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OI

Touchscreens



www.IDEC.com/oi



## Selection Guide

|                             |                               | Compact Series                                                                              | Basic Series                                                                      | Enhanced Series                                                                   |                                                                                     |
|-----------------------------|-------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|                             |                               | 4.3"                                                                                        | 4.6"                                                                              | 5.7"                                                                              |                                                                                     |
|                             |                               |            |  |  |  |
| Display Type                |                               | Color-TFT                                                                                   | Monochrome                                                                        | Monochrome                                                                        | Color-TFT                                                                           |
| Color Depth                 |                               | 65,536                                                                                      | 2                                                                                 | 2                                                                                 | 65,536                                                                              |
| Rated Power Voltage         |                               | 12 to 24 VDC                                                                                | 24VDC                                                                             | 12 to 24VDC                                                                       | 12 to 24 VDC                                                                        |
| Resolution                  |                               | 480 x 272                                                                                   | 300 x 100                                                                         | 320 x 240                                                                         | 320 x 240                                                                           |
| Mount Portrait or Landscape |                               | ✓                                                                                           | ✓                                                                                 | ✓                                                                                 | ✓                                                                                   |
| Brightness (cd / m²)        |                               | 800                                                                                         | 500                                                                               | 1100                                                                              | 500                                                                                 |
| SD Card Slot                |                               | –                                                                                           | –                                                                                 | –                                                                                 | –                                                                                   |
| Expansion I/O module        |                               |                                                                                             |                                                                                   |                                                                                   |                                                                                     |
| Serial Ports                |                               | 1 (RS-232), 1 (RS-485, RS-422)                                                              | RS232 RS485(422)                                                                  | 1 (RS232, RS485,RS422)                                                            | 1 (RS232, RS485,RS422)                                                              |
| Ethernet Port               |                               | Standard                                                                                    | –                                                                                 | Standard                                                                          | Standard                                                                            |
| USB Ports                   |                               | 1 Type A/ 1 MiniB                                                                           |                                                                                   | 1 Type A/ 1 MiniB                                                                 | 1 TypeA / 1 MiniB                                                                   |
| Video In *1                 |                               | –                                                                                           |                                                                                   | –                                                                                 | –                                                                                   |
| Audio In/Out *2             |                               | –                                                                                           |                                                                                   | –                                                                                 | –                                                                                   |
| Remote Control / Monitor    |                               | ✓                                                                                           |                                                                                   | ✓                                                                                 | ✓                                                                                   |
| Multiple Protocols          |                               | ✓                                                                                           |                                                                                   | ✓                                                                                 | ✓                                                                                   |
| FTP Server Function         |                               | ✓                                                                                           |                                                                                   | ✓                                                                                 | ✓                                                                                   |
| Approvals                   |                               | IP66F/IP67F, UL508, CSA C22.2 No. 142, 213 ANSI/ISA - 12/12.01, Type 4X & 13, Class 1 Div 2 | IP65, Type 13,UL508, UL1604, CSA C22.2 No.213                                     | IP66F, UL508, CSA C22.2 NO 142.213 ANSI/ISA:12.12.01 Type 4x & 13 Class I Div 2   | IP66F,UL508, CSA C22.2 No.142/213, ANSI/ISA:12.12.01 Type 4x & 13 Class I Div 2     |
| Bezel                       | Light Gray<br>Black<br>Silver | –<br>HG1G-4VT22TF-B<br>HG1G-4VT22TF-S                                                       | HG1F-SB22BF-W HG1F-SB22YF-W<br>HG1F-SB22BF-B HG1F-SB22YF-B<br>– –                 | HG2G-5TN22TF-W<br>HG2G-5TN22TF-B<br>HG2G-5TN22TF-S                                | HG2G-5TT22TF-W<br>HG2G-5TT22TF-B<br>HG2G-5TT22TF-S                                  |

\*1. Composite Video RCA connector (NTSC or PAL).

\*2. 3.5mm audio mini jack(stereo).

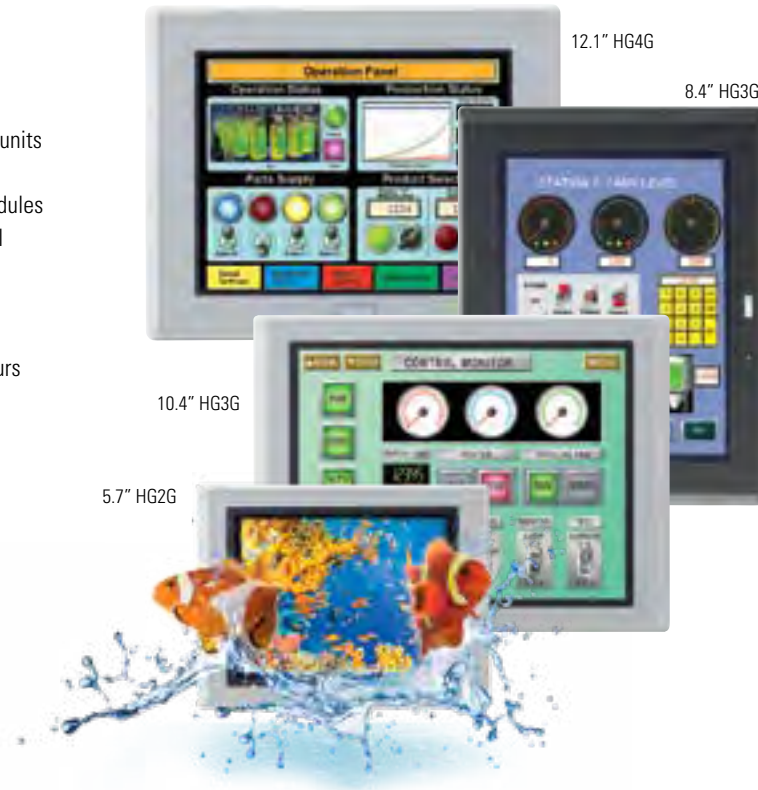
\*3. Calendar, Battery Life and Power Failure Backup Data are not available for HG2G-5ST22VF

|                             |                               | High Performance Series                                                           |                                                                                                    |                                                                                                    |                                                                                               |
|-----------------------------|-------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
|                             |                               | 5.7"                                                                              | 8.4"                                                                                               | 10.4"                                                                                              | 12.1"                                                                                         |
|                             |                               |  |                   |                  |            |
| Display Type                |                               | Color-TFT                                                                         | Color-TFT                                                                                          | Color-TFT                                                                                          | Color-TFT                                                                                     |
| Color Depth                 |                               | 65,536                                                                            | 65,536                                                                                             | 65,536                                                                                             | 65,536                                                                                        |
| Rated Power Voltage         |                               | 24VDC                                                                             | 24VDC                                                                                              | 24VDC                                                                                              | 24VDC                                                                                         |
| Resolution                  |                               | 640 x 480                                                                         | 800 x 600                                                                                          | 800 x 600                                                                                          | 800 x 600                                                                                     |
| Mount Portrait or Landscape |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Brightness (cd / m²)        |                               | 800                                                                               | 600                                                                                                | 700                                                                                                | 550                                                                                           |
| SD Card Slot                |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Expansion I/O module        |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Serial Ports                |                               | 2 (RS232, RS485, RS422)                                                           | 2 (RS232, RS485, RS422)                                                                            | 2 (RS232, RS485, RS422)                                                                            | 1 (RS-232), 1 (RS485, RS422)                                                                  |
| Ethernet Port               |                               | Standard                                                                          | Standard                                                                                           | Standard                                                                                           | Standard                                                                                      |
| USB Ports                   |                               | 1 TypeA / 1 MiniB                                                                 | 1 TypeA / 1 Mini B                                                                                 | 1 TypeA / 1 MiniB                                                                                  | 1 TypeA / 1 MiniB                                                                             |
| Video In *1                 |                               | -                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Audio In/Out *2             |                               | -                                                                                 | -                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Remote Control / Monitor    |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Multiple Protocols          |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| FTP Server Function         |                               | ✓                                                                                 | ✓                                                                                                  | ✓                                                                                                  | ✓                                                                                             |
| Approvals                   |                               | IP66, UL 508, CSA C22.2 No.142, ABS, LR, NK, Type 4X & 13 Class I Div 2           | IP66, UL508, CSA C22.2 No.142/213, ANSI/ISA-12.12.01-2007, ABS, LR, NK, Type 4X & 13 Class I Div 2 | IP66, UL508, CSA C22.2 No.142/213, ANSI/ISA-12.12.01-2007, ABS, LR, NK, Type 4X & 13 Class I Div 2 | IP66, UL508, CSA C22.2 No.142, ANSI/ISA-12 12.01-2007, ABS, LR, NK Type 4X & 13 Class I Div 2 |
| Bezel                       | Light Gray<br>Black<br>Silver | HG2G-5FT22TF-W<br>HG2G-5FT22TF-B<br>HG2G-5FT22TF-S                                | HG3G-8JT22MF-W<br>HG3G-8JT22MF-B<br>-                                                              | HG3G-AJT22MF-W<br>HG3G-AJT22MF-B<br>-                                                              | -<br>HG4G-CJT22MF-B<br>-                                                                      |

## High Performance Series

### Key Features:

- 5.7", 8.4", 10.4", and 12.1" sizes
- 65,536 Color TFT LCD
- Mounts Portrait or Landscape
- Video and Audio Interface on select units
- Super Bright: Up to 800 cd/m<sup>2</sup>
- Supports Expansion Discrete I/O modules
- Remote Access, Monitor and Control
- Serial, Ethernet, and USB ports
- Multiple protocols simultaneously
- FTP and Email functions
- LED backlight lifespan: >100,000 hours



Our high-performance OI Touchscreens are so vivid thanks to cutting-edge color conversion technology, the same technology used in LCDTVs. These screens deliver a superior experience with intense screens.

## High-Definition Quality TFT LCD displays

### Brightest on the market

With an LED backlight shining up to 800 cd/m<sup>2</sup>, OI Touchscreens create a very powerful visual presentation. Immediately after the touchscreen is turned on, the screen lights up and lasts much longer than a CCFL (Cold Cathode Florescent Lamp) with a lifespan of 50,000 hours or greater. A 48-level adjustment also provides flexibility, allowing you to determine the brightness.

### SVGA resolution

The High Definition Quality TFT LCD Screens with SVGA resolution (8.4", 10.4" and 12.1" OI Touchscreens) provide sharp images and superior visibility. The high resolution also gives you more space to create additional images and parts for your project, while enjoying exceptional clarity.

### 65,536 Colors

With so many colors, screen views are realistic and crisp, providing true-to-life images and making it easy to view precise readings of data and images. Distinctly different from 8-bit, 256 color screens, the high-performance series offers an intense depth-of-color perfect for graphical displays.



## Real-time video monitoring

### Play movie files and audio right on your touchscreen

The high-performance series (8.4", 10.4" and 12.1" OI Touchscreens) feature a built-in video interface (Video In) and audio interface (Audio In/Out). That means a video camera, microphone and speaker can be connected to the OI Touchscreen and used in the following ways:

- Display video images on the touchscreen display
- Play movie files on the touchscreen display (MP4 supported)
- Play audio files on the touchscreen display
- Video recording function

Using the video and audio interfaces, you can monitor machine conditions on the plant floor simply by using a video camera and microphone and setting it to display on the OI Touchscreen. You can also play your operation manual as a movie or play movie files to give information or instructions to a user or customer. This makes it easy to explain detailed information and makes it a useful feature when you are troubleshooting.



## Remote access, monitoring and control

### Connect anytime, anywhere using your PC, PDA or Smart Phone

Distance isn't an issue with our high-performance line of OI Touchscreens. When you need access to your machine or equipment, but can't get to the factory floor or even to the office, all you need is a computer, PDA or Smartphone and you can remotely access, monitor and control your touchscreen through a web browser. It's that simple!

Monitor current values or processes, click pushbuttons to control operation, print, switch screens or even change program values just as if you were in front of your touchscreen on site. You can also troubleshoot, test and do maintenance.

- No additional software tools or modules needed to use the Remote Monitor and Control function
- Up to 5 clients can remotely monitor and control simultaneously
- Simple configuration to enable remote access

## Expand your control

With a wide range of connectivity options, our high-performance OI Touchscreens offer a communication solution for every application. Store programming or log data with up to 12MB of user memory, communicate with multiple controllers and devices and even remotely monitor and control. If extra storage is needed, an SD card or USB flash drive can easily be used.

### SD Card

- Supports up to a 32GB SD card for storage
- Store IDEC MicroSmart ladder and touchscreen programs, pictures, log data, alarm logs, screen hard copies, recipe data, operation logs, audio and video files

### USB Port A (USB 2.0)

- Connect a USB flash drive
  - Store IDEC MicroSmart ladder and touchscreen programs, log data and screen capture (if transferred from SD card)
- Connect barcode readers

### USB Port mini B

- Connect PC directly to OI Touchscreen for high speed transfer of program upload, download, or monitoring
- Connect to a USB printer

### Ethernet Port

- 10BaseT or 100Base-TX connection
- Remote communication with the PLC and download, upload or monitor PLC and OI Touchscreen projects
- Allows remote access for monitor and control



## The connectivity you want, the flexibility you need

### Expansion Module

Depending on your application and OI Touchscreen size, up to 4 MicroSmart expansion digital I/O modules can be connected. They easily snap on the back of any High-performance Series OI Touchscreen to offer simple I/O control with the option to perform independently of the touchscreen scan time using Cyclic Script.

