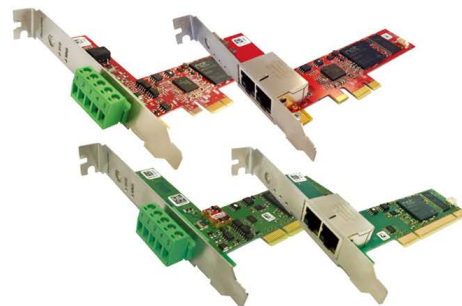


Reliable
& Smart™

NETWORK & I/O PRODUCTS

DS60 & EC60 Series, XIO Series
DNM_PCIx & ECM_PCIx Series



MACHINE I/O

The DS60 Series are distributed I/O products with the de-facto global standard, the DeviceNet specifications. The DS60 Series allow simple configuration of open type control systems that allow easy integration of multiple systems including PC, PLC and HIM devices.

DS60 Series



Base (16 Points)



Base (32 Points)



Expansion

DS60 Series DeviceNet I/O

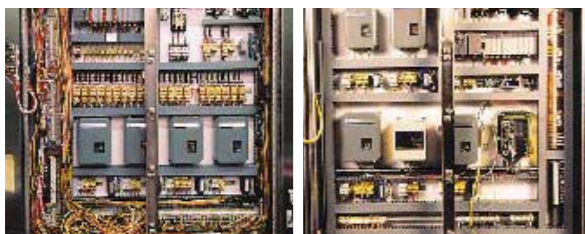
Configure upgraded open type distributed I/O system

- Reduce wirings through single wiring
- Fast and convenient installation and maintenance
- Multiple vendor compatibility that allows wider range of product selection
- Proven reliability through application in semiconductor/FPD equipment

Optimized solution for device control

- Compact size that minimizes installation space requirement
- Flexible expandability up to 64 nodes with maximum of 80 points per node
- Diverse I/O types (DC/AC input, Relay, TR, SSR output and Analog I/O)
