IDEC

HG3G Operator Interface Touchscreens

New Features!

10.4"

8.4"

STATION 1: TANK LEVEL

0   100   200

12345

POWER
ON

TANK1 TANK2 TANK3

OFF

50   100   1000

TANK1   TANK2   TANK3

PREVIOUS   MENU   LOG   ALARM   NEXT

Operation Panel

Operation Status   **Production Status**

Target Quantity
35000
Manufactured
26879
Failed
14

Run   Reset

Production Status

Parts Supply   **Product Selection**

Product "X"
Manufactured   Product "Y"
Manufactured

1234   12345

Pallet B   Pallet C   Pallet D

Detail
Settings   Production
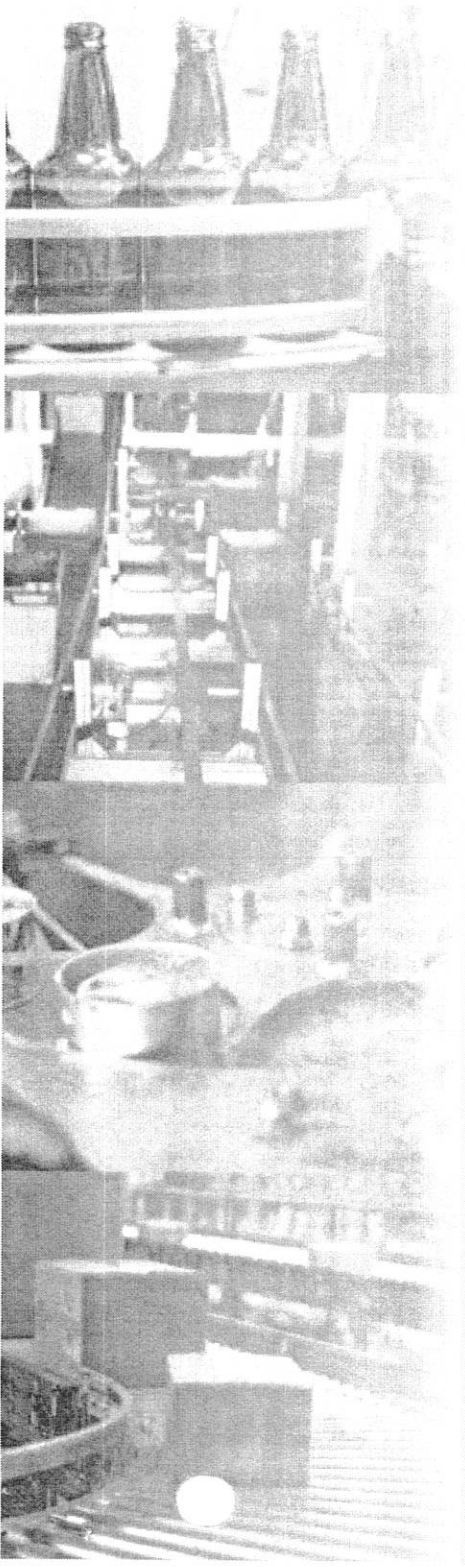History   Alarm
Settings   Maintenance   Manual

Landscape

Portrait

- 8.4" and 10.4" Color TFT LCD Display
- 65,536 Color LCD
- SVGA 800 x 600 Pixel Resolution
- Super Bright:
  600cd/m² (8.4"), 700cd/m² (10.4")

- Mounts Portrait or Landscape
- Remote Access, Monitor and Control
- Supports 2 Expansion I/O Modules
- Serial, Ethernet and USB ports

HG3G Series - Powerful, fast and easy to operate!

The newest line of IDEC OI Touchscreens, the HG3G series, surpass all standards with powerful features and the ability to remotely access, monitor and control your application. A 400MHz high-speed CPU processor allows data to be read and processed quickly, while the SD card and USB flash drive, along with the serial, Ethernet and USB ports, provide many connectivity options.

