

# General Specifications

Models ANB10S, ANB10D  
ESB Bus Node Units  
(for N-IO/FIO)



GS 33J60F20-01EN

[Release 6]

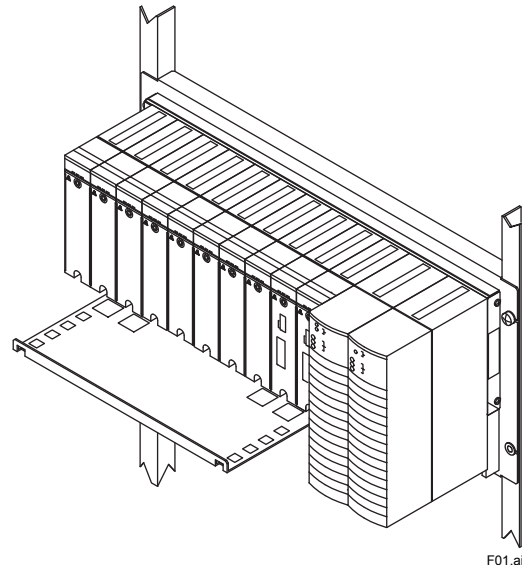
## ■ GENERAL

The ESB Bus Node Unit has an interface function that communicates the analog I/O signals and contact I/O signals of a field with a Field Control Unit (FCU) via an ESB bus, as well as a function that supplies power to the I/O Modules.

This node units are connected to FCU via an ESB bus.

## ■ STANDARD SPECIFICATIONS

For the installation specifications and environmental conditions that are common to the systems, refer to the GS "N-IO System Overview (GS 33J62A10-01EN)" and "FIO System Overview (GS 33J60A10-01EN)."



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### ● No. of Node Units Connectable

| Field Control Unit       | Software licence                                      | Total Number of ESB Bus Node Units (ANB10□) and Optical ESB Bus Node Units (ANB11□) Connected per FCU |
|--------------------------|---|---|
| A2FV50□                  | Control Function for Field Control Station (VP6F1800) | Max. 8  |
| A2FV70□                  | Control Function for Field Control Station (VP6F1900) | Max. 8  |
| AFV30□<br>AFV40□<br>(*1) | Control Function for Field Control Station (VP6F1700) | Max. 13   |

\*1: Up to 11 node units per 1 cabinet can be installed in AFV40□.

### ● ESB Bus Node Connection

When connecting an ESB Bus Node Unit to FCU, install ESB Bus Coupler Module (EC401 or EC402) to FCU (\*1).

EC401 or EC402 must be installed in slot 7 and slot 8. To make single configuration, EC401 or EC402 must be installed in slot 7, and Slot 8 must be empty.

\*1: A2FV50□, A2FV70□, AFV30□, or AFV40□.

### ● Power Supply

Specify with Suffix Codes

Voltage: 100-120 V AC, Frequency: 50/60 Hz

Voltage: 220-240 V AC, Frequency: 50/60 Hz

Voltage: 24 V DC

### ● Electric Power Consumption

100-120 V AC: 200 VA, 120 W

220-240 V AC: 230 VA, 120 W

24 V DC: 5.5 A

### ● Weight

Approx. 10 kg (incl. 8 I/O Modules)

### ● Mounting

19-inch Rack Mounting

Rack mount (M5 x 4 screws)

Insulation bash (accessory)

## ■ CONFIGURATION

### ● Module configuration

Power Supply Module (PW481 or PW482 or PW484):

Two modules in case of a dual-redundant configuration.

Power supply to the I/O Modules, and supply power to the transmitters.

The power supply terminals use M4 screws.

ESB Bus Interface Slave Module (SB401): Two modules in case of a dual-redundant configuration.

I/O Modules (\*1): Max. 8

\*1: Non-standard components.

