IDEC

Think Automation and beyond...

4.6" HG1F TouchScreen

LEVEL CONTROL

TANK 1   TANK 2

48%   34%

▲   ▲

▼   ▼

LOW LEVEL   OVER FLOW   STOP

Bright
Compact
Versatile

IDEC

Think Automation and beyond...

ACTUAL SIZE

www.idec.com

Specifications and other descriptions in this catalog are subject to change without notice.

Human-Machine Interfaces = *Smart Solutions*

Control goes beyond on and off, stop and go. It's about knowledge, response and making the right decisions. Pushbuttons, lights and indicators can do the work, but an HMI device gives you a lot more information.

Maintaining a typical control panel full of components takes time away from more important tasks. There's one very smart solution: the HG1F, 4.6" STN Monochrome LCD Screen, the latest operator interface in the **IDEC Touchscreen family.**

Do more than control.
Take command.

IDEC has brought touchscreen solutions to the manufacturing environment for more than a decade, and this latest model makes advanced control a real possibility for every system. The super-bright, compact HG1F has all the features of a large touchscreen—flexible screen layout, multiple monitoring screen capabilities, PLC connectivity and more. But it's still small enough to fit in a tight space and priced to fit a tight budget.

FULL SERVICE CARWASH

$ 7.00	PREMIUM WASH	1.Insert Cash
$ 5.00	CLASSIC W...	
$ 3.00	BASIC WA...	.Select Wash

A smart solution = *Big-screen features on a small screen*

By the time you add up pushbuttons, indicators, meters, lights and single-function devices on your old panel, you'll see why the HG1F is a real value. Don't just think about cost; think about time, effort and safety. Every component is another connection you have to worry about. This HMI can do it all for less.

Install anywhere—literally!

The HG1F's super-slim design has only 35.3mm in panel depth. Mount it horizontally or vertically to fit your needs; the programming software supports both orientations. It works whether you need to fit an unusual size panel or just want more choices.
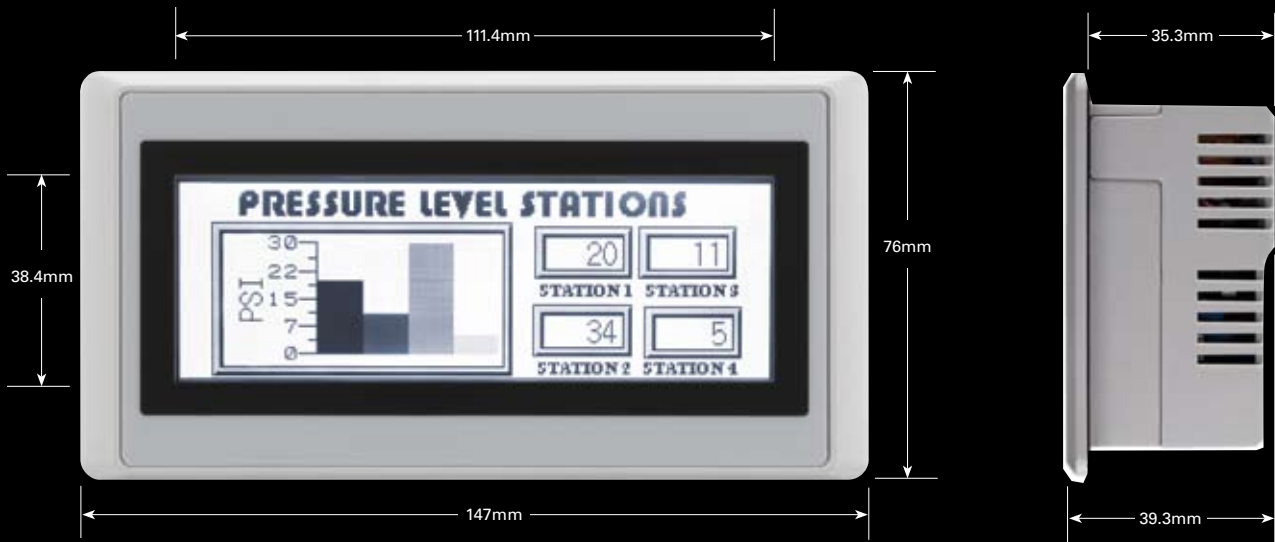
Value clarity