The HG3G Series supports the addition of up to two IDEC MicroSmart digital I/O cards and can be mounted in either portrait or landscape mode, making it a flexible display that can accommodate all your application needs.

High-performance Touchscreens
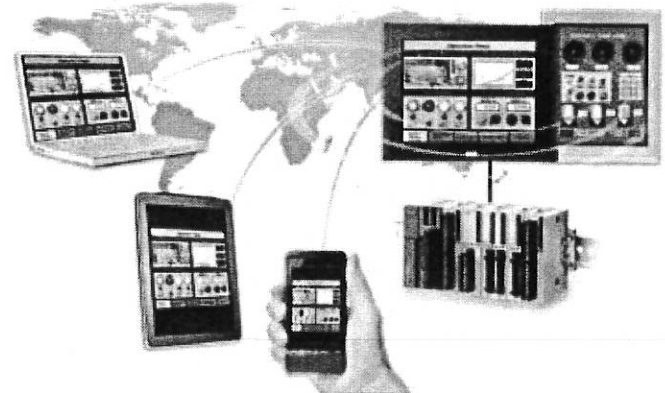
New Remote Monitor and Control
Remotely access your touchscreen over the internet for trouble shooting and testing or maintenenace. This saves you time and travel expenses.

- Upoad, download or pass through programming
- Using your web browser you can monitor and control touchscreens using a PC, PDA or smartphone

Sharp Displays with Excellent Clarity
- SVGA Resolution (800 x 600 pixels)
- Support of 65,536 colors
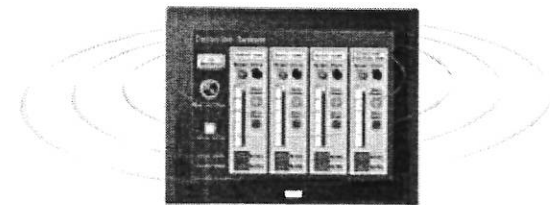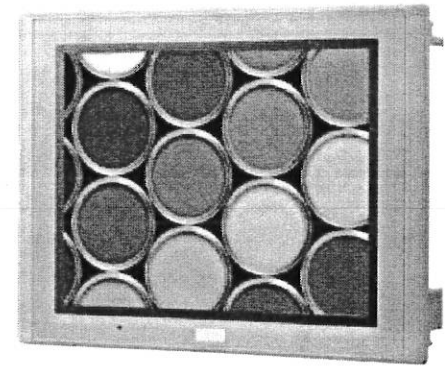
Brightest in the Market
- 600cd/m² (8.4"), 700cd/m² (10.4")

Large Memory Capacity
- 12MB of user memory
- Additional memory using SD cards or USB flash drives

Fast 400MHz CPU Processor
- Quick operation and immediate response to commands
- Fast startup (within 3 seconds)

Audio Out
- External speaker with a built-in amplifier can be attached for sound output including prerecorded messages
- Store up to 1,024 sound files in WAV file format

Amazing Expandibility – up to 64 I/O

Easy I/O Control
- Install up to two IDEC MicroSmart digital I/O cards for simple control
- Digital I/O is programmed using script commands or object addressing in the programming software
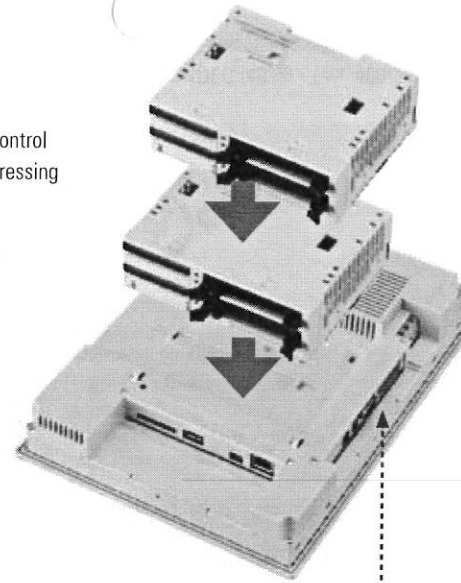
Powerful Connectivity

