

HG

S E R I E S



idec



IDEC is a leader in human-machine interface (HMI) technology, and our touchscreens play a big part in creating the most efficient, convenient interaction between you and your equipment. We developed our first touchscreens in 1996 and have continued to increase and improve on the family ever since, adding more colors, touch regions, and built-in features.

Each touchscreen addresses a different need for today's applications. Choose from our three sleek, compact models: the HG1X for elementary operations, the HG1B for more control over larger jobs, and the HG2F for managing even the most complicated tasks. The standard features are tailored to the level of control, and include internal alarms, serial ports and bright LCD screens. The HG2F is also UL1604 listed, the first IDEC touchscreen approved for use in hazardous locations.

HG touchscreens work with all of IDEC's programmable logic controllers, and have drivers available to make them compatible with PLCs from other manufacturers. Each series also has a dedicated programming software package to suit the particular features of that interface.

The choice is yours. For more information about the HG Family of Operator Interfaces, visit us on the web at www.idec.com or call IDEC today.

One family. Three series. So many levels of control.

IDEC brings control to your fingertips with the HG Family of Operator Interfaces. You know your needs better than anyone, so we give you the option to choose the O/I that works for you. Full color or monochrome, text display or touchscreen — whatever you're looking for, you'll find it in the HG Series.



1
HG1X
Series



2
HG1B
Series



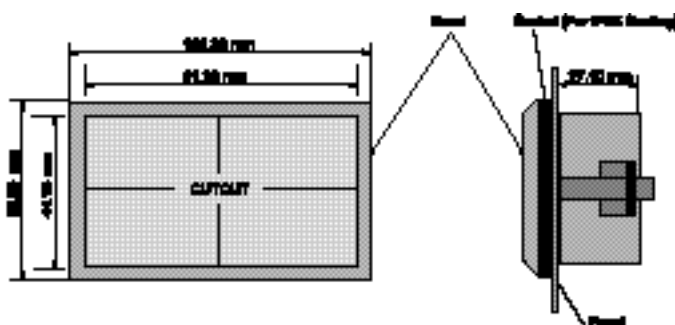
3
HG2F
Series

Less is more! Sometimes all you need is a simple text interface, so IDEC offers the HG1X Series of text message displays. Both models are highly flexible, compact units featuring bright, backlit LCD screens, ideal for interfacing with PLCs that lack integrated displays. The function keys are user-definable for coil operations, register operations, screen operations, or alarm operations. The HG1X Series is compatible with all IDEC PLCs, including the new MicroSmart series, as well as several other major manufacturers' controllers. HG1X displays do not require an external power supply, and also have a serial port for printing screens and alarms.

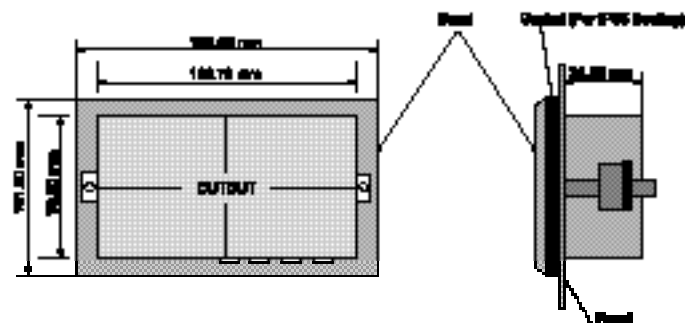


HG1X

- 2-line, 16 character or 4-line, 20-character display
- No external power supply required; unit draws power from PLC port
- Assign multiple actions to a single keystroke
- Assign actions to a combination of keys
- UL1604 approved for hazardous locations
- Keys have different functions depending on active screen
- *Programmable with Wind-MSG (see page 11)*



