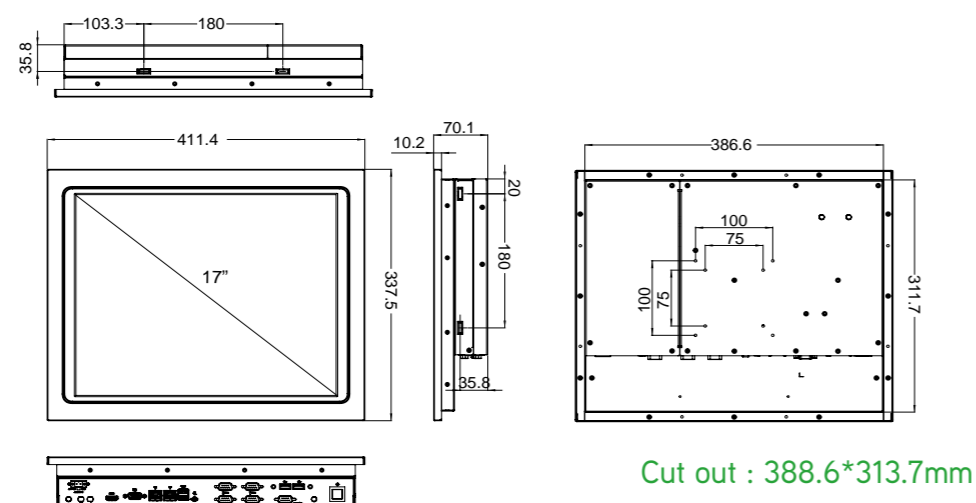|	
X12R	12.1" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X12P	12.1" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X12R-i	12.1" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X12P-i	12.1" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X15R	15" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X15P	15" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X15R-i	15" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X15P-i	15" (1024 x 768) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X17R	17" (1280 x 1024) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X17P	17" (1280 x 1024) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter
X17R-i	17" (1280 x 1024) Fanless Panel PC with Intel® Celeron® J1900, 5-wire Resistive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X17P-i	17" (1280 x 1024) Fanless Panel PC with Intel® Celeron® J1900, Projected Capacitive Touch, 4GB DDR3 RAM, 64GB SSD, 100~240V AC-DC power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
X21P	21.5" (1920 x 1080) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adaptor
X21P-i	21.5" (1920 x 1080) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adaptor, Ubuntu OS, iFace Designer® HMI Software Runtime License

Industrial Panel PC
ST15/ST19

Industrial Panel PC
ST SERIES

Industrial Panel PC
ST15/ST19

Industrial Panel PC
ST SERIES

Intel® Atom™ Processor E3845 Stainless Steel Panel PC
HMI / SCADA

Features

- Fanless design, Resistive touch
- Durable stainless steel housing
- Full IP65 protection
- Low power consumption processor
- Wide-range 10V~30V DC power input
- Suitable for Food Processing, Livestock, Petro, and washing Industries HMI / SCADA applications with iFACE Designer® Runtime
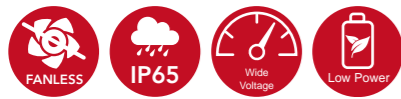
I/O View

- M12 I/O port

- USB 3.0

IP56 AC to DC 90W Stainless Steel Power Adaptor

Edge I/O

M23 connector AC input

4-pin M12 connector DC output (4-pin definition: +/-/G/earth ground)

Power

Power Supply	90V ~ 240V AC input 24V DC output @ 3.75mA

Construction

Chassis	304 stainless steel / 316 stainless steel for Optional
Mounting	Wall mount
Protection Class	Full IP56 protection

