

# **5.7" HG2G Series Operator Interface**

#### **Features**

- 5.7" STN LCD OI touchscreen
- 256 color or 15 level monochrome
- New Super bright LCD screens:
  - -Monochrome: 500 cd/m<sup>2</sup> -Color: 350 cd/m<sup>2</sup>
- New Built-in ethernet port
- New Slim design: 36mm deep behind the panel
- New Analog resistive touch panel
- New Power LED indicator
- RS232, RS485 and RS422 compatible
- Large memory capacity: 2MB
- O/I Link communication (HG2G series only)
- Sub-host communication (IDEC/Modbus protocol only)
- 1:N PLC communication( IDEC/Modbus/AB Ethernet/IP/Koyo/Mitsubishi MELSEC-Q Ethernet)
- Supports major manufacturer PLCs: IDEC, Allen Bradley, Omron, Automation Direct (Koyo), Siemens, Mitsubishi & many more
- Approvals: UL 1604 listed for use in hazardous locations (Class 1 Div. 2), IP65, NEMA 13, CE
- Programming software: WindO/I-NV2 version 3.42 or higher



## **Specifications**

| General Specifications                 |  |  |  |
|--|--|--|--|
| Rated Power Voltage                    | 24V DC   |  |  |
| Power Voltage Range                    | 20.4 to 28.8V DC   |  |  |
| Power Consumption                      | 10W max  |  |  |
| Allowable Momentary Power Interruption | 10ms max   |  |  |
| Power Inrush Current                   | 20A max  |  |  |
| Operating Temperature                  | 0 ~ 50°C   |  |  |
| Operating Humidity                     | 10 ~ 90% RH  |  |  |
| Storage Temperature                    | -20 ~ +60°C  |  |  |
| Storage Humidity                       | 10 ~ 90% RH  |  |  |
| Altitude or Atmospheric<br>Pressure    | 0 ~ 2000m (operation)<br>0 ~ 3000m (transit)   |  |  |
| Insulation Resistance                  | $50 M\Omega$ and over (DC500V megger)  |  |  |
| Vibration Resistance                   | 5 to 9Hz amplitude 3.5mm, 9 $\sim$ 150Hz acceleration 9.8m/s <sup>2</sup> (10 times per axis on each of 3 mutually perpendicular axes) (100 minutes) |  |  |
| Shock Resistance                       | 147m/s², 11ms<br>(5 shocks on each of three mutually perpendicular axes)   |  |  |
| Backlight Life                         | 75,000 hours nominal and over  |  |  |
| Mechanical Life of Touch Switch        | 1,000,000 operations and over  |  |  |
| Safety Standard                        | UL508, UL1604, CSA C22.2 No.1010.1, No.213   |  |  |
| EMC Standard                           | IEC/EN61131-2  |  |  |
| Approval                               | UL, cUL  |  |  |
| Approvai                               | CE Marking   |  |  |
| Degree of Protection                   | IP65, NEMA 13  |  |  |
| Weight                                 | 500g   |  |  |
| Dimensions                             | 167.2 (W) x 134.7 (H) x 40.9 (D) mm  |  |  |

| Display Specifications       |   |  |
|------------------------------|---|--|
| Display                      | 5.7" STN color or monochrome LCD                                |  |
| User Memory                  | 2MB (extended font included)                                    |  |
| Backlight                    | Cold cathode tube   |  |
| Display Resolution           | 320 (W) x 240 (H) (dots)  |  |
| Display Brightness           | Color: 350cd/m <sup>2</sup> , Monochrome: 500 cd/m <sup>2</sup> |  |
| Backlight Control            | Auto off  |  |
| Backlight Replacement        | Not possible  |  |
| LED Indicator                | HG2G front face: power indicator (green)                        |  |
| Switch Type                  | Analog resistive membrane                                       |  |
| Touch Switch Operating Force | 0.2 ~ 0.8N  |  |
| Ethernet Interface           | IEEE802.3 (10/100BASE-T) compliant, RJ-45 connector             |  |
| Serial Interface (1)         | Detachable 9P terminal blocks                                   |  |
| Serial Interface (2)         | Mini DIN 8P connector   |  |
| O/I Link Interface           | Terminal block 3P   |  |
| Installation Configuration   | Panel cut-out dimensions: 153 (W) x 121 (H) mm                  |  |
| Installation Configuration   | Panel thickness: 1.6 ~ 5 mm                                     |  |

| Function Specifications |   |  |
|-------------------------|---|--|
| Screen Types            | Base screen, popup screen, system screen  |  |
| Calendar                | Year, month, day, hour, min., sec., day of week   |  |
| Accuracy                | Accuracy within ±60 seconds per month (at 25°C)   |  |
| Backup Data             | Calendar, log data, keep internal relay/register  |  |
| Battery Life            | 4 years   |  |
| 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, operation log |  |