Fast response, visible displays and clear instructions to operators—are the hallmarks of a smart HMI; one that surpasses every button and every old panel. The HG1F includes a high-speed CPU processor that responds to commands and changes displays almost instantly. Not to mention, looking at the HG1F, the screen really stands out. It's easy to read, even from an angle, and you can set contrasts to create the ideal display for any lighting condition. The higher resolution screen gives you more real estate than other small screens; take as much space as you need to make the elements and text on your screen as understandable as possible.
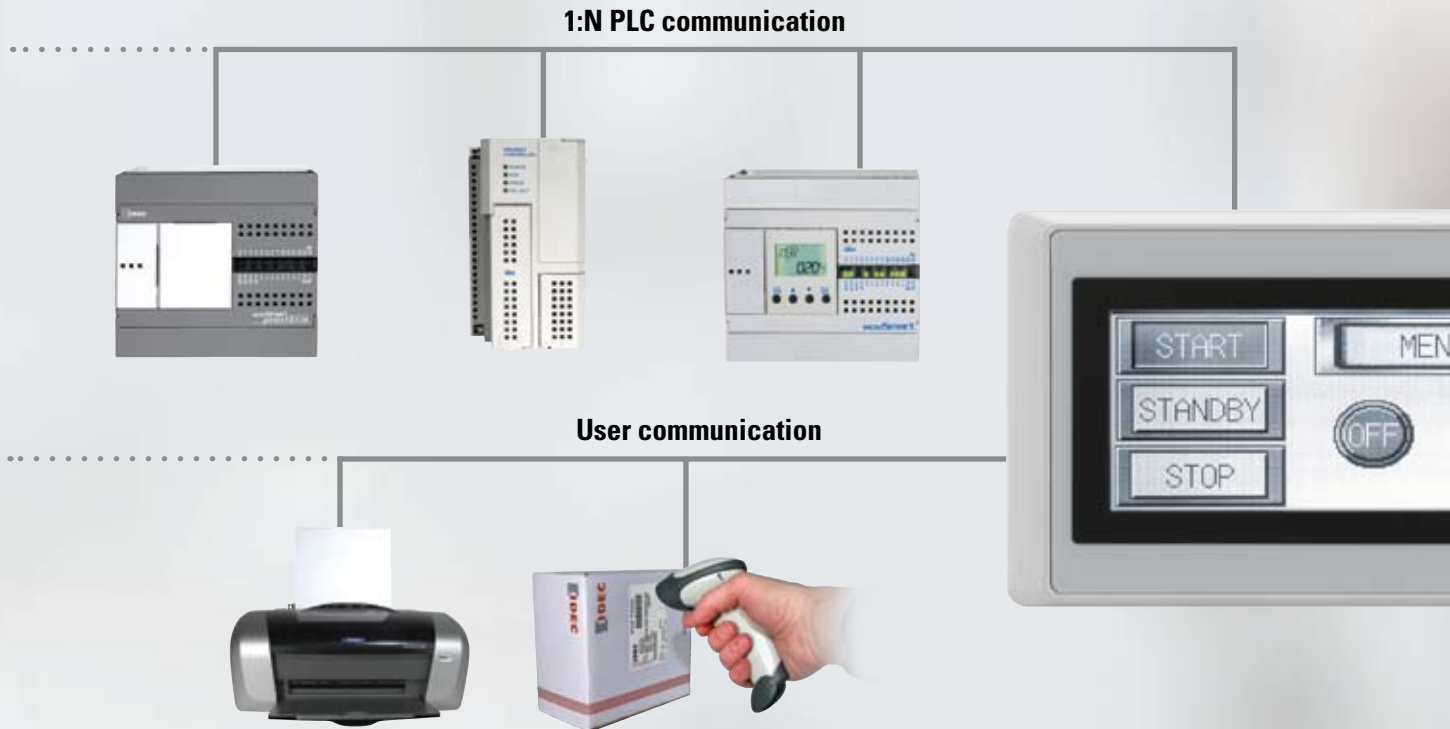
- Super-bright 500cd/mm² illumination—superior visibility even in intense light or from an angle

- 300 x 100 pixel resolution—get more buttons and displays on every screen

- Analog resistive operation—place screen images wherever you want them

- 16-tone monochrome shades, adjustable contrast

- 1MB built-in memory—store up to 3,000 screens and more data than any small touchscreen

- Data can be displayed as a bar graph or level display

- Printer and barcode reader-ready

- Real-time clock

- Approvals: CE-marked; UL/c-UL Listed; Hazardous Locations Class 1 Div. 2, IP65 protection; Nema Type 13

111.4mm

35.3mm

76mm

38.4mm

PRESSURE LEVEL STATIONS

PSI
30
22
15
7
0

20 STATION 1
11 STATION 3
34 STATION 2
5 STATION 4

147mm

39.3mm

- HG1F Screen measures 111.4mm by 38.4mm

- Panel mounting depth is 35.3mm; entire unit depth is only 39.3mm

A smart solution = *Unlimited possibilities*

1:N PLC communication

User communication

Communication

The HG1F touchscreen enables complete communication all the way through your applications, from start to finish. Flexible communication gives you better information to make important decisions and create the best finished products.