Environmental

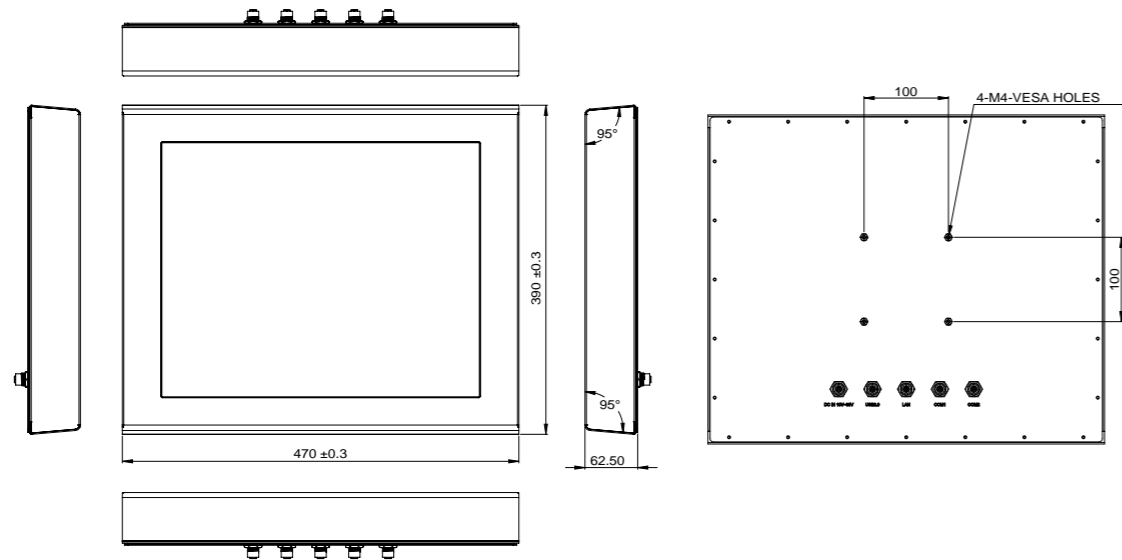| Temperature	Operating: 0°C~ 50°C (Max. 80W at 50°C) Storage: -40°C~85°C
Humidity	10%~90% (non-condensing)
Regulation	RoHS
Certification	CE/FCC class A

Accessories

- Wall mount kits
- 1x power cable M23/3P L=5m
- 1x power cable M12 4P L=2m
- Power connector for U.S. regulation (Optional)
- Power connector for EU regulation (Optional)
- Power connector for Australian regulatory (Optional)

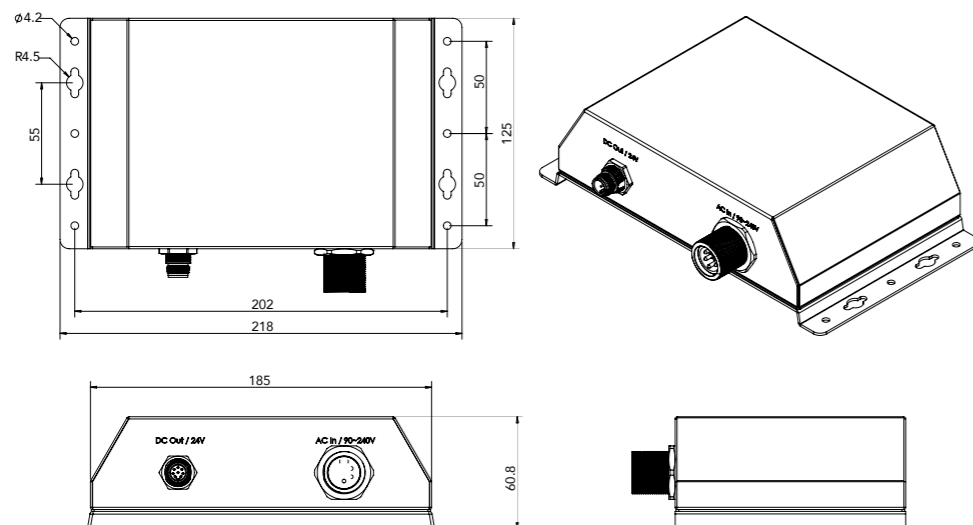| Model No.		ST15	ST19
Display & Touch Screen	Display Size	15" TFT-LCD	19" TFT-LCD
	Max. Resolution	1024 x 768	1280 x 1024
	Luminance (cd/m²)	500	350
	Contrast	800 : 1	1000 : 1
	Max. Color	16.2M	16.7M
	View Angle (H°/V°)	160/160	170/160
	Backlight Lifetime(hrs)	50,000	
	Touch Type	Resistive	
	Touch Interface	USB	
	Light Transmission (%)	80	
	Point of touch	1	
I/O Interface	USB 3.0	1 (M12)	
	USB 2.0	1 (M12)	
	RS-232/422/485 Selectable in BIOS	1 (M12)	
	RS-232	1 (M12)	
	LAN	2x GbE (M12)	
	Additional Graphics	None	
	Audio	None	
	Digital I/O	None	
