

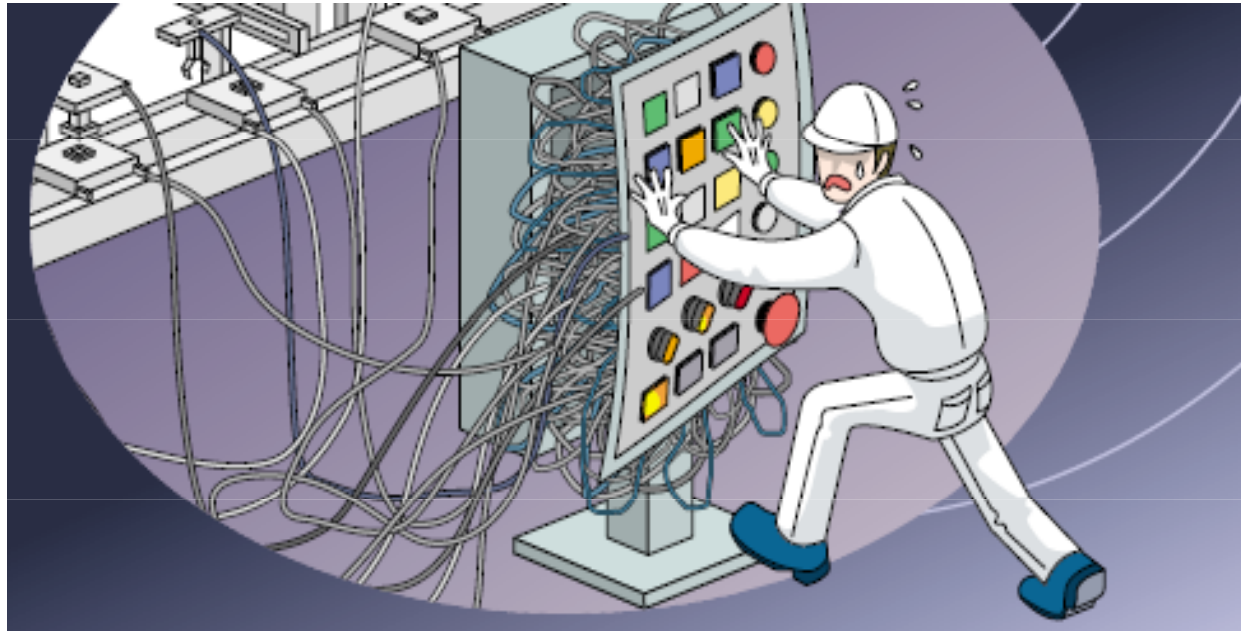


The Next Generation of IDEC OI Touchscreens

Think Automation and beyond...



Using a Hardwired Panel

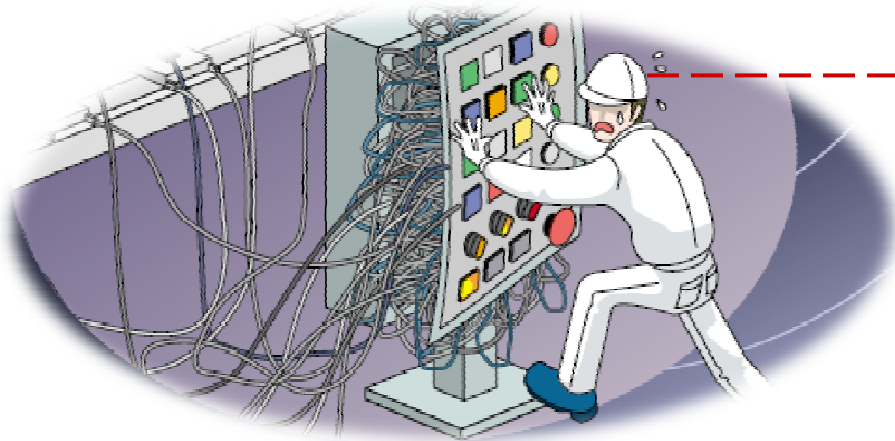


- Parts & Installations can be expensive
- Information is limited
- Modification is not an easy task

Think Automation and beyond...



Benefits of Using the OI Touchscreens



- **Cuts the cost on installation**

- Reduce man hours for wiring
- Eliminates the need for component arrangement
- Easily replace pushbuttons, pilot lamps, meters, and other devices on a touchscreen.

- **Operator can do the following:**

- Quickly and easily control, monitor and edit the project data.
- Able to view detailed information, error messages, and much more.
- Easy troubleshooting
- Use wide range of functionality & communications



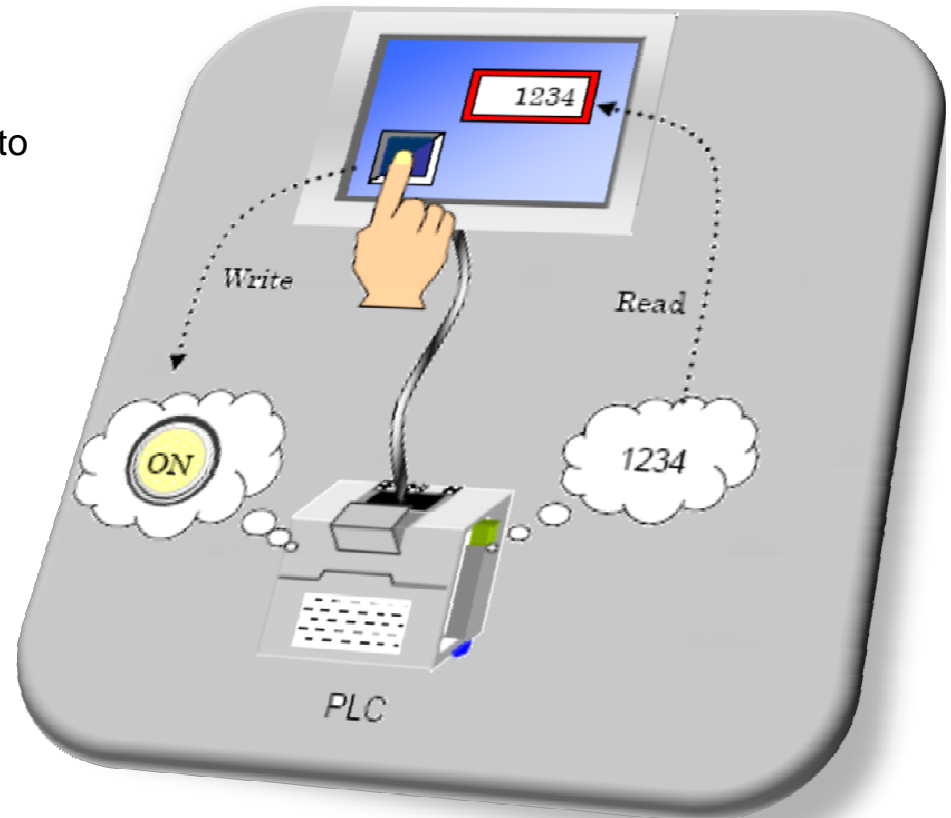
Think Automation and beyond...



How Does It Work ?

The Basics:

- Can function as a “Stand alone” or Communicate to different type of PLCs.
- The touchscreen reads data from the PLC and represent data in colorful graphical forms.
- The touchscreen write data to the PLC using Pushbuttons, keypads, and many other devices.



Think Automation and beyond...



IDEC Operator Interface Touchscreens



Think Automation and beyond...