### 2 Serial Ports RS232 and RS485 (422)

- Host – Communicate with a PLC/device using 1:1 or 1:N PLC communication
- Sub Host – Communicate with an IEC MicroSmart PLC or Modbus RTU device
- O/I Link – Various PLCs including the IEC MicroSmart PLC can network with multiple OI Touchscreens, where one is a master and up to 15 slaves are connected
- User – Communicate using transmit or receive instructions to build your own protocol

### Audio Out Port:

- Connects to speakers to playback pre-saved .WAV audio files for custom alarms or alerts

### Audio In Port

- Connects to a microphone to listen and monitor audio sounds

### Video In Port

- Connects to a video camera to display video images on the touchscreen



**Fast. Flexible. Environmentally-friendly!****Mounting Flexibility**

All High-Performance series can be mounted with the screen orientation set to portrait or landscape mode depending on space requirements. This allows you the flexibility of mounting the touchscreen according to your specific application needs. Plus OI Touchscreens are designed with a slim body style, providing a big advantage in situations where panel space is at a premium.

**Low Energy Consumption**

Designed with an energy-saving design and LED backlight, these touchscreens use 50% less energy compared with conventional models. While all OI Touchscreens in the high-performance series consume a maximum of 27 Watts of power (depending on model size), if a USB Host and Expansion I/O are not used, less wattage is used. For instance, the 8.4" and 10.4" consume a maximum of 15 Watts when not using these devices. Similarly, having full control of how and when the LED backlight dims or goes to sleep mode allows you to save more energy.



Portrait



Landscape

**Approvals**

We are dedicated to ensuring the safety of life and property at sea. To that end, IDEC OI Touchscreens are trusted and approved by leading maritime classification agencies, such as the American Bureau of Shipping (ABS Type Approval), Lloyd's Register and NK. This means our touchscreens meet technical and safety needs that allow them to be used in marine, offshore structures and shore-based installations. All high-performance models are also CE-marked and c-UL-us listed.

**High-speed CPU**

The fastest in its class, a 400MHz RISC processor means that these touchscreens have quick operation and response times, as well as exceptional performance. Not to mention, start-up is 3 seconds from power on, so you can start working without delay.

## Enhanced Series

### 5.7" HG2G-5T LCD OI Touchscreen



#### Key Features

- 5.7-inch TFT LCD HMI
- Supports up to four protocols simultaneously
- Remote monitor and control
- FTP and Email functions
- Operating temperatures: -20°C to 60°C
- 65,536 colors or 16 shade monochrome
- Super Bright 500cd/m<sup>2</sup> (color), 1100 cd/m<sup>2</sup> (monochrome)
- LED backlight lifespan: >100,000 hours
- 320 x 240 pixels
- Portrait and landscape mounting
- Rated power voltage: 12-24V DC
- Two Serial ports, 2 USB ports and an Ethernet port
- IP66F, Type 4X, Type 13, Class 1 Div 2

### 4.6" HG1F LCD OI Touchscreen



## Compact Series

### 4.3" HG1G OI Touchscreen



#### Key Features

- 4.3-inch TFT LCD HMI
- Supports up to four protocols simultaneously
- Remote monitor and control
- FTP and Email Functions
- Operating temperatures: -20°C to 55°C
- 65,536 colors with 800cd/m<sup>2</sup>
- 480 x 272 Pixel Resolution
- LED backlight lifespan: >70,000 hours
- Portrait and landscape mounting
- Rated power voltage: 12-24V DC
- Two Serial ports, 2 USB ports and an Ethernet port
- IP66F/IP67F, Type 4X, Type 13, Class 1 Div 2

## Basic Series

#### Key Features

- 16 level Monochrome
- Available in RS232 or RS422/RS485 version
- Super bright LCD screen with 500 cd/m<sup>2</sup>
- Analog resistive touch panel enables flexible screen layout
- High resolution: 300x100 pixels
- Screen orientation: landscape or portrait
- Large memory capacity of 1MB

## Automation Organizer Suite

### Programming Software

#### Part Number

SW1A-W1C

Automation Organizer Software Suite



PLC programming with WindLDR



OI programming with WindO/I-NV2



System Configuration with WindCFG



Programming software for HG2G-5T

Automation Organizer (AO), the IDEC software suite combining the latest versions of our popular PLC programming software (WindLDR) and OI programming software (WindO/I-NV2 ) and (WindO/I-NV4) with new system configuration software (WindCFG) , is made to enable you to see the layout of your system design and basic configuration of devices. AO gives you a powerful and easy-to-use tool to design, debug, and document control systems, saving valuable time and money.

Intuitively working with you, WindO/I-NV2 and WindO/I-NV4 walks you through an easy step-by-step configuration of your images and your workspace. Dragging and dropping makes screen creation fast, even for beginners. Plus debugging, previewing and editing can be handled through the easy-to-use graphic user interface. Designed with a modern look and feel, similar to MS Office 2007 style, a customizable toolbar and workspace with drop down menu and ribbon control make it simple to select parts, objects and functions. You can also change the toolbar by adding icons frequently used on your project, saving programming time and allowing you to customize your workspace.

For more information, see page 149.

## Supported Drivers

| Manufacturer | Series                                          | Applicable CPU   | Communication Module                             | Comm. Type  | Host I/F Driver                             | Support OI Touchscreens Series |                     |           |           |           |
|--------------|-------------------------------------------------|------------------|--------------------------------------------------|-------------|---------------------------------------------|--------------------------------|---------------------|-----------|-----------|-----------|
|              |                                                 |                  |                                                  |             |                                             | 12.1" HG4G                     | 8.4" and 10.4" HG3G | 5.7" HG2G | 4.3" HG1G | 4.6" HG1F |
| IDEC         | MicroSmart/<br>Pentra MicroSmart<br>(FC4A/FC5A) | FC4A, FC5A, FC6A | Built-in Port or<br>Comm. Module                 | RS232       | OpenNet(FC3A),<br>MicroSmart<br>(FC4A/FC5A) | x                              | x                   | x         | x         | x         |
|              |                                                 |                  |                                                  | RS485 (422) |                                             | x                              | x                   | x         | x         | x         |
|              |                                                 |                  | Built-in or Web<br>Server Unit<br>(FC4A-SX5ES1E) | Ethernet    | Web Server Unit<br>(FC3A/FC4A/FC5A)         | x                              | x                   | x         | x         | —         |
|              | OpenNet                                         | FC3A             | Built-in Port                                    | RS232       | OpenNet(FC3A),<br>MicroSmart<br>(FC4A/FC5A) | x                              | x                   | x         | x         | x         |
|              |                                                 |                  |                                                  | RS485       |                                             | x                              | x                   | x         | x         | x         |
|              |                                                 |                  | Web Server Unit<br>(FC4A-SX5ES1E)                | Ethernet    | Web Server Unit<br>(FC3A/FC4A/FC5A)         | x                              | x                   | x         | x         | —         |

Drivers continued on next page.

## Supported Drivers, con't

| Manufacturer  | Series       | Applicable CPU       | Communication Module     | Comm. Type     | Host I/F Driver                                         | Support OI Touchscreens Series |                    |           |           |           |
|---------------|--------------|----------------------|--------------------------|----------------|---------------------------------------------------------|--------------------------------|--------------------|-----------|-----------|-----------|
|               |              |                      |                          |                |                                                         | 12.1" HG4G                     | 8.4"and 10.4" HG3G | 5.7" HG2G | 4.3" HG1G | 4.6" HG1F |
| Allen Bradley | MicroLogix   | MicroLogix 1000      | Built-in Port            | RS 232         | MicroLogix / SLC 500 Full Duplex                        | x                              | x                  | x         | x         | x         |
|               |              |                      | 1761-NET-ENI             | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               |              | MicroLogix 1100      | Built-in Port            | RS 232         | MicroLogix / SLC 500 Full Duplex                        | x                              | x                  | x         | x         | x         |
|               |              |                      | Built-in or 1761-NET-ENI | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               |              | MicroLogix 1200      | Built-in Port            | RS 232         | MicroLogix / SLC 500 Full Duplex                        | x                              | x                  | x         | x         | x         |
|               |              |                      | 1761-NET-ENI             | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               |              | MicroLogix 1500      | Built-in Port            | RS 232         | MicroLogix / SLC 500 Full Duplex                        | x                              | x                  | x         | x         | x         |
|               |              |                      | 1761-NET-ENI             | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               | ControlLogix | ControlLogix 5550    | RS232                    | Built-in Port  | Logix DF1 (Full Duplex)                                 | x                              | x                  | x         | x         | x         |
|               |              |                      | 1756-ENBT                | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               |              |                      |                          |                | Ethernet / IP (Native Tag)                              | x                              | x                  | x         | x         | —         |
|               |              | ControlLogix 5555    | RS232                    | Built-in Port  | Logix DF1 (Full Duplex)                                 | x                              | x                  | x         | x         | x         |
|               |              |                      | 1756-ENBT                | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               |              |                      |                          |                | Ethernet / IP (Native Tag)                              | x                              | x                  | x         | x         | —         |
|               | CompactLogix | 1768 CompactLogix    | Built-in Port            | RS232          | Logix DF1 (Full Duplex)                                 | x                              | x                  | x         | x         | x         |
|               |              | 1769 CompactLogix    | Built-in Port            | RS232          | Logix DF1 (Full Duplex)                                 | x                              | x                  | x         | x         | x         |
|               |              |                      |                          | Ethernet       | Ethernet / IP (Native Tag)                              | x                              | x                  | x         | x         | —         |
|               |              |                      | Ethernet / IP            |                | x                                                       | x                              | x                  | x         | —         |           |
|               | FlexLogix    | 1794-L33             | Built-in Port            | RS232          | Logix DF1 (Full Duplex)                                 | x                              | x                  | x         | x         | x         |
|               |              | 1794-L34             |                          |                |                                                         |                                |                    |           |           |           |
|               | PLC-5        | PLC-5                | 1770-KF2                 | RS232 or RS485 | PLC-5 (Half Duplex)                                     | x                              | x                  | x         | x         | x         |
|               |              |                      | Built-in Port            |                |                                                         |                                |                    |           |           |           |
|               |              |                      | 1785-ENET                | Ethernet       | Ethernet / IP                                           | x                              | x                  | x         | x         | —         |
|               | PLC-5E       | Built-in Port        |                          |                |                                                         |                                |                    |           |           |           |
|               | SLC 500      | SLC 5/03, 5/04, 5/05 | Built-in Port            | RS 232         | SLC 500 Half Duplex or MicroLogix / SLC 500 Full Duplex | x                              | x                  | x         | x         | x         |
| 1761-NET-ENI  |              |                      | Ethernet                 | Ethernet / IP  | x                                                       | x                              | x                  | x         | —         |           |

Drivers continued on next page.

## Supported Drivers, con't

| Manufacturer             | Series            | Applicable CPU                                                                         | Communication Module           | Comm. Type   | Host I/F Driver               | Support OI Touchscreens Series |                     |           |           |           |
|--------------------------|-------------------|----------------------------------------------------------------------------------------|--------------------------------|--------------|-------------------------------|--------------------------------|---------------------|-----------|-----------|-----------|
|                          |                   |                                                                                        |                                |              |                               | 12.1" HG4G                     | 8.4" and 10.4" HG3G | 5.7" HG2G | 4.3" HG1G | 4.6" HG1F |
| Automation Direct (Koyo) | DirectLOGIC 05    | DL05                                                                                   | D0-ECOM,                       | Ethernet     | DirectLOGIC (Ethernet)        | x                              | x                   | x         | x         | —         |
|                          | DirectLOGIC 06    | DL06                                                                                   | D0-ECOM100                     |              |                               | x                              | x                   | x         | x         | —         |
|                          | DirectLOGIC       | D2-240, D2-250, D2-250-1, D2-260                                                       | D2-ECOM, D2-ECOM-F, D2-ECOM100 |              |                               | x                              | x                   | x         | x         | —         |
|                          | DirectLogic DL205 | D2-240                                                                                 | Built-in Port                  | RS232        | DirectLogic DL 205/405        | x                              | x                   | x         | x         | x         |
|                          | DirectLogic DL405 | D4-430, D4-440                                                                         | Built-in Port                  | RS232        |                               | x                              | x                   | x         | x         | x         |
|                          |                   | D4-440                                                                                 | D4-DCM                         | RS485(422)   |                               | x                              | x                   | x         | x         | x         |
|                          |                   | D4-430, D4-440, D4-450                                                                 | D4-ECOM, D4-ECOM-F, D4-ECOM100 | RS232        | DirectLOGIC (Ethernet)        | x                              | x                   | x         | x         | —         |
| Emerson                  | Fisher Roc Driver | FloBoss                                                                                | FloBoss 107                    | Built-in     | RS232, RS485                  | x                              | x                   | x         | x         | —         |
| FANUC                    | Power Mate        | Power Mate-MODEL D                                                                     | Built-in Port                  | RS422        | Power Mate-MODEL D/Series 16i | x                              | x                   | x         | x         | x         |
|                          | Series            | 16i, 160i, 18i, 180i, 30i, 31i, 32i                                                    | Built-in Port                  | RS232        |                               | x                              | x                   | x         | x         | x         |
| FUJI                     | FLEX-PC           | NB1, NB2, NB3, NJ-CPU-E4, NJ-CPU-A8, NJ-CPU-B16, NS                                    | Built-in Port                  | RS232, RS485 | FLEX-PC (CPU)                 | x                              | x                   | x         | x         | x         |
|                          |                   | NB1, NB2, NB3                                                                          | NB-RS1-AC/DC                   | RS232, RS485 | FLEX-PC(LINK)                 | x                              | x                   | x         | x         | x         |
|                          |                   | NJ-CPU-E4, NJ-CPU-A8, NJ-CPU-B16                                                       | NJ-RS2, NJ-RS4                 | RS232, RS485 |                               | x                              | x                   | x         | x         | x         |
|                          |                   | NS                                                                                     | NS-RS1                         | RS232, RS485 |                               | x                              | x                   | x         | x         | x         |
|                          | MICREX-F          | FS5                                                                                    | NV1L-RS2                       | RS232        | MICREX-F                      | x                              | x                   | x         | x         | x         |
|                          |                   | F70                                                                                    | NC1L-RS2                       | RS232        |                               | x                              | x                   | x         | x         | x         |
|                          |                   |                                                                                        | NC1L-RS4                       | RS485        |                               | x                              | x                   | x         | x         | x         |
|                          |                   | F80H, F120H, F120S, F140S, F150S                                                       | FFU120B                        | RS232        |                               | x                              | x                   | x         | x         | x         |
|                          |                   | F30, F50, F50H, F55, F60, F70, F70S, F80H, F81, F120H, F120S, F140S, F150S, F250       | FFK120A-C10                    | RS232, RS485 |                               | x                              | x                   | x         | x         | x         |
|                          |                   |                                                                                        |                                |              |                               |                                |                     |           |           |           |
| GE Fanuc Automation      | Series 90-30      | CPU331, CPU341, CPU350, CPU351, CPU352, CPU360, CPU363, CPU364, CPU374                 | IC693CMM311                    | RS232        | Series 90 (XNP-X)             | x                              | x                   | x         | x         | x         |
|                          |                   |                                                                                        |                                | RS485(422)   |                               | x                              | x                   | x         | x         | x         |
|                          |                   | CPU311, CPU313, CPU323, CPU331, CPU341, CPU350, CPU351, CPU352, CPU360, CPU363, CPU374 | Built-in Port                  | RS485(422)   |                               | x                              | x                   | x         | x         | x         |
|                          | VersaMax          | Nano, Micro (14point), Micro (23, 28 point)                                            | Built-in Port                  | RS232        |                               | x                              | x                   | x         | x         | x         |
|                          |                   |                                                                                        |                                | RS485        |                               | x                              | x                   | x         | x         | x         |
|                          |                   |                                                                                        |                                |              |                               |                                |                     |           |           |           |