	Power Connector	M12 connector	
	Power Button	None	
System	Processor	Intel® Atom™ Processor E3845 1.91GHz	
	Memory	2x DDR3L SO-DIMM, up to 8GB, default 4GB	
	Thermal Design	Fanless	
	Membrane Control	None	
	Built-in Speaker/MIC	None	
Expansion	Internal Expansion Bus	1x Mini PCI-E(x1) [full/half-size] 1x Mini PCI-E(x1) [half-size]	
	Expansion Slot	None	
	Wireless	None	
Storage Space	HDD	1x 2.5" SATA	
	Removable	None	
Power	Power Input Range	10V~30V DC	
Construction	Chassis Material	304 stainless steel / 316 stainless steel as Optional	
	Color (Front/Back)	Silver / Silver	
	IP Rating	IP65 / IP69K	
	Mounting (mm)	VESA 75x75 and 100x100	
	Dimensions (mm)	425 x 330 x 62.5	470 x 390 x 62.5
	Net Weight (kgs)	13.5	17
Environmental	Operating Temperature	0°C ~ 50°C	
	Storage Temperature	-20°C ~ 60°C	
	Storage Humidity	10%~90% (non-condensing)	
	Certification	CE/FCC class B and LVD	
	Software	iFace Designer® (Optional)	
	Operating Systems	Windows 10/ Windows 8 32-bit/64-bit, Windows 7 Pro for Embedded 64-bit, WES7 64-bit	

