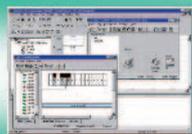# Automation Systems

- Programmable Controllers
- Wiring Systems
- Industrial Communication
- Remote I/O
- Industrial Information Technology
- Machine Management Tools
- HMI
- Software

Advanced Industrial Automation

OMRON

OMRON

Industrial Information Technology

IIT

ITNC-E□□01-DRM/-CST

Open Network Controller

**Access On-site Information via the Web with this Miniature FA Network Controller**

- Supports TCP/IP, Telnet, FTP, Active X packages, HTML, and other standard protocols for information-level data exchange.
- Highly compatible with SYSMAC PLCs and other OMRON products.
- Remote monitoring.
- Optional software to reduce design work.
- Application as a computer unit via high-speed CS1 bus connection between SYSMAC CS1-series PLC and Open Network Controller (ITNC-EIS01-CST and ITNC-EIX01-CST only).
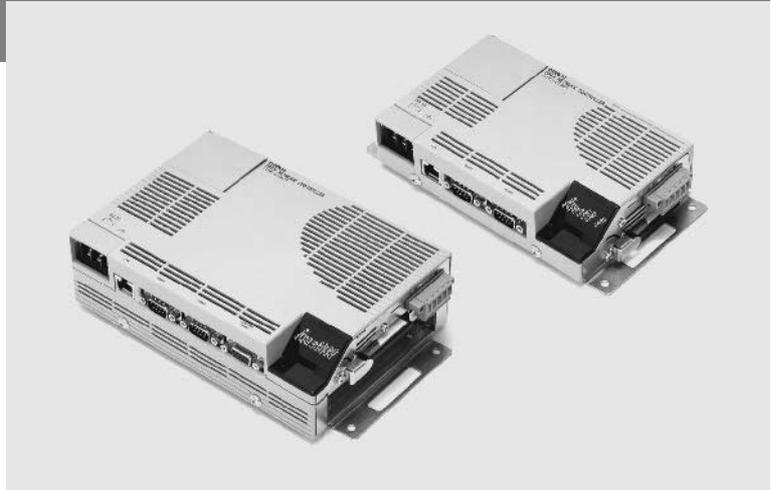
Functions

As a Utility Monitoring System

Utility data, such as power, air, and water consumption, and other types of analog data, are automatically collected from DeviceNet slaves and serial devices at the factory. With the ONC, monitoring and setting can be performed via the Web using a browser.
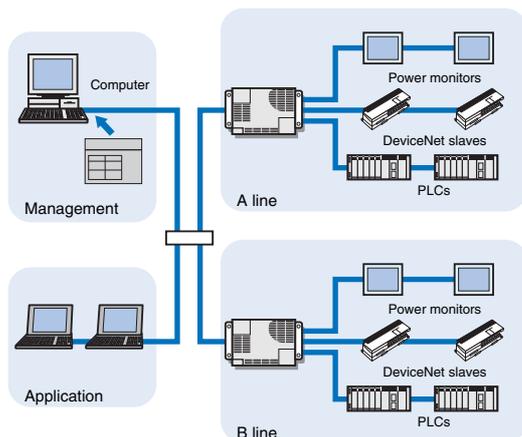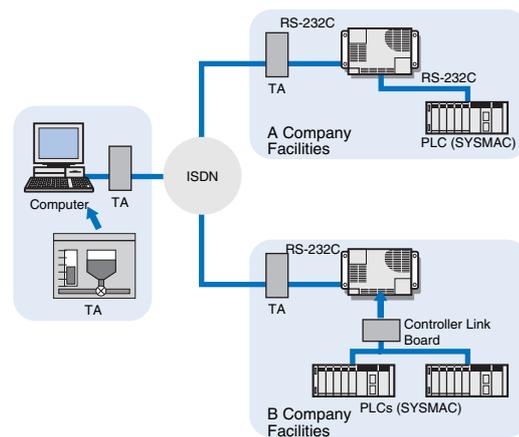
As a Data Collection Controller

The ONC can be used as a gateway for collecting and distributing data from several PLCs connected by Controller Link. The collected data can be monitored via a Web server. Data can also be sent to a host device via, for example, an FTP server, greatly simplifying the creation of applications.