IDEC OI Touchscreen Family

- **4.6" HG1F Series**

- Monochrome OI Touchscreens
- Cost & Space Savings
- Screen Enhancements
- Easy Maintenance



- **5.7" HG2G-5ST / -SB Series**

- 256 Color TFT or Monochrome
- Ideal for solar, oil and gas, & mobile application
- Slim Design
- Super Bright LCD Screens
- Remote Communications



- **Next Generation: High Performance Series**

- 5.7" to 12.1" 65K Color OI Touchscreens
- Excellent Clarity, Brightest in the market
- Powerful tool: Multimedia & Remote Monitor & Control
- Much More.



Think Automation and beyond...



IDEC Basic Series: 4.6" Monochrome OI Touchscreen



COST & SPACE SAVINGS!

- Compact in size
- Depth of only 35mm
- Competitively priced versus competitors

SCREEN IMPROVEMENTS

- Super Bright Screen – 500 NITS
- Analog Touch Panel
- Portrait / Landscape
- 15 Shades of grayscale
- High resolution: 300 x 100 pixels

HIGH PERFORMANCE CPU

- Fast Switching / Response

EASY MAINTENANCE

- Backlight & battery replaceable

Think Automation and beyond...



IDEC Basic Series: 5.7" HG2G Series OI Touchscreen



5.7" 256 Color TFT LCD Display

- Voltage Input: 12V - 24V DC
- Super Bright LED Backlight: 400 cd/m²
- Scale Dimming: 32 Levels of Brightness
- Analog Touchscreen
- 1 Serial Port (RS232, RS422, RS485)
- Ethernet Port (optional)
- USB Mini-B port
- Supports Serial Printing

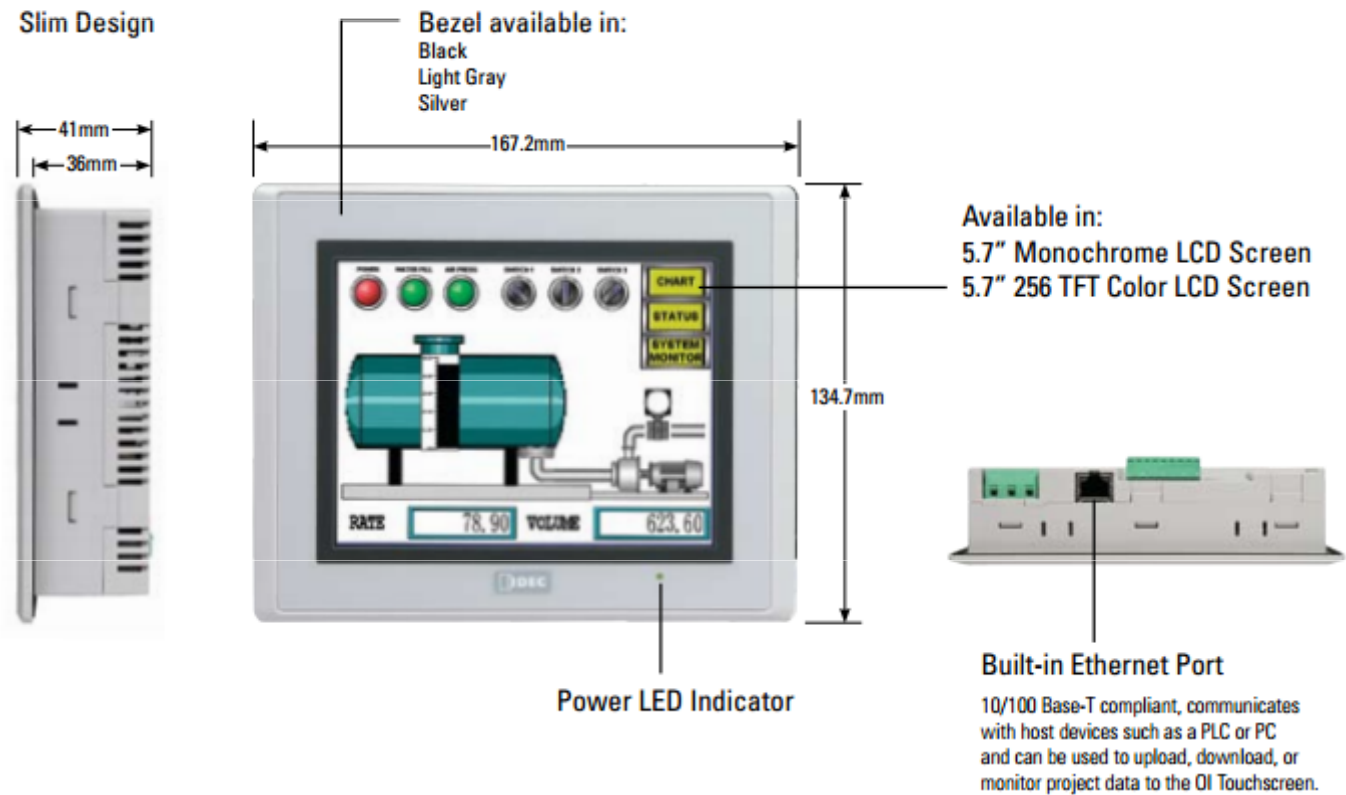
5.7" Monochrome STN LCD Display (photo not shown)

- Voltage Input: 12 or 24 VDC
- Super Bright LED Backlight: 500 cd/m²
- 1 Serial Port (RS232, RS422, RS485)
- 15 level Monochrome
- Analog Touch Panel
- Supports Serial Printing
- Built-in Ethernet Port (Optional)

Think Automation and beyond...



IDEC Basic Series: 5.7" HG2G Series OI Touchscreen



Think Automation and beyond...



5.7" HG2G 256 Color vs Competitors

	IDEC	MAPLE SYSTEMS	AUTOMATION DIRECT	EZ AUTOMATION (AVG)	RED LION	ALLEN BRADLEY	PROFACE
Part Numbers	HG2G	Not Available		EZ-T6C-FS	G306A000	2711PC-T6C20D	GP2300-TC41-24V GP2301-TC41-24V
Size	5.7" TFT			5.7" TFT	5.7" TFT	5.5" TFT	5.7" TFT
Colors	256			128 Color	256 Color	18 bit color	256 Color
Resolution	320X240			320 x 240	320 x 240	320 x 240	320 x240
Brightness	400 cd/m2			200	380	300	na
USB ports	1			na	1	1	No
Ethernet port	Optional			na	1	1	Yes (GP2300)
Serial Ports	1			na	2	1	2

Note: Competitor data reflects information found on web and is subject to change.

Think Automation and beyond...



IDEC's Next Generation of OI Touchscreens !!!

HIGH PERFORMANCE OI TOUCHSCREEN
Powerful. Fast. Colorful.



Think Automation and beyond...



IDEC's Next Generation of OI Touchscreens



High Performance Series Highlights:

- 5.7" HG2G-5FT, 8.4" & 10.4" HG3G, and 12.1" HG4G Series
- Vivid Display
- Remote Access, Monitor & Control
- Multimedia
- Connectivity Options
- Wide Array of Communications
- User Friendly Programming Software

Think Automation and beyond...



High Definition Quality TFT LCD Display

High Resolution

- 680x480 Pixels (5.7")
- 800x600 Pixels (8.4" to 12.1")

Super Bright Screens!

- 800 cd/m² (5.7")
- 600 cd/m² (8.4")
- 700 cd/m² (10.4")
- 550 cd/m² (12.1")

LED Backlight

- Up to 60,000 hours

Why so Vivid?

The same color conversion technology that is used in LCD TVs.



Think Automation and beyond...



Front Panel Display

Mounting Flexibilities

Mount the OI Touchscreen in either Portrait or Landscape mode

Analog Touch Panel

Place any size of object anywhere on the screen area.