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| Manufacturer          | Series                | Applicable CPU                              | Communication Module                 | Comm. Type                  | Host I/F Driver     | Support OI Touchscreens Series |                     |           |           |           |
|-----------------------|-----------------------|---------------------------------------------|--------------------------------------|-----------------------------|---------------------|--------------------------------|---------------------|-----------|-----------|-----------|
|                       |                       |                                             |                                      |                             |                     | 12.1" HG4G                     | 8.4" and 10.4" HG3G | 5.7" HG2G | 4.3" HG1G | 4.6" HG1F |
| Hitachi               | S10mini               | S10mini                                     | Built-in Port                        | RS485(422)                  | S10mini             | x                              | x                   | x         | x         | x         |
|                       |                       |                                             | LQE160, LQE560                       | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             | LQE165, LQE565                       | RS485(422)                  |                     | x                              | x                   | x         | x         | x         |
|                       | S10V                  | LQP510                                      | Built-in Port                        | RS232, RS485                |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             | LQE560                               | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             | LQE565                               | RS485(422)                  |                     | x                              | x                   | x         | x         | x         |
| INVERTER              | FREQROL               | FREQROL-E500, FREQROL-S500                  | Built-in Port                        | RS485(422)                  | FREQROL             | x                              | x                   | x         | x         | x         |
| JTEKT (Toyota)        | TOYOPUC-PC2J          | PC2J                                        | Built-in Port                        | RS485(422)                  | TOYOPUC-PC3J        | x                              | x                   | x         | x         | x         |
|                       | TOYOPUC-PC3J          | PC3J, PC3JD, PC3JG                          |                                      |                             |                     | x                              | x                   | x         | x         | x         |
| Keyence               | KV-700/1000/3000/5000 | KV-700, KV-1000, KV-3000                    | Built-in Port                        | RS232                       | KV-700/1000         | x                              | x                   | x         | x         | x         |
|                       |                       | KV-700, KV-1000, KV-3000, KV-5000           | KV-L-20R                             | RS232 (Port 1,2), RS422/485 |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             | KV-LE20A, KV-LE20V                   | Ethernet                    | KV (Ethernet)       | x                              | x                   | x         | x         | —         |
|                       |                       | KV-5000                                     | Built-in Port                        |                             |                     | x                              | x                   | x         | x         | —         |
|                       | Visual KV             | KV-10, 16, 24, 40                           | Built-in Port                        | RS232                       | KV/KZ               | x                              | x                   | x         | x         | x         |
|                       | Conventional KV       | KV-10, 16, 24, 40/80                        |                                      |                             |                     | x                              | x                   | x         | x         | x         |
| LS Industrial Systems | MASTER-K              | K10S1, K80S, K120S, K200S                   | Built-in Port                        | RS232                       | MASTER-K            | x                              | x                   | x         | x         | x         |
|                       |                       | K80S                                        | G7L-CUEB, G7L-CUEC                   |                             |                     | x                              | x                   | x         | x         | x         |
|                       |                       | K200S                                       | G6L-CUEB, G6L-CUEC                   |                             |                     | x                              | x                   | x         | x         | x         |
|                       |                       | K300S                                       | G4L-CUEA                             |                             |                     | x                              | x                   | x         | x         | x         |
| Mitsubishi            | MELSEC-A              | A1N, A2N, A3N                               | AJ71C24-S3/S6/S8 or AJ71UC24         | RS232                       | MELSEC-AnN (LINK)   | x                              | x                   | x         | x         | x         |
|                       |                       | A1SH                                        | A1SJ71C24-R2/R4 or A1S-J71UC24-R2/R4 | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       | A2CCPUC24                                   | Built-in-Port                        | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       | A0J2, A0J2H                                 | A0J2-C214-S1                         | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             |                                      | RS485                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       | A2A, A3A, A2U, A3U, A4U                     | AJ71C24-S6/-8, AJ71UC24              | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             |                                      | RS485                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       | A2US, A2USH-S1                              | A1SJ71C24-R2, A1SJ71UC24-R2          | RS232                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       |                                             |                                      | RS485                       |                     | x                              | x                   | x         | x         | x         |
|                       |                       | A2N, , A2A, A3A, A2US, A2USH, A2U, A2USH-S1 | Built-in Port                        | RS485(422)                  | MELSEC-AnA (CPU)    | x                              | x                   | x         | x         | x         |
|                       |                       | A1SH, A2SH, A2C, A0J2H                      |                                      |                             | MELSEC-A1S/A2C(CPU) | x                              | x                   | x         | x         | x         |

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| Manufacturer | Series     | Applicable CPU                               | Communication Module                             | Comm. Type | Host I/F Driver         | Support OI Touchscreens Series |                     |           |           |           |
|--------------|------------|----------------------------------------------|--------------------------------------------------|------------|-------------------------|--------------------------------|---------------------|-----------|-----------|-----------|
|              |            |                                              |                                                  |            |                         | 12.1" HG4G                     | 8.4" and 10.4" HG3G | 5.7" HG2G | 4.3" HG1G | 4.6" HG1F |
| Mitsubishi   | MELSEC-QnA | Q4ACPU, Q4AR-CPU, Q3ACPU-S1, Q2ACPU          | AJ71QC24N-R2, AJ71QC24N,                         | RS232      | MELSEC-Q/QnA (LINK)     | x                              | x                   | x         | x         | x         |
|              |            |                                              | AJ71QC24N-R4                                     | RS485      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | AJ71QE71N3-T, AJ71QE71N-B2, AJ71QE71N-B5         | Ethernet   |                         | x                              | x                   | x         | x         | —         |
|              | MELSEC-QnA | Q2ASHCPU-S1, Q2ASHCPU, Q2ASCPU-S1, Q2ASCPU   | A1SJ71QC24N-R2                                   | RS232      | MELSEC-Q/QnA (LINK)     | x                              | x                   | x         | x         | x         |
|              |            |                                              | A1SJ7AQC24N                                      | RS485      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | A1S-J71QE71N3-T, A1S-J71QE71N-B2, A1SJ71QE71N-B5 | Ethernet   |                         | x                              | x                   | x         | x         | —         |
|              | MELSEC-Q   | Q00CPU, Q01CPU                               | Built-in Port                                    | RS232      | MELSEC-Q/QnA (LINK)     | x                              | x                   | x         | x         | x         |
|              |            | Q02CPU, Q02HCPU, Q06HCPU, Q12PH-CPU, Q25HCPU | QJ71C24N-R2                                      | RS232      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | QJ71C24, QJ71C24N                                | RS485      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              |                                                  |            |                         | x                              | x                   | x         | x         | x         |
|              |            | Q02CPU, Q02HCPU                              | Built-in Port                                    | RS232      | MELSEC-Q (CPU)          | x                              | x                   | x         | x         | x         |
|              |            | Q02CPU-A                                     |                                                  |            | MELSEC-AnU(CPU)         | —                              | —                   | —         | —         | x         |
|              |            | Q00JCPU, Q00CPU, Q01CPU                      | QJ71E71-100, QJ71E71-B5, QJ71E71-B2              | Ethernet   | MELSEC-Q/QnA (Ethernet) | x                              | x                   | x         | x         | —         |
|              |            | Q02CPU, Q02HCPU, Q06HCPU, Q12H-CPU, Q25HCPU  |                                                  |            |                         | x                              | x                   | x         | x         | —         |
|              |            |                                              |                                                  |            |                         | x                              | x                   | x         | x         | x         |
|              | MELSEC-FX  | FX1, FX2, FX2C                               | Built-in Port                                    | RS485(422) | MELSEC-FX (CPU)         | x                              | x                   | x         | x         | x         |
|              |            | FX0, FX0N, (FX1N), FX0S, FX1S                |                                                  |            |                         | x                              | x                   | x         | x         | x         |
|              |            | FX2N, FX2NC, FX1N, FX1NC                     | FX2NC-232ADP                                     | RS232      | MELSEC-FX2N (CPU)       | x                              | x                   | x         | x         | x         |
|              |            |                                              |                                                  |            |                         | x                              | x                   | x         | x         | x         |
|              |            | FX2N                                         | FX2N-232-BD                                      | RS232      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | FX2N-422-BD                                      | RS485(422) |                         | x                              | x                   | x         | x         | x         |
|              |            | FX1N                                         | FX1N-232-BD                                      | RS232      |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | FX1N-422-BD                                      | RS485(422) |                         | x                              | x                   | x         | x         | x         |
|              |            | FX3UC, FX3U                                  | Built-in Port                                    | RS485(422) | MELSEC-FX3UC(CPU)       | x                              | x                   | x         | x         | x         |
|              |            |                                              | FX3U-232ADP, FX3U-232-BD                         | RS232      |                         | x                              | x                   | x         | x         | x         |
|              |            | FX3G                                         | Built-in Port                                    | RS485(422) |                         | x                              | x                   | x         | x         | x         |
|              |            |                                              | FX3U-232ADP                                      | RS232      |                         | x                              | x                   | x         | x         | x         |

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| Manufacturer | Series                                         | Applicable CPU                                 | Communication Module                           | Comm. Type    | Host I/F Driver                 | Support OI Touchscreens Series |                    |           |           |           |   |
|--------------|------------------------------------------------|------------------------------------------------|------------------------------------------------|---------------|---------------------------------|--------------------------------|--------------------|-----------|-----------|-----------|---|
|              |                                                |                                                |                                                |               |                                 | 12.1” HG4G                     | 8.4”and 10.4” HG3G | 5.7” HG2G | 4.3” HG1G | 4.6” HG1F |   |
| Omron        | SYSMAC-C                                       | C500, C500F, C1000H, C2000, C2000H             | C120-LK201-V1                                  | RS232         | SYSMAC-C Series                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | C120-LK202-V1                                  | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | C500-LK201-V1                                  | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                |                                                | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | C500-LK203                                     | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                |                                                | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | C1000HF                                        | C500-LK203                                     | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                |                                                | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | C200HS                                         | C200H-LK201                                    | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | C200H-LK202                                    | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | C200HE, C200HG, C200HX                         | C200H-LK201, C200HW-COM02/COM04/COM05/COM06    |               |                                 | RS232                          | x                  | x         | x         | x         | x |
|              |                                                |                                                | C200H-LK202, C200HW-COM03/COM06                |               |                                 | RS485(422)                     | x                  | x         | x         | x         | x |
|              |                                                | C120, C120F                                    | C120-LK201-V1                                  | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | C120-LK202-V1                                  | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | C20H, C28H, C40H, C60H                         | Built-in Port                                  | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | CQM1H, C200HS-CPU21/23/31/33                   |                                                |               |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | C200HE-CPU42, C200HG-CPU43/63, C200HX-CPU44/64 |                                                |               |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | CPM1, CPM1A, CPM2A                             |                                                |               |                                 | CPM1-CIF01                     | RS485(422)         | x         | x         | x         | x |
|              |                                                | CMP2A                                          | Built-in Port                                  | RS232         |                                 | x                              | x                  | x         | x         | x         |   |
|              |                                                | SYSMAC-CS1                                     | CS1G, CS1H                                     | Built-in Port |                                 | RS232                          | SYSMAC-CS1 Series  | x         | x         | x         | x |
|              | CS1W-SCB41 (Port1)                             |                                                |                                                | x             | x                               |                                |                    | x         | x         | x         |   |
|              | CS1W-SCB41 (Port2)                             |                                                |                                                | RS485(422)    | x                               | x                              | x                  | x         | x         |           |   |
|              | CS1W-ENT01, CS1W-ENT11, CS1W-ENT21, CJ1W-ENT21 |                                                |                                                | Ethernet      | SYSMAC-CS1 CJ Series (Ethernet) | x                              | x                  | x         | x         | —         |   |
|              | SYSMAC-CJ1                                     | CJ1M, CJ1H, CJ1G                               | Built-in Port                                  | RS232         | SYSMAC-CS1 Series               | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | CS1W-ENT01, CS1W-ENT11, CS1W-ENT21, CJ1W-ENT21 | Ethernet      | SYSMAC-CS1 CJ Series (Ethernet) | x                              | x                  | x         | x         | —         |   |
|              |                                                | SYSMAC-CJ2                                     | CJ2H                                           | Built-in Port |                                 |                                | x                  | x         | x         | x         | — |
|              | SYSMAC-CP1                                     | CP1H                                           | CP1W-CIF01                                     | RS232         | SYSMAC-CS1 Series               | x                              | x                  | x         | x         | x         |   |
|              |                                                |                                                | CP1W-CIF11                                     | RS485(422)    |                                 | x                              | x                  | x         | x         | x         |   |

