

# General Specifications

Model EC402  
ESB Bus Coupler Module  
(for N-IO/FIO, 2-Port)



GS 33J60E51-01EN

[Release 6]

## ■ GENERAL

The ESB Bus Coupler Module is a communication module to connect the Field Control Unit and the Node Unit for ESB Bus via the ESB bus.

This module can be installed in the Field Control Unit for FIO (AFV30S, AFV30D, AFV40S, AFV40D, A2FV50S, A2FV50D, A2FV70S, A2FV70D).

By installing two modules in the Field Control Unit for FIO, dual-redundant ESB bus can be configured.

EC402 has two ESB bus connector ports on the front of the module and accommodates a larger number of connected nodes than EC401, so it can offer a longer transmission distance.

## ■ STANDARD SPECIFICATIONS

Function: ESB bus master interface function

Number of connectable units (\*1): Max. 9 units on the upper side, Max. 9 units on the lower side

Transmission speed: 128 Mbps (I/O module data transmission)

Transmission distance: Max. 10 m on the upper side, Max. 10 m on the lower side, total of Max. 20 m

Current consumption: 0.5 A

Weight: Approx. 0.24 kg

\*1: The number of ANB10S, ANB10D, ANT401, ANT411, and ANT421 which can be connected to the upper or lower port is up to 9.

The following connection is possible only when A2FV50S or A2FV50D is used for FCU and star connection is configured with ANT4□1. (Supported by CENTUM VP R6.06 or later.)

Upper side : Max. 12 units, Lower side : Max 12 units

For the maximum number of connectable node units, refer to "Integrated Production Control System CENTUM VP System Overview" (GS 33J01A10-01EN.)

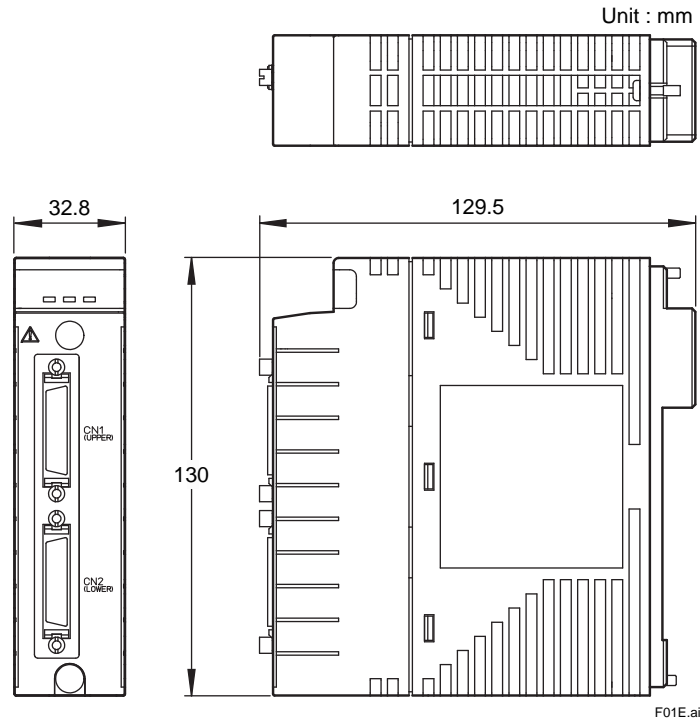
If ESB bus is non- redundant, the ESB Bus Coupler Module needs to be installed in the 7th slot of AFV30S, AFV30D, AFV40S, or AFV40D, A2FV50S, A2FV50D, A2FV70S, A2FV70D, and slot 8th must be covered by a dummy module. And when ESB bus is dual-redundant, the modules need to be installed in both the 7th and 8th slots.

## ■ REQUIREMENTS FOR USING SEM (Sequence of Events Manager)

For using SEM, the hardware requires some conditions.

For details, refer to the GS "SEM Sequence of Events Manager" (GS 33J30D10-01EN).

**EXTERNAL DIMENSION**



**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.

**MODEL AND SUFFIX CODES**

Model		Description
EC402		ESB Bus Coupler Module (for N-IO/FIO, 2-Port)
Suffix Codes	-5	Standard type with no explosion protection
	-E	Standard type with explosion protection
	0	Basic type
	1	With ISA Standard G3 option

**APPLICABLE STANDARDS**

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

**ORDERING INFORMATION**

Specify the model and suffix code(s).

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

**TRADEMARK ACKNOWLEDGMENT**

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