Industrial Panel PC
ST15/ST19

Industrial Panel PC
ST SERIES

Industrial Panel PC
ST15/ST19

Industrial Panel PC
ST SERIES
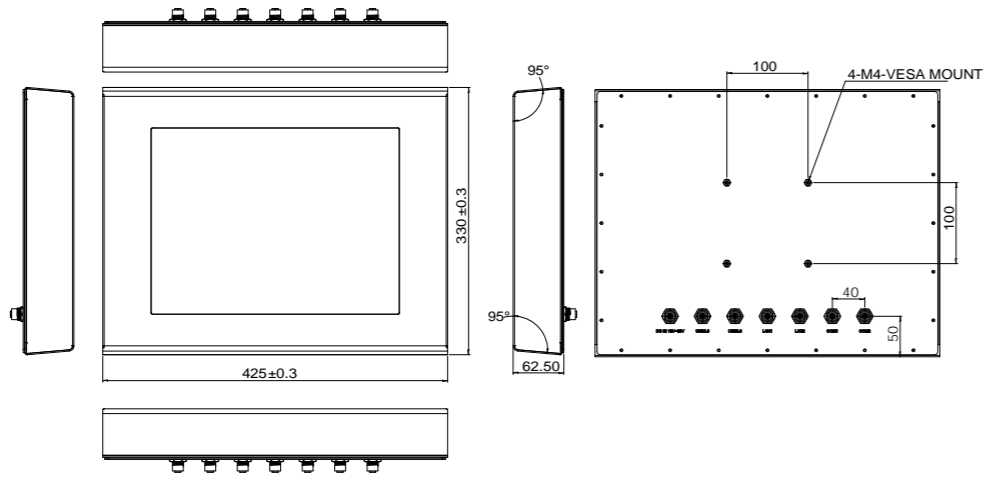
ST15

ST19

IP56 Power Adapter

Ordering Information

ST15	15" (1024 x 768) Stainless Steel Panel PC with Intel® Atom™ Processor E3845 1.91GHz, 4GB DDR3L SO-DIMM, 64G SSD, resistive touch
ST15-i	15" (1024 x 768) Stainless Steel Panel PC with Intel® Atom™ Processor E3845 1.91GHz, 4GB DDR3L SO-DIMM, 64G SSD, resistive touch, Ubuntu OS, iFace Designer® HMI Software Runtime License
ST19	19" (1280 x 1024) Stainless Steel Panel PC with Intel® Atom™ Processor E3845 1.91GHz, 4GB DDR3L SO-DIMM, 64G SSD, resistive touch
ST19-i	19" (1280 x 1024) Stainless Steel Panel PC with Intel® Atom™ Processor E3845 1.91GHz, 4GB DDR3L SO-DIMM, 64G SSD, resistive touch, Ubuntu OS, iFace Designer® HMI Software Runtime License
M12-PWR-Cable (Optional)	200cm M12 Power to terminal block cable
M12-USB2-Cable (Optional)	300cm M12 to USB2.0 type A port
M12-USB3-Cable (Optional)	250CM M12 to USB3.0 type A port
M12-RJ45-Cable (Optional)	300CM M12 to RJ45 jack cable
M12-COM-Cable (Optional)	200cmM M12 to one RS232 DSUB9 cable
IP56 Power Adapter (Optional)	24VDC out , 90~240VAC input, OP 50°C with 80W, stainless steel housing, total IP56 power supply
Power adapter (Optional)	90~240VAC input, 12V DC output, 84W adaptor with terminal block connector

Industrial Panel PC
E12/E15/E17/E19

Industrial Panel PC
E SERIES

Industrial Panel PC
E12/E15/E17/E19
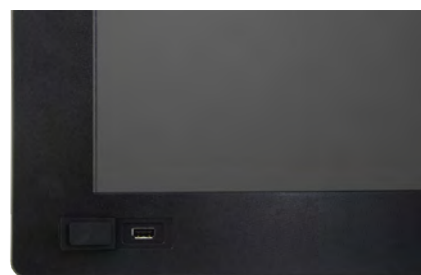
Industrial Panel PC
E SERIES

Intel® Celeron® Processor J1900 Expandable Panel PC

HMI / SCADA

Features

- Low power consumption
- IP65 front-panel waterproof protection
- Front-side access USB 2.0 port (E15 / E17 / E19 only)
- PCI-E (x1) and PCI expansion
- Suitable for HMI / SCADA applications with iFACE Designer® Runtime

