

## **HG1X Operator Interface**

### **HG1X Text display for small applications**

The HG1X series are text message displays with built-in user definable function keys which make them an excellent tool for small applications. The bright, back lit LCD screens can display data, alarms, errors, and data entry. The user can define as many screens as allowed by the memory and create multiple alarms with basic acknowledgements. In addition, they can communicate with IDEC PLCs as well as many major brand PLCs.

- Models available:
  - 2-line, 16 character display with 24KB memory
  - 4-line, 20 character display with 24KB memory
  - 8-line, 20 character display with 64KB memory
- All keys are programmable to do multiple tasks
- Screen Password protection
- LEDs are programmable for on/off state
- Serial port for printing screens and alarms
- Numeric keypad for easy data entry (4 and 8-line displays only)
- Bitmap import capability (8-line displays only)
- Communication available for most major PLC manufacturers
- Class 1 Div 2 (UL 1604) for hazardous locations, UL508, IP65 rated
- All models are programmable with WINDMSG software

#### **Screens:**

Users can easily define as many screens as allowed by the memory. A list of tasks can be assigned for each screen. All screens can be password protected providing an increased level of security. Various types of objects can be placed on the screens such as text, data display, alarm object, data entry, bar graphs, and a user can even import images (8 line display model only).

#### **Keys:**

The keys are user definable. Each key can have multiple tasks assigned to it, making them extremely powerful tools for simple machine control. Create simple alarms with keys assigned to acknowledge alarms and print or view next/previous alarms.

#### **LED:**

The LEDs provide on/off status for users to provide for simple monitoring.

#### **Changing Data:**

Cursor control (for 2-line display) or keypad (for 4-line and 8-line display) operations are available for easy data entry.

#### **Serial Port:**

Supports serial printing to print screens. Great for keeping records or for documentation purposes.


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Operator Interfaces

### **Part Numbers: Operator Interface**

| Description                                             | Communication Type | Part Numbers |
|---------------------------------------------------------|--------------------|--------------|
| 2-Line Text Message Display, No External Power Required | RS-232             | HG1X-252     |
| 2-Line Text Message Display, 24VDC Power Required       | RS-232 / RS-485    | HG1X-222     |
| 4-Line Text Message Display, No External Power Required | RS-232             | HG1X-452     |
| 4-Line Text Message Display, 24VDC Power Required       | RS-232 / RS-485    | HG1X-422     |
| 8-Line Text Message Display, 24VDC Power Required       | RS-232 / RS-485    | HG1X-822     |



*All HG1X models come with mounting clips and a gasket.*

### **Part Numbers: Replacement Parts**

| Description                                      | Model                | Part Numbers  |
|--------------------------------------------------|----------------------|---------------|
| Hardware Set: 2 pieces mounting clips & 1 gasket | for HG1X-252/222     | HG9Z-MTHW160D |
|                                                  | for HG1X-452/422/822 | HG9Z-MTHW170D |

## WindMSG Software

**HG1X Software:**

User-friendly WINDMSG software programs all text message displays. It has a drop down menus and icons for convenient function selection. Objects are easily configured using step by step navigation. PLC drivers are built into the software, which allows for extended communication with IDEC and many other popular PLC manufacturers.

**Part Numbers: Software**

| Description                               | Software Name | Part Number |
|-------------------------------------------|---------------|-------------|
| Programming software for all HG1X Series* | WINDMSG       | WINDMSG     |



\*Includes communication drivers for all major PLC brands: AB-DFI\*, Mitsubishi, Aromat, Siemens, Koyo, Modicon, Keyence

**Part Numbers: Programming Cable**

| Description                                    | Part Number |
|------------------------------------------------|-------------|
| Programming cable for HG1X Series (PC TO HG1X) | HG9Z-PC125A |

**Part Numbers: Cables - Connect between HG1X-252 / 452 to PLC**

| Manufacturer             | Model             | Communication Type | Part Numbers                     |
|--------------------------|-------------------|--------------------|----------------------------------|
| ALLEN BRADLEY            | Micrologix Series | RS-232             | HG9Z-SCI007                      |
| AROMAT                   | FP0/FPM           | RS-232             | HG9Z-SCI015                      |
| IDEC                     | Micro 3           | RS-232             | HG9Z-SCI25A (built-in converter) |
|                          | Micro 3C          | RS-232             | HG9Z-SCI25B                      |
|                          | MicroSmart        | RS-232             | HG9Z-SCI25B                      |
|                          | OpenNet           | RS-232             | HG9Z-SCI25B                      |
| Automation Direct (KOYO) | DL 205 Series     | RS-232             | HG9Z-SCI023                      |
| MITSUBISHI               | FX0               | RS-232             | HG9Z-SCI008 (built-in converter) |
| SIEMENS                  | S7-200            | RS-232             | HG9Z-SCI029                      |

**Part Numbers: Cables - Connect between HG1X-222 / 422 / 822 and PLC**

| Manufacturer             | Model             | Communication Type | Part Numbers |
|--------------------------|-------------------|--------------------|--------------|
| ALLEN BRADLEY            | Micrologix series | RS-232             | HG9Z-SCI100  |
|                          | SLC 500 series    | RS-232             | HG9Z-SCI120  |
| AROMAT                   | FP0/FPM           | RS-232             | HG9Z-SCI500  |
| IDEC                     | Micro 3           | RS-485             | HG9Z-SCI220  |
|                          | Micro 3C          | RS-232             | HG9Z-SCI200  |
|                          | MicroSmart        | RS-232             | HG9Z-SCI200  |
|                          | OpenNet           | RS-232             | HG9Z-SCI200  |
| Automation Direct (KOYO) | DL 205 Series     | RS-232             | HG9Z-SCI400  |
| MITSUBISHI               | FX0               | RS-232             | HG9Z-SCI600  |
| SIEMENS                  | S7-200            | RS-485             | HG9Z-SCI300  |