#### **Part Numbers**

#### **Operator Interface**

| Display<br>Type               | Communication<br>Type              | Ethernet<br>Port | Body<br>Color | Part<br>Number |
|-------------------------------|------------------------------------|------------------|---------------|----------------|
| 5.7" STN<br>Monochrome<br>LCD | RS232C/485/422<br>(9 Pin Terminal) | Yes              | Light gray    | HG2G-SB22TF-W  |
|                               |                                    |                  | Black         | HG2G-SB22TF-B  |
|                               |                                    |                  | Silver        | HG2G-SB22TF-S  |
|                               |                                    | No               | Light gray    | HG2G-SB22VF-W  |
|                               |                                    |                  | Black         | HG2G-SB22VF-B  |
|                               |                                    |                  | Silver        | HG2G-SB22VF-S  |
| 5.7" STN<br>256 Color<br>LCD  |                                    | Yes              | Light gray    | HG2G-SS22TF-W  |
|                               |                                    |                  | Black         | HG2G-SS22TF-B  |
|                               |                                    |                  | Silver        | HG2G-SS22TF-S  |
|                               |                                    | No               | Light gray    | HG2G-SS22VF-W  |
|                               |                                    |                  | Black         | HG2G-SS22VF-B  |
|                               |                                    |                  | Silver        | HG2G-SS22VF-S  |

#### **HG2G Series to IDEC PLC Communication Cable**

| IDEC PLC  | Communication<br>Type | Link Unit<br>Used | Part<br>Number                  |
|---|-----------------------|-------------------|---------------------------------|
| MicroSmart/<br>Pentra MicroSmart<br>(FC5A/FC4A) | RS232                 | Built-in Port     | HG9Z-AC102                      |
|   |                       | FC4A-PC1/HPC1     | HG9Z-AC102                      |
|   |                       | FC5A-SIF2         | Use shielded pair               |
|   | RS485                 | FC4A-PC2/HPC2     | HG9Z-AC172                      |
|   |                       | FC4A-PC3/HPC3     | Use shielded pair               |
|   | Ethernet              | FC4A-SX5ES1E      | CAT 5 ethernet* crossover cable |
| OpenNet<br>Controller                           | RS232                 | Built-in Port     | HG9Z-AC162                      |
|   | RS485                 | Built-in Port     | Use shielded pair               |
|   | Ethernet              | FC4A-SX5ES1E      | CAT 5 ethernet* crossover cable |

<sup>1. \*</sup> For 1:1 direct connection. If using a network hub, use CAT 5 straight cable.

### **Software & Programming Cable**

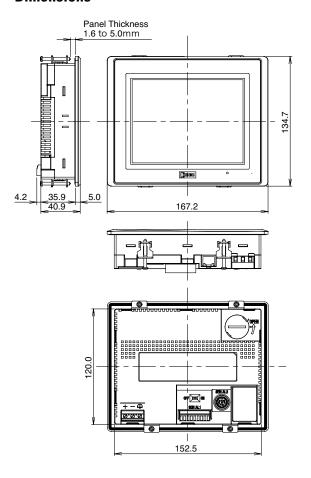
| Description |  | Part Number                |
|-------------|--|----------------------------|
| Software    | WindO/I-NV2 -Programming software for all IDEC OIs -PLC drivers are included with the software | HG9Y-ZSS2W                 |
| Cable       | Programming cable for HG2G Series (PC to HG2G Series)  | HG9Z-XCM1A or<br>FC2A-KC4C |

#### **Accessories**

| Accessory                   | Description  | Part Number |
|-----------------------------|--|-------------|
| Mounting Cut-out<br>Adaptor | Mount HG2G in HG2F panel cutout                                | HG9Z-2A1*   |
|                             | Mount HG2G in Proface panel cutout                             | HG9Z-2A2*   |
| Protective Sheet            | Protect display screen (min. qty 5 pcs.)                       | HG9Z-2D2    |
| Mounting Clips              | Replacement clips (min. qty 10 pcs.)                           | SLD-K02     |
| Battery                     | Replacement Lithium Battery                                    | HG9Z-XR1    |
| Terminal Block              | Replacement Terminal block for HG2G<br>Host communication port | HG9Z-XT09   |
| OI Link Unit                | For O/I Link Communication (link HG2G<br>Series only)          | HG9Z-2G1    |

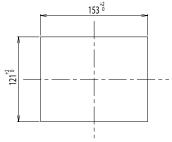
<sup>\*</sup>Available fall 2009

## **Dimensions**



## Panel Cut-out\*

All dimensions in mm.



\*NOTE: Cut-out dimensions for HG2G are different than HG2F.







<sup>2.</sup> For other PLC manufacturers, refer to WindO/I-NV2 Users Manual.