



Actual Size

## 4.6" Monochrome STN LCD Touchscreen - HG1F

- Features**
- Super bright monochrome LCD screen: 500 cd/m<sup>2</sup>
  - High resolution: 300 x 100 pixels.
  - High performance CPU for fast response
  - Analog resistive touch panel
  - Screen orientation: Landscape or Portrait
  - Slim frame design
  - Large memory capacity of 1MB
  - O/I link communication
  - 1:N PLC communication (IDEC/Modbus PLC)
  - Supports major brand PLC manufacturers: IDEC, Allen Bradley, Omron, Mitsubishi, Automation Direct (Koyo), GE, Siemens, and many more
  - Multilingual capabilities: English, simplified & traditional Chinese, Korean, central European languages, etc.
  - Approvals: UL, c-UL, Hazardous Locations Class 1 Div. 2, Nema Type 13, IP65, CE
  - Programming Software: WindO/I-NV2 Ver 3.12 or higher



### Specifications

#### General Specifications

<b>Rated Power Voltage</b>	24V DC
<b>Power Voltage Range</b>	20.4 to 28.8V DC
<b>Power Consumption</b>	10W maximum
<b>Power Inrush Current</b>	20A maximum
<b>Allowable Momentary Power Interruption</b>	10ms minimum
<b>Dielectric Strength</b>	1,000V AC, 10mA, 1 minute between power & FG terminals
<b>Insulation Resistance</b>	50MΩ minimum between power & FG terminals (500V DC megger)
<b>Backup Battery</b>	CR2032 lithium battery, Life approx. 4 years (25°C)
<b>Operating Temperature</b>	0 to 50°C
<b>Operating Humidity</b>	10 to 90% RH (no condensation)
<b>Storage Temperature</b>	-20 to +60°C
<b>Storage Humidity</b>	10 to 90% RH (no condensation)
<b>Pollution Degree</b>	2 (IEC 60664-1)
<b>Corrosion Immunity</b>	Atmosphere free from corrosive gases
<b>Vibration Resistance (damage limits)</b>	10 to 20Hz amplitude 0.625mm, 20 to 55Hz acceleration 9.8m/s <sup>2</sup> , 2 hours per axis on each of three mutually perpendicular axes
<b>Shock Resistance (damage limits)</b>	147m/s <sup>2</sup> , 11ms, 5 shocks on each of three mutually perpendicular axes
<b>Noise Immunity</b>	Fast transient/burst test, Common mode: Level 3, Power terminals: ±2 kV, Communication line: ±1kV, (IEC 61000-4-4)
<b>Electrostatic Discharge</b>	ESD-3 (RH-1), Level 3, (contact ±6kV, air ±8kV), (IEC 61000-4-2)
<b>Mounting</b>	Panel mounting
<b>Degree of Protection</b>	IP65, Nema Type 13 (operator)
<b>Dimensions</b>	147W x 76H x 39.3D mm
<b>Weight (approx.)</b>	280g



Portrait Orientation



Landscape Orientation

35.3mm



Side View

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## Specifications Con't

Display Specifications	
<b>LCD</b>	Monochrome STN
<b>Effective Display Area</b>	111.4W x 38.4H mm
<b>Display Resolution</b>	300W x 100H pixels
<b>LCD Life</b>	50,000 hours minimum
<b>Contrast Adjustment</b>	Possible in steps using the front touch screen
<b>Backlight</b>	Cold-cathode tube
<b>Backlight Life</b>	50,000 hours nominal (Note)
<b>Backlight Control</b>	Automatic OFF
<b>Backlight Replacement</b>	Possible

Note: The backlight life refers to the time when the surface brightness is reduced by half after using continuously at room temperature.

Function Specifications	
<b>Screen Types</b>	Base screen, popup screen, system screen
<b>No. of Screens</b>	Base screen: 3,000 max., popup screen: 3,000 max.
<b>User Memory</b>	1MB (including expansion fonts)
<b>Parts</b>	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, Print Command, Screen Script Command, Timer
<b>Calendar</b>	Year, Month, Day, Hour, Min., Sec., Day of Week ±30 sec per month (at 25°C)
<b>Power Failure Backup Data</b>	Calendar, log data, keep internal relay, keep internal register
<b>Battery Life</b>	4 years (at 25°C)

## HG1F to PLC Communication Cable Part Numbers

IDEC PLC Model	Comm. Type	Link Unit Used	Cable Part Number*
Microsmart (FC5A & FC4A)	RS-232	FC4A-PC1 or FC4A-HPC1	HG9Z-XC183**
		Built-in Port (8 pin Mini-Din)	FC4A-KC1CA
	RS-485	FC4A-PC3 or FC4A-HPC3	HG9Z-1C131A
		FC4A-PC2 or FC4A-HPC2	HG9Z-1C121A
OpenNet Controller or Micro3C	RS-232	Built-in Port (8 pin Mini-Din)	HG9Z-XC183
	RS-485	Built-in Port (Screw terminal type)	HG9Z-1C131A
Micro3	RS-485	Built-in Port (8 pin Mini-Din)	HG9Z-1C121A

\* More cable part numbers available at [www.idec.com/usa/hg1f](http://www.idec.com/usa/hg1f)

\*\* Cable FC4A-KC1CA can also be used

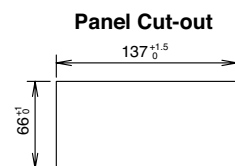
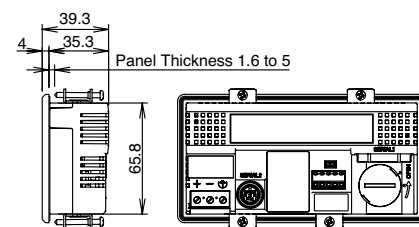
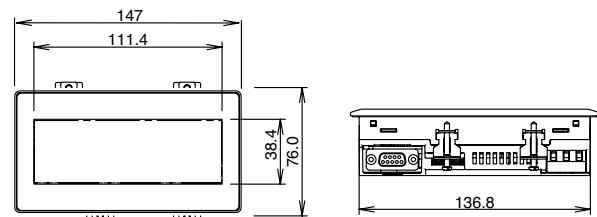
## Part Numbers

	Display Screens	Part Numbers	Bezel Color	Communication Type
Operator Interfaces	4.6" STN Monochrome LCD	HG1F-SB22BF-W	Light Gray	RS-232
		HG1F-SB22BF-B	Black	
		HG1F-SB22BF-S	Silver*	
		HG1F-SB22YF-W	Light Gray	RS-485 / RS-422
		HG1F-SB22YF-B	Black	
		HG1F-SB22YF-S	Silver*	

\*Silver bezel is not UL Listed or in-stock item.

	Description	Part Numbers
Software	WindO/I-NV2 - Programming software for all Touchscreens. PLC Drivers are included with the software.	HG9Y-ZSS2W
Cable	Programming cable for HG1F Series (PC to HG1F)	HG9Z-XCM1A or FC2A-KC4C
Accessories	Protective Sheet (5 piece minimum)	HG9Z-1D
	Replacement Backlight (1 pc.)	HG9Z-1FB
	Mounting Clips (10 piece minimum)	SLD-K02
	Replacement Battery (1 pc.)	HG9Z-XR1
	O/I Link Unit	HG9Z-2G1

## Dimensions



The above figure illustrates the RS485/422 version.



IDEC Corporation • 1175 Elko Drive • Sunnyvale, CA 94089 • 800-262-IDEC (4332) • Fax: 408-745-5258 • [www.idec.com](http://www.idec.com)

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