FANLESS **IP65** **Low Power**

I/O View

E12

E15

E17/E19

- Front-side access USB 2.0 port

- PCI-E (x1) and PCI expansion

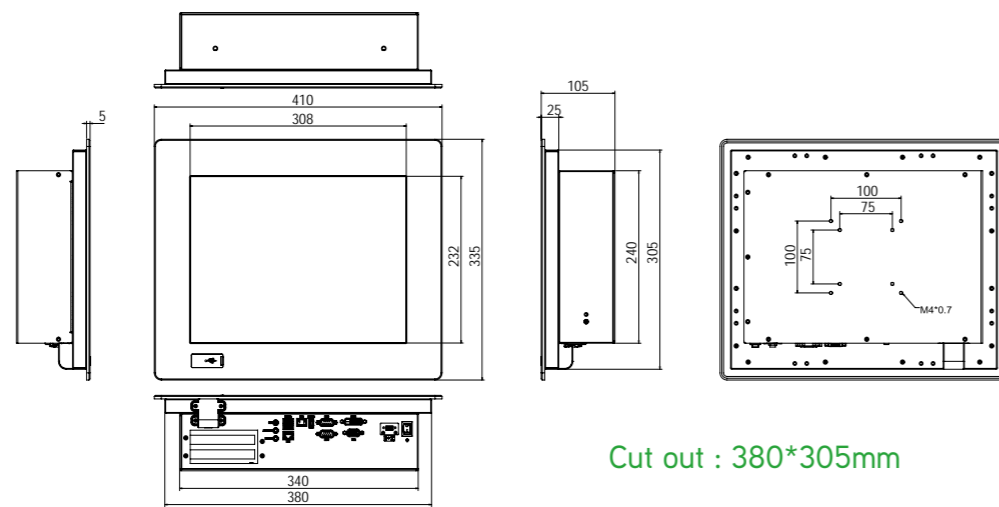| Model No.		E12	E15	E17	E19
Display & Touch Screen	Display Size	12.1" TFT-LCD	15" TFT-LCD	17" TFT-LCD	19" TFT-LCD
	Max. Resolution	1024 x 768		1280 x 1024	
	Luminance (cd/m^2)	350	420	250	350
	Contrast	800:1		1000 : 1	
	Max. Color	16.7M	16.2M	16.7M	
	View Angle (H°/V°)	170/170	160/160	178/170	170/160
	Backlight Lifetime(hrs)	30,000		50,000	
	Touch Type	Resistive			
	Touch Interface	USB			
	Light Transmission (%)	79		80	
	Point of touch	1			
I/O Interface	USB 3.0	1			
	USB 2.0	2 at rear side	2x at rear and 1 at front side with cover		
	RS-232/422/485 Selectable in BIOS	1			
	RS-232	1			
	LAN	2x GbE			
	Additional Graphics	1x VGA and DVI-D			
	Audio	MIC in/ Line in/Line out phone jack			
	Digital I/O	None			
	Power Connector	Terminal block (Jack type as Optional)			
	Power Button	Rock switch			
Mechanical	Dimensions (mm)	320 x 270 x 101	410 x 335 x 105	442 x 377 x 102.5	480 x 415 x 106.5
	Net Weight (kgs)	7.5	8.7	9.7	10.97
System	Processor	Intel® Celeron® Processor J1900 2.42GHz			
	Memory	2x DDR3L SO-DIMM, up to 8GB, default 4GB			
	Thermal Design	Fanless			
	Membrane Control	None			
	Built-in Speaker/MIC	None			
Expansion	Internal Expansion Bus	1x Mini PCI-E half size 1x Min PCI-E full/half size, mSATA supports			
	Expansion Slot	1x PCI-E (x1) and 1x PCI			
	Wireless	Optional			
Storage Space	HDD	1x 2.5" SATA HDD, default 2.5" 64G MLC SSD			
	Removable	None			
Power	Power Input Range	12V/24V DC input			
Construction	Chassis Material	SGCC			
	Color (Front/Back)	Black / Black			
	IP Rating	Front IP65/Back IP30			
	Mounting	VESA 75x75 / 100x100, panel mounting			
Environmental	Operating Temperature	0°C ~ 50°C (with SSD) 0°C ~ 40°C (with HDD)			
	Storage Temperature	-20°C~60°C			
	Storage Humidity	10%~90% (non-condensing) at 40°C			
	Certification	CE/FCC class B, LVD/ CB/CCC	CE / FCC class B and LVD		
	Software	iFace Designer® (Optional)			
	Operating Systems	Windows 7 Professional/WES 7and 8/Windows 8.1/ Windows 10 Linux Kernel 3.X			

