MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

YOKOGAWA

S9342FA

ESB BUS CONNECTOR UNIT

Used with the applicable ProSafe-RS configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: GS 32Q06K10-31E, pp. 1–3

General Specifications

GS 32Q06K10-31E

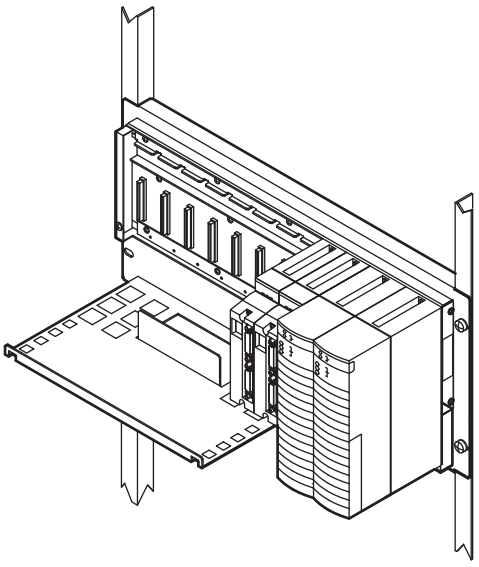
ProSafe-RS
SNB10D
Safety Node Unit (Rack Mountable Type)

■ GENERAL

This GS describes the hardware specifications of the safety node unit (SNB10D). The safety node unit is connected to the safety control unit. The safety node unit has an interface function to transmit analog input signals and contact signals from the field to the safety control unit via an ESB bus. It also has a function to supply power to I/O modules.

The safety node unit is mounted with power supply modules, ESB bus interface modules, optical ESB bus repeater modules, and I/O modules.

For details on the I/O modules, refer to the general specifications (GS 32Q06K30-31E and GS 32Q06K40-31E).


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■ STANDARD SPECIFICATIONS

For the installation environment requirements that are common throughout the system, refer to the general specifications, “ProSafe-RS Safety Instrumented System Overview” (GS 32P01B10-01EN).

- **Safety Integrity Level**

  SIL 3

- **Power Supply Voltage**

  The power supply voltage is specified in the suffix codes.
  Voltage: 100 to 120 V AC and 50/60 Hz frequency
  Voltage: 220 to 240 V AC and 50/60 Hz frequency
  Voltage: 24 V DC

- **Power Consumption**

  100 to 120 V AC specification: 200 VA
  220 to 240 V AC specification: 230 VA
  24 V DC specification: 5.5 A

- **Weight**

  Approx. 5.9 kg

- **Mounting Method**

  Rack mounting: Rack mount with four M5 screws
  Insulation bushes (accessories) are used.

- **Conformity Standards**

  Refer to “Standards Compliant Models” (GS 32P01B60-01EN).

■ CONFIGURATION

- **Module Configuration**

  Power supply module: Supplies power to I/O module (two modules)
  The power supply terminal uses M4 screws.
  ESB bus interface module (SSB401): two modules

■ RESTRICTIONS AND CAUTIONS FOR MOUNTING

Regarding the mounting of I/O modules on the safety node unit, there are restrictions in terms of quantity and slot position. For details, refer to the “■ Node Unit Mounting Restrictions” of “Outline of I/O Modules (for FIO)” (GS 32P06K60-01EN).

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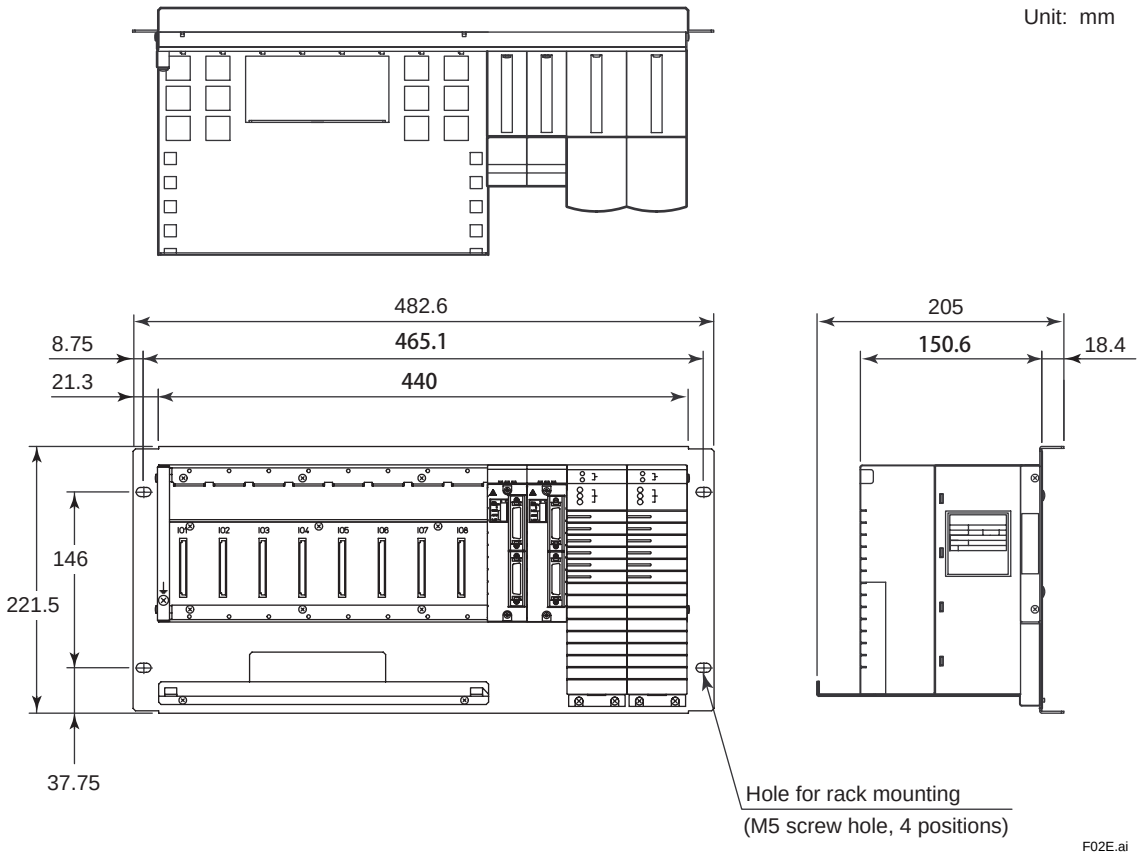
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GS 32Q06K10-31E
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■ EXTERNAL DIMENSIONS

● SNB10D Safety Node Unit

Unit: mm



Nominal tolerances :

Nominal tolerance is ± 0.8 mm for the dimensions of 0.5 mm or more and 120 mm or less, and the combined nominal tolerance is ± 1.5 mm.

The nominal tolerance is in accordance with JEM 1459 for the dimensions over 120 mm.

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■ MODEL AND SUFFIX CODES

Safety node unit

		Description
Model	SNB10D	Safety Node Unit (Rack Mountable Type)
	–4	Dual-redundant power supply (R4.01 or later)
	1	100 to 120 V AC power supply
	2	220 to 240 V AC power supply
	4	24 V DC power supply
	5	ISA Standard G3 and temperature (-20 to 70 ˚C) with no explosion protection
	E	ISA Standard G3 and temperature (-20 to 70 ˚C) with explosion protection
Option Codes	/CU2N	Connector Unit for ESB Bus [Part number: S9342FA]
	/CU2T	Connector Unit with Terminator for ESB Bus [Part number: S9343FA]
	/ATDOC	Explosion Protection Manual

Note: Install the 19-inch rack mountable type devices in a keyed metallic cabinet to conform to the safety standards, the EMC conformity standards and the explosion protection standards.
Note: Please use 1 m or longer YCB301 ESB bus cable to connect SNB10D with a safety control unit .
Note: Select the option code “/ATDOC” to follow the ATEX Directive and UKEX Regulation for use in potentially explosive atmospheres.

Dummy cover

		Description
Model	SDCV01	Dummy cover (for I/O modules)

Note: Be sure to mount a dummy cover on a slot that is not mounted with an I/O module.

■ STANDARD ACCESSORIES

The safety node unit is supplied with the following accessory.

Accessory	Part number	Description	Quantity	Remark
Insulating bushing	S9049PM	SNB10D	4	Accessory

■ ORDERING INFORMATION

Specify the model and suffix codes.
For selecting the right products for explosion protection, please refer to the TI “Explosion Protection” (TI 32S01J30-01E) without fail.

■ TRADEMARK ACKNOWLEDGMENT

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