HG1X-252 - Dimensions/Panel Cutout



HG1X-452 - Dimensions/Panel Cutout

HG1X Specifications

General Specifications

Type	Item	Description
Standards	Safety standards	UL508, UL1604, CSA C22.2 No. 1010.1, No.213, IEC/EN61131, CE
	EMC standards	89/336/EEC (as amended by 91/263/EEC and 92/31/EEC)
Electrical	Rated voltage	5V DC
	Voltage variation range	± 5% maximum
	Power consumption	120mA maximum (for HG1X-252), 160mA maximum (for HG1X-452)
	Inrush current	N/A
Environmental	Operating temperature range	0-55°C (operation)
	Operating humidity range	0-90%
	Degree of protection	IP65
	Storage temperature	-25 to 80°C
	Storage humidity	10-90% (non-condensation)
	Vibration resistance	10 to 61.2Hz, @ 0.2mm displacement 61.2Hz to 150Hz @ 1.5G acceleration (on all axes)
	Shock resistance	1.5G acceleration for 11ms, 2 shocks per sense per axis (on all axes)
Structural	Installation	Panel mount
	Exterior dimensions (WxHxD)	108mm x 61mm x 27mm (HG1X-252)
		183mm x 101mm x 37mm (HG1X-452)
	Panel cutout dimensions	92mm x 45mm (HG1X-252)
		161mm x 79mm (HG1X-452)
	Weight	Approx. 137g (HG1X-252) Approx. 318g (HG1X-452)

HG1X Cables

Part Number	Description
HG9Z-SCI25A	Cable between HG1X and Micro ³ PLC
HG9Z-SCI25B	Cable between HG1X and Micro ³ C PLC/ONC/MicroSmart
HG9Z-PC125A	Programming Cable for HG1X

Part Numbers For HG1X

Part Number	Description
HG1X-252	HG1X 2-Line Character Display
HG1X-452	HG1X 4-Line Character Display
WINDMSG	Wind-MSG Software

HG1X Drivers (included with software)

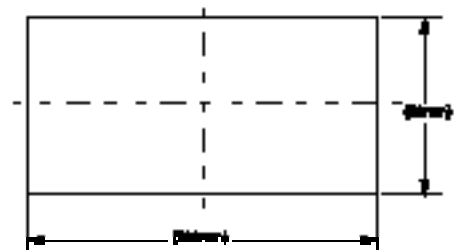
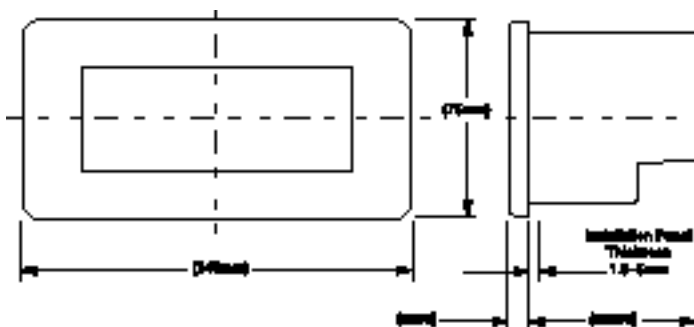
IDEC • Allen Bradley - DF1 • Omron
 Mitsubishi • Modicon • Aromat
 Siemens • PLC Direct • Keyence

Just Right. Good things come in small packages, like the HG1B operator interface. The full-touch monochrome LCD screen has 48 distinct touch regions with a response time of 300 msec. Not only does it have bitmap and graphic display capabilities or bar graph indicators, you can choose from a library of images and graphics to create the perfect screens. To help you communicate with operators, the HG1B has an internal buzzer, and the screen can be configured to flash at different rates depending on the severity of the alarm. The HG1B can link to PLCs or other machines through built-in RS232 or RS485 ports, and drivers are also available for non-IDEC PLCs.