1:N PLC communication

Connect a single HMI to multiple PLCs for centralized control. One HG1F can monitor and control PLCs in several different locations. The maximum number of PLCs that can be connected depends on the PLC brand.

The following PLC manufacturers are supported for 1:N communication: IDEC (Microsmart and OpenNet Controller); Automation Direct (Koyo); DirectLogic-DL205/405; and Modicon: Modbus RTU.

Pass Through function

O/I Link communication

O/I Link communication

Create an O/I network where multiple HMIs in different locations are connected to the same PLC for convenient monitoring in particularly expansive operations. One touchscreen can serve as a master while 15 other screens can be slaves in the O/I Link, with a total maximum distance of 200 meters.

User communication

Get better component interaction by setting the HG1F's communication protocol to the one required by your serial devices, for example a barcode reader. This function uses transmit and receive instructions to build your own protocol.

Pass Through function

Download a PLC program from a PC through the touchscreen without interrupting any operations. Only one cable is needed to program both units. The Pass Through function is applicable to the following PLCs: IDEC (MicroSmart and OpenNet Controller) and Mitsubishi (MELSEC-FX, FX3UC and Q).
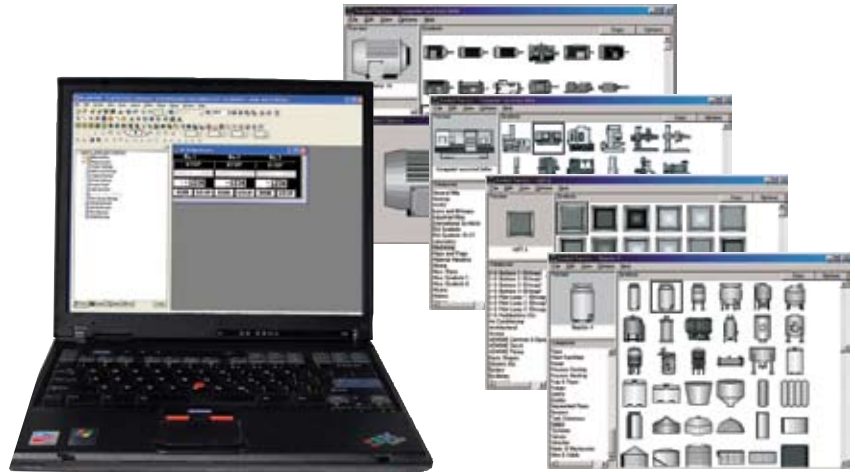
A smart solution = *Programming made simple*

IDEC HG1F touchscreens are programmable with WindO/I-NV2, Version 3.12 or higher, a Windows-based software that creates screens through dragging and dropping elements. Select your model of HMI, and WindO/I-NV2 will configure a workspace with the proper dimensions to begin layout; for the HG1F, you can also choose the vertical or horizontal screen orientation.

The software intuitively works with you, walking you through an easy step-by-step configuration of your images and your workspace. Dragging and dropping makes screen creation fast, even for beginners. Debugging, previewing and editing are handled through WindO/I-NV2's extremely user-friendly interface.

Control or modify your program at any time to stay on top of it all. Manage multiple screens in one project, and stay organized with the Workspace structure. Use the screen preview list to view or edit screens you've already created. Run the on/off simulation mode to confirm your operations. You can also test, monitor or troubleshoot data from a PLC within WindO/I-NV2.
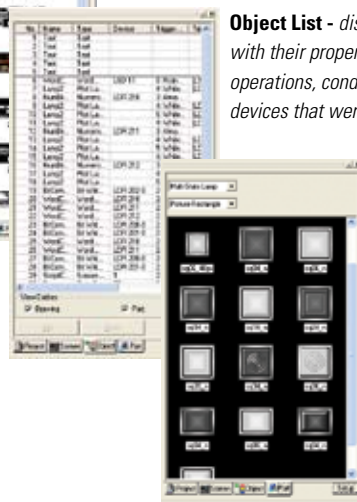
Image Library - *access more than 5,000 images for screen design and data representation*

Screen Preview List - *easily select screens to edit*

Object List - *display objects with their properties such as the operations, conditions and type of devices that were used*
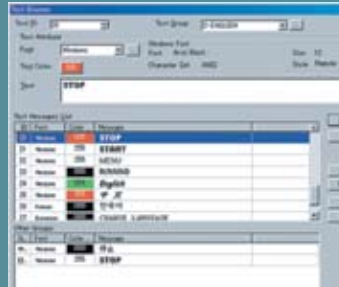
Parts *- select and drop objects on the screen for quick configuration.*

www.idec.com/usa/software

WindO/I-NV2 *All your information on screen*

Create Recipes to conveniently set parameters for different processes

- Upload or download parameters to and from the PLC
- 1,024 available channels; store up to 8,000 parameters per channel

