General Specifications

Model YPCKIT
Open Display Style Console Assembly

GS 33K50B50-50E

[Release 5]

This GS covers the hardware specifications of YPCKIT Open Display Style Console Assembly.
You can use the assembly as Human Interface Station installing a PC in it.

HARDWARE SPECIFICATIONS

Display Unit
Display: Single or dual stacked 19-inch TFT LCDs
Resolution: 1280 x 1024 pixels
FOV (field of view):
  - right direction 85˚
  - left direction 85˚
  - upward direction 85˚
  - downward direction 85˚
Connection: Connected to an display output of a PC.
  Stacked LCDs require a PC with two display outputs.

Touch Panel
Touch Panel Type: Ultrasonic, built into the lower 19-inch LCD
Connection: Connected to RS-232C inside the console assembly (the power is supplied from LCD body).

Operation Keyboard (optional)
Eight-control-key Operation Keyboard
Keyboard: Semi-stroke key
User Function Key: 64 keys
Increment/Decrement Keys: 8 sets
Electronic Sounds:
  - 7 kind of loudspeaker sounds and 2 kind of key sounds
Connection: Connected to RS-232C inside the console assembly (the power is supplied from a connector inside the console assembly via an AC adapter (*1)).

Interfaces
Open Display Style Console Assembly is to be used by connecting the interface unit with a PC’s USB port.
The interface unit consists of the followings.

The interface for PC
USB 2.0 (full-speed, bus-powered)

RS-232C Interface
4 D-sub 9-pin male ports, for the optional touch panel and operation keyboard, and others

Contact Inputs/Outputs
HIS Status Alarm Output (RDY): NO, NC, C
  - Rated voltage: 250 V AC, 30 V DC, 125 V AC
    (CSA C22.2 No.61010-1)
  - Rated current: 2 A
  - Rated power: 125 VA
Auxiliary Contact Outputs (DO1, DO2): +, –
  - Output points: 2 points (photo MOS relay contacts)
  - Contact rating: 30 V DC, 0.1 A or less
Auxiliary Contact Inputs (DI1, DI2): +, –
  - Input points: 2 points
  - Input signals: Contacts or voltages
  - Contact inputs: OFF signal 100 kΩ or greater;
    ON signal 200 Ω or less
  - Contact rating: 5 V DC, 20 mA or greater
  - Voltage inputs: OFF signal 4.5 to 25 V;
    ON signal ±1 V DC, 200 Ω or less

*1: The AC adapter model is PW823-0.
For the detailed specification of PW823, please refer to GS 33K50C31-50E.
● Power Supply

Power Supply Voltages and Frequency
To be specified by the corresponding suffix code when ordering.
Voltage: 100-120 V AC, Frequency: 50/60 Hz
Voltage: 220-240 V AC, Frequency: 50/60 Hz

Maximum Power Consumption
100–120 V AC supply
Console assembly only, without LCD:  50 VA
Console assembly only, with single 19" LCD: 160 VA
Console assembly only, with dual stacked 19" LCDs: 270 VA
Assembled PC: 400 VA
Service power receptacles: 360 VA (3 A)

220–240 V AC supply
Console assembly only, without LCD:  60 VA
Console assembly only, with single 19" LCD: 190 VA
Console assembly only, with dual stacked 19" LCDs: 320 VA
Assembled PC: 400 VA
Service power receptacles: 720 VA (3 A)

Terminals
Power supply: M6 screw terminal connection
Grounding: M8 bolt terminal connection
Contact inputs/outputs: M4 screw terminal connection

● Console Casing

Paint Color
The codes in the parentheses below indicate the Munsell codes of the equivalent colors, respectively.
Body: Frosty white (2.5Y8.4/1.2)
Doors: Pale sea moss green (7.8Y5.0/2.1) as standard; pale cobalt blue (6.4PB4.8/7.0) when option code /CR is specified
LCD Mounting Frame and Side of Table: Slate gray (0.1PB4.6/0.2)
Channel base: Spring black (3.3PB2.5/0.5)

Channel Base Optional Specifications
Channel Base with Hole for Cable:
Specify Optional Code "/CH". A hole for cable, 300(W) by 40(H) mm is made at the rear of the channel base (A filler plate is attached upon delivery).
To increase channel base height by 50 mm:
Specify Optional Code "/HB".