SD Card
- Supports up to a 32GB SD card for storage
- Store IDEC MicroSmart ladder and touchscreen programs, pictures, logging data, alarm logs, screen hard copies, recipe data, operation logs and audio files

USB Port A (USB 2.0)
- Store logging data and screen capture
- Connect barcode readers for labelling

USB Port Mini B
- Make system maintenance easier by utilizing the high-speed data transfer
- Connect PC directly to the HG3G for program upload/download/monitor
- USB printers can be connected directly
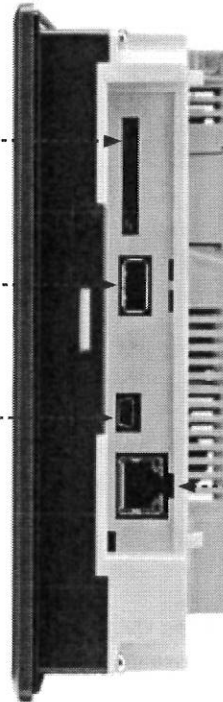
2 Serial Ports:
Two serial ports, RS232 and RS485 (422)
- Host - communicate to a PLC/Device in a 1:1 or 1:N PLC Communication
- Subhost - communicates to an IDEC MicroSmart/Pentra PLC or Modbus RTU devices
- OI Link Communication – network to a single IDEC MicroSmart PLC with multiple HG2G/HG3Gs, where 1 is a master and up to 15 slaves can be connected
- User Communication – use transmit/receive instructions to build your own protocol

Ethernet Port
- 10BaseT or 100Base-TX connection
- Remote communication with the PLC
- Access, monitor and control remotely via web browser using PC, PDA or smartphone

Programming Software - WindO/I-NV2

Intuitive, Drag-and-Drop Functionality
- Programming software for all IDEC OI touchscreens
- Built-in library of over 7,000 symbols
- Built-in PLC drivers to communicate with other manufacturers' PLCs, security, script, multilingual capabilities, and many more features
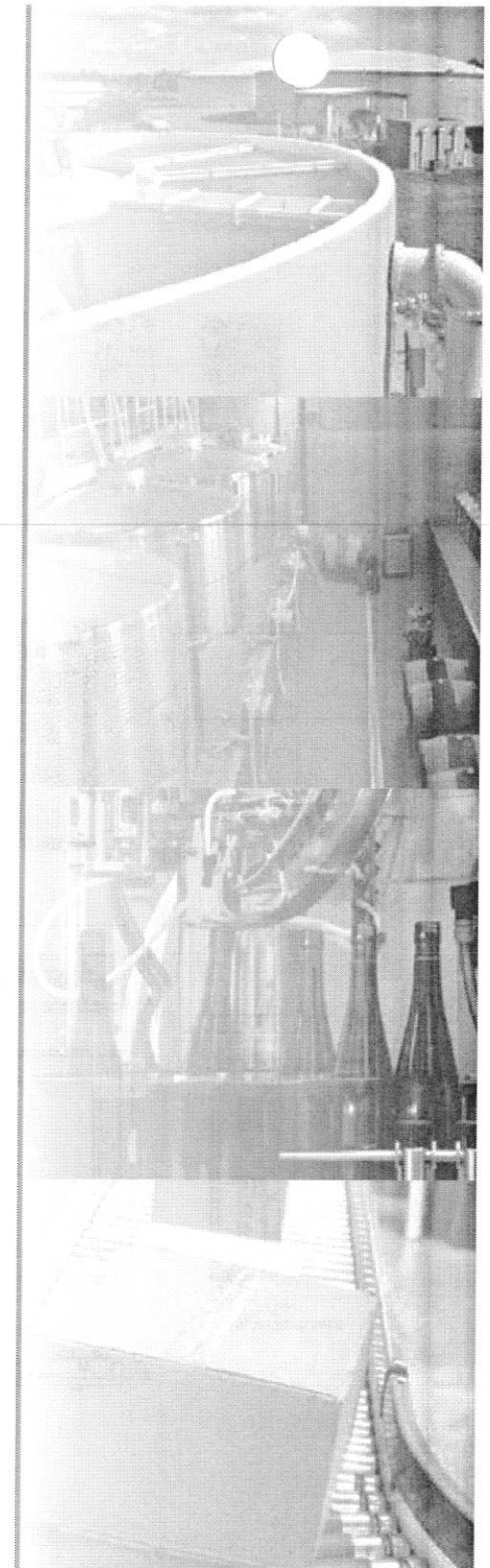
Specifications