Set up Alarm Log function for messages and alerts

- Monitors alarm conditions from a PLC and stores historical events with a date and time stamp
- Meets ISA standards for visual alarm management
- Select size and contrast of alarm message and status
- Scroll a list of alarm messages

Create Trend Graphs to monitor critical data points

- Quickly view production information
- Collect and manage valuable data
- Up to 16 channels in a graph

Multilingual Capabilities for Worldwide Applications

- Supports text display of English, Western European and Central European languages, simplified and traditional Chinese, Korean, Baltic and Cyrillic
- Create a text database, filled with languages of your choice, that can be used later for switching text messages. For example, from English to French.
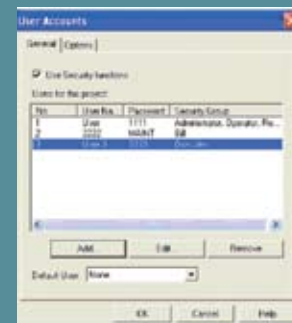

Standard Windows Fonts

- Select a wide range of text styles using Windows Fonts.

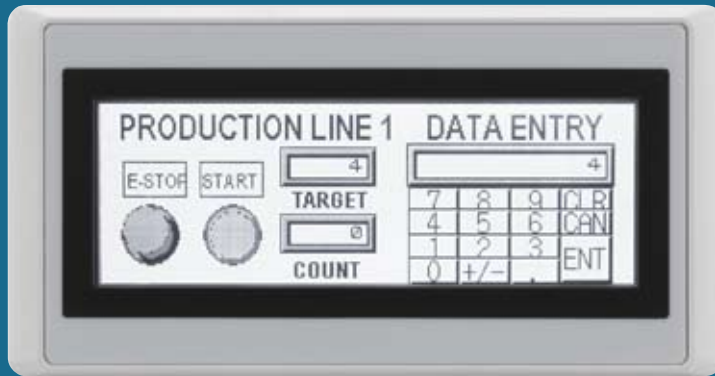### Script function

- Users with basic programming knowledge in C can combine conditional statements, mathematical operations and other functions to create simple and complex processes.
- Greatly reduces the programming required in the PLC.

Security function

- Provides different levels of security and restrictions for multiple users on editing projects or displaying screens and objects.

A smart solution = *Stand-alone operation or PLC connectivity*

The versatile HG1F touchscreen gives you the most cost effective solution for connectivity to all the major PLCs on the market today.

Supported PLC Drivers:

IDEC
Allen-Bradley
Automation Direct (Koyo)
GE Fanuc
Keyence
Mitsubishi
Omron
Panasonic (Aromat)
Siemens

For a complete list visit
www.idec.com/usa/hg1f

4.6" Touchscreen Part Numbers

Part Number	Bezel Color	Communication Type
HG1F-SB22BF-W	Light Gray	RS-232
HG1F-SB22BF-B	Black	RS-232
HG1F-SB22YF-W	Light Gray	RS-485 / RS-422
HG1F-SB22YF-B	Black	RS-485 / RS-422

Programming Cable

Part Number	HG9Z-XCM1A

Cable FC2A-KC4C can also be used

Software

WindO/I-NV2 programming software	HG9Y-ZSS2W

HG1F to PLC Communication Cable Selection

IDEC PLC Model	Comm. Type	Link Unit Used	Communication Cable Part Number*
Microsmart (FC5A & FC4A)	RS-232	FC4A-PC1 or FC4A-HPC1	HG9Z-XC183**
	RS-232	Built-in Port (8 pin Mini-Din)	FC4A-KC1CA
	RS-485	FC4A-PC3 or FC4A-HPC3	HG9Z-1C131A
	RS-485	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

*Other cables for supported PLCs available. For more information, visit www.idec.com/usa/hg1f   **Cable FC4A-KC1CA can also be used

A smart solution = *More high-quality products available*

HG1F Starter Kits

Get everything you need to start in one package: HG1F-SB22BF-B, WindO/I-NV2 software and a programming cable.
Part number: **SMARTTOUCH-1F**

HG1F Solution Packages

Whether you're new to IDEC or looking for a quick way to put together a complete system, you'll find a great deal in our solution packages. Each package includes an HG1F touchscreen, a PLC, a 24VDC slim power supply, cables and software. It's all you need in just one step!

For part numbers, visit
www.idec.com/usa/hg1f

The IDEC SmartTouch Family

IDEC's expanded family of touchscreens and HMI devices has your needs covered: color or monochrome, text-only, high-resolution, large or small. Each one of our screens is versatile enough to integrate with your existing equipment, including other manufacturers' PLCs, and work with your budget.

For more information, visit
www.idec.com/oi