MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

YOKOGAWA

S9562FA

ESB NODE CONNECTOR UNIT

Used with the applicable CENTUM VP configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GS 33J60F20-01EN, pp. 1–3

General Specifications

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

CENTUM VP

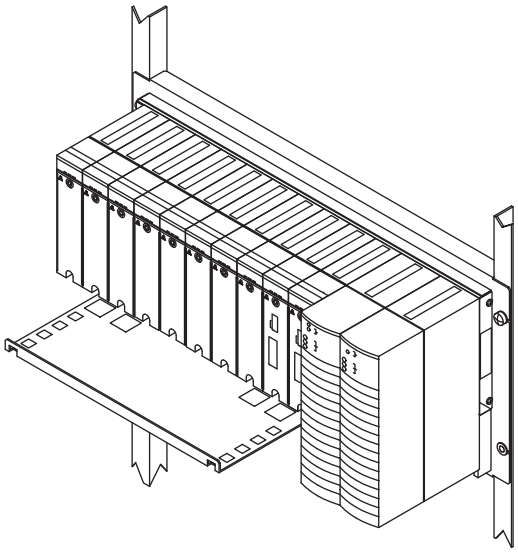
GS 33J60F20-01EN

[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.



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■ 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)."

● 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☐ AFV40☐ (*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.

YOKOGAWA

Yokogawa Electric Corporation
2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 Japan

GS 33J60F20-01EN
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5th Edition July 18, 2019 (YK)

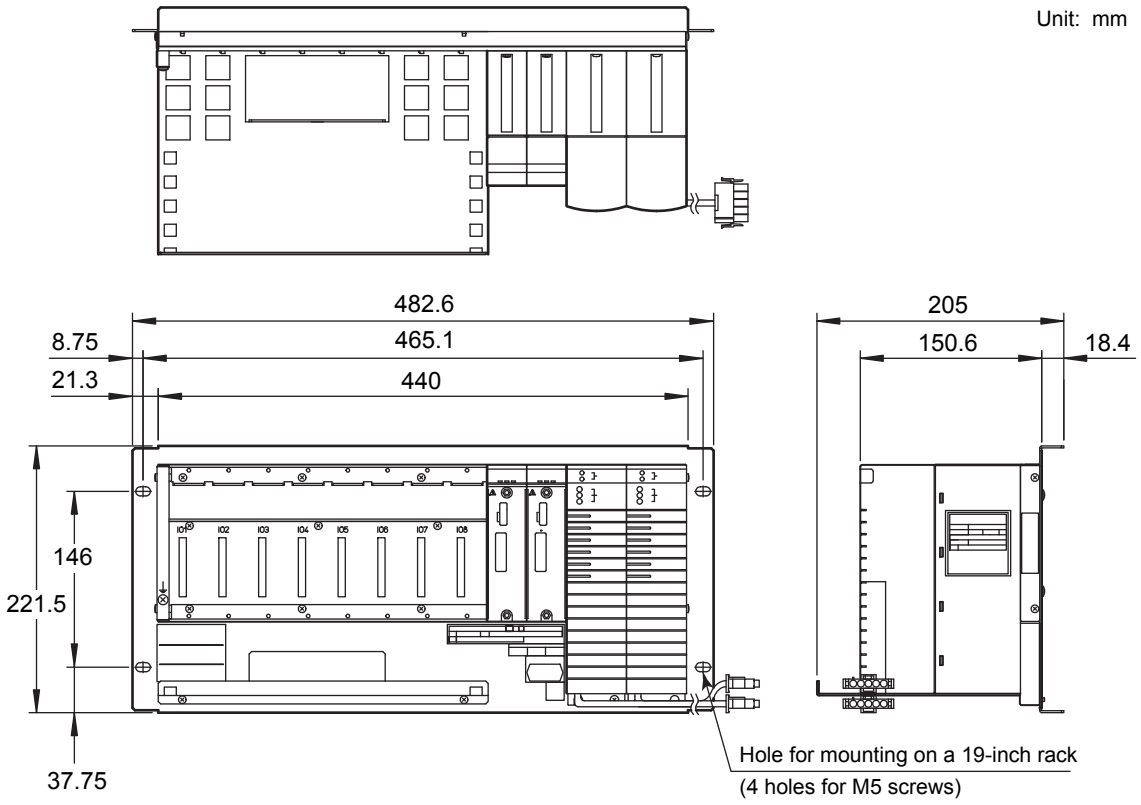
■ LIMITATIONS OF INSTALLATION AND NOTICES FOR INSTALLATION

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

Unit: mm



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 ± 0.8 mm, while its combination of nominal tolerance is ± 1.5 mm.

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

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■ MODELS AND SUFFIX CODES

Node Unit for Single ESB Bus

		Description
Model	ANB10S	Node Unit for Single ESB Bus
Suffix Codes	-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 ºC to 70 ºC) 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 ºC to 70 ºC) option, and explosion protection (*1)
	G	With ISA Standard G3 option and explosion protection
Option Codes	/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
Model	ANB10D	Node Unit for Dual-Redundant ESB Bus
Suffix Codes	-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 ºC to 70 ºC) 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 ºC to 70 ºC) option, and explosion protection (*1)
	G	With ISA Standard G3 option and explosion protection
Option Codes	/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 ºC) 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
Model	ADCV01	Dummy Cover (for I/O Module)
	ADCV02	Dummy Cover (for Power Supply Module)

Insulating Partition

		Description
Part No.	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.

■ TRADEMARKS

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