General Specifications

Rated Power Voltage	24V DC
Power Voltage Range	20.4 to 28.8V DC
Power Consumption	25W maximum
15W maximum when not using USB interface (USB2) or expansion module interface (EXT)
Allowable Momentary Power Interruption	10ms maximum
Inrush Current	30A maximum
Dielectric Strength	1000V AC, 10mA, 1 minute between power and FG terminals
Insulation Resistance	10MΩ minimum between power and FG terminals (500V DC megger)
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
Vibration Resistance	5 to 9Hz amplitude 3.5 mm,
9 to 150Hz, acceleration 9.8m/s²
10 cycles (100 minutes) on each of three mutually perpendicular axes
Shock Resistance	147 m/s², 11ms
5 shocks on each of three mutually perpendicular axes
Noise Immunity	Fast transient/burst test,
Power terminals: ±2kV,
Communication line: ±1 kV (IEC 61131-2: 2007)
Electrostatic Discharge	Contact ±6kV, air ±8kV (IEC 61131-2: 2007)
Corrosion Immunity	Free from corrosive gases
Mounting	Panel mounting
Degree of Protection	IP66
Dimensions	HG3G-8: 231.0W × 176.0H × 54.4D mm
HG3G-A: 270.0W × 212.0H × 52.7D mm
Weight (approx.)	HG3G-8: 2.75lbs
HG3G-A: 3.64lbs
Switching Element	Analog resistive membrane
Operating Force	0.55 to 2.3N
Mechanical Life	1,000,000 operations
Sound	Electronic buzzer or speaker output

Do not use the HG3G in an environment subject to strong ultraviolet rays, otherwise the LCD quality will deteriorate.

Part Numbers

Display Screen	Housing/Bezel Color	Part Number
8.4-inch TFT color LCD	Light gray	HG3G-8JT22TF-W
	Dark gray (black)	HG3G-8JT22TF-B
10.4-inch TFT color LCD	Light gray	HG3G-AJT22TF-W
	Dark gray (black)	HG3G-AJT22TF-B

Accessories

Part Number	Qty	Description
HG9Z-XCM2A	1	USB Programming Cable
HG9Z-3D8	1	Protective Sheet for 8.4" Display
HG9Z-3DA	1	Protective Sheet for 10.4" Display
HG9Z-XMS2	1	SD Card, 2GB
HG9Z-PMT10L	1	L-shaped Terminal Block for MicroSmart I/O Module (10-pole)
HG9Z-PMT11	1	L-shaped Terminal Block for MicroSmart I/O Module (11-pole)
HG9Z-4K2	1	Replacement Mounting Clip (order in multiples of 4)
HG9Z-XU1	1	USB Cable Lock Pin
HG9Z-XJ1	1	Expansion Module Clamp (short size). Use with 1 module or combination of 8, 16 I/O module
HG9Z-XJ2	1	Expansion Module Clamp (long size). For supported comb. module, check WindOI-NV2 manual

Display Specifications

Display Color	TFT Color LCD
Color/Shade	65,536 colors
Effective Display Area	HG3G-8: 170.4W × 127.8H mm
HG3G-A: 211.2W × 158.4H mm
Display Resolution	800W × 600H pixels
View Angle	Right and left 80°, up 80°, down 60°
Backlight	LED
Backlight Life	60,000 hours nominal*
Brightness	HG3G-8: 600 cd/m², HG3G-A: 700 cd/m²
Brightness Adjustment	32 shades
User Memory	12MB (including expansion fonts)

*The backlight life refers to the time until the surface brightness reduces by half after continuous use at room temperature.