Scale Dimming

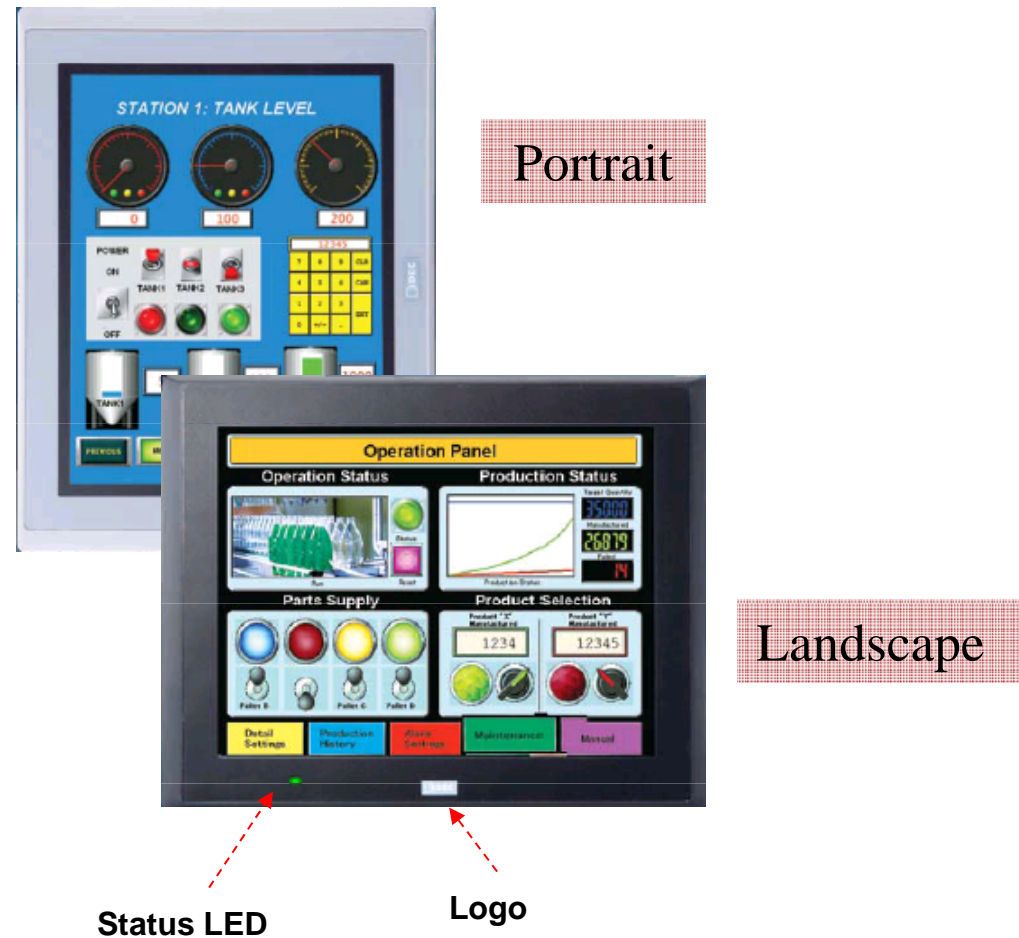
48 Levels of Brightness Adjustments

Status LED

Easy read out of Power status

IDEC Logo

Removable



Think Automation and beyond...



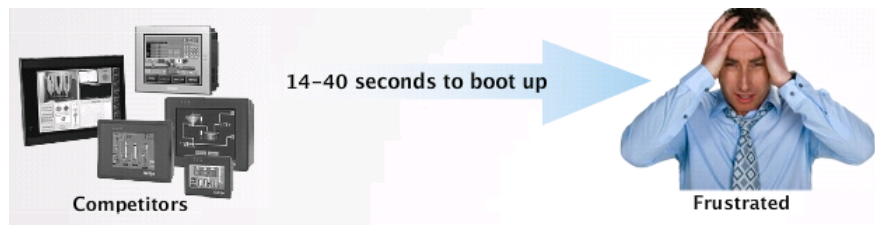
Superior Design

Super High-Speed CPU Processor: RISC400 MHz



Quick operation
&
Response time!

FASTEST in its class! – start-up within 3 seconds



Think Automation and beyond...



Connectivity Options

SD Card

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



USB Port A (USB 2.0)

- Connect a USB Flash Drive
 - Store IDEC Microsmart ladder and touchscreen programs, data logging, and screen capture (if transferred from SD card)
- Connect Barcode Reader



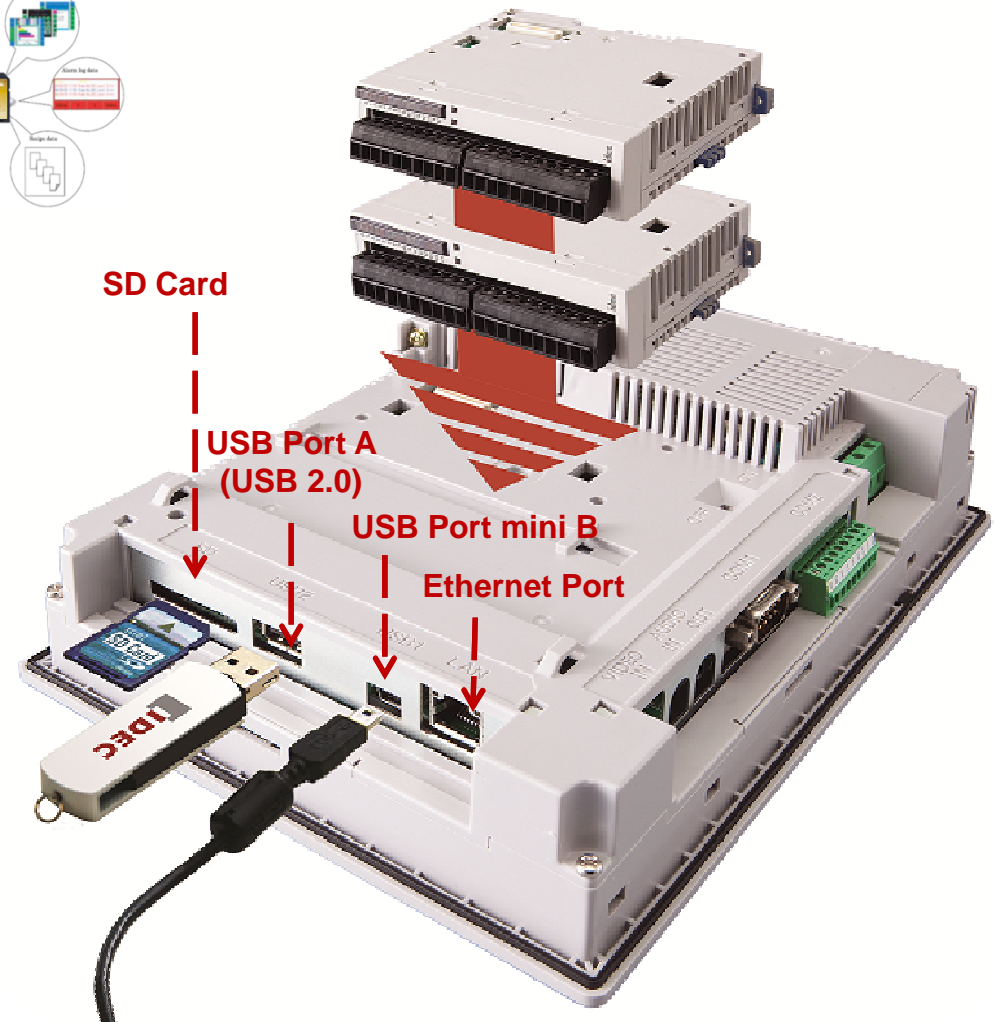
USB Port mini B

- Connect PC directly to OI Touchscreen for high speed transfer of program upload, download, or monitoring
- Connect to a USB printer



Ethernet Port

- 10BaseT or 100Base TX connection
- Remote communication with the PLC and download, upload, or monitor PLC and OI Touchscreen projects
- Allow remote access for monitor and control



Think Automation and beyond...