E12
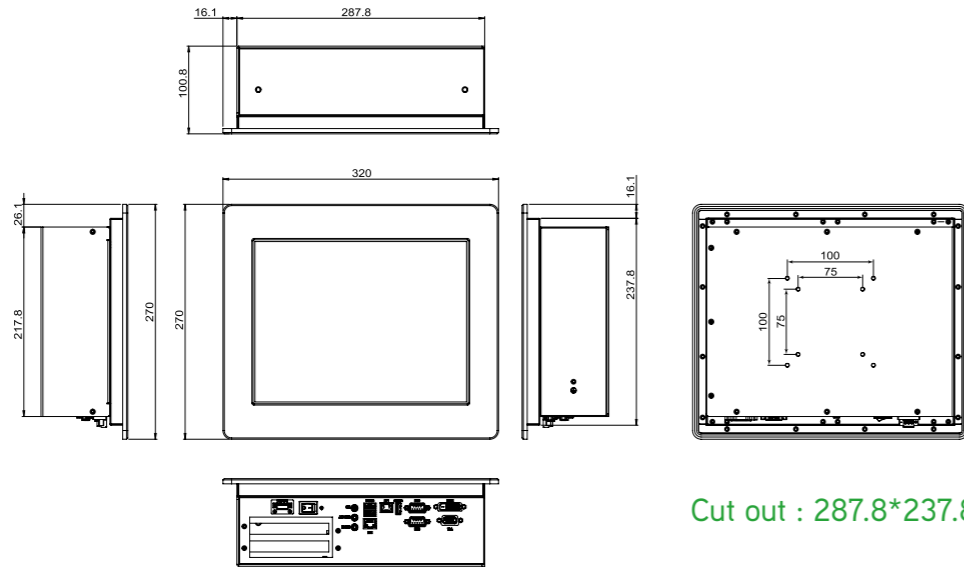
Cut out : 287.8*237.8mm
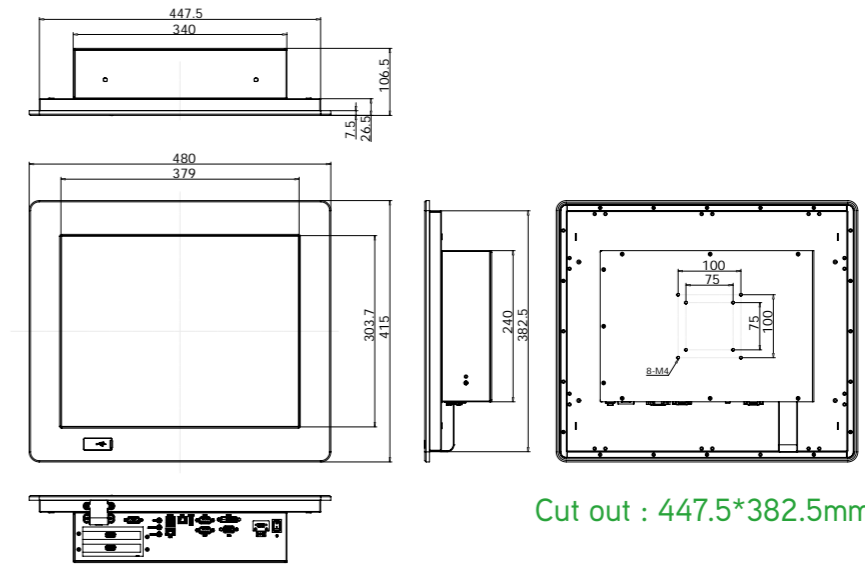
E15