HG1B

- Compact housing — 5.5" x 3" x 2.2"
- 127KB memory, configure up to 100 pages
- Audible internal buzzer
- Capable of handling up to 32 alarms
- Built-in communication ports (RS232 & RS485)
- Bar graph indicators
- *Programmable with WindO/I-NV (see page 11)*



HG1B Specifications

General Specifications

Type	Item	Description
Standards	Safety standards	UL508, CSA C22.2 No. 1010.1, No.213, IEC/EN61131, CE
	EMC standards	EN50081-2, IEC/EN61131-2
Electrical	Rated voltage	24V DC ripple factor: 10% maximum
	Voltage variation range	85 to 120% of rated voltage
	Power consumption	10W maximum
	Momentary power interruption	10 ms maximum
	Inrush current	10A maximum
	Dielectric strength	1500V AC, 10ms, 1 hour (between power or I/O terminal and ground)
	Insulation resistance	50MW min. (500V DC megger) between power or I/O terminal and ground
Environmental	Operating temperature range	0-55°C (operation) 0-50°C (display contrast)
	Operating humidity range	10-90% relative humidity (avoid condensation)
	Degree of protection	IP65
	Storage temperature	-20 to 70°C
	Storage humidity	5-90% relative humidity (avoid condensation)
	Vibration resistance	10 to 55Hz, 10 m/s ² (2 hrs. each in X, Y, & Z axes)
	Noise resistance	IEC1000-4-4 compliant Between power terminal and ground: 1k V p-p, 1μs, 1ns (with noise simulator)
	Static electricity resistance	6kV (using a static electricity simulator)
	Operating atmosphere	No corrosive gasses
Structural	Installation	Panel mount
	Panel cutout dimensions	5.43"(138mm) x 2.68"(68mm)
	Exterior dimensions (WxHxD)	5.7"(146mm) x 2.9"(75mm) x 2.2"(65mm)
	Weight	Approx. 450g

Part Numbers For HG1B

Part Number	Description
HG1B-SB22WF	RS-232C Host/RS-485 Host
HG1B-SB22JF	RS422 Host
HG9Z-ZSS2WE	WindOI-NV Software

HG1B Cables

Part Number	Description
HG9Z-XCM1A or FC2A-KC4C	Programming cable for HG1B series (PC to operator interface)
HG9Z-XC12A	Cable between HG1B series (RS232) and FA series IDEC PLC
HG9Z-XC19A	Cable between HG1B series (RS485) and IDEC Micro ³ PLC
HG9Z-XC11A or HG9Z-XC14A	Cable between HG1B series (RS232) and IDEC Micro ³ PLC (FC2A-KC2 cable is required)
HG9Z-XC183	Cable between HG1B series (RS232) and IDEC Micro ³ C/ONC/MicroSmart (port2) PLCs
HG9Z-XC100	Cable between HG1B series (RS232) and AB-SLC 503/504 PLC
FC4A-KC1C	Cable between HG1B series (RS232) and IDEC MicroSmart (port1 and port2)
HG9Z-XC300	Cable between HG1B series (RS232) and Aromat FPO PLC
HG9Z-XC400	Cable between HG1B series (RS232) and Koyo DL240 PLC
HG9Z-XC500	Cable between HG1B series (RS232) and AB-Micrologix PLCs
HG9Z-GWDF1DH485-2	Cable between HG1B series (RS232) and AB-DH485 devices
HG9Z-XC305	Cable between HG1B series (RS232) and Mitsubishi FX2N

HG1B Divers (included with software)

IDEC • Allen Bradley - DF1 • Omron
 Mitsubishi • Modicon • Aromat
 Siemens • PLC Direct • Keyence

