

# High Performance OI Touchscreens

## Key Features

- New 5.7" Color TFT LCD Displays
- New 8.4", 10.4" and 12.1" Color TFT LCD Displays with Multi-Media
- 65,536 Color LCD
- High Resolution Display: 800 x 600 (8.4", 10.4", 12.1"), 640 x 480 (5.7")
- Super Bright: up to 800cd/m<sup>2</sup>
- Mounts Portrait or Landscape
- Remote Access, Monitor and Control
- Audio and Video Interface (8.4", 10.4", 12.1")
- Supports Expansion I/O Modules
- Serial, Ethernet and USB ports



## 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 *1	50,000 hours min.	100,000 hours min.	100,000 hours min.	100,000 hours min.
Brightness *2	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 & 1 mini-B	1 Type A & 1 mini-B	1 Type A & 1 mini-B	1 Type A & 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 & 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 10W maximum when not using USB interface (USB2) or expansion module interface (EXT)	25W maximum 15W maximum when not using USB interface (USB2) or expansion module interface (EXT)		27W maximum 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, 1 minute between power and FG terminals	1,000V AC, 10 mA, 1 minute between power and FG terminals		1,000V AC, 10 mA, 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, 8.4 to 150 Hz, acceleration 9.8 m/s <sup>2</sup> 10 cycles (100 minutes) on each of three mutually perpendicular axes	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		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	147 m/s <sup>2</sup> , 11 ms 5 shocks on each of three mutually perpendicular axes		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: ±1 kV, Communication line: ±0.5 kV (IEC/EN61131-2: 2007)	Fast transient/burst test, Power terminals: ±2 kV, Communication line: ±1 kV (IEC 61131-2: 2007)		Fast transient/burst test, 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 *1	IP66 (IEC 60529) (front part when mounted) Type 4X, 13 (Pending)	IP66 (IEC 60529) (front part when mounted) Type 4X, Type 13 (Pending)		IP66 (IEC 60529) (front part when mounted) Type 4X, 13 (Pending)
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 Ship Classification Standards: ABS, LR, NK	Safety Standards: UL508, CSA C22.2 No.142, CSA C22.2 No.213, ANSI/ISA-12.12.01-2007 Ship Classification Standards: ABS, LR, NK		Safety Standards: UL508, CSA C22.2 No.142 Ship Classification Standards: ABS, LR, NK

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

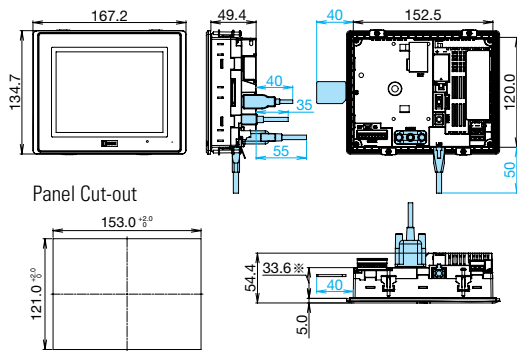
\*1 Protection degree of the front surface after mounting. Operation not guaranteed in certain environments.

## Touchscreen Part Numbers

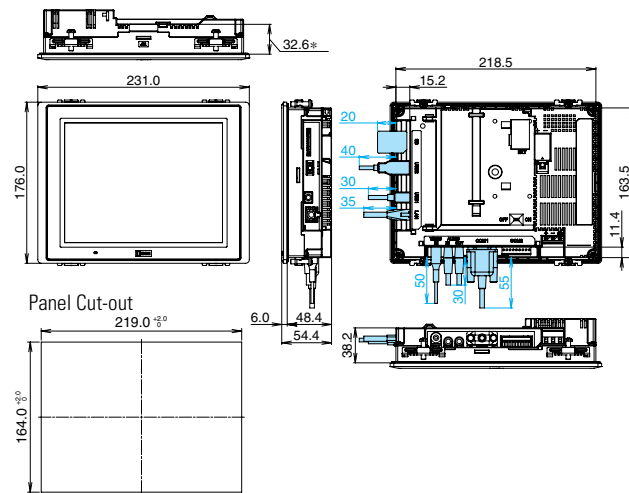
	5.7"	8.4"	10.4"	12.1"
Light gray	HG2G-5FT22TF-W	HG3G-8JT22MF-W	HG3G-AJT22MF-W	-
Black	HG2G-5FT22TF-B	HG3G-8JT22MF-B	HG3G-AJT22MF-B	HG4G-CJT22MF-B
Silver	HG2G-5FT22TF-S	-	-	-

