



Actual Size

4.6" Monochrome STN LCD Touchscreen - HG1F

- Features**
- Super bright monochrome LCD screen: 500 cd/m²
 - 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



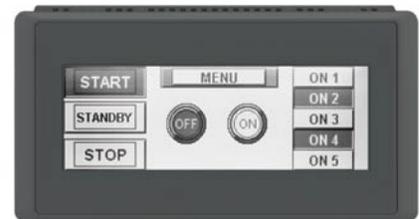
Specifications

General Specifications

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



Portrait Orientation



Landscape Orientation

35.3mm



Side View

Specifications con't on following page

Specifications Con't

Display Specifications	
LCD	Monochrome STN
Effective Display Area	111.4W x 38.4H mm
Display Resolution	300W x 100H pixels
LCD Life	50,000 hours minimum
Contrast Adjustment	Possible in steps using the front touch screen
Backlight	Cold-cathode tube
Backlight Life	50,000 hours nominal (Note)
Backlight Control	Automatic OFF
Backlight Replacement	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	
Screen Types	Base screen, popup screen, system screen
No. of Screens	Base screen: 3,000 max., popup screen: 3,000 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, Print Command, Screen Script Command, Timer
Calendar	Year, Month, Day, Hour, Min., Sec., Day of Week ±30 sec per month (at 25°C)
Power Failure Backup Data	Calendar, log data, keep internal relay, keep internal register
Battery Life	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

** Cable FC4A-KC1CA can also be used

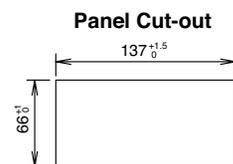
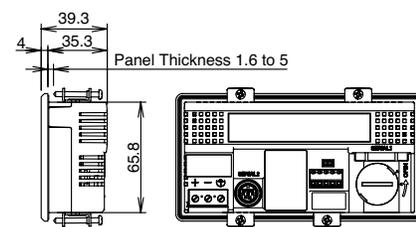
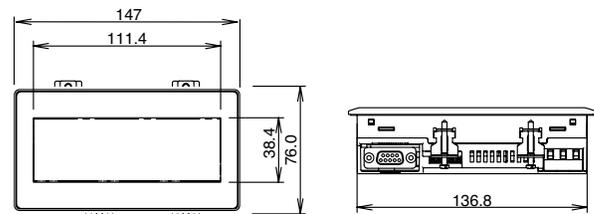
Part Numbers

	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.