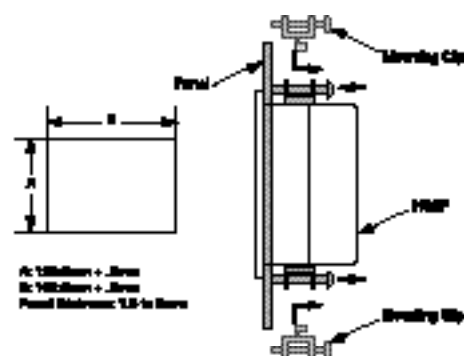
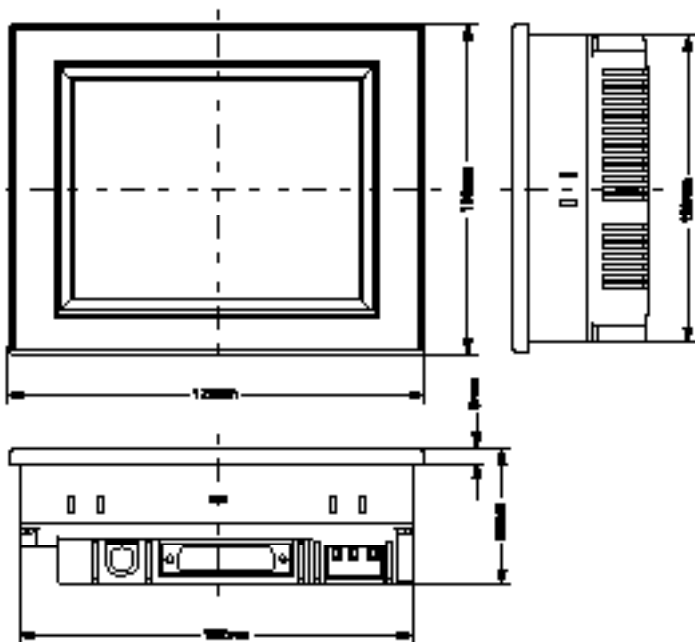
Faster. Brighter. Slimmer.

The HG2F is IDEC's latest and greatest operator interface, a full-color touchscreen with an amazing 192 touch regions and field-replaceable backlight. Complete user configuration is easy using our new Wind-O/I-NV2 software and the internal library of bitmap images. There are four available models, with a monochrome or 256-color screen, each compact and lightweight with the same great features. The HG2F models are also available with IDEC's patented CC CLICK™ technology, providing unique tactile feedback (for more about CC CLICK™, see page 10).



HG2F

- UL1604 for hazardous locations
- 2 megabytes of memory
- Dynamic text messaging
- Built-in RS232 and RS485 ports
- Alarm logging capability
- Drivers for non-IEC PLCs (Allen Bradley-DF1, Omron and Mitsubishi)
- Programmable with Wind-O/I-NV2 (see page 11)



HG2F Specifications

General Specifications

Type	Item	Description
Standards	Safety standards	UL508, UL1604, CSA C22.2 No. 1010.1, No.213, IEC/EN61131, CE
	EMC standards	EN50081-2, IEC/EN61131-2
Electrical	Rated voltage	24V DC
	Voltage variation range	85 to 120% of rated voltage (including ripple)
	Power consumption	10W maximum
	Momentary power interruption	10 msec maximum, Level: PS-2
	Inrush current	20A maximum
	Dielectric strength	1,000V AC, 10mA for 1 minute (between power terminals and FG)
	Insulation resistance	50MW min. (500VDC megger) (between power terminals and FG)
Environmental	Operating temperature range	0-50°C (no freezing)
	Operating humidity range	30-85% RH (no condensation)
	Storage temperature	-20 to 60°C (no freezing)
	Storage humidity	30-85% RH (no condensation)
	Degree of protection	IP65
	Altitude	0-2000m (operation), 0-3000m (transport) (IEC61131-2)
	Vibration resistance	10 to 55Hz, 9.8 m/s ² (2 hrs. each in X, Y, & Z axes: IEC60068-2-6)
	Shock resistance	147 m/s ² (5 times in the X, Y, & Z axes: IEC60062-2-27)
	Pollution degree	Pollution degree 2 (IEC60664-1)
	Terminal	Power supply terminal: M3 screw. Tightening Torque 0.5 to 0.6 N·m
Structural	Panel cutout dimensions	(126.5mm + 0.5) x (162.5mm + 0.5)
	Exterior dimensions (WxHxD)	6.77" (172mm) x 5.35" (136mm) x 2.2" (56mm)
	Weight	Approx. 800g