Component Makeup
Engineering Keyboard (keyboard for built-in PC):
Can be placed in the drawer.
Case for Mouse of built-in PC: Not supplied.
8-control-key Operation Keyboard:
Attached to the desk.
Doors: A front door and a removable back cover without fan. Each door has a key.
Option Code /FT:
Specify this Option Code for without LCD or single LCD.
With a foot stabilizer, used when Channel Base is not fixed to the floor. YPCKIT must be fixed with anchor bolts in general use.
For dual stacked LCDs, it must be fixed with anchor bolts.
When this option is not chosen, a temporary foot is provided for engineering work.
● Installation and Environmental Conditions

The following shows the installation and environmental conditions for only the console assemblies. For the conditions required by the assembled PC, see the respective documentation for PC.

See also "CENTUM VP Installation Guidance" (TI 33K01J10-50E) for the conditions of the console assembly where a PC is installed.

**Temperature**
- Normal Working Condition: 5 to 35 °C
- Transportation and Storage Condition: –20 to 60 °C

**Relative Humidity**
- Normal Working Condition: 20 to 80 %RH (no condensation)
- Transportation and Storage Condition: 20 to 80 %RH (no condensation)

**Temperature Changes**
- Normal Working Condition: ±10 °C/h
- Transportation and Storage Condition: ±20 °C/h

**Power Supply**
- 100–120 V AC ±10 %, 50/60 Hz ±3 Hz
- 220–240 V AC ±10 %, 50/60 Hz ±3 Hz

**Withstanding Voltage**
- 1500 V AC for 1 minute

**Insulation Resistance**
- 20 MΩ at 500 V DC

**Grounding**
- Independent ground of up to 100 Ω resistor

**Noise**
- Electric Field: 3 V/m or less (26 MHz to 1.0 GHz)
- 3 V/m or less (1.4 to 2.0 GHz)
- 1 V/m or less (2.0 to 2.7 GHz)
- Magnetic Field: 30 A/m (AC) or less, 400 A/m (DC) or less
- Static Electricity: 4 kV or less

**Vibration**
- Continuous Vibration (excluding LCD):
  - Total amplitude of 0.5 mm or less (1 to 14 Hz), for 5 seconds or longer
  - Acceleration of 2.0 m/s² or less (14 to 100 Hz)
- Earthquake-proof (excluding LCD): 4.9 m/s² or less
- Vibration during Transportation (while in packaging):
  - Horizontal 2.9 m/s² or less
  - Vertical 4.9 m/s² or less

**Dust**
- 0.3 mg/m³ or less

**Corrosive Gases**
- The same level as required for general offices

● IP Protection Rating
- IP10B

● Regulatory Compliance

The following shows the regulatory compliance with which the console assembly complies.

For the detailed information of following standards, see "System Overview" (GS 33K01A10-50E, GS 33K01A20-50E).

For those standards with which the assembled PC complies, see the respective documentation for the PC.

**Safety Standards**
- [CSA] (for 100-120 V AC power supply)
- [CE Marking] (for 220-240 V AC power supply)

**EMC Conformity Standards**
- [CE Marking] (for 220-240 V AC power supply)
- [C-Tick Marking] (for 220-240 V AC power supply)
- [KC Marking] (for 220-240 V AC power supply)

● Requirements of PC to be Assembled

The PC must meet the specifications required to run Standard Operation and Monitoring Function and Standard Builder Function for the corresponding system, as well as meet the following requirements.

**Size**
- Small enough to be installed in the console assembly, (i.e., 445 mm wide, 450 mm deep, and 206 mm high or smaller)

**Empty Expansion Slots**
- Expansion slots must be available for installing all of the following cards:
  - Display card (For two LCDs, the PC needs two ports of display outputs.)
  - VI702 (Vnet/IP interface card) or VF702 (Control bus interface card)

**USB Port**
- USB 1.1/2.0 Type A
- Need an extra port other than a keyboard and a mouse.

**Display Output**
- The PC must be capable of outputting the display output of the following specifications.
  - Resolution of 1280 x 1024 pixels, refresh rate of 60 Hz when assembled with a console assembly with 19-inch LCD(s)

**Power Consumption**
- Choose a PC with the power consumption of 400 VA or less.

● Regarding LCD Quality

The LCDs used in console assemblies have been manufactured using an extremely advanced technology; nevertheless, a few pixels or less may remain continuously on or a few pixels or less may remain continuously off. This is not a fatal defect and your understanding is highly appreciated.

The design of LCD is subject to change without notice for improvement.
## EXTERNAL DIMENSIONS

### Model with No LCD

Weight of no-LCD console assembly (with all options): Approx. 77 kg excluding PC

### Models with Single 19-inch LCD

Weight of Single 19-inch LCD console assembly (with all options): Approx. 95 kg excluding PC

The height of the channel base in the figure, 80 mm is a standard specification. For the channel base 50 mm taller than standard type, specify Suffix Code /HB to change the height of the channel base to 130 mm (=80 + 50 mm).