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| Manufacturer       | Series           | Applicable CPU                                              | Communication Module | Comm. Type                                                                        | Host I/F Driver      | Support OI Touchscreens Series |                    |                      |           |           |   |   |   |
|--------------------|------------------|-------------------------------------------------------------|----------------------|-----------------------------------------------------------------------------------|----------------------|--------------------------------|--------------------|----------------------|-----------|-----------|---|---|---|
|                    |                  |                                                             |                      |                                                                                   |                      | 12.1” HG4G                     | 8.4”and 10.4” HG3G | 5.7” HG2G            | 4.3” HG1G | 4.6” HG1F |   |   |   |
| Panasonic (Aromat) | FP Series        | FP0, FP1                                                    | Built-in Port        | RS232                                                                             | MEWNET               | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | FP(SIGMA symbol)                                            | Built-in Port        | RS232                                                                             |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  |                                                             | AFPG801              |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  |                                                             | AFPG802              | RS485                                                                             |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  |                                                             | AFPG803              |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | FP10, FP10SH                                                | Built-in Port        | RS232                                                                             |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  |                                                             | AFP3462              |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | FP2, FP2SH                                                  | Built-in Port        |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  |                                                             | AFP2462              |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
| Sharp              | New Satellite JW | JW-10                                                       | Built-in Port        | RS422-MMI Port, RS485                                                             | JW                   | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | JW-21CPU, JW-22CU, JW-31CUH/H1, JW-32CUH/H1, JW-33CUH1/H2/3 | JW-21CM              | RS485(422)                                                                        |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | JW-50CU/CUH                                                 | JW-10CM              |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | JW-70CU/CUH                                                 |                      |                                                                                   |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | JW-100CU/CUH                                                | x                    | x                                                                                 |                      | x                              | x                  | x                    |           |           |   |   |   |
|                    |                  | JW-22CU, JW-70CU/CUH, JW-100CU/CUH                          | Built-in Port        | RS232                                                                             |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | JW-32CUH/H1, JW-33CUH/H1/H2/H3                              |                      | RS485(422)                                                                        |                      | x                              | x                  | x                    | x         | x         |   |   |   |
|                    |                  | SIEMENS                                                     | S7-200               | CPU212,CPU214, CPU215, CPU216, CPU221, CPU222, CPU224, CPU224XP, CPU226, CPU226XM |                      | Built-in Port                  | RS485(422)         | S7-200 (PPI)         | x         | x         | x | x | x |
|                    |                  |                                                             | S7-300               | CPU313, CPU314, CPU315, CPU315-2DP, CPU 316, CPU 318                              |                      | CP-340, CP-341                 | RS232              | S7-300 3964(R)/RK512 | x         | x         | x | x | x |
| RS485(422)         | x                |                                                             |                      |                                                                                   | x                    |                                | x                  |                      | x         | x         |   |   |   |
|                    | CPU313-2PtP      |                                                             | Built-in Port        | RS485(422)                                                                        | S7-MP1               | x                              | x                  | x                    | x         | x         |   |   |   |
|                    | S7-400           | CPU 412, CPU 414, CPU416, CPU 416F-2, CPU417                | CP-440, CP-441       | RS232, RS485(422)                                                                 | S7-300 3964(R)/RK512 | x                              | x                  | x                    | x         | x         |   |   |   |

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| Manufacturer          | Series                                                                                                                          | Applicable CPU                                                                                         | Communication Module | Comm. Type          | Host I/F Driver | Support OI Touchscreens Series |                    |           |           |           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|----------------------|---------------------|-----------------|--------------------------------|--------------------|-----------|-----------|-----------|
|                       |                                                                                                                                 |                                                                                                        |                      |                     |                 | 12.1” HG4G                     | 8.4”and 10.4” HG3G | 5.7” HG2G | 4.3” HG1G | 4.6” HG1F |
| Toshiba               | PROSEC T                                                                                                                        | T1 (T1-16, T1-28, T1-40)                                                                               | Built-in Port        | RS232, RS485(422)   | PROSEC T        | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | CU111                |                     |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | T1S (T1-40S)                                                                                           | Built-in Port        | RS232, RS485(422)   |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | CU111                |                     |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | T2 (PU224)                                                                                             | Built-in Port        | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | T2E ( PU234E)                                                                                          | CM231E               | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | CM232E               | RS232               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | T2N (PU215N, PU235N, PU245N)                                                                           | Built-in Port        | RS232               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        |                      | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       | T3, T3H (PU315, PU325, PU325H, PU326H)                                                                                          | Built-in Port                                                                                          | RS485                | x                   |                 | x                              | x                  | x         | x         |           |
| V Series              | S2T, S2E, L1, S2, S3 (PU672T, PU662T, PU612E, L1PU11H, L1PU12H, S2PU82, S2PU72, S2PU32, S2PU22, S3PU65, S3PU55, S3PU45, S3PU21) | Built-in Port                                                                                          | RS485                | x                   | x               | x                              | x                  | x         |           |           |
| Toshiba Machine Works | TC200                                                                                                                           | TC3-13B1                                                                                               | Built-in Port        | RS232               | TC200           | x                              | x                  | x         | x         | x         |
|                       | TCmini                                                                                                                          | TC03-01, TC03-02                                                                                       |                      |                     |                 | x                              | x                  | x         | x         | x         |
| VIGOR                 | VB or VH                                                                                                                        | VB: V0, VB1, VB2 or VH: VH                                                                             | Built-in Port        | RS232               | VB/VH           | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | VB-485A              | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | VB-CADP              | RS232               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        |                      | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | VB-232               | RS232               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | VB-485               | RS485               |                 | x                              | x                  | x         | x         | x         |
| YASKAWA               | Machine Controller                                                                                                              | MP920, MP930                                                                                           | Built-in Port        | RS232, RS422, RS485 | MP920_R         | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | 217IF                |                     |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | MP2300                                                                                                 | 217IF-01             | RS232, RS422, RS485 |                 | x                              | x                  | x         | x         | x         |
| YOKOGAWA              | FA-M3                                                                                                                           | FA-M3 (F3SP05, F3SP20, F3SP21, F3SP25, F3SP30, F3SP35, F3SP38, F3SP53, F3SP58, F3FP36, F3BP20, F3BP30) | F3LC11-1N            | RS232               | FA-M3           | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 |                                                                                                        | F3LC11-2N            | RS485               |                 | x                              | x                  | x         | x         | x         |
|                       |                                                                                                                                 | FA-M3 (F3SP05, F3SP21, F3SP25, F3SP28, F3SP35, F3SP38, F3SP53, F3SP58)                                 | Built-in Port        | RS232               |                 | x                              | x                  | x         | x         | x         |

## Part Numbers

|                         | Style  | Part Numbers                                                                        | Bezel Color    | Description |                                                |
|-------------------------|--------|-------------------------------------------------------------------------------------|----------------|-------------|------------------------------------------------|
| High Performance Series | 12.1 " |    | HG4G-CJT22MF-B | Black       | 12.1" 65K Color TFT, Video In, Audio In/Out    |
|                         | 10.4"  |    | HG3G-AJT22MF-W | Light Gray  | 10.4" 65K Color TFT, Video In, Audio In/Out    |
|                         |        |                                                                                     | HG3G-AJT22MF-B | Black       |                                                |
|                         | 8.4"   |    | HG3G-8JT22MF-W | Light Gray  | 8.4" 65K Color TFT, Video In, Audio In/Out     |
|                         |        |                                                                                     | HG3G-8JT22MF-B | Black       |                                                |
|                         | 5.7"   |   | HG2G-5FT22TF-W | Light Gray  | 5.7" 65K Color TFT                             |
|                         |        |                                                                                     | HG2G-5FT22TF-B | Black       |                                                |
|                         |        |                                                                                     | HG2G-5FT22TF-S | Silver      |                                                |
| Enhanced Series         | 5.7"   |  | HG2G-5TT22TF-W | Light Gray  | 5.7" 65K Color TFT, Ethernet Port, 12-24V DC   |
|                         |        |                                                                                     | HG2G-5TT22TF-B | Black       |                                                |
|                         |        |                                                                                     | HG2G-5TT22TF-S | Silver      |                                                |
|                         |        |                                                                                     | HG2G-5TN22TF-W | Light Gray  | 5.7" Monochrome, TFT, Ethernet Port, 12-24V DC |
|                         |        |                                                                                     | HG2G-5TN22TF-B | Black       |                                                |
|                         |        |                                                                                     | HG2G-5TN22TF-S | Silver      |                                                |
| Compact Series          | 4.3"   |  | HG1G-4VT22TF-S | Silver      | 4.3" 65K Color TFT                             |
|                         |        |                                                                                     | HG1G-4VT22TF-B | Black       | 4.3" 65K Color TFT                             |
| Basic Series            | 4.6"   |  | HG1F-SB22BF-W  | Light Gray  | 4.6" Monochrome, RS232 Type                    |
|                         |        |                                                                                     | HG1F-SB22BF-B  | Black       |                                                |
|                         |        |                                                                                     | HG1F-SB22YF-W  | Light Gray  | 4.6" Monochrome, RS-485 / RS-422 Type          |
|                         |        |                                                                                     | HG1F-SB22YF-B  | Black       |                                                |

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## Starter Kits and Solution Packages

## Touchscreen Starter Kits

| Operator Interface Touchscreen |                                                                                   |                                                                     | Power Supply | Software and Cable | Part Number       |
|--------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------|--------------------|-------------------|
| Compact Series                 |  | 4.3" 65K color TFT Display, HG1G-4VT22TF-B                          | 30W          | ✓                  | SMARTTOUCH-1G-B   |
| Basic Series                   |  | 4.6" Monochrome, RS232, HG1F-SB22BF-B                               | 30W          | ✓                  | SMARTTOUCH-1F     |
| Enhanced Series                |  | 5.7" Monochrome, USB mini-B Ethernet Port 12-24V DC, HG2G-5TN22TF-B | 30W          | ✓                  | SMARTTOUCH-2G-5TN |
|                                |                                                                                   | 5.7" 65K Color TFT LCD, 12-24V DC, HG2G-5TT22TF-B                   | 30W          | ✓                  | SMARTTOUCH-2G-5TT |
| High-Performance Series        |  | 8.4" 65K Color TFT, Video In, Audio In/Out, HG3G-8JT22MF-B          | 60W          | ✓                  | SMARTTOUCH-3G8HP  |
|                                |                                                                                   | 10.4" 65K Color TFT, Video In, Audio In/Out, HG3G-AJT22MF-B         | 60W          | ✓                  | SMARTTOUCH-3GAHP  |
|                                |  | 12.1" 65K Color TFT, Video In, Audio In/Out, HG4G-CJT22MF-B         | 60W          | ✓                  | SMARTTOUCH-4GHP   |

\*All packages come with Automation Organizer software suite and a communication cable.

## Automation Solution Packages

| Operator Interface Touchscreen                                                     |                                     | CPU                  | Power Supply | Part Number             |
|------------------------------------------------------------------------------------|-------------------------------------|----------------------|--------------|-------------------------|
|  | 4.3" 65K color TFT, HG1G-4VT22TF-B  | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG1G     |
|                                                                                    | 4.3" 65K color TFT, HG1G-4VT22TF-B  | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG1G     |
|                                                                                    | 4.3" 65K color TFT, HG1G-4VT22TF-B  | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG1G     |
|                                                                                    | 4.3" 65K color TFT, HG1G-4VT22TF-B  | 24 I/O, FC6A-C24R1CE | 60W          | KIT-FC6A-24-RC-HG1G     |
|  | 5.7" 65K color TFT, HG2G-5TT22TF-B  | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG2G-5TT |
|                                                                                    | 5.7" 65K color TFT, HG2G-5TT22TF-B  | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG2G-5TT |
|                                                                                    | 5.7" 65K color TFT, HG2G-5TT22TF-B  | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG2G-5TT |
|                                                                                    | 5.7" Monochrome TFT, HG2G-5TN22TF-B | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG2G-5TN |
|                                                                                    | 5.7" Monochrome TFT, HG2G-5TN22TF-B | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG2G-5TN |
|                                                                                    | 5.7" Monochrome TFT, HG2G-5TN22TF-B | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG2G-5TN |
|                                                                                    | 5.7" Monochrome TFT, HG2G-5TN22TF-B | 24 I/O, FC6A-C24R1CE | 60W          | KIT-FC6A-24-RC-HG2G-5TN |
|                                                                                    | 5.7" 65K color TFT, HG2G-5FT22TF-B  | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG2G-HP  |
|  | 5.7" 65K color TFT, HG2G-5FT22TF-B  | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG2G-HP  |
|                                                                                    | 5.7" 65K color TFT, HG2G-5FT22TF-B  | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG2G-HP  |
|                                                                                    | 8.4" 65K color TFT, HG3G-8JT22MF-B  | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG3G-8HP |
|                                                                                    | 8.4" 65K color TFT, HG3G-8JT22MF-B  | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG3G-8HP |
|  | 8.4" 65K color TFT, HG3G-8JT22MF-B  | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG3G-8HP |
|                                                                                    | 8.4" 65K color TFT, HG3G-8JT22MF-B  | 24 I/O, FC6A-C24R1CE | 60W          | KIT-FC6A-24-RC-HG3G-8HP |
|                                                                                    | 10.4" 65K color TFT, HG3G-AJT22MF-B | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG3G-AHP |
|                                                                                    | 10.4" 65K color TFT, HG3G-AJT22MF-B | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG3G-AHP |
|  | 10.4" 65K color TFT, HG3G-AJT22MF-B | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG3G-AHP |
|                                                                                    | 10.4" 65K color TFT, HG3G-AJT22MF-B | 24 I/O, FC6A-C24R1CE | 60W          | KIT-FC6A-24-RC-HG3G-AHP |
|                                                                                    | 12.1" 65K color TFT, HG4G-CJT22MF-B | 16 I/O, FC6A-C16R1AE | 60W          | KIT-FC6A-16-RA-HG4G-HP  |
|                                                                                    | 12.1" 65K color TFT, HG4G-CJT22MF-B | 16 I/O, FC6A-C16R1CE | 60W          | KIT-FC6A-16-RC-HG4G-HP  |
|  | 12.1" 65K color TFT, HG4G-CJT22MF-B | 24 I/O, FC6A-C24R1AE | 60W          | KIT-FC6A-24-RA-HG4G-HP  |
|                                                                                    | 12.1" 65K color TFT, HG4G-CJT22MF-B | 24 I/O, FC6A-C24R1CE | 60W          | KIT-FC6A-24-RC-HG4G-HP  |

OI Touchscreens have black bezels. All packages come with Automation Organizer software suite and communication cables.