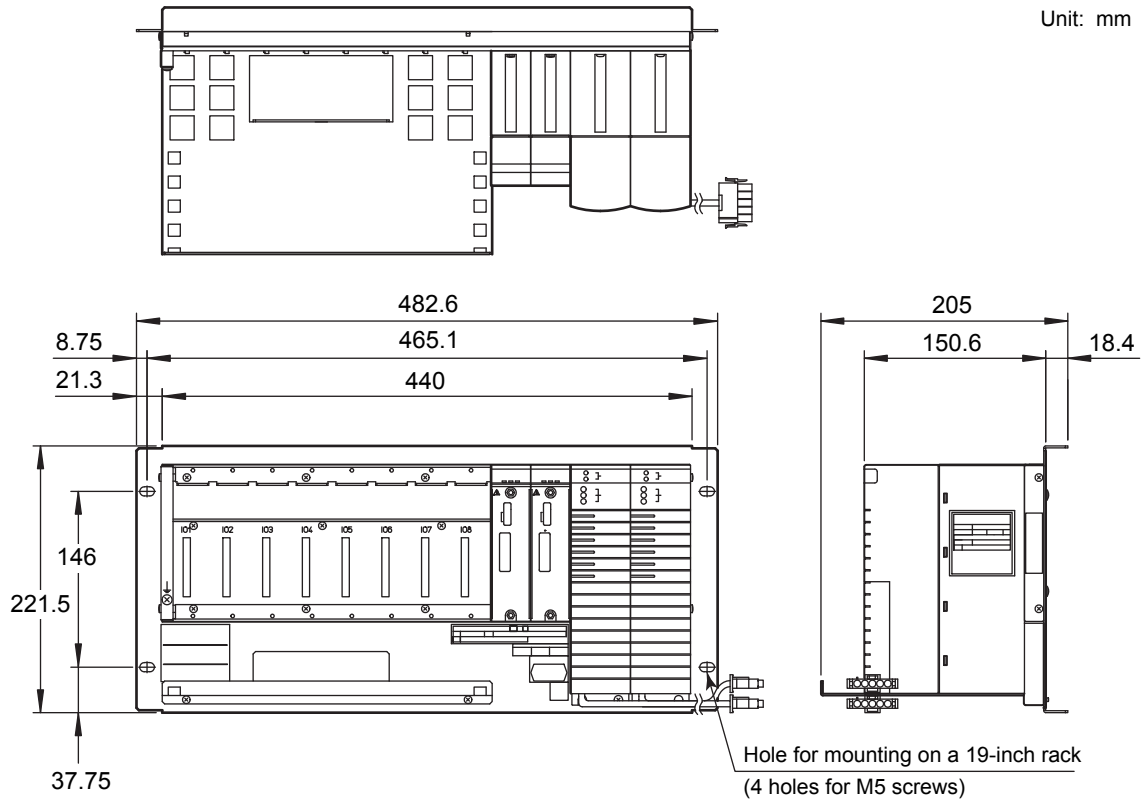
When ANB10□ is used with A2FV50□ or A2FV70□, only Communication modules (ALR111, ALR121, ALE111, ALF111, ALP121, and A2LP131) can be mounted.

## ■ LIMITATIONS OF INSTALLATION AND NOTICES FOR INSTALLATION

For installing I/O modules in node unit, the quantity and allocation are limited. Also, when installing a node unit to the dedicated cabinet, there are limitations of installation under the ambient operating temperature conditions. When modules with built-in barriers are installed in any node unit, an insulating partition (Part No. T9083NA) must be installed.

For details, please refer to the GS "N-IO System Overview" (GS 33J62A10-01EN), "FIO System Overview" (GS 33J60A10-01EN), and "Installation Guidance" (TI 33J01J10-01EN).

## ■ EXTERNAL DIMENSIONS



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Note: The above drawings are for ANB10D.

Nominal Tolerances :

When the reference dimension is over 0.5 mm and equal or less than 120 mm, its nominal tolerance is  $\pm 0.8$  mm, while its combination of nominal tolerance is  $\pm 1.5$  mm.

When the reference dimension is over 120 mm, its nominal tolerance is in accordance with JEM 1459.