*1: Subject to change depending on the LCD’s dimensions.
*2: 536 mm for a model with an eight-control-key operation keyboard; 656 mm for a model with no operation keyboard
*3: 411 mm for a model with an eight-control-key operation keyboard; 531 mm for a model with no operation keyboard
*4: 705 mm for a model with an eight-control-key operation keyboard; 710 mm for a model with no operation keyboard
Model with Dual stacked 19-inch LCDs

Weight of Dual stacked 19-inch LCDs console assembly (with all options): Approx. 110 kg excluding PC

The height of the channel base in the figure, 80 mm is a standard specification. For the channel base 50 mm taller than standard type, specify Suffix Code /HB to change the height of the channel base to 130 mm (=80 + 50 mm).

*1: Subject to change depending on the LCD's dimensions.
*2: 541 mm for a model with an eight-control-key operation keyboard; 661 mm for a model with no operation keyboard
*3: 411 mm for a model with an eight-control-key operation keyboard; 531 mm for a model with no operation keyboard
*4: 705 mm for a model with an eight-control-key operation keyboard; 710 mm for a model with no operation keyboard
## MODEL AND SUFFIX CODES

<table>
<thead>
<tr>
<th>Suffix Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Description</td>
</tr>
<tr>
<td>-M5</td>
<td>Model 5</td>
</tr>
<tr>
<td>LN</td>
<td>Without LCD</td>
</tr>
<tr>
<td>L7</td>
<td>Single 19-inch LCD with touch panel (with display cables) (*2)</td>
</tr>
<tr>
<td>L8</td>
<td>Dual stacked 19-inch LCD with touch panel for lower LCD (without touch panel for upper LCD) (with display cables) (*2)</td>
</tr>
<tr>
<td>1</td>
<td>With 8-control-key Operation Keyboard (*3)</td>
</tr>
<tr>
<td>3</td>
<td>Without operation keyboard (*4)</td>
</tr>
<tr>
<td>4</td>
<td>With RS-232C and DI/DO interface (*5)</td>
</tr>
<tr>
<td>1</td>
<td>With front and back doors</td>
</tr>
<tr>
<td>100-120 V AC power supply</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>220-240 V AC power supply</td>
</tr>
</tbody>
</table>

### OPTION CODES

<table>
<thead>
<tr>
<th>Option Codes</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>/PS2</td>
<td>PS/2 Interface Extension Cable (tow cables) (*6)</td>
</tr>
<tr>
<td>/USB</td>
<td>USB Interface Extension Cable (tow cables) (*6)</td>
</tr>
<tr>
<td>/CR</td>
<td>Door color change</td>
</tr>
<tr>
<td>/FT</td>
<td>With foot stabilizer (*7)</td>
</tr>
<tr>
<td>/CH</td>
<td>Channel base with cable hole</td>
</tr>
<tr>
<td>/HB</td>
<td>Channel base height increased by 50 mm</td>
</tr>
</tbody>
</table>

*1: Prepare a PC to install to Enclosed Display Style Console Assembly. Standard Operation and Monitoring Function (LHS1100 or LHM1101) and Console HIS Support Package for Enclosed Display Style (LHS1130) are required to run the PC.

*2: The touch panel is built in the LCD unit. Do not install the touch panel driver, if the touch panel is not used. Touch panel function is available in Windows 7 or in Windows Vista environment.

*3: Can only be specified after Suffix Code L7, or L8.

*4: The assembly has flat desk space since there is no built-in keyboard.

*5: Open Display Style Console Assembly is connected to a USB port of a PC. The assembly does not include VI702 nor VF702 card. The VI702 or VF702 card needs to be ordered separately.

*6: The extension cables for engineering keyboard and mouse, either for PS/2 or USB port, need to be specified according to the PC's specification.

*7: Specify when not fixing the built console to the floor. This Option Code cannot be specified when Suffix Code “L8” is chosen. If you have chosen Suffix Codes “L8”, fix with anchor bolts to the floor.

## STANDARD ACCESSORIES

<table>
<thead>
<tr>
<th>Name</th>
<th>Part No.</th>
<th>Description</th>
<th>Quantity</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function key labels</td>
<td>T9070PN</td>
<td>—</td>
<td>1 set</td>
<td>For eight-control-key operation keyboard</td>
</tr>
</tbody>
</table>

## RELATED PRODUCTS

Model AKT203 Connection kit for open display style console

## ORDERING INFORMATION

Specify the model and suffix codes.

## TRADEMARKS

- CENTUM and Vnet/IP are registered trademark of Yokogawa Electric Corporation.
- Other company and product names appearing in this document are trademarks or registered trademarks of their respective holders.