Bringing Ethernet to the FA Production Site

By connecting to devices that only have a serial communications interface, data exhange is now possible via Ethernet. This means that exisiting devices and equipment can be connected via Ethernet (Internet or Intranet).

As an Ethernet-compatible Control Machine

By inserting an OMRON SYSMAC Board, control can be allocated to the Board and data collection, processing, and distribution can be allocated to the ONC. This means significant improvements in control efficiency.

High Reliability in Harsh Factory Environments

This compact body, about the size of a postcard, provides 1.5-kV noise immunity and an operating environment range from 0 to 55°C to support operation in harsh factory environments. Models are also available for DeviceNet or CS1 bus connections.
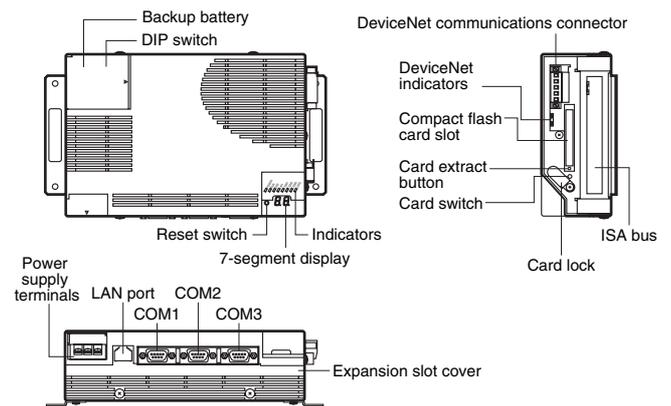
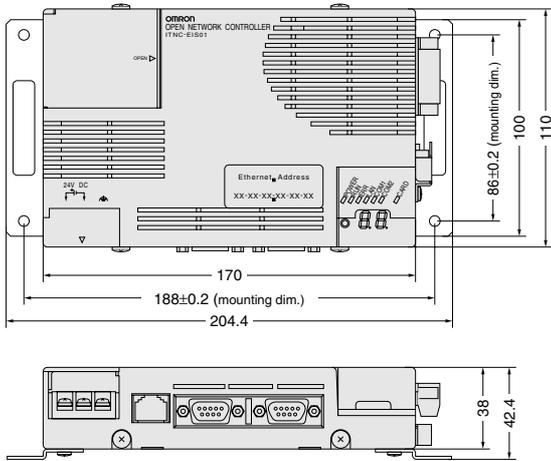• Expandable Controller with DeviceNet support