## MODELS AND SUFFIX CODES

### Node Unit for Single ESB Bus

|                     |  | Description   |
|---------------------|--|---|
| <b>Model</b>        | ANB10S   | Node Unit for Single ESB Bus  |
| <b>Suffix Codes</b> | -3   | Single power supply   |
|                     | -4   | Dual-redundant power supply   |
|                     | 1  | 100 - 120 V AC power supply   |
|                     | 2  | 220 - 240 V AC power supply   |
|                     | 4  | 24 V DC power supply  |
|                     | 5  | Basic type with no explosion protection   |
|                     | 6  | With ISA Standard G3 option, temperature (-20 °C to 70 °C) option, and no explosion protection (*1) |
|                     | 7  | With ISA Standard G3 option and no explosion protection   |
|                     | E  | Basic type with explosion protection  |
|                     | F  | With ISA Standard G3 option, temperature (-20 °C to 70 °C) option, and explosion protection (*1)    |
| G                   | With ISA Standard G3 option and explosion protection |   |
| <b>Option Codes</b> | /CU1N  | Connector Unit for ESB Bus [part No.: S9562FA]  |
|                     | /CU1T  | Connector Unit with Terminator for ESB Bus [part No.: S9564FA]                                      |
|                     | /ATDOC   | Explosion Protection Manual (*2)  |

### Node Unit for Dual-Redundant ESB Bus

|                     |        | Description   |
|---------------------|--------|---|
| <b>Model</b>        | ANB10D | Node Unit for Dual-Redundant ESB Bus  |
| <b>Suffix Codes</b> | -4     | Dual-redundant power supply   |
|                     | 1      | 100 - 120 V AC power supply   |
|                     | 2      | 220 - 240 V AC power supply   |
|                     | 4      | 24 V DC power supply  |
|                     | 5      | Basic type with no explosion protection   |
|                     | 6      | With ISA Standard G3 option, temperature (-20 °C to 70 °C) option, and no explosion protection (*1) |
|                     | 7      | With ISA Standard G3 option and no explosion protection   |
|                     | E      | Basic type with explosion protection  |
|                     | F      | With ISA Standard G3 option, temperature (-20 °C to 70 °C) option, and explosion protection (*1)    |
|                     | G      | With ISA Standard G3 option and explosion protection  |
| <b>Option Codes</b> | /CU2N  | Connector Unit for ESB Bus [part No.: S9562FA (2 pieces)]   |
|                     | /CU2T  | Connector Unit with Terminator for ESB Bus [part No.: S9564FA (2 pieces)]                           |
|                     | /ATDOC | Explosion Protection Manual (*2)  |

Note: The existing ANB10□-□□□/NDEL for CENTUM VP R5 or earlier can be used with CENTUM VP R6.01 or later.

\*1: Only if ANB10□ is connected to the Optical ESB Bus Node Unit (ANB11□), "ISA Standard G3 option and temperature (-20 to 70 °C) option" can be selected.

\*2: Select the option code "/ATDOC" to follow the ATEX/IECEX Directive for use in potentially explosive atmospheres.

### Dummy Cover

|              |        | Description                           |
|--------------|--------|---------------------------------------|
| <b>Model</b> | ADCV01 | Dummy Cover (for I/O Module)          |
|              | ADCV02 | Dummy Cover (for Power Supply Module) |

### Insulating Partition

|                 |         | Description          |
|-----------------|---------|----------------------|
| <b>Part No.</b> | T9083NA | Insulating Partition |

Note: When mounting an FIO module with built-in barrier to a node unit, place this part to the 8th slot.

## ACCESSORIES AND SPARE PARTS

| Parts Names     | Parts Numbers | Quantity | Remarks   |
|-----------------|---------------|----------|-----------|
| Insulating bush | S9049PM       | 4        | Accessory |

## APPLICABLE STANDARDS

Refer to the GS "Integrated Production Control System CENTUM VP System Overview (GS 33J01A10-01EN)."

## ORDERING INFORMATION

Specify the model and suffix codes.

For selecting the right products for explosion protection, please refer to TI 33Q01J30-01E without fail.

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