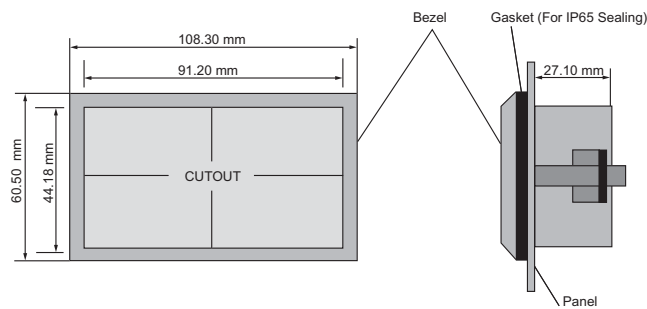
HG1X-252/452 support Micrologix only, HG1X-222/422/822 support Micrologix and SLC 500 series PLCs

## HG1X Specifications

|                        |               |                                          | HG1X-252/HG1X-452                                                                                                                                                                                                                       | HG1X-222/HG1X-422/HG1X-822                                                                                                                                                                                                              |
|------------------------|---------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        |               |                                          |                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                         |
| General Specifications | Standards     | Safety standards                         | UL508, UL1604                                                                                                                                                                                                                           | UL508, UL1604                                                                                                                                                                                                                           |
|                        |               | EMC standards                            | Immunity to ESD: Level 3 as per IEC 61000-4-2<br>Transient Immunity: Level 3 as per IEC 61000-4-4<br>Radiated Immunity: Level 3 as per IEC 61000-4-3<br>Emissions: EN55011 CISPR A<br>Conducted RF Susceptibility: as per IEC 61000-4-6 | Immunity to ESD: Level 3 as per IEC 61000-4-2<br>Transient Immunity: Level 3 as per IEC 61000-4-4<br>Radiated Immunity: Level 3 as per IEC 61000-4-3<br>Emissions: EN55011 CISPR A<br>Conducted RF Susceptibility: as per IEC 61000-4-6 |
|                        | Electrical    | Rated voltage                            | 5V DC                                                                                                                                                                                                                                   | 24 VDC                                                                                                                                                                                                                                  |
|                        |               | Voltage variation range                  | 5 VDC (+/-) 5%                                                                                                                                                                                                                          | 24 VDC (+/-) 10%                                                                                                                                                                                                                        |
|                        |               | Power consumption                        | HG1X-252: 120mA maximum<br>HG1X-452: 160mA maximum                                                                                                                                                                                      | HG1X-222: 1 watt typical; 3 watt maximum<br>HG1X-422: 1.5 watt; 3 watt maximum<br>HG1X-822: 2.5 watt; 3 watt maximum                                                                                                                    |
|                        |               | Inrush current                           | N/A                                                                                                                                                                                                                                     | HG1X-222: 45mA @24 VDC<br>HG1X-422: 55mA @24 VDC<br>HG1X-822: 115mA @24 VDC                                                                                                                                                             |
|                        | Environmental | Operating temperature range              | 0 to 55°C                                                                                                                                                                                                                               | 0 to 55°C                                                                                                                                                                                                                               |
|                        |               | Operating humidity range                 | 0 to 90% (non-condensing)                                                                                                                                                                                                               | 10 to 90% (non-condensing)                                                                                                                                                                                                              |
|                        |               | Degree of Protection                     | IP65 standards                                                                                                                                                                                                                          | IP65 standards                                                                                                                                                                                                                          |
|                        |               | Storage temperature                      | -25 to +80°C                                                                                                                                                                                                                            | -25 to +80°C                                                                                                                                                                                                                            |
|                        |               | Storage humidity                         | 90% RH                                                                                                                                                                                                                                  | 95% RH                                                                                                                                                                                                                                  |
|                        |               | Vibration resistance                     | 10 to 61.2Hz, @ 0.2mm displacement<br>61.2Hz to 150Hz @ 1.5G acceleration (on all axes)                                                                                                                                                 | 10 to 61.2Hz, @ 0.2mm displacement<br>61.2Hz to 150Hz @ 1.5G acceleration (on all axes)                                                                                                                                                 |
|                        |               | Shock resistance                         | 1.5G acceleration for 11ms,<br>2 shocks per sense per axis (on all axes)                                                                                                                                                                | 1.5G acceleration for 11ms,<br>2 shocks per sense per axis (on all axes)                                                                                                                                                                |
|                        | Structural    | Installation                             | Panel mount                                                                                                                                                                                                                             | Panel mount                                                                                                                                                                                                                             |
|                        |               | Exterior dimensions<br>(W x H x D in mm) | HG1X-252: 108 x 61 x 27<br>HG1X-452: 183 x 101 x 37                                                                                                                                                                                     | HG1X-222: 108 x 61 x 27<br>HG1X-422: 183 x 101 x 37<br>HG1X-822: 183 x 101 x 37                                                                                                                                                         |
|                        |               | Panel cutout dimensions<br>in mm         | HG1X-252: 92 x 45<br>HG1X-452: 161 x 79                                                                                                                                                                                                 | HG1X-222: 92 x 45<br>HG1X-422: 161 x 79<br>HG1X-822: 162 x 79                                                                                                                                                                           |
|                        |               | Weight                                   | HG1X-252: 137g<br>HG1X-452: 318g                                                                                                                                                                                                        | HG1X-222: 150g<br>HG1X-422: 340g<br>HG1X-822: 366g                                                                                                                                                                                      |

Dimensions & Panel Cutout

HG1X-252/HG1X-222 Dimensions/Panel Cutout



HG1X-452/HG1X-422/HG1X-822 Dimensions/Panel Cutout