## Accessories

| Item                                             | Part Number       | Description                                                                            | Applicable Models |                |          |          |          |      |      |
|--------------------------------------------------|-------------------|----------------------------------------------------------------------------------------|-------------------|----------------|----------|----------|----------|------|------|
|                                                  |                   |                                                                                        | 12.1"             | 8.4" and 10.4" | 5.7"     |          |          | 4.3" | 4.6" |
|                                                  |                   |                                                                                        | HG4G-CJT-22MF     | HG3G-8JT/AJT   | HG2G-5FT | HG2G-5TT | HG2G-5TN | HG1G | HG1F |
| Programming Tools                                | SW1A-W1C          | Automation Organizer (includes WiindLDR, WindOI-NV2, and WindCFG Programming Software) | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | ✓    |
|                                                  | HG9Z-XCM2A        | USB Programming Cable USB-miniB (2m)                                                   | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | –    |
|                                                  | HG9Z-XCM1A        | Cable connecting PC to Touchscreen via RS-232 Serial Port                              | –                 | –              | –        | –        | –        | –    | ✓    |
| Mounting Clips                                   | FC4A-USB          | USB to RS-232 Converter for PCs without Serial Ports                                   | –                 | –              | –        | –        | –        | –    | ✓    |
|                                                  | SLD-K02           | Replacement clips (4 pcs are supplied with HMI)                                        | –                 | –              | –        | ✓        | ✓        | –    | ✓    |
|                                                  | HG9Z-4K2PN04      | Replacement clips (4 pcs are supplied with HMI)                                        | ✓                 | ✓              | –        | –        | –        | ✓    | –    |
| Host Communication Plug                          | HG9Z-XT09V        | Replacement terminal block plug. (1 is supplied w HMI)                                 | –                 | –              | ✓        | ✓        | ✓        | ✓    | –    |
|                                                  | HG9Z-XT09         | Replacement terminal block plug. (1 is supplied w HMI)                                 | ✓                 | ✓              | –        | –        | –        | –    | –    |
| Replacement Battery                              | HG9Z-XR1          | Lithium battery CR2032 (one battery is supplied with HMI)                              | ✓                 | ✓              | ✓        | ✓        | ✓        | –    | ✓    |
| USB Cable Lock Pin                               | HG9Z-XU1          | Used to lock USB cable (for USB2)                                                      | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | –    |
| USB panel-mount extension cable                  | HG9Z-XCE11        | For USB-A port (1m)                                                                    | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | –    |
|                                                  | HG9Z-XCE21        | For USB-mini B PORT (1m)                                                               | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | –    |
| Memory Card                                      | HG9Z-XMS2         | SD Memory Card (2GB)                                                                   | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
| Protective Cover                                 | HG9Z-2E2          | Use with 5.7" HMI. Covers entire front of HMI.                                         | –                 | –              | ✓        | ✓        | ✓        | –    | –    |
|                                                  | HG9Z-2D5          | Use with 5.7" HMI. Sheet lays over LCD area.                                           | –                 | –              | ✓        | ✓        | ✓        | –    | –    |
|                                                  | HG9Z-3D8          | Use with 8.4" HMI. Sheet lays over LCD area.                                           | –                 | ✓              | –        | –        | –        | –    | –    |
| Protective Sheet <sup>1</sup>                    | HG9Z-3DA2         | Use with 10.4" HMI. Sheet lays over LCD area.                                          | –                 | ✓              | –        | –        | –        | –    | –    |
|                                                  | HG9Z-4DC          | Use with 12.1" HMI. Sheet lays over LCD area.                                          | ✓                 | –              | –        | –        | –        | –    | –    |
|                                                  | HG9Z-1D           | Use with 4.6" HMI. Sheet lays over LCD area.                                           | –                 | –              | –        | –        | –        | –    | ✓    |
| Expansion Module Clamp <sup>2</sup>              | HG9Z-1DPN05       | Use with 4.3" HMI. Sheet lays over LCD area. (5 pcs/pack)                              | –                 | –              | –        | –        | –        | ✓    | –    |
|                                                  | HG9Z-XJ3          | Short type for installing expansion I/O modules (Total width 17.6 to 41.1mm)           | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
|                                                  | HG9Z-XJ4          | Long type for installing expansion I/O modules (Total width 47 to 68.8 mm)             | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
| L-shaped Terminal Block Connector for I/O Module | HG9Z-XJ5          | Extra-Long type for installing expansion I/O modules (Total width 70.1 to 93.9 mm)     | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
|                                                  | HG9Z-PMT10L       | For 10 pole MicroSmart I/O Module (min. 2 pcs)                                         | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
|                                                  | HG9Z-PMT11L       | For 11 pole MicroSmart I/O Module (min. 2 pcs)                                         | ✓                 | ✓              | ✓        | –        | –        | –    | –    |
| Replacement Backlight                            | HG9Z-1FB          | Replacement backlight for 4.6" HG1F                                                    | –                 | –              | –        | –        | –        | –    | ✓    |
| O/I Link Unit                                    | HG9Z-2G1          | Communication module for O/I Link mode                                                 | –                 | –              | –        | –        | –        | –    | ✓    |
| Panel Mount Adaptor                              | HG9Z-2A1          | Adaptor for mounting HG2G to the panel cut-out of HG2F                                 | –                 | –              | ✓        | ✓        | ✓        | –    | –    |
|                                                  | HG9Z-2A2          | Adaptor for mounting HG2G to 156 x 123.5 mm panel cut-out (other mfr.)                 | –                 | –              | ✓        | ✓        | ✓        | –    | –    |
| Converters                                       | HG9Z-GWDF1DH485-4 | AB SLC500 (w/RJ45 connector)DF1 / DH485 Communication Pakg for 4.6" HG1F               | –                 | –              | –        | –        | –        | –    | ✓    |
|                                                  | HG9Z-GWDF1DH485-5 | AB SLC500 (w/RJ45 connector)DF1 / DH485 Communication Pakg for HG2G/HG3G/HG4G          | ✓                 | ✓              | ✓        | ✓        | ✓        | ✓    | –    |



1. The protective sheet is UV resistant, however, resistance against direct sunlight in outdoor usage is not guaranteed.

2. Use the expansion module clamp when using expansion modules.

Order the module clamp by referring to the width of the module shown in the dimensions of each module.

Note: When connecting more than 3 expansion modules to the HG3G/4G, note the limits shown below:

-Current flow rate at 5V: 130 mA max. Total width: 92.3 mm max.

-Current flow rate at 24V: 150 mA max.

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## Expansion Modules (Applicable for 12.1" HG4G, 8.4" and 10.4" HG3G, and 5.7" HG2G-5FT22TF)

| Input Type        | Part No.<br>(Ordering No.)                  | Connector                    | Dimensions<br>(L × W × H mm) | Consumption<br>Current (mA) |     |
|-------------------|---------------------------------------------|------------------------------|------------------------------|-----------------------------|-----|
|                   |                                             |                              |                              | 5V                          | 24V |
| Input Modules     | 8 points/AC Input                           | Removable Terminal Block     | 90.0 × 23.5 × 70.0           | 25                          | 0   |
|                   | 8 points/DC Input                           |                              | 90.0 × 23.5 × 70.0           | 25                          | 0   |
|                   | 16 points/DC Input                          |                              | 90.0 × 23.5 × 70.0           | 40                          | 0   |
|                   | 16 points/DC Input                          | MIL Connector                | 90.0 × 17.6 × 70.0           | 35                          | 0   |
|                   | 32 points/DC Input                          |                              | 90.0 × 29.7 × 70.0           | 65                          | 0   |
| Output Modules    | 8 points/Relay Output                       | Removable Terminal Block     | 90.0 × 23.5 × 70.0           | 30                          | 40  |
|                   | 16 points/Relay Output                      |                              | 90.0 × 23.5 × 70.0           | 45                          | 75  |
|                   | 8 points/Transistor Sink Output             |                              | 90.0 × 23.5 × 70.0           | 10                          | 20  |
|                   | 8 points/Transistor Source Output           |                              | 90.0 × 23.5 × 70.0           | 10                          | 20  |
|                   | 16 points/Transistor Sink Output            | MIL Connector                | 90.0 × 17.6 × 70.0           | 10                          | 40  |
|                   | 16 points/Transistor Source Output          |                              | 90.0 × 17.6 × 70.0           | 10                          | 40  |
|                   | 32 points/Transistor Sink Output            |                              | 90.0 × 29.7 × 70.0           | 20                          | 70  |
|                   | 32 points/Transistor Source Output          |                              | 90.0 × 29.7 × 70.0           | 20                          | 70  |
| Mixed I/O Modules | 4 points/DC Input<br>4 points/Relay Output  | Removable Terminal Block     | 90.0 × 23.5 × 70.0           | 25                          | 20  |
|                   | 16 points/DC Input<br>8 points/Relay Output | Non-removable Terminal Block | 90.0 × 39.1 × 70.0           | 65                          | 45  |



1. Use the expansion module bracket when using expansion modules.
2. Order the module bracket (S), (L) or (XL) by referring to the width of the module shown in the dimensions of each module.
3. When connecting more than 3 expansion modules to HG3G/4G, note the limits shown below:

**Limits**

Current flow rate at 5V: 130 mA max.

Total width: 92.3mm max.

Current flow rate at 24V: 150 mA max.

4. See instruction manual for details on MicroSmart expansion modules.

## Cables

| Manu-<br>facturer | Series                                                        | Applica-<br>ble CPU | Comm. Type | Communication<br>Module | 4.3" HG1G                | 4.6" HG1F                   | 5.7" (HG2G-5T, HG2G-5FT), 8.4" & 10.4"<br>(HG3G-8JT/-AJT) , 12.1" (HG4G-CJT22MF) |                         |
|-------------------|---------------------------------------------------------------|---------------------|------------|-------------------------|--------------------------|-----------------------------|----------------------------------------------------------------------------------|-------------------------|
|                   |                                                               |                     |            |                         |                          |                             | Terminal Block Type                                                              | 9-Pin Dsub              |
| IDEC              | Mi-<br>croSmart/<br>Pentra Mi-<br>croSmart<br>(FC4A/<br>FC5A) | FC4A,<br>FC5A       | RS232      | Built-in Port           | HG9Z-AC102               | FC4A-KC1CA                  | HG9Z-AC102                                                                       | HG9Z-AC501              |
|                   |                                                               |                     |            | FC4A-PC1/HPC1           | HG9Z-AC102               | HG9Z-XC183 or<br>FC4A-KC1CA | HG9Z-AC102                                                                       | HG9Z-AC501              |
|                   |                                                               |                     |            | FC5A-SIF2               | HG9Z-AC312               | N/A                         | HG9Z-AC312                                                                       | N/A                     |
|                   |                                                               |                     | RS485      | FC4A-PC2/HPC2           | HG9Z-AC172               | HG9Z-1C12A                  | HG9Z-AC172                                                                       | N/A                     |
|                   |                                                               |                     |            | FC4A-PC3/HPC3           | Use Shielded Pair        | HG9Z-1C131A                 | Use Shielded Pair                                                                | HG9Z-AC502              |
|                   |                                                               |                     |            | FC5A-SIF4               | Use Shielded Pair        | N/A                         | Use Shielded Pair                                                                | HG9Z-AC502              |
|                   |                                                               |                     | Ethernet   | FC4A-SX5ES1E            | Use CAT 5 Ethernet cable | N/A                         | Use CAT 5 Ethernet cable                                                         | CAT 5 Ethernet<br>cable |
|                   |                                                               |                     |            | Built-in                | CAT 5 Ethernet cable     | Not Supported               | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable |
| Barriers          | Mi-<br>croSmart<br>FC6A                                       | FC6A                | RS232      | Built-in Port           | FC6A-KC1C                | N/A                         | FC6A-KC1C                                                                        | FC6A-KC2C               |
|                   |                                                               |                     | RS485      | Built-in Port           | FC6A-KC1C                | N/A                         | FC6A-KC1C                                                                        | N/A                     |
|                   |                                                               |                     | Ethernet   | Built-in Port           | CAT 5 Ethernet cable     | Not Supported               | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable |

| Manu-<br>facturer                   | Series                   | Applica-<br>ble CPU                           | Comm. Type | Communication<br>Module             | 4.3" HG1G                         | 4.6" HG1F             | 5.7" (HG2G-5T, HG2G-5FT), 8.4" & 10.4"<br>(HG3G-8JT/-AJT) , 12.1" (HG4G-CJT22MF) |                                   |
|-------------------------------------|--------------------------|-----------------------------------------------|------------|-------------------------------------|-----------------------------------|-----------------------|----------------------------------------------------------------------------------|-----------------------------------|
|                                     |                          |                                               |            |                                     |                                   |                       | Terminal Block Type                                                              | 9-Pin Dsub                        |
| Allen<br>Bradley                    | SLC 500                  | SLC-5/03,<br>SLC-5/04,<br>SLC-5/05            | RS232      | Built-in Port                       | HG9Z-AC112                        | HG9Z-XC100            | HG9Z-AC112                                                                       | HG9Z-AC504                        |
|                                     |                          |                                               | DH485      | Built-in Port                       | HG9Z-GWDF1DH485-5                 | HG9Z-<br>GWDF1DH485-4 | HG9Z-GWDF1DH485-5                                                                | N/A                               |
|                                     |                          |                                               | Ethernet   | Built-in(SLC-5/05),<br>1761-NET-ENI | CAT 5 Ethernet cable              | N/A                   | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | Mi-<br>croLogix          | 1000,<br>1200, 1500                           | RS232      | Built-in Port                       | HG9Z-AC122                        | HG9Z-XC500            | HG9Z-AC122                                                                       | HG9Z-AC511                        |
|                                     |                          |                                               | Ethernet   | 1761-NET-ENI                        | CAT 5 Ethernet Crossover<br>cable | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>Crossover cable |
|                                     |                          | 1500                                          | RS232      | Built-in Port (9 Pin<br>Dsub)       | HG9Z-AC132                        | N/A                   | HG9Z-AC132                                                                       | HG9Z-AC505                        |
|                                     |                          | 1100, 1400                                    | RS232      | Built-in Port                       | HG9Z-AC152                        | N/A                   | HG9Z-AC152                                                                       | HG9Z-AC518                        |
|                                     |                          | 1100                                          | Ethernet   | Built-in Port                       | CAT 5 Ethernet cable              | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | Control-<br>Logix        | 5550, 5555                                    | RS232      | Built-in Port                       | HG9Z-AC142                        | N/A                   | HG9Z-AC142                                                                       | HG9Z-AC503                        |
|                                     |                          |                                               | Ethernet   | 1756-ENBT                           | CAT 5 Ethernet cable              | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | Compact-<br>Logix        | 1768, 1769                                    | RS232      | Built-in Port                       | HG9Z-AC142                        | N/A                   | HG9Z-AC142                                                                       | HG9Z-AC503                        |
|                                     |                          |                                               | Ethernet   | Built-in Port                       | CAT 5 Ethernet cable              | N/A                   | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | FlexLogix                | 1794-L33,<br>1794-L34                         | RS232      | Built-in Port                       | HG9Z-AC142                        | N/A                   | HG9Z-AC142                                                                       | HG9Z-AC503                        |
| Automa-<br>tion<br>Direct<br>(Koyo) | Direct<br>Logic<br>05/06 | DL05 ,<br>DL06                                | Ethernet   | D0-ECOM, D0-<br>ECOM100             | CAT 5 Ethernet cable              | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | Direct<br>Logic          | D2-240,-<br>250,-250-<br>1, -260              | Ethernet   | D2-ECOM,-ECOMF,-<br>ECOM100         | CAT 5 Ethernet cable              | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
|                                     | Direct<br>Logic 205      | D2-240                                        | RS232      | Built-in Port                       | N/A                               | HG9Z-XC400            | N/A                                                                              | HG9Z-AC508                        |
|                                     | Direct<br>Logic 405      | D4-430,<br>D4-440                             | RS232      | Built-in Port                       | N/A                               | N/A                   | N/A                                                                              | HG9Z-AC506                        |
|                                     |                          |                                               | RS422      | Built-in Port                       | N/A                               | N/A                   | N/A                                                                              | HG9Z-AC507                        |
|                                     |                          | D4-430,-<br>440,450                           | RS232      | D4-DCM                              | N/A                               | N/A                   | N/A                                                                              | HG9Z-AC506                        |
|                                     |                          |                                               | Ethernet   | D4-ECOM, -ECOM-F,<br>ECOM100        | CAT 5 Ethernet cable              | Not Supported         | CAT 5 Ethernet cable                                                             | CAT 5 Ethernet<br>cable           |
| GE Fanuc                            | Series<br>90-30          | CPU331,<br>341, 350,<br>351, 352,<br>360, 363 | RS232      | IC693CMM311                         | N/A                               | N/A                   | N/A                                                                              | HG9Z-AC510                        |
|                                     |                          |                                               | RS485      |                                     |                                   |                       |                                                                                  |                                   |

OI Touchscreens

PLCs

Automation Software

Power Supplies

Sensors

Communication

Barriers

| Manu-<br>facturer | Series         | Applica-<br>ble CPU                                                   | Comm. Type | Communication<br>Module                                                             | 4.3" HG1G  | 4.6" HG1F  | 5.7" (HG2G-5T, HG2G-5FT), 8.4" & 10.4"<br>(HG3G-8JT/-AJT) , 12.1" (HG4G-CJT22MF) |            |
|-------------------|----------------|-----------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------|------------|------------|----------------------------------------------------------------------------------|------------|
|                   |                |                                                                       |            |                                                                                     |            |            | Terminal Block Type                                                              | 9-Pin Dsub |
| Mitsubi-<br>shi   | MELSEC A       | A1N, A2N,<br>A3N,<br>A0J2,<br>A0J2H,<br>A2A, A3A,<br>A2U, A3U,<br>A4U | RS232      | AJ71C24/-S3/-<br>S6/-S8, AJ71UC24,<br>A0J2-C214-S1,<br>AJY1C24-S6/-S8,<br>AJ71UC24, | HG9Z-AC192 | HG9Z-XC145 | HG9Z-AC192                                                                       | N/A        |
|                   | MELSEC-<br>QnA | Q4A,<br>Q4AR,<br>Q3A,<br>Q2ACPU-<br>S1,<br>Q2ACPU                     |            | AJ71QC24N-R2,<br>AJ71QC24N                                                          |            |            |                                                                                  |            |
|                   | MELSEC Q       | Q02CPU,<br>Q02HCPU,<br>Q06HCPU,<br>Q12PH-<br>CPU,<br>Q25HCPU          | RS232      | QJ71C24N-R2,<br>QJ71C24, QJ71C24N                                                   | N/A        | HG9Z-XC203 | N/A                                                                              | N/A        |
|                   | MELSEC-<br>FX  | FX0, FX0N,<br>FX1N,<br>FX0S,<br>FX1S                                  | RS485(422) | Built-in Port                                                                       | N/A        | N/A        | HG9Z-AC182                                                                       | N/A        |
| Siemens           | S7-300         | CPU 313-<br>2PtP                                                      | RS485      | Built-in Port                                                                       | HG9Z-AC510 | N/A        | N/A                                                                              | HG9Z-AC510 |

Note: For a complete list of Supported PLC/Host Manufacturers, please check our Com. Manual.

N/A: Communication cable not available.

## Specifications

## High Performance Series Specifications

## Display Specifications

|                                        | 5.7"                                    | 8.4"                                        | 10.4"                                       | 12.1"                                       |
|----------------------------------------|-----------------------------------------|---------------------------------------------|---------------------------------------------|---------------------------------------------|
| Model                                  | HG2G-5FT22TF                            | HG3G-8JT22MF                                | HG3G-AJT22MF                                | HG4G-CJT22MF                                |
| Display Type                           | Color TFT LCD                           | Color TFT LCD                               | Color TFT LCD                               | Color TFT LCD                               |
| Color Depth                            | 65,536                                  | 65,536                                      | 65,536                                      | 65,536                                      |
| Portrait or Landscape Mounting         | √                                       | √                                           | √                                           | √                                           |
| User Memory                            | 12MB                                    | 12MB                                        | 12MB                                        | 12MB                                        |
| Display Resolution                     | 640W × 480H pixels                      | 800W × 600H pixels                          | 800W × 600H pixels                          | 800W × 600H pixels                          |
| Backlight                              | LED                                     | LED                                         | LED                                         | LED                                         |
| Backlight Life <sup>1</sup>            | 50,000 hours                            | 100,000 hours                               | 100,000 hours                               | 100,000 hours                               |
| Brightness <sup>2</sup>                | 800 cd/m <sup>2</sup>                   | 600 cd/m <sup>2</sup>                       | 700 cd/m <sup>2</sup>                       | 550 cd/m <sup>2</sup>                       |
| Brightness Adjustment                  | 48 scales                               | 48 scales                                   | 48 scales                                   | 48 scales                                   |
| SD Card Slot                           | √                                       | √                                           | √                                           | √                                           |
| MicroSmart Digital I/O Cards Supported | 2                                       | 4                                           | 4                                           | 4                                           |
| Ethernet Port                          | 1 RJ-45                                 | 1 RJ-45                                     | 1 RJ-45                                     | 1 RJ-45                                     |
| USB Port                               | 1 Type A and 1 mini-B                   | 1 Type A and 1 mini-B                       | 1 Type A and 1 mini-B                       | 1 Type A and 1 mini-B                       |
| Serial Ports                           | 2 (RS-232, RS-485, RS-422 configurable) | 2 (RS-232, RS-485, RS-422 configurable)     | 2 (RS-232, RS-485, RS-422 configurable)     | 2 (RS-232, RS-485, RS-422 configurable)     |
| Video In                               | –                                       | Composite Video RCA connector (NTSC or PAL) | Composite Video RCA connector (NTSC or PAL) | Composite Video RCA connector (NTSC or PAL) |
| Audio In/Out                           | –                                       | 3.5mm audio mini-jack (Stereo)              | 3.5mm audio mini-jack (Stereo)              | 3.5mm audio mini-jack (Stereo)              |
| Remote Monitor and Control             | √                                       | √                                           | √                                           | √                                           |



1. The backlight life refers to the time until the surface brightness reduces by half after continuous use at 25°C.
2. Brightness of the LCD only.

## General Specifications

|                                        | 5.7"                                                                                                                                                      | 8.4"                                                                                                                                                         | 10.4"                  | 12.1"                                                                                                                                                     |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Model                                  | HG2G-5FT22TF                                                                                                                                              | HG3G-8JT22MF                                                                                                                                                 | HG3G-AJT22MF           | HG4G-CJT22MF                                                                                                                                              |
| Rated Power Voltage                    | 24V DC                                                                                                                                                    | 24V DC                                                                                                                                                       |                        | 24V DC                                                                                                                                                    |
| Power Voltage Range                    | 20.4 to 28.8V DC                                                                                                                                          | 20.4 to 28.8V DC                                                                                                                                             |                        | 20.4 to 28.8V DC                                                                                                                                          |
| Power Consumption                      | 19W maximum<br>10W maximum when not using USB interface (USB2) or expansion module interface (EXT)                                                        | 25W maximum<br>15W maximum when not using USB interface (USB2) or expansion module interface (EXT)                                                           |                        | 27W maximum<br>18W maximum when not using USB interface (USB2) or expansion module interface (EXT)                                                        |
| Allowable Momentary Power Interruption | 10 ms maximum                                                                                                                                             | 10 ms maximum                                                                                                                                                |                        | 10 ms maximum                                                                                                                                             |
| Inrush Current                         | 30A maximum                                                                                                                                               | 30A maximum                                                                                                                                                  |                        | 30A maximum                                                                                                                                               |
| Dielectric Strength                    | 1,000V AC, 10 mA,<br>1 minute between power and FG terminals                                                                                              | 1,000V AC, 10 mA,<br>1 minute between power and FG terminals                                                                                                 |                        | 1,000V AC, 10 mA,<br>1 minute between power and FG terminals                                                                                              |
| Insulation Resistance                  | 10 MΩ minimum between power and FG terminals (500V DC megger)                                                                                             | 10 MΩ minimum between power and FG terminals (500V DC megger)                                                                                                |                        | 10 MΩ minimum between power and FG terminals (500V DC megger)                                                                                             |
| Operating Temperature                  | 0 to +50°C (no freezing)                                                                                                                                  | 0 to +50°C (no freezing)                                                                                                                                     |                        | 0 to +50°C (no freezing)                                                                                                                                  |
| Operating Humidity                     | 10 to 90% RH (no condensation)                                                                                                                            | 10 to 90% RH (no condensation)                                                                                                                               |                        | 10 to 90% RH (no condensation)                                                                                                                            |
| Storage Temperature                    | -20 to +60°C (no freezing)                                                                                                                                | -20 to +60°C (no freezing)                                                                                                                                   |                        | -20 to +60°C (no freezing)                                                                                                                                |
| Storage Humidity                       | 10 to 90% RH (no condensation)                                                                                                                            | 10 to 90% RH (no condensation)                                                                                                                               |                        | 10 to 90% RH (no condensation)                                                                                                                            |
| Pollution Degree                       | 2                                                                                                                                                         | 2                                                                                                                                                            |                        | 2                                                                                                                                                         |
| Vibration Resistance                   | 5 to 8.4 Hz amplitude 3.5 mm,<br>8.4 to 150 Hz, acceleration 9.8 m/s <sup>2</sup><br>10 cycles (100 minutes) on each of three mutually perpendicular axes | 5 to 8.4 Hz amplitude 3.5 mm,<br>8.4 to 150 Hz, acceleration 9.8 m/s <sup>2</sup><br>10 cycles (100 minutes) on each of three mutually perpendicular axes    |                        | 5 to 8.4 Hz amplitude 3.5 mm,<br>8.4 to 150 Hz, acceleration 9.8 m/s <sup>2</sup><br>10 cycles (100 minutes) on each of three mutually perpendicular axes |
| Shock Resistance                       | 147 m/s <sup>2</sup> , 11 ms<br>5 shocks on each of three mutually perpendicular axes                                                                     | 147 m/s <sup>2</sup> , 11 ms<br>5 shocks on each of three mutually perpendicular axes                                                                        |                        | 147 m/s <sup>2</sup> , 11 ms<br>5 shocks on each of three mutually perpendicular axes                                                                     |
| Noise Immunity                         | Fast transient/burst test,<br>Power terminals: ±1 kV, Communication line: ±0.5 kV (IEC/EN61131-2: 2007)                                                   | Fast transient/burst test,<br>Power terminals: ±2 kV, Communication line: ±1 kV (IEC 61131-2: 2007)                                                          |                        | Fast transient/burst test,<br>Power terminals: ±2 kV, Communication line: ±1 kV (IEC/EN61131-2: 2007)                                                     |
| Electrostatic Discharge                | ESD-3 (RH-1), Level 3 (Contact ±6 kV, air ±8 kV) (IEC/EN61131-2: 2007)                                                                                    | ESD-3 (RH-1), Contact ±6 kV, air ±8 kV (IEC 61131-2: 2007)                                                                                                   |                        | ESD-3 (RH-1), Level 3 (Contact ±6 kV, air ±8 kV) (IEC/EN61131-2: 2007)                                                                                    |
| Corrosion Immunity                     | Free from corrosive gases                                                                                                                                 | Free from corrosive gases                                                                                                                                    |                        | Free from corrosive gases                                                                                                                                 |
| Degree of Protection                   | IP66 (IEC 60529) (front part when mounted)<br>Type 4X, Type 13                                                                                            | IP66 (IEC 60529) (front part when mounted)<br>Type 4X and 13                                                                                                 |                        | IP66 (IEC 60529) (front part when mounted)<br>Type 4X and 13                                                                                              |
| Switching Element                      | Analog resistive membrane                                                                                                                                 | Analog resistive membrane                                                                                                                                    |                        | Analog resistive membrane                                                                                                                                 |
| Operating Force                        | 3N maximum                                                                                                                                                | 0.55 to 2.3N                                                                                                                                                 | 0.55 to 2.3N           | 3N maximum                                                                                                                                                |
| Mechanical Life                        | 1,000,000 operations                                                                                                                                      | 1,000,000 operations                                                                                                                                         |                        | 1,000,000 operations                                                                                                                                      |
| Sound Acknowledgement                  | Electronic buzzer                                                                                                                                         | Electronic buzzer or speaker output                                                                                                                          |                        | Electronic buzzer or speaker output                                                                                                                       |
| Dimensions                             | 167.2W × 134.7H × 54.4D mm                                                                                                                                | 231W × 176H × 54.4D mm                                                                                                                                       | 270W × 212H × 52.7D mm | 314W × 240H × 54.1D mm                                                                                                                                    |
| Weight (approx.)                       | 0.65 kg                                                                                                                                                   | 1.25 kg                                                                                                                                                      | 1.65 kg                | 2.1 kg                                                                                                                                                    |
| Approvals                              | Safety Standards: UL508, CSA C22.2 No.142,<br>Ship Classification Standards: ABS, LR, NK, DNV<br>Type 4X and 13                                           | Safety Standards: UL508, CSA C22.2 No.142,<br>CSA C22.2 No.213, ANSI/ISA-12.12.01-2007<br>Ship Classification Standards: ABS, LR, NK, DNV,<br>Type 4X and 13 |                        | Safety Standards: UL508, CSA C22.2 No.142,<br>Ship Classification Standards: ABS, LR, NK, DNV,<br>Type 4X and 13                                          |