Part Numbers For HG2F

Part Number	Description
HG2F-SS22VF	HG2F Color OI
HG2F-SB22VF	HG2F Monochrome OI
HG2F-SS52VF	HG2F Color OI with CC-Switch
HG2F-SB52VF	HG2F Monochrome OI with CC-Switch
HG9Y-ZSS2W2E	WindO/I-NV2 Software

HG2F Cable

Part Number	Description
HG9Z-3C115A*	Cable between IDEC Micro ³ and HG2F, 5 ft.
HG9Z-3C125A*	Cable between IDEC Micro ³ C, MicroSmart, OpenNet Controller and HG2F, 5 ft.
HG9Z-2C145A*	Cable between IDEC PLC RS-485 port and HG2F, 5 ft.
HG9Z-3C135A*	Cable between RS-232C (25pin, D-sub) for Mitsubishi, Omron, etc. link unit and HG2F, 5 ft.
HG9Z-3C145A*	Cable between RS-232C (9 pin, D-sub) for Mitsubishi, etc. link unit and HG2F, 5 ft.
HG9Z-3C155A*	Cable between RS-232C (9 pin, D-sub) for Omron, etc. RS-232C I/F and HG2F, 5 ft.
HG9Z-2C125A*	Cable between AB-SLC 500 Series and HG2F, 5 ft.
HG9Z-2C135A*	Cable between Micrologix Series and HG2F, 5 ft.
HG9Z-XCM1A	Programming Cable for HG2F

HG2F Accessories

Part Number	Description
HG9Z-2D2	Protective Sheet for HG2F (5 pack)
HG9Z-2K1P	Mounting Clip for HG2F (10 pack)
HG9Z-2B1	Replacement Backlight for HG2F
HG9Z-2G1	O/I Communication Link Unit for HG2F
HG9Z-2P101	Digital I/O Expansion Unit for HG2F

HG2F Drivers (included with software)

IDEC • Allen Bradley - DF1 • Omron • Mitsubishi
More drivers will be added soon

*If placing order in Japan, remove "A" from part number (Japanese cable lengths - 5m)



Positive Feedback

The problem with touchscreens has always been the lack of feedback, and the uncertainty of the delineated touch regions. Gloved operators in particular can have trouble with touchscreens, but simpler interface screens with buttons don't always fulfill the application requirements. When you want the flexibility of a touchscreen with the assurance of a pushbutton, then you need the HG2F with CC CLICK™ technology, developed and patented by IDEC Corporation.

CC Click™

With CC CLICK™, a plastic overlay with four distinct buttons covers the bottom of the screen. These buttons provide the tactile and audio feedback you can't get with other touchscreens without sacrificing the programming flexibility of the HG2F. Use WindO/I-NV2 to configure the buttons to match your most frequently needed tasks, such as acknowledging alarms, starting or stopping operations, or checking status. Each button can have different functions depending on the active screen.

CC CLICK™ is available only with the HG2F operator interfaces, in either 256-color or monochrome. See pages 8 and 9 for more information about the HG2F series; see page 11 for information about WindO/I-NV2 programming software.

Software

IDEC offers three different software applications to assist you in programming the HG family interfaces. Each program uses the same intuitive graphic user interface (GUI) and is uniquely tailored to suit the features and requirements of the different O/Is. All programs require a PC with Microsoft Windows 95 (OS2 and later), Windows 98, or Windows NT (version 4.0), and at least a Pentium-class processor.

WindO/I®-NV

WindO/I-NV to program the HG1B series requires

- 14 MB hard disk space
- 12 MB RAM (Minimum)
- Resolution: 800 x 600 (SVGA) or better
- 2X CD-ROM drive
- Serial mouse

WindO/I-NV2

WindO/I-NV2 to program the HG2F series requires

- 50 MB hard disk space
- 32 MB RAM
- Resolution: 800 x 600 (SVGA) or better
- Serial mouse

Wind-MSG

WindMSG to program the HG1X series requires

- 5 MB hard disk space
- 16 MB RAM
- Resolution: 640 x 480 (VGA) or better
- 16 color display minimum
- Serial mouse

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