Dimensions (mm)

Panel thickness 2.0 to 5.0

Panel Cut-out
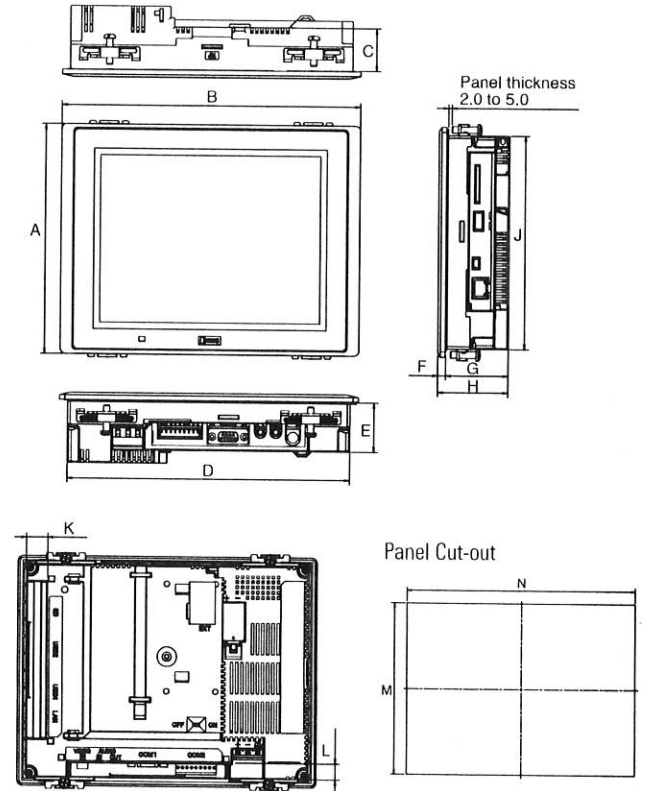
Dimension Table (mm)

| | 8.4"
HG3G-8 | 10.4"
HG3G-A | | 8.4"
HG3G-8 | 10.4"
HG3G-A |
|---|---|---|---|---|---|
| A | 176 | 212 | H | 54.4 | 52.7 |
| B | 231 | 270 | J | 163.5 | 199.5 |
| C | 32.6 | 30.9 | K | 21 | 50.2 |
| D | 218.5 | 257.5 | L | 12.4 | 12.4 |
| E | 38.2 | 36.5 | M | 164 | 200 |
| F | 6 | 6 | N | 219 | 258 |
| G | 48.4 | 46.7 | | | |

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CERTIFICATE OF COMPLIANCE

Certificate Number 20160801-E211795

Report Reference E211795-20121009

Issue Date 2016-AUGUST-01

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Programmable Display Operator Interface, HG2G and HG1G Series for use in Class I, Division 2, Group A, B, C, D Hazardous Locations. Consists of the following modules:

HG2G Series, 5.7 inch type,
HG2G-5ST22VF-W, -5ST22VF-B, -5ST22VF-S
HG2G-5ST22TF-W, -5ST22TF-B, -5ST22TF-S
HG2G-5FT22TF-W, -5FT22TF-B, -5FT22TF-S,
HG2G-5Txx2Tx-W, -5Txx2Tx-B, -5Txx2Tx-S.

HG1G Series, 4.3 inch type
HG1G-4VT22TF-W, -4VT22TF-B, -4VT22TF-S
HG1G-4VT22TG-W, -4VT22TG-B, -4VT22TG-S
HG1G-4VT22TH-W, -4VT22TH-B, -4VT22TH-S
HG1G-4VT22TJ-W, -4VT22TJ-B, -4VT22TJ-S

Bruce Mahrenholz, Director North American Certification Program

UL LLC