Support of Expansion I/O Modules

Up to 4 MicroSmart Expansion I/O Modules

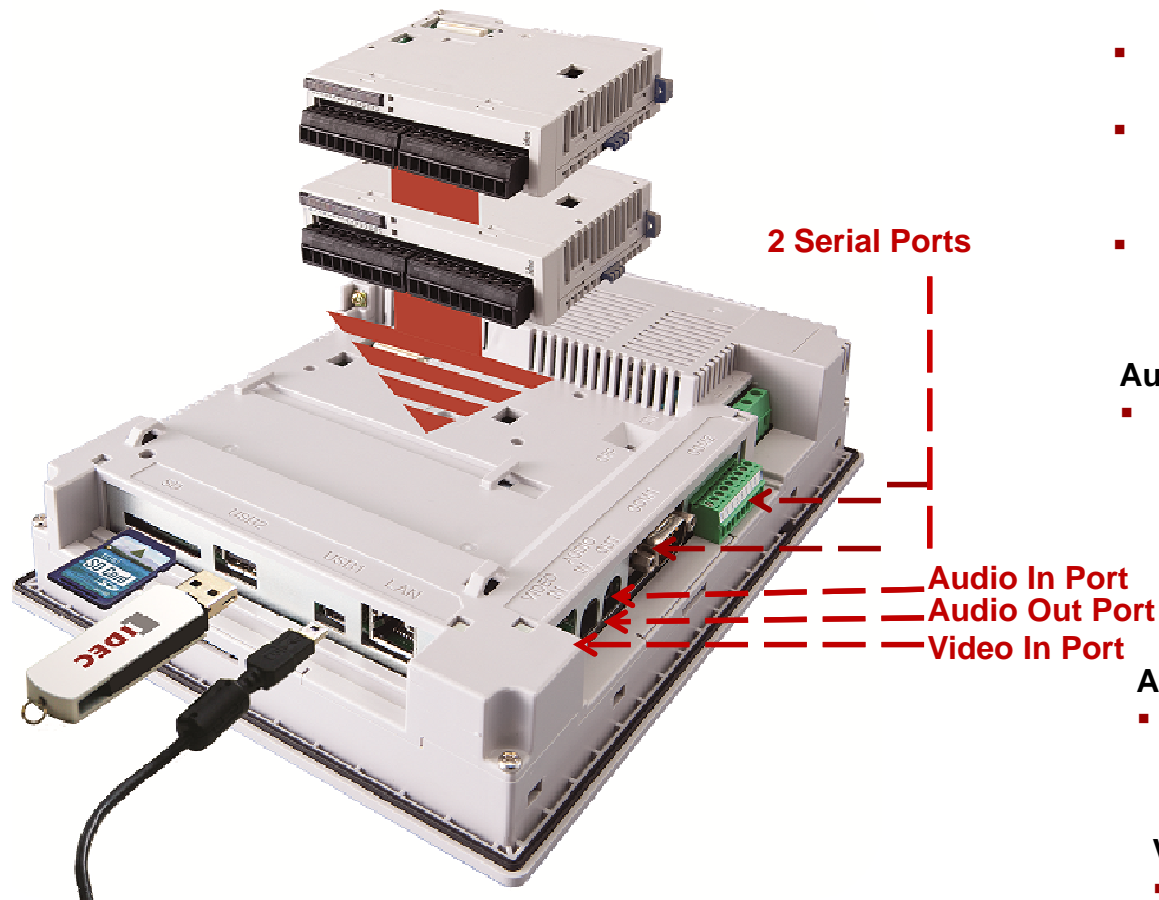
- Max. of 4 Expansion I/O module for 8.4" to 12.1" models
- Max of 2 Expansion I/O module for 5.7" models
- MicroSmart Expansion "Digital I/O" module only
- Simple I/O control using parts, objects & scripts
- Saves space in the panel
- Programming can all be done in the HMI



Think Automation and beyond...



Connectivity Options

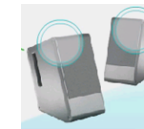


2 Serial Ports (RS232 & RS485(RS422))

- Host-Communicate with PLC/device 1:1 or 1:N PLC Communication
- Sub Host – Communicate with IDEC Microsmart PLC or Modbus RTU device
- O/I Link – Network multiple OI Touchscreens where one is a master and up to 15 slaves are connected
- User – Communicate using transmit/receive instructions to build your own protocol

Audio Out Port

- Connects to speakers to playback pre-saved. .WAV audio files for custom alarms or alerts.



Audio In Port

- Connects a microphone to listen and monitor audio sounds



Video In Port

- Connects to a video camera to display video images on the touchscreen



Think Automation and beyond...



Video Input

- 8.4" to 12.1" OI Touchscreen supports Video Input
- Connect a video camera to record or display video images on the touchscreen to closely monitor your system or factory floor.
- Play Video files, an effective way to play training or tutorial videos.



File Format	MP4 file (.mp4)
Movie	MPEG-4 Simple profile
Frame rate	30 fps or less
Resolution	720 x 480 pixels or less
File Size	512 MB or less

Composite Video RCA connector (NTSC or PAL)

Think Automation and beyond...



Remote Monitor & Control

**Connect anytime,
anywhere using your
PC, Tablet or Smart Phone**



Distance isn't an issue. When you need access to your machine or equipment, but can't get to the factory floor or even to the office, all you need is a computer, tablet or Smartphone and you can remotely access, monitor and control your touchscreen through a web browser. It's that simple!

Web Browser supported:

- IE 8, FIREFOX, Safari , Chrome, Opera

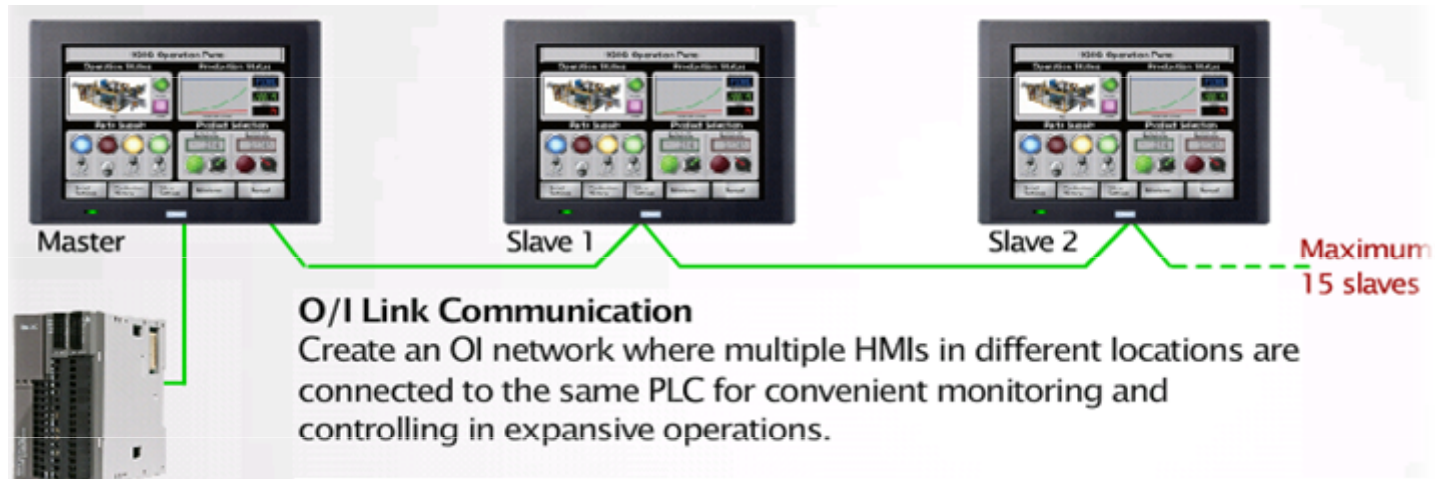
Access Control Options:

- Monitor & Control
- Monitor only
- Disable (Display System Information only)

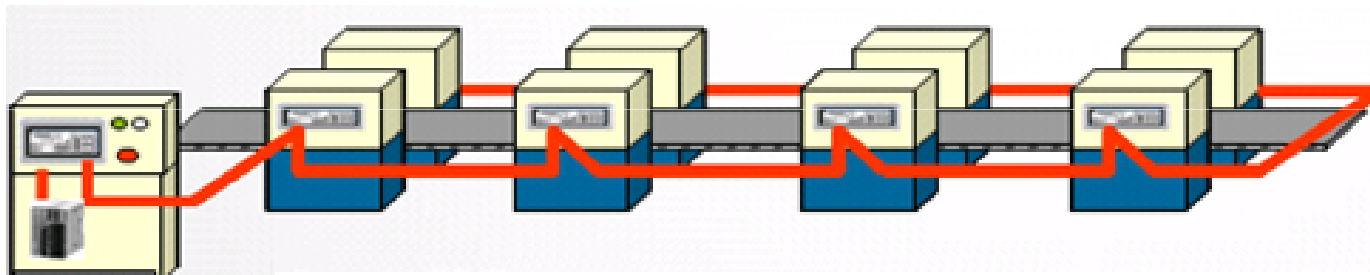
Think Automation and beyond...



Communication Flexibilities



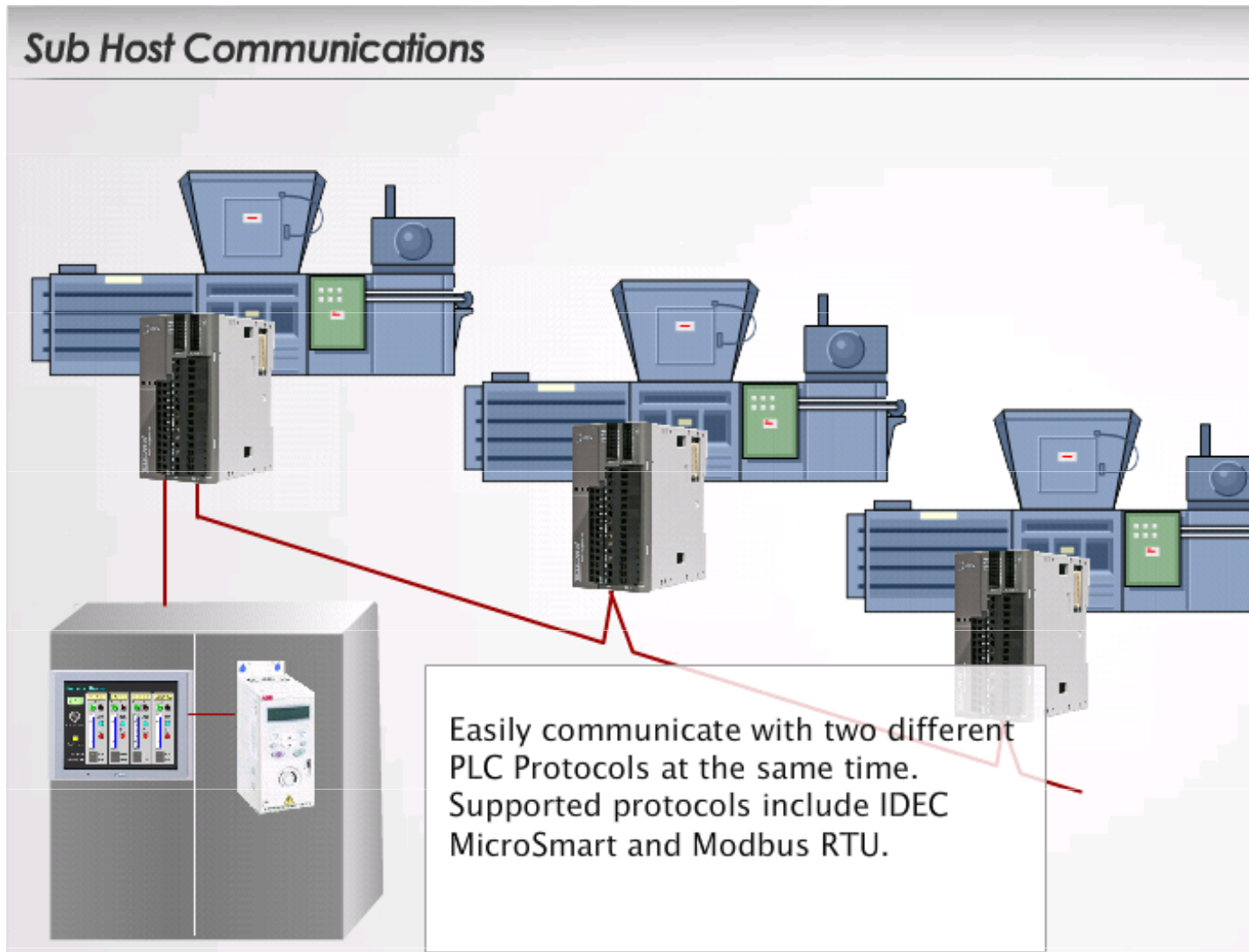
Example:



Think Automation and beyond...