## Dimensions (mm)

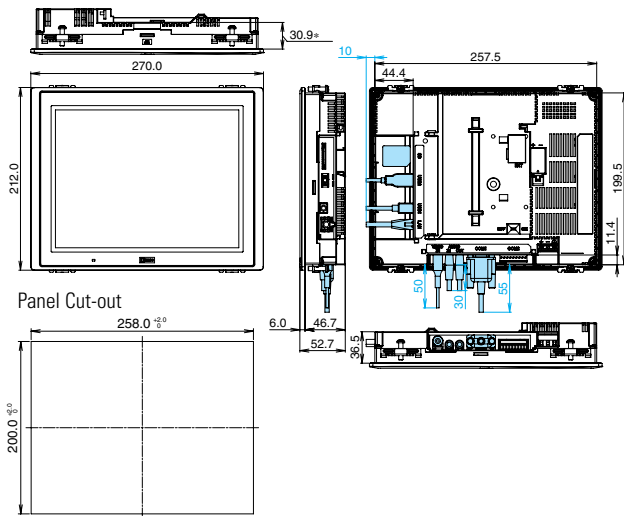
5.7" HG2G-5FT22TF



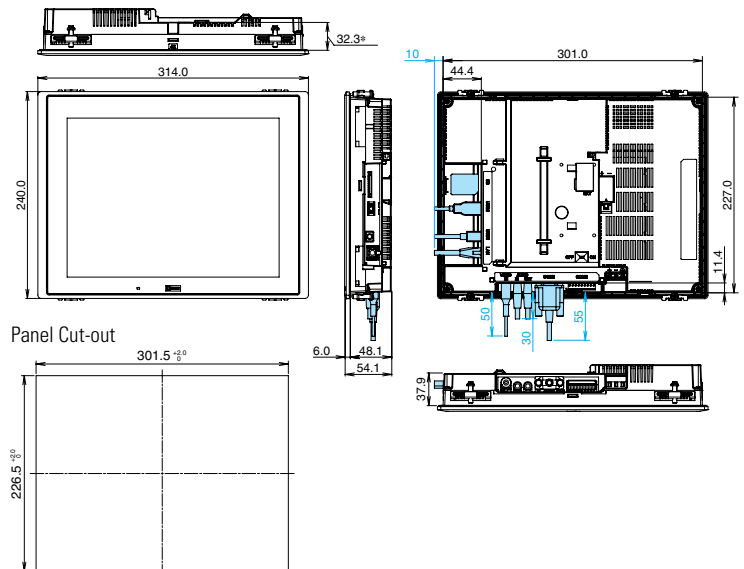
8.4" HG3G-8JT22MF



10.4" HG3G-AJT22MF



12.1" HG4G-CJT22MF



## Accessories

	Part Number	Description	Applicable Model		
			5.7"	8.4" / 10.4"	12.1"
Programming Software	SW1A-W1C	Automation Organizer	√	√	√
USB Maintenance Cable	HG9Z-XCM2A	USB Programming Cable USB-miniB (2m)	√	√	√
Mounting Clip	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 with HMI)	√	-	-
	HG9Z-XT09	Replacement terminal block plug. (1 is supplied with 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.	√	-	-
Protective Sheet *1	HG9Z-2D5	Use with 5.7" HMI. Sheet lays over LCD area.	√	-	-
	HG9Z-3D8	Use with 8.4" HMI. Sheet lays over LCD area.	-	√	-
	HG9Z-3DA2	Use with 10.4" HMI. Sheet lays over LCD area.	-	√	-
	HG9Z-4DC	Use with 12.1" HMI. Sheet lays over LCD area.	-	-	√
Expansion Module Clamp *2	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 68.8mm)	√	√	√
	HG9Z-XJ5	Extra-Long type for installing expansion I/O modules (Total width 70.1 to 93.9mm)	√	√	√
L-shaped Terminal Block Connector for I/O Module	HG9Z-PMT11L	For 10 pole MicroSmart I/O Module	√	√	√
	HG9Z-PMT11L	For 11 pole MicroSmart I/O Module	√	√	√
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 manufacturer).	√	-	-

\*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.