Do not use the touchscreen in an environment subject to strong ultraviolet rays, otherwise the LCD quality will deteriorate.

\*1 Protection degree of the front surface after mounting. Operation not guaranteed in certain environments.

## Enhanced Series Specifications

## Display Specifications

| Model                  | 5.7" HG2G-5TT                        | 5.7" HG2G-5TN                        |
|------------------------|--------------------------------------|--------------------------------------|
| Display                | TFT Color LCD                        | TFT Monochrome LCD                   |
| Color/Shade            | 65,536                               | 16 shades                            |
| Effective Display Area | 115.2W × 86.4H mm                    |                                      |
| Display Resolution     | 320W × 240H pixels                   |                                      |
| View Angle             | Right and left 80°, up 80°, down 80° | Right and left 65°, up 80°, down 60° |
| Backlight              | LED                                  |                                      |
| Backlight Life         | 100,000 hours minimum*1              |                                      |
| Backlight Control      | Automatic off                        |                                      |
| Brightness             | 500 cd/m <sup>2</sup> *2             | 1100 cd/m <sup>2</sup> *2            |
| Brightness Adjustment  | 32 levels                            |                                      |
| Backlight Replacement  | Not possible                         |                                      |



\*1 The backlight life refers to the time until the brightness reduces by half after use at 25°C.

\*2 Brightness of the LCD only.

## General Specifications

| Model                                  | HG2G-5TT (Color) / HG2G-5TN (Monochrome)                                                                                                            |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| Rated Power Voltage                    | 12 to 24 V DC                                                                                                                                       |
| Power Voltage Range                    | 10.2 to 28 VDC                                                                                                                                      |
| Power Consumption                      | 8W maximum<br>4W maximum when not using USB interface (USB2)                                                                                        |
| Allowable Momentary Power Interruption | 10ms maximum (Voltage 20.4 to 28.8V DC)<br>1ms maximum (Voltage 10.2 to 20.4V DC)                                                                   |
| Inrush Current                         | 40A maximum                                                                                                                                         |
| Dielectric Strength                    | 1000V AC, 10 mA, 1 minute between power and FG terminals                                                                                            |
| Insulation Resistance                  | 50 MΩ minimum between power and FG terminals (500V DC megger)                                                                                       |
| Operating Temperature                  | -20 to +60°C (no freezing)                                                                                                                          |
| Operating Humidity                     | 10 to 90% RH (no condensation)                                                                                                                      |
| Storage Temperature                    | -20 to +70°C (no freezing)                                                                                                                          |
| Storage Humidity                       | 10 to 90% RH (no condensation)                                                                                                                      |
| Pollution Degree                       | 2                                                                                                                                                   |
| Vibration Resistance                   | 5 to 8.4 Hz amplitude 3.5 mm, 8.4 to 150 Hz, acceleration 9.8 m/s <sup>2</sup> 10 cycles (100 minutes) on each of three mutually perpendicular axes |
| Shock Resistance                       | 147 m/s <sup>2</sup> , 11 ms 5 shocks on each of three mutually perpendicular axes                                                                  |
| Noise Immunity                         | Fast transient/burst test, Power terminals: ±2 kV, Communication line: ±1 kV (IEC/EN61000-4-4)                                                      |
| Electrostatic Discharge                | ESD-3 (RH-1) Level 3 (Contact ±6 kV, air ±8 kV) (IEC/EN61000-4-2)                                                                                   |
| Corrosion Immunity                     | Free from corrosive gases                                                                                                                           |
| Mounting                               | Panel mounting                                                                                                                                      |
| Degree of Protection                   | IP66F (IEC 60529) (front part when mounted)*1 TYPE 4X TYPE 13 *2                                                                                    |
| Dimensions                             | 167.2 W × 134.7 H × 40.9 D mm                                                                                                                       |
| Weight (approx.)                       | 0.5 kg                                                                                                                                              |



Do not use the HG2G in an environment subject to strong ultraviolet rays, otherwise the LCD quality will deteriorate.

\*1 Protection degree of the front surface after mounting. Operation not guaranteed

\*2 Operation not guaranteed when used with certain types of oils under certain environments.

## Operation Specifications

| Model                 | HG2G-5TT (Color) / HG2G-5TN (Monochrome) |
|-----------------------|------------------------------------------|
| Switching Element     | Analog resistive membrane                |
| Operating Force       | 3N maximum                               |
| Mechanical Life       | 1,000,000 operations                     |
| Acknowledgement Sound | Electronic buzzer                        |

## Function Specifications

| Model                     | HG2G-5TT (Color) / HG2G-5TN (Monochrome)                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Screen Types              | Base screen, popup screen, system screen                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| No. of Screens            | Base screen: 3,000 max.<br>Popup screen: 3,015 max.                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| User Memory               | 5 MB (including expansion fonts)                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Parts                     | Bit Button, Word Button, Goto Screen, Print Button Key Button, Multi Button, Keypad, Selector Switch, Potentiometer, Numerical Input, Character Input, Pilot Lamp, Multi-State Lamp, Picture Display, Message Display, Message Switching Display, Alarm List Display, Alarm Log Display, Numerical Display, Bar Graph, Trend Chart, Pie Chart, Meter, Calendar, Bit Write Command, Word Write Command, Goto Screen Command, Print Command Screen Script Command, Multi Command, Timer |
| Calendar                  | Year, Month, Day, Hour, Min., Sec., Day of Week<br>±60 sec per month (at 25 °C)                                                                                                                                                                                                                                                                                                                                                                                                       |
| Power Failure Backup Data | Calendar, log data, keep internal relay, keep internal register                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Battery                   | Recommended replacement span: every 4 years (at 25°C)                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Interface Specifications

| Model                      | HG2G-5TT Color / HG2G-5TN Monochrome |                                                                        |
|----------------------------|--------------------------------------|------------------------------------------------------------------------|
| Serial Interface 1 (COM1)* | RS232C                               | Electrical Characteristics                                             |
|                            |                                      | EIA RS232C compliant                                                   |
|                            |                                      | Transmission Speed                                                     |
|                            |                                      | 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 bps                |
|                            |                                      | Synchronization                                                        |
|                            |                                      | Asynchronous                                                           |
|                            | EIA RS422/485                        | Communication Method                                                   |
|                            |                                      | Half or full duplex                                                    |
|                            |                                      | Control System                                                         |
|                            |                                      | Hardware control or none                                               |
| Ethernet Interface (LAN)   | EIA RS422/485                        | Connector                                                              |
|                            |                                      | Detachable 9-pin terminal block                                        |
|                            |                                      | Electrical Characteristics                                             |
|                            |                                      | EIA RS422/485 compliant                                                |
|                            |                                      | Transmission Speed                                                     |
|                            |                                      | 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 187500 bps (Note) |
|                            | Ethernet Interface (LAN)             | Synchronization                                                        |
|                            |                                      | Asynchronous                                                           |
|                            |                                      | Communication Method                                                   |
|                            |                                      | Half or full duplex                                                    |
| USB Interface (USB2)       | Ethernet Interface (LAN)             | Control System                                                         |
|                            |                                      | None                                                                   |
|                            | USB Interface (USB2)                 | Connector                                                              |
|                            |                                      | Detachable 9-pin terminal block                                        |
| USB Interface (USB1)       | Ethernet Interface (LAN)             | Interface                                                              |
|                            |                                      | IEEE802.3u (10BASE-T/100BASE-TX) compliant                             |
|                            | USB Interface (USB2)                 | Connector                                                              |
|                            |                                      | Connector (RJ-45)                                                      |
|                            | USB Interface (USB2)                 | Interface                                                              |
|                            |                                      | USB 2.0 full speed (12 Mbps)                                           |
|                            | USB Interface (USB1)                 | Connector                                                              |
|                            |                                      | USB Type Mini-A connector                                              |
|                            | USB Interface (USB1)                 | Interface                                                              |
|                            |                                      | USB 2.0 high speed (480 Mbps)                                          |
|                            | USB Interface (USB1)                 | Connector                                                              |
|                            |                                      | USB Type Mini-B connector                                              |

\*RS232C and RS 422/485 can be used simultaneously.

Note: 187,500 bps is available only with SIEMENS SIMATIC S7-300/400 series (MPI port direct connection).

## Basic and Compact Series Specifications

## General Specifications

| Model                                  | 4.6" HG1F Monochrome                                                                                                                            |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Voltage                                | 24V DC                                                                                                                                          |
| Voltage Range                          | 20.4 to 28.8V DC                                                                                                                                |
| Power Consumption                      | 10W maximum                                                                                                                                     |
| Inrush Current                         | 20A maximum                                                                                                                                     |
| Allowable Momentary Power Interruption | 10 ms minimum                                                                                                                                   |
| Dielectric Strength                    | 1,000V AC, 10 mA, 1 minute between power and FG terminals                                                                                       |
| Insulation Resistance                  | 50 MΩ minimum between power and FG terminals (500V DC megger)                                                                                   |
| Backup Battery                         | CR2032 lithium battery<br>Life approx. 4 years (25°C)                                                                                           |
| Operating Temperature                  | 0 to 50°C (no freezing)                                                                                                                         |
| Operating Humidity                     | 10 to 90% RH (no condensation)                                                                                                                  |
| Storage Temperature                    | -20 to +60°C (no freezing)                                                                                                                      |
| Storage Humidity                       | 10 to 90% RH (no condensation)                                                                                                                  |
| Pollution Degree                       | 2 (IEC 60664-1)                                                                                                                                 |
| Corrosion Immunity                     | Atmosphere free from corrosive gases                                                                                                            |
| Vibration Resistance (damage limits)   | 10 to 20Hz amplitude 0.625 mm, 20 to 55Hz acceleration 9.8 m/s <sup>2</sup> (1G), 2 hours per axis on each of three mutually perpendicular axes |
| Shock Resistance (damage limits)       | 147 m/s <sup>2</sup> (15G), 11 ms, 5 shocks on each of three mutually perpendicular axes                                                        |
| Noise Immunity                         | Fast transient/burst test, common mode: Level 3, power terminals: ±2 kV, communication line: ±1 kV (IEC/EN 61000-4-4)                           |
| Electrostatic Discharge                | ESD-3 (RH-1), Level 3, (contact ±6 kV, aerial ±8 kV) (IEC/EN 61000-4-2)                                                                         |
| Mounting                               | Panel mounting                                                                                                                                  |
| Degree of Protection                   | IP65 TYPE 13, ANSI/ISA-12.12.01-2007                                                                                                            |
| Dimensions (mm)                        | 147W x 47H x 39.3D                                                                                                                              |
| Weight (approx.)                       | 280g                                                                                                                                            |