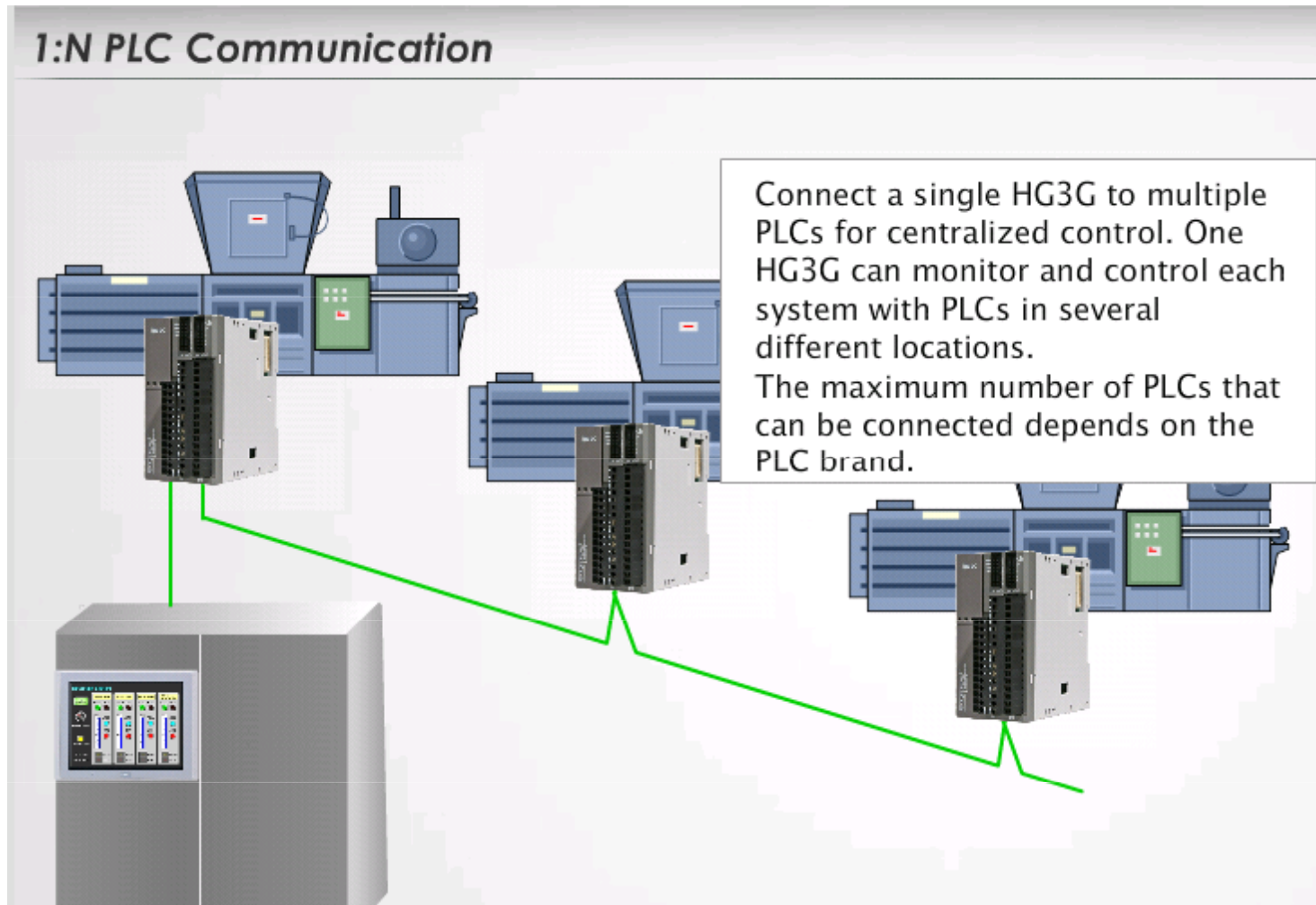
Communication Flexibilities



Think Automation and beyond...



Communication Flexibilities



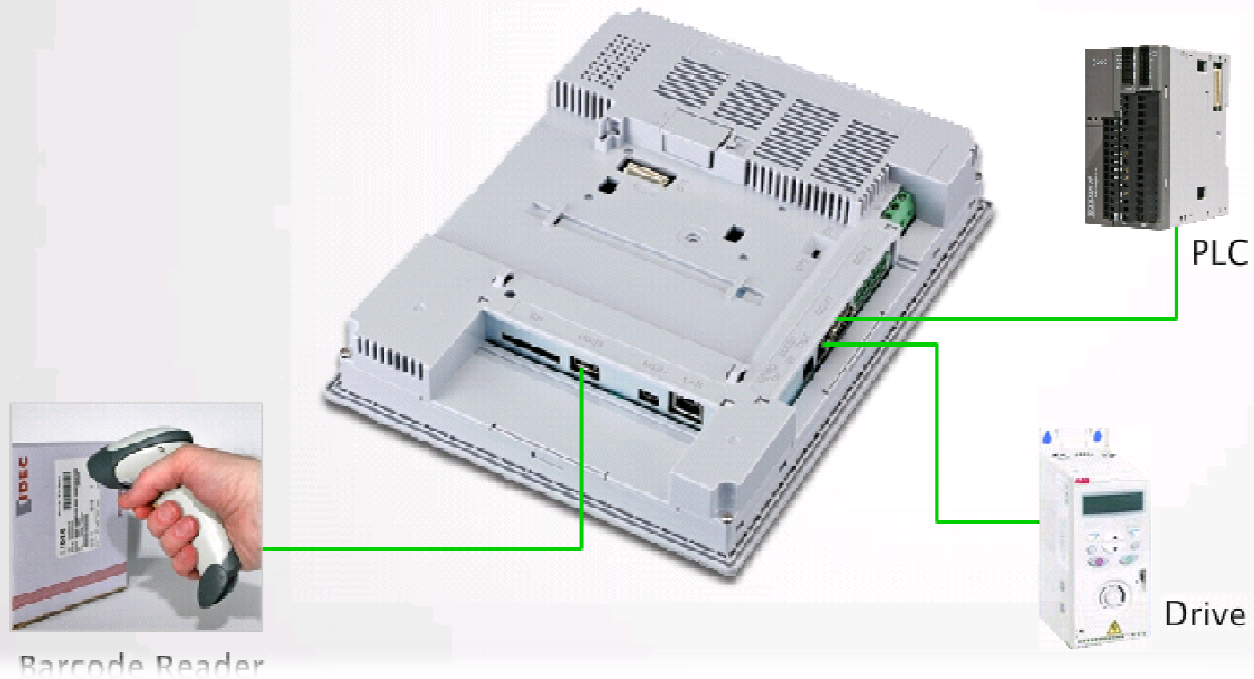
Think Automation and beyond...



Communication Flexibilities

User Communications

Get better device interaction by setting the HG3G communication protocol to the one required by your serial devices. This function uses transmit and receive instructions to build your own protocol.

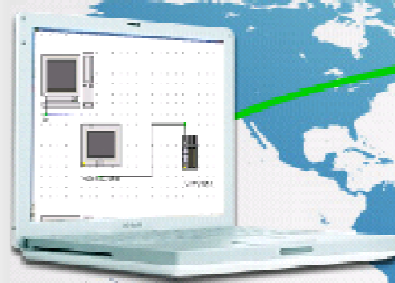


Think Automation and beyond...



Communication Flexibilities

Pass Through Communications



Conveniently download a PLC program from a PC through the operator interface. The Pass-through function is applicable to IDEC (MicroSmart and OpenNet Controller) and Mitsubishi (MELSEC-FX, FX3UC and Q) PLCs.

Think Automation and beyond...



IDEC New Release OI Touchscreen Comparison Chart

	Basic Series	High Performance Series			
Model Type	HG2G-5S / HG2G-SB	HG2G-5FT22TF	HG3G-8JT22MF	HG3G-AJT22MF	HG4G-CJT22MF
Display Size	5.7"	5.7"	8.4"	10.4"	12"
Display Type	Color-TFT	Color-TFT	Color-TFT	Color-TFT	Color-TFT
Color Depth	256	65,536	65,536	65,536	65,536
Mount Portrait or Landscape	No	Yes	Yes	Yes	Yes
Rated Power Voltage	12 to 24 VDC	24VDC	24VDC	24VDC	24VDC
Resolution	320 x 240	640 x 480	800 x 600	800 x 600	800 x 600
Brightness (cd / m2)	400	800	600	700	550
SD Card Slot	No	Yes	Yes	Yes	Yes
# of Expansion I/O module supported	0	2	4	4	4
Ethernet Port	Optional	Standard	Standard	Standard	Standard
USB Ports	Mini-B only	USB Port A / Mini-B	USB Port A / Mini-B	USB Port A / Mini-B	USB Port A / Mini-B
Serial Ports (RS232, RS422, RS485)	1	2	2	2	2
Video In (Composite Video RCA connector (NTSC or PAL))	-	-	Yes	Yes	Yes
Audio In/Out (3.5mm audio mini-jack (Stereo))	-	No	Yes	Yes	Yes
Remote Control / Monitor	No	Yes	Yes	Yes	Yes

Think Automation and beyond...



Supported Drivers

Over 100 Serial & Networking Drivers are Supported

Allen-Bradley

KEYENCE

Siemens

GE Fanuc

MITSUBISHI

MODBUS

Schneider

GE

Toshiba

SHARP

Yokogawa

OMRON

Modicon

Panasonic

Automation Direct (Koyo)

Hitachi

and More!

Visit www.IDEC.com/oi/drivers for a list of all drivers!

Think Automation and beyond...