Cut out : 380*305mm

E17
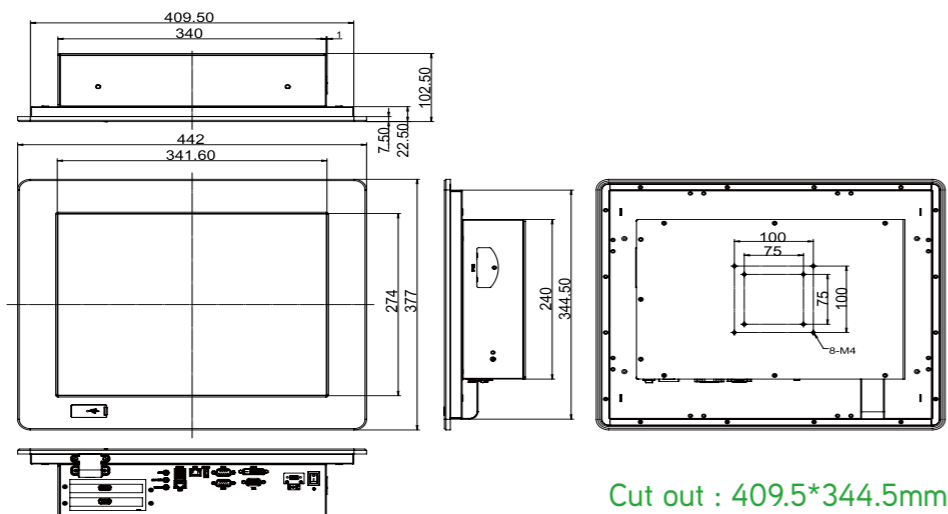
Cut out : 409.5*344.5mm

E19

Cut out : 447.5*382.5mm

Ordering Information

E12	12.1" (1024 x 768) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter
E12-i	12.1" (1024 x 768) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
E15	15" (1024 x 768) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter
E15-i	15" (1024 x 768) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
E17	17" (1280 x 1024) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB DDR3L SO-DIMM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter
E17-i	17" (1280 x 1024) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB DDR3L SO-DIMM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adapter, Ubuntu OS, iFace Designer® HMI Software Runtime License
E19	19.1" (1280 x 1024) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adaptor
E19-i	19.1" (1280 x 1024) Panel PC, Intel® Celeron® Processor J1900 2.42GHz, 4GB RAM, 64GB SSD, PCI-E (x1) and PCI riser card, resistive touch screen, 24V power adaptor, Ubuntu OS, iFace Designer® HMI Software Runtime License
Wii-Fi Module (Optional)	miniPCIe Wi-Fi, Bluetooth 4.0 802.11 a/b/g/n w/ interior cable and exterior antenna

Built-in PLC drivers and open industrial communication protocols.

Brand	Series	Support Models
Allen-Bradley	Controllogix, CompactLogix Ethernet	All models
	MicroLogix DF1 RS232	All models
	MicroLogix Ethernet	All models
	Micro800/850 Ethernet	All models
	PLC5 DF1 CRC	All models
BACnet	BACnet IP Client	All models
	BACnet IP Server	All models
	BACnet MSTP Master	All models
Beckhoff	TwinCAT 2/3 Runtime	All models
	TwinCAT 2/3 SoftPLC	All models
CODESYS	CoDeSys V3	Ethernet over ARTI
Delta	DVP	All models
FATEK	FBs/Fbe/B1/B1z	All models
	FBs/Fbe/B1/B1z TCP	All models
Hitachi	MICRO-EH/EHV UDP	All models
	MICRO-EH/EHV TCP	All models
	MICRO-EH/EHV	All models
HUST	H Series CNC Controller	H4D Series/H6D Series
	A6 CNC Controller	A6 Series
KEYENCE	KV-1000	All models
	KV-L20V Host Link/KV-nano	All models
	KV-3000/5000/5500 Series	All models
	KV-7300/7500/8000 Series	All models
	KV-NC1EP	All models
KOYO	SU/DL Series	All models
Lust	LustBus ServoC/CDE Series	All models
Mitsubishi	A Series/J71UC24 Computer Link	All models
	A Series/J71 for AnA/AnU	All models
	A Series/J71 Format4	All models
	FR Series/A700	All models
	FX Series	All models
	FX/FX2N Series Computer Link	All models
	FX2N Series	All models
	FX3U Series	All models

Brand	Series	Support Models
Mitsubishi	FX3U Series Computer Link	All models
	FX3U Ethernet	All models
	Q Series	All models
	Q Series Computer Link	All models
	Q Series Ethernet	All models
	FX5U Ethernet	All models
	Servo MR-J4	All models
MODBUS	MODBUS ASCII Slave	All models
	MODBUS ASCII Master	All models
	MODBUS RTU Slave	All models
	MODBUS RTU Master	All models
	MODBUS TCP Slave	All models
	MODBUS TCP Master	All models
MOTRONA	MKS MC700 Motion Controller	All models
Omron	C Series	TPM1A, CP1E, CP1L
	CS/CJ Series	All models
	CS/CJ Series FINS TCP	All models
	NX/NJ Series EtherNet/IP	All models
OPTEX	CD33 Series Sensor	All models
	CD5 Series Sensor	All models
Panasonic	FP Series	All models
Siemens	S7-200	All models
	S7-200/300/1200/1500 (ISO on TCP)	All models
	S5 PG Port	All models
TECO	TP02/03 Series	All models
	AC Servo TSDA Series	All models
Toshiba	TMFCD91A	All models
Vigor	VB/VH/M Series	All models
	VS Series	All models
	VS TCP	All models
	VS UDP	All models
Yamatake	DCP30	All models
	DMC50	All models
	SDC35/SDC45	All models
	NX-D15/25	All models
YASKAWA	MP2000 Series Extension	All models
	MP3000 Series Extension	All models
Yokogawa	FA-M3 Series TCP	All models
Accessories	Led Controller	EV12048Wl1JX
	Scale	SKW-II
	Barcode Reader	All models
	Barcode Printer	All models