## Operation Specifications

| Model                   | 4.6" HG1F Monochrome                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Switching Element       | Resistive membrane                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Touch Region Resolution | 1 x 1                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| CC Switch Quantity      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Operating Force         | 0.2 to 0.8N                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mechanical Life         | 1,000,000 operations                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Acknowledge Sound       | Electronic buzzer                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Screen Types            | Base screen, popup screen, system screen                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Number of Screens       | Base screen: 3000 max.,<br>popup screen: 3015 max.                                                                                                                                                                                                                                                                                                                                                                                                                |
| User Memory             | 1MB (including expansion fonts)                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Parts                   | Bit Button, Word Button, Goto Screen Button, Print Button, Key Button, Keypad, Selector Switch, Potentiometer, Numerical Input, Character Input, Pilot Lamp, Multi-state Lamp, Picture Display, Message Display, Message Switching Display, Alarm List Display, Alarm Log Display, Numerical Display, Bar Graph, Trend Chart, Pie Chart, Meter, Calendar, Bit Write Command, Word Write Command, Goto Screen Command, Timer, Print Command, Screen Script Command |

## Operation Specifications con't

| Model                    | 4.6" HG1F Monochrome                                                         |
|--------------------------|------------------------------------------------------------------------------|
| Calendar                 | Year, Month, Day, Hour, Min., Sec., Day of Week                              |
| Print Function (support) | ESC/P, PC-PR: Epson VP-700<br>SII: DPU414                                    |
| Power Failure Backup     | Backup data: Calendar, log data, keep internal relay, keep internal register |
| Backup Duration          | 1 month (at 25°C) after full charging for two days                           |
| Battery Life             | 4 years (at 25°C)                                                            |



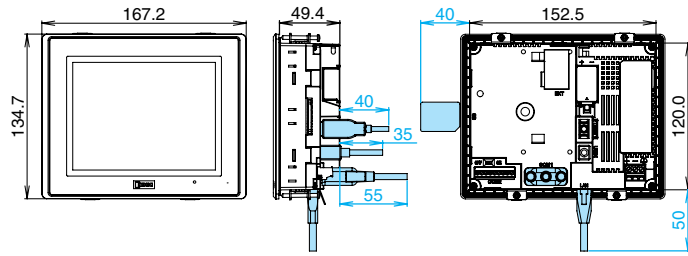
\*2MB for OS

## General Specifications

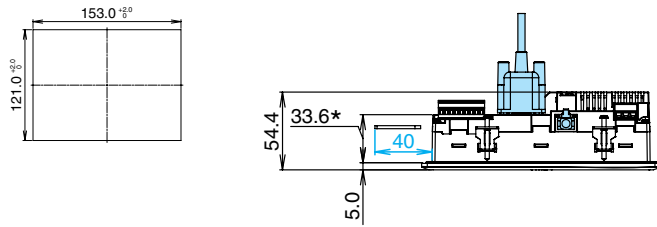
|                              | Model                                  | 4.3" HG1G Color                                                                                                                                                                          |
|------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical Specifications    | Rated Power Voltage                    | 12-24V DC                                                                                                                                                                                |
|                              | Power Voltage Range                    | 10.2 to 28.8V DC                                                                                                                                                                         |
|                              | Power Consumption                      | 8W maximum<br>4W maximum when not using USB interface (USB2)                                                                                                                             |
|                              | Allowable Momentary Power Interruption | 10ms maximum (voltage 20.4 to 28.8V DC)<br>1ms maximum (voltage 10.2 to 20.4V DC)                                                                                                        |
|                              | Inrush Current                         | 40A maximum                                                                                                                                                                              |
| Environmental Specifications | Dielectric Strength                    | 1,000V AC, 10mA, 1 minute between power and FG terminals                                                                                                                                 |
|                              | Operating Temperature                  | -20 to +55°C (no freezing)                                                                                                                                                               |
|                              | Operating Humidity                     | 10 to 90% RH (no condensation)                                                                                                                                                           |
|                              | Storage Temperature                    | -20 to +70°C (no freezing)                                                                                                                                                               |
|                              | Storage Humidity                       | 10 to 90% RH (no condensation)                                                                                                                                                           |
|                              | Pollution Degree                       | 2                                                                                                                                                                                        |
|                              | Vibration Resistance                   | 5 to 8.4Hz amplitude 3.5 mm,<br>8.4 to 150Hz, acceleration 9.8m/s <sup>2</sup><br>10 cycles (100 minutes) on each of three mutually perpendicular axes                                   |
|                              | Shock Resistance                       | 147m/s <sup>2</sup> , 11ms<br>5 shocks on each of three mutually perpendicular axes                                                                                                      |
|                              | Noise Immunity                         | Fast transient/burst test,<br>Power terminals: ±2kV,<br>Communication line: ±1kV<br>(IEC/EN 61131-2, IEC/EN 61000-4-4)                                                                   |
|                              | Electrostatic Discharge                | Contact ±6kV, air ±8kV<br>(IEC/EN 61131-2, IEC/EN 61000-4-2)                                                                                                                             |
| Structure                    | Corrosion Immunity                     | Free from corrosive gases                                                                                                                                                                |
|                              | Mounting                               | Panel mounting (panel thickness: 1.0 to 5.0mm)                                                                                                                                           |
|                              | Degree of Protection                   | IP66F/IP67F (IEC 60529, JIS C0920) (see JIS C 0920 Annex 1 for "F") (front part when mounted) *1<br>IP65F/IP67F when panel thickness is below 1.5mm<br>TYPE 4X TYPE 13 *2, Class I Div 2 |
|                              | Dimensions                             | 128 W x 102 H x 31.8 D mm                                                                                                                                                                |
|                              | Weight (approx.)                       | 300g                                                                                                                                                                                     |

# High-Performance Series Dimensions and Panel Cutouts (mm)

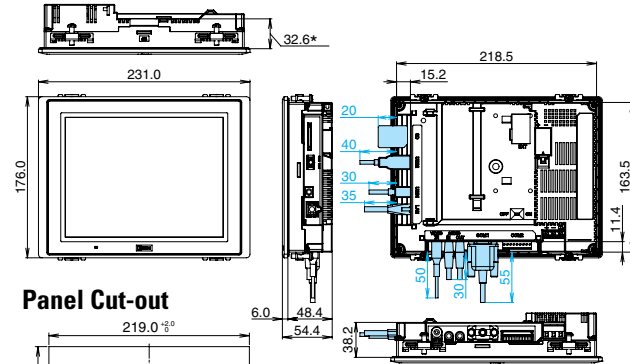
## 5.7" HG2G-5FT22TF



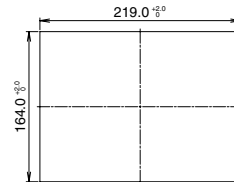
### Panel Cut-out



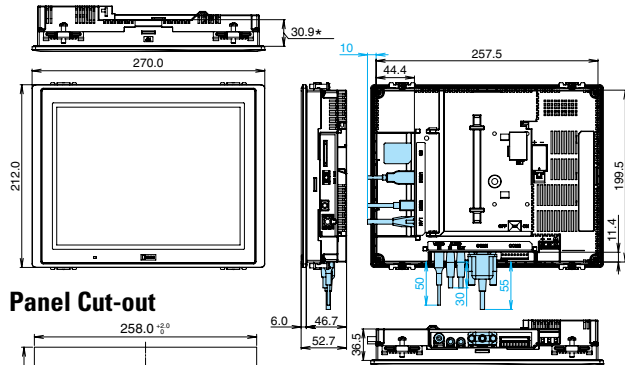
## 8.4" HG3G-8JT22MF



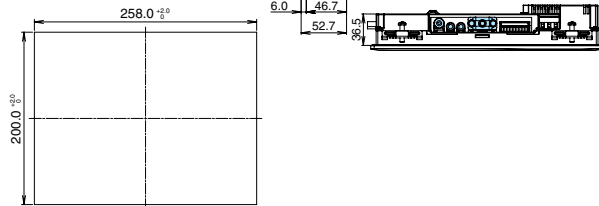
### Panel Cut-out



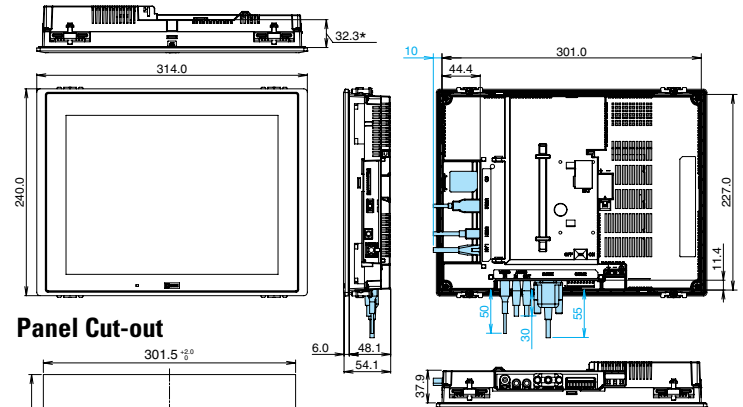
## 10.4" HG3G-AJT22MF



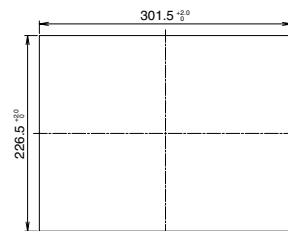
### Panel Cut-out



## 12.1" HG4G-CJT22MF



### Panel Cut-out

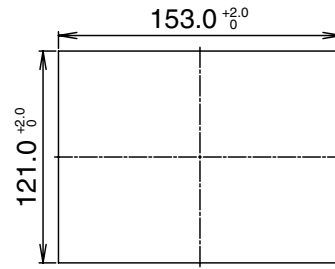
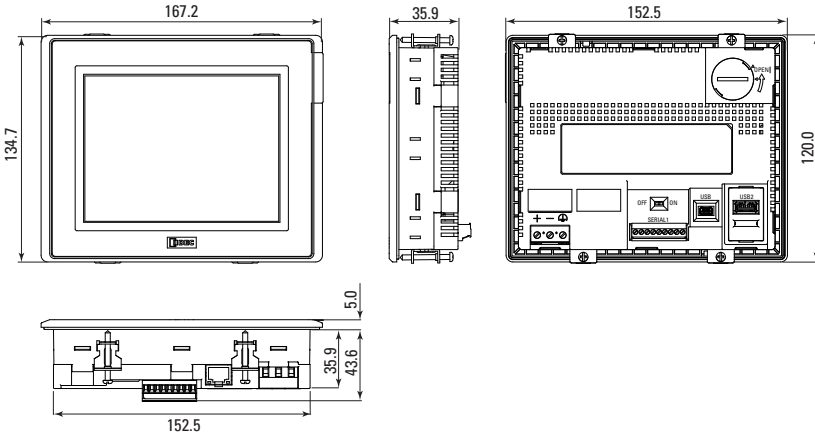


1. Dimensions in blue show the mounting dimensions of the cable.
2. Dimensions in the figure vary depending on the type of cable connected.

## Enhanced Series Dimensions and Panel Cutouts (mm)

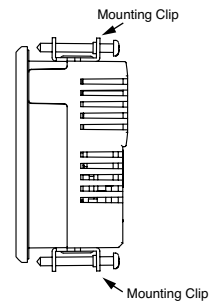
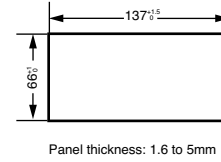
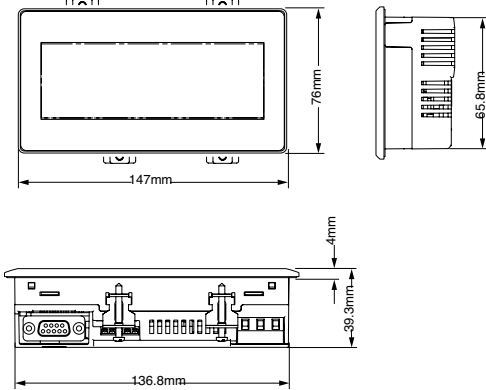
### 5.7" HG2G-5TT22TF/HG2G-5TN22TF

### Panel Cut-out



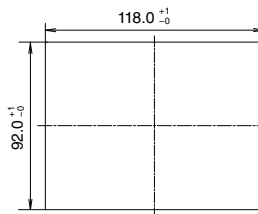
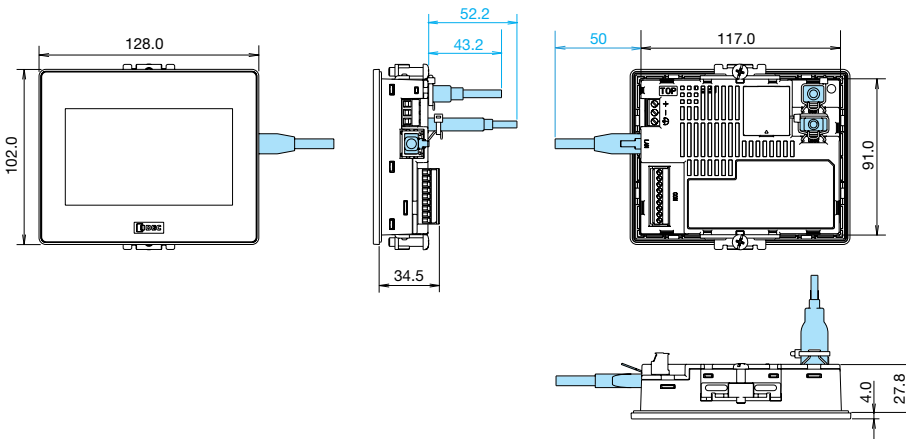
### 4.6" HG1F (Monochrome)

### Panel Cut-out



### 4.3" HG1G

### Panel Cut-out



1. Dimensions in blue show the mounting dimensions of the cable.
2. Dimensions in the figure vary depending on the type of cable connected.
3. Install the HG2G into a panel cut-out by tightening the four mounting clips (supplied) to a torque of 0.2 to 0.3 N·m. Do not tighten with excessive force, otherwise the HG2G and screen may be distorted. Also waterproof characteristics may be lost.