Degree of Protection & Approvals

(High Performance Series)

- **Degree of Protection:**
 - IP66 (IEC 60529) (front part when mounted)
 - TYPE 4X (Pending till Summer 2014) , Type 13

- **Approvals**
 - CE-marked and c-UL-us listed
 - Safety Standards: UL508, CSA C22.2 No.142, CSA C22.2 No.213,
 - ANSI/ISA-12.12.01-2007
 - Ship Classification Standards: ABS, LR, NK
 - Our touchscreens meet technical and safety needs that allow them to be used in marine, offshore structures and shore-based installations

Think Automation and beyond...



IDEC OI Touchscreen Comparison Chart

	Basic Series	High Performance Series			
Model Type	HG2G-5S / HG2G-SB	HG2G-5FT22TF	HG3G-8JT22MF	HG3G-AJT22MF	HG4G-CJT22MF
Display Size	5.7"	5.7"	8.4"	10.4"	12"
Display Type	Color-TFT	Color-TFT	Color-TFT	Color-TFT	Color-TFT
Color Depth	256	65,536	65,536	65,536	65,536
Mount Portrait or Landscape	No	Yes	Yes	Yes	Yes
Rated Power Voltage	12 to 24 VDC	24VDC	24VDC	24VDC	24VDC
Resolution	320 x 240	640 x 480	800 x 600	800 x 600	800 x 600
Brightness (cd / m2)	400	800	600	700	550
SD Card Slot	No	Yes	Yes	Yes	Yes
# of Expansion I/O module supported	0	2	4	4	4
Ethernet Port	Optional	Standard	Standard	Standard	Standard
USB Ports	Mini-B only	USB Port A / Mini-B	USB Port A / Mini-B	USB Port A / Mini-B	USB Port A / Mini-B
Serial Ports (RS232, RS422, RS485)	1	2	2	2	2
Video In (Composite Video RCA connector (NTSC or PAL))	-	-	Yes	Yes	Yes
Audio In/Out (3.5mm audio mini-jack (Stereo))	-	No	Yes	Yes	Yes
Remote Control / Monitor	No	Yes	Yes	Yes	Yes
List Price	\$472.50-\$677.25	\$939.75	\$1254.75	\$1674.75	\$1989.75

Think Automation and beyond...



IDEC 5.7" 65K Color Competitor Comparison

	IDEC	Automation Direct		Proface	Allen Bradley
Model	HG2G-5FT22TF	EA7-T6CL-R	EA7-T6CL	AGP3300-T1-D24 / AGP3300-T1- D24-D81K/-D81C	2711P-T6C5D / 2711P- T6C20D
Display Type	5.7" TFT Color	5.7" TFT Color	5.7" TFT Color	5.7" TFT Color	5.5" TFT Color
Resolution (Pixels)	640 x 480	320 X 240	320 X 240	320 x 240	320 x 240
Landscape or Portrait	Yes	No	No	No	No
Color	65,536 Colors	65536 colors	65,536 Colors	65,536 Colors	(18 bit color)
Display Brightness (NITS)	800	280	270	na	200
Ethernet	Yes	No	Yes	Yes	No
Expansion I/O	Yes	No	No	No, Yes (-D81C)	No
Remote Monitor & Control	Yes	No	Yes	Yes	Monitor only(- T6C20D)
List Price	\$895	\$540	\$757	\$1595	\$2005

Other competitors: Maple Systems (4.3" but no 5.7"), Red Lion (5.7" is 256 color only) & EZ Automation (5.7" is 128 color only)

Note: Competitor data reflects information found on web and is subject to change.

Think Automation and beyond...



IDEC 8.4" & 10.4" Multimedia Competitor Comparison

	IDEC	Automation Direct	Maple System	Allen Bradley	Red Lion	Proface
Model #	HG3G	EA7-T8C, EA7-T10C	HMI5070TH HMI5104XH	2711P-T7C4D1, 2711P-T10C4D1	G308A230/G310R230	AGP3400-T1-D24-D81C, AGP3500-T1-D24-D81C
Screen Size	8.4", 10.4" TFT	8.4", 10.4" TFT	7.0", 10.4" TFT	6.5", 10.4" TFT	8.4", 10.4" TFT	7.5", 10.4" TFT
Display Resolution (Pixel)	SVGA 800x600	640 x 480	800x480, 10": 800 x 600	640 x 480	640x480, 800 x 600	640x480, 800x600
Mounts Landscape/Portrait	Yes	No	No	No	No	No
Color	65536 colors	64K colors	65, 536colors	18 Bit color	32K color	65K colors
Brightness (cd/m2)	8.4": 600 10.4" : 700	8.4": 300 10.4": 270	7.0": 300 10.2": 400	6.5": 300 10.4": 300	8.4": 450 10.4": 400	na na
Expansion I/O	Yes	No	No	NA	No	Yes (6In/2Out)
Audio In/ Out	Yes	Audio Out only	Yes	No	No	Yes
Video input	Yes	No	No	na	No	7":No, 10": Yes
Remote Monitor & Control	Yes	Yes	Yes	No	Yes	Yes
Price	\$1195, \$1595	\$999, \$1595	\$690, \$1690	\$3300-\$4420	\$2499, \$3199	\$2795, \$3395

Note: Competitor data reflects information found on web and is subject to change.

Think Automation and beyond...



IDEC 12.1" HG4G vs Competitors

	IDEC	MAPLE SYSTEMS	AUTOMATION DIRECT	PROFACE	ALLEN BRADLEY
Part Numbers		HMI5121X	EA7-T12C	AGP3600-T1-D24(standard), AGP3650-T1-AF (Multimedia), AGP3600-T1-D24-D81K (Control)	2711P-T12C4D1
Size	12.1"TFT	12.1"TFT	12.1"TFT	12.1"TFT	12.1"TFT
Colors	65,536 colors	65,536 colors	65,536 colors	65,536 Colors	18 Bit color
Resolution	800 x 600	800 x 600	800 x 600 SVGA	800 x 600	800 x 600
Brightness	550 cd/m2	400 cd/m2	260 cd/m2	n/a	300 cd/m2
SD Card/ USB Flash	Yes	Yes	Yes	Yes (CF Card)	n/a
USB ports	Yes	Yes	Yes	Yes	n/a
Ethernet port	Yes	Yes	Yes	Yes	Yes
Serial Ports	2 RS232/48 5(422)	2-RS232/485, 1- RS232	1 RS232,RS485/422	1-RS232,485,422, 1-RS422/485	1-RS232
Audio In/Out	Audio In/Out	Audio Out	Audio Out	Audio Out	N/A
Video In	Yes, Built In	No	No	Optional Module Required	N/A
Remote Monitor/Control	Yes	Yes	Yes	Yes	Monitor Only
List Price	\$1895	\$1790	\$1895	\$3325-\$3625	\$5420

Note: Competitor data reflects information found on web and is subject to change.

Think Automation and beyond...



WindO/I-NV2 Programming Software

(in Automation Organizer Software Suite)



- One Software for all Touchscreens
- Icon-driven, easy programming: intuitive with drag and drop functionality
- Built-in drivers for major brand PLCs and intelligent devices
- Easy management of projects and screens
- Over 5000 symbols in the symbol factory
- One-time buy– all subsequent upgrades are **FREE**



* Or get the software and a programming cable **FREE** with the purchase of a starter kit!

Think Automation and beyond...



WindO/I-NV2 Programming Software

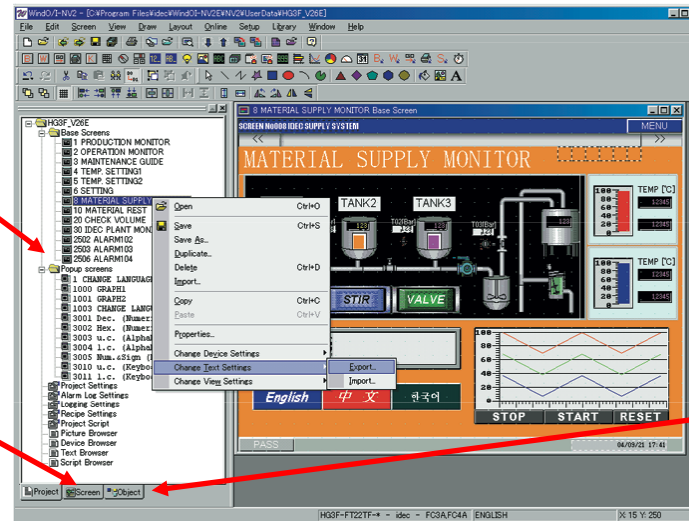
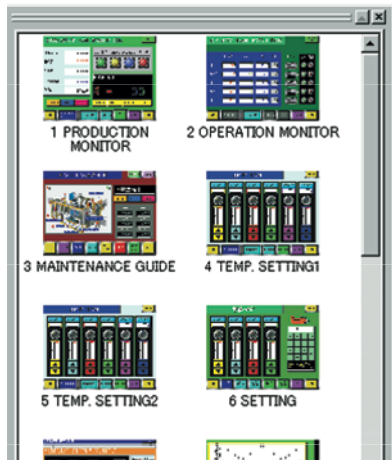
Flexible Workspace allows for dynamic screen design

Screen and Project Setting List

- Screens can be duplicated and their properties changed easily.
- Project settings can be edited.
- Devices, text, and images can be imported or exported.

Screen List

- Screens can easily be selected using the preview image function.

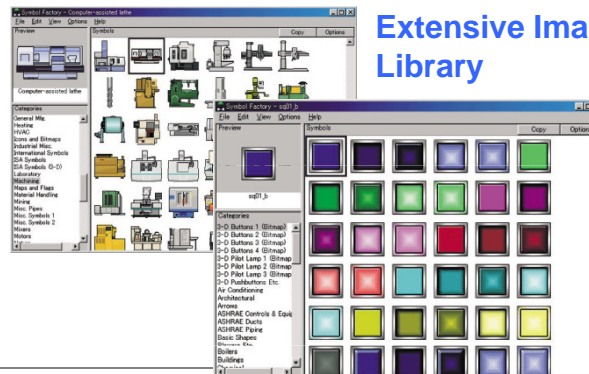


Object List

Each object's properties are displayed such as the type of device used, conditions and operations

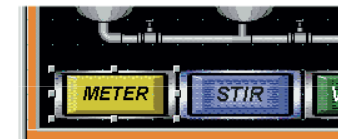
No	Name	Type	Device	Tripper Type	Tripper Condition
56	Rectangle	Rectangle			
57	Bitmap	Bitmap			
58	Rectangle	Rectangle			
59	Line	Line			
60	WordCommand1	Word Write	LDR 70	1: Falling-edge	(LSM 7)
61	WordCommand10	Word Write	LDR 67	2: Satisfy the c.	(D 6) = 5 & 3
62	BarGraph	Bar Graph	LDR 71		
63	BarGraph5	Bar Graph	LDR 73		
64	BarGraph6	Bar Graph	LDR 75		
65	NumDisplay1	Numerical	LDR 71		
66	NumDisplay2	Numerical	LDR 73		
67	NumDisplay3	Numerical	LDR 67		
68	NumDisplay4	Numerical	LDR 75		
69	BitSwitch1	Bit Button	LM 10	3: Always ON	
70	BitSwitch4	Bit Button	LM 10	3: Always ON	
71	BitSwitch5	Bit Button	LM 1	3: Always ON	
72	BitSwitch6	Bit Button	LM 2	3: Always ON	
73	BitSwitch7	Bit Button	LM 3	3: Always ON	
74	BitSwitch8	Bit Button	LM 3	3: Always ON	
75	ScreenSwitch1	On/Off Screen	10	3: Always ON	
76	WordCommand11	Word Write	LDR 71	6: While satisfy.	0 == (LDR 71)
77	WordCommand15	Word Write	LDR 73	0: Rising-edge	(LSO 1) < 0
78	WordCommand55	Word Write	LDR 73	6: While satisfy.	20 > (LDR 73)
79	WordCommand1	Word Write	LDR 68	2: Satisfy the c.	100 == (LDR 68)
80	NumDisplay2	Numerical	LDR 73		
81	NumDisplay1	Numerical	LDR 73		
82	NumDisplay2	Numerical	LDR 73		
83	BarGraph1	Bar Graph	LDR 68		
84	BarGraph1	Bar Graph	LDR 68		
85	NumDisplay3	Numerical	LDR 67		
86	NumDisplay3	Numerical	LDR 67		

Extensive Image Library



Buttons

- A button selected from an object list is shown on the editing screen.

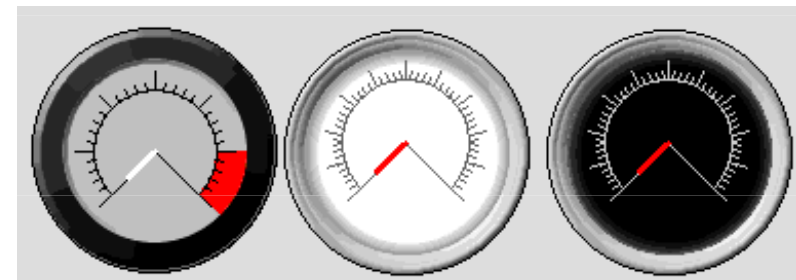
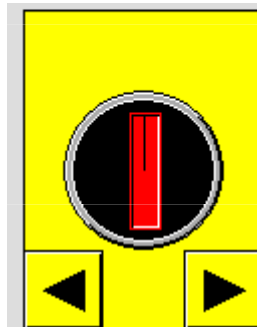
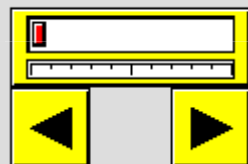
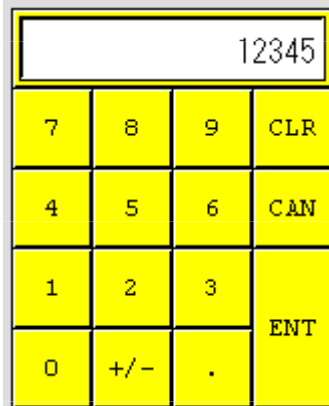


Think Automation and beyond...



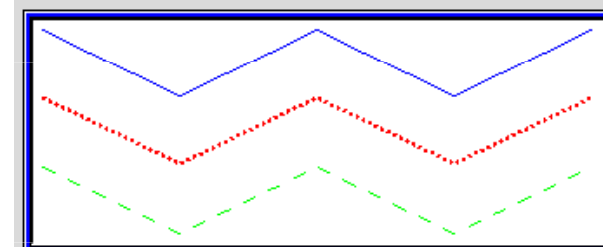
List of Objects

- Alarm List Display
- Alarm Log Display
- Bar Graphs
- Trend Chart
- Bit Button / Command
- Word Button / Command
- Goto Screen Button / Command
- Print Button / Command
- Key Button
- Multi Button
- Keypad
- Selector Switch
- Potentiometer
- Numerical Input
- Character Input
- Pilot Lamp
- Multi-state Lamp
- Picture Display
- Message Display
- Message Switching Display
- Numerical Display
- Pie Chart
- Meter
- Calendar
- Timer



Occurrence	Message	Recover	Confirm
05/12	12:28	12:28	12:28
05/12	12:28	12:28	12:28
05/12	12:28	12:28	12:28

REVERSE Fcs.Up Fcs.Dwn Ref.



Think Automation and beyond...