General Specifications

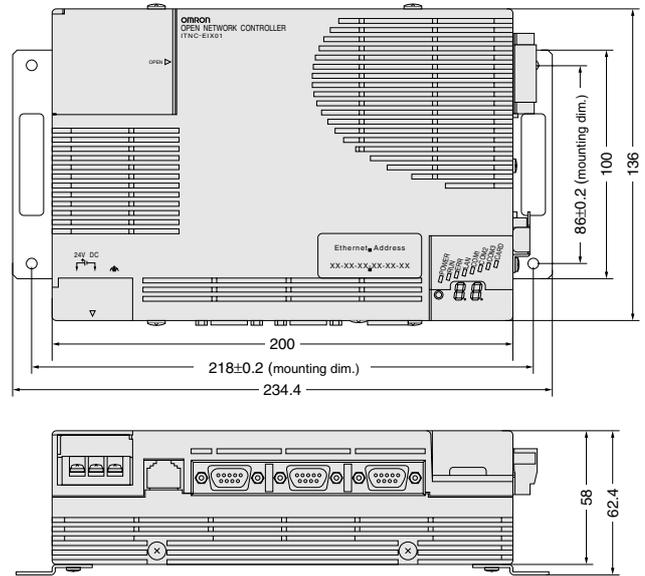| Item		Standard models: ITNC-EIS01 ITNC-EIS01-DRM ITNC-EIS01-CST	Expandable models: ITNC-EPX01 ITNC-EPX01-DRM ITNC-EIX01-CST
Memory		486SX-66 MHz,16 Mbytes	
Disk		Flash disk, 8 Mbytes	
Interfaces	LAN	10Base-T	
	Serial	2 RS-232C ports	2 RS-232C ports
			1 RS-422/485 port
	DeviceNet	Yes (ITNC-EIS01-DRM only)	Yes (ITNC-EIS01-DRM only)
	CS1 bus interface	Yes (ITNC-EIS01-CTS only)	Yes (ITNC-EIS01-CTS only)
ISA bus		None	1 slot (half size)
CF card		1 slot (special compact flash card, 8 to 48 MB)	
Power supply		24 V DC, 15 W max.	24 V DC, 20 W max.
Mounting		Panel mounting	
General specifications	Noise immunity	1.5 kV (p-p) based on OMRON specifications	
	Vibration resistance	Conforms to JIS C0911	
	Shock resistance	Conforms to JIS C0912	
	Ambient operating temperature	0 to 55°C	
	Ambient operating humidity	10% to 90% (with no condensation)	
	Ambient storage temperature	−20 to 75°C (with battery removed)	
OS		QNX (runtime)	
Middleware		FinsGateway QNX (runtime)	
Supported services and drivers		Ethernet: FINS, Telnet, FTP, HTTP, SMTP CLK/SLK: FINS, data link SYSMAC Board: Mail box, data link Serial ports: Host Link, Compoway/F DeviceNet: Data link, explicit message communications	
Setup utility		Java Applet Setup Tool (for basic settings and optional software settings)	

OMRON

Dimensions

Standard Models

ITNC-EIS01
ITNC-EIS01-DRM
ITNC-EIS01-CST

Expandable Models

ITNC-EPX01
ITNC-EPX01-DRM
ITNC-EIX01-CST

Ordering Information

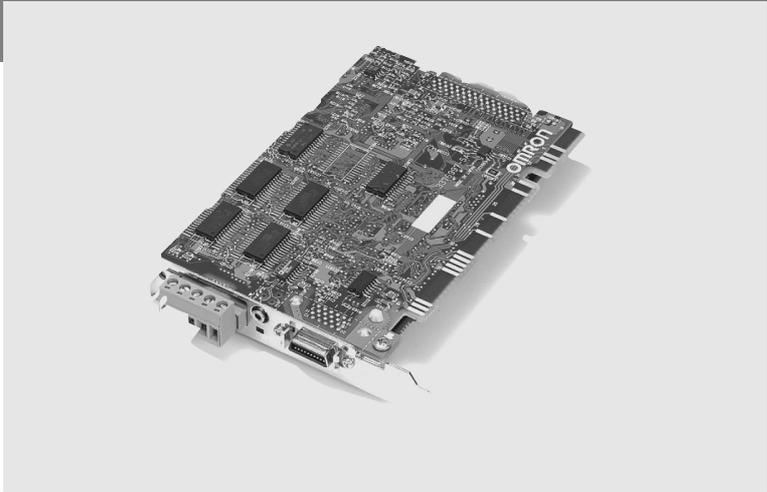| Description	Specifications	Model
Standard model	No expansion slots, two RS-232C ports, no DeviceNet support	ITNC-EIS01
Standard model with DeviceNet	No expansion slots, two RS-232C ports, DeviceNet support	ITNC-EIS01-DRM
Expandable model	Expansion slots, two RS-232C ports and one RS-422/RS-485 port, no DeviceNet support	ITNC-EPX01
Expandable model with DeviceNet	Expansion slots, two RS-232C ports and one RS-422/RS-485 port, DeviceNet support	ITNC-EPX01-DRM
Standard model with CS1 bus Interface	No expansion slots, two RS-232C ports, CS1 bus interface	ITNC-EIS01-CST
Expandable model with CS1 bus Interface	Expansion slots, two RS-232C ports and one RS-422/RS-485 port, CS1 bus interface	ITNC-EIX01-CST
CS1 Bus Interface Cable	Cable length: 1 m	ITBC-CN001-CST
CS1 Bus Interface Cable	Cable length: 5 m	ITBC-CN005-CST
CS1 Bus Interface Cable	Cable length: 12 m	ITBC-CN012-CST
Mounting Bracket for standard model	---	ITNC-AP001
Mounting Bracket for expandable model	---	ITNC-AP002
Mounting Bracket for DIN rail mounting	For both Standard and Expandable models	ITNC-DIN01
Data Collection/Distribution Software Ver. 2.0	Flash Memory (8 MB min.) must be purchased separately.	ITNC-DL1Q-EF
NX-Server for DeviceNet ONC Edition Ver. 1.00	---	ITNC-NS1Q-EF
Third-party PLC Connection Unit Ver. 1.00	---	ITNC-MD1Q-EF
WebToolKit Software Ver. 1.00	Flash Memory (15 MB min.) must be purchased separately.	ITNC-WK1Q-ECD
RemoteKit Software Ver. 1.10	Flash Memory (8 MB min.) must be purchased separately to collect large volumes of data.	ITNC-RK1Q-ECD

Note: 1. The expansion slot is an ISA bus slot into which either a Controller Link Board or a SYSMAC Board can be mounted.

2. DeviceNet connections are not possible for models with CS1 bus interfaces.

C200PC-ISA□3(-DRM/-SRM)
SYSMAC Board

C200HX/HG/HE Sequence Programming and Remote I/O Master Functions

- Connects to an IBM PC/AT or compatible standard ISA bus, contributing to downsizing computer-based systems.
- ISA bus enables faster communications than RS-232C.
- Built-in communications for each distributed remote I/O control through DeviceNet or CompoBus/S slaves.
- Power supply from Backup Power Supply Board for continuous control operation even during power interruptions.
- Mount up to 4 Boards in each computer for distributed control.
- Direct programming through the ISA bus from the CX-Programmer (Version 2.0 or later).

Ordering Information

Name	Specifications	Model	Standards
SYSMAC Board	Equivalent to C200HG-CPU43, Program capacity: 15.2 kWords, Standard Expansion I/O Rack, Up to 2 Backplanes can be added.	C200PC-ISA03	CE
		C200PC-ISA03-DRM	
		C200PC-ISA03-SRM	
	Equivalent to C200HG-CPU64, Program capacity: 31.2 kWords, Standard Expansion I/O Rack, Up to 2 Backplanes can be added.	C200PC-ISA13-DRM	
		C200PC-ISA13-SRM	
Expansion Option Board	Peripheral port and RS-232C port (D-sub 9-pin female) (Cannot be connected to C200PC-ISA03.)	C200PC-EXP01	
Backup Power Supply Board	24-V DC power for up to two SYSMAC Boards. (Cannot be connected to C200PC-ISA01/02/12(-DRM/-SRM).)	C200PC-PD024	
RS-232C Cable for SYSMAC Board	For IBM PC/AT or compatible	ES100-CT023-202	---
Expansion I/O Cable	---	C200PC-CN001	---
SYSMAC Board Driver	Windows 95, 98, or NT 4.0	SDRV-CPC	---

SYSMAC Board Communications Functions

The SYSMAC Boards provide various communications functions, including DeviceNet and CompoBus/S communications.

| SYSMAC Board	DeviceNet	CompoBus/S
C200PC-ISA03	---	---
C200PC-ISA03-DRM	Supported	---
C200PC-ISA03-SRM	---	Supported
C200PC-ISA13-DRM	Supported	---
C200PC-ISA13-SRM	---	Supported

General Specifications

Item	Specifications
Power supply voltage	4.875 to 5.25 V DC
Power consumption	0.5 A max. (0.8 A max. if Programming Console is connected to Expansion Option Board.)
Vibration resistance	JIS C0911, 10 to 57 Hz; 0.075 mm amplitude, 57 to 150 Hz; accel.: 1 G, in X, Y, and Z directions, for 80 min. each
Shock resistance	JIS C0912 conforming, 15 G (147 m/s^2) in X, Y, and Z directions, 3 times each
Ambient temperature	Operating: 0 to 55°C; storage: –20 to 75°C (without battery)
Humidity	10% to 90% (without condensation)
Atmosphere	Must be free of corrosive gases.
Weight	SYSMAC Board: 350 g max., Expansion Option Board: 250 g max., Backup Power Supply Board:250 g max.
Dimensions	SYSMAC Board:106.7 × 163.0 × 16.3 mm (W × H × D) (Depth is height at battery.) Expansion Option Board:106.7 × 128.7 × 13.5 mm (W × H × D) (Depth is height of connector guide.) Backup Power Supply Board:106.7 × 105.9 × 18.6 mm (W × H × D) (Depth is of components on Board.)

ITBC-CST01

CS1 Bus Interface Board

Connect your PLC to a computer with a high-speed CS1 bus for high-speed exchange of control and information-systems data.
- Connect CS1 PLC to computer with high-speed CS1 bus.
- Use the computer as a "Computer Unit" for the CS1 PLC.
- Open Network Controllers also available with CS1 bus interface (see page 628).
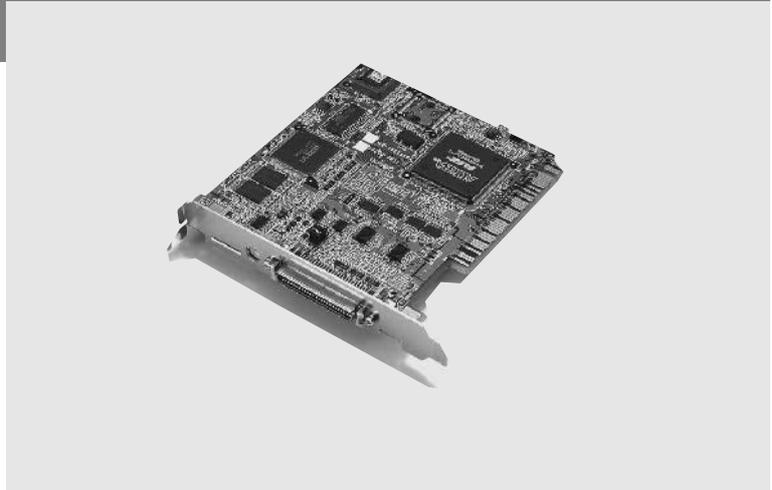
Ordering Information

Name	Model
PCI Board	ITBC-CST01
CS1 Bus Interface Cable, 1 m	ITBC-CN001-CST
CS1 Bus Interface Cable, 5 m	ITBC-CN005-CST
CS1 Bus Interface Cable, 12 m	ITBC-CN012-CST

Note: The ITBC-SC1W-CD Windows Driver for the CS1 Bus Interface Board is provided separately.

Board Specifications

Item	ITBC-CST01
Host interface	PCI bus
CS1 bus interface	50-pin, half-pitch connector
Services from CPU Unit	FINS Message communications using OMRON's FINS protocol. Cyclic Service I/O memory data is exchanged with CPU Unit each cycle. Maximum data capacity: 7,784 words

Connection Method

- A CS1 Bus Interface Cable must be used to connect between the CS1 PLC and the computer. (The same cable is used for the Open Network Controller with a CS1 bus interface.)
- The Interface Cable is connected to the CPU Backplane or the Backplane of the last CS-series Expansion Rack in the PLC. Only one PLC can be connected.
- The length of the Interface Cable must be included when calculating the 12-m limit to PLC Expansion Cable.
- The CS1 Bus Interface Board (or Open Network Controller with a CS1 bus interface) must be counted as one of the Expansion Rack when calculating the 7-Rack limit.

SYSMAC CS1 CPU Rack

CS Expansion Rack

CS Expansion Rack (last Rack)

Computer   CS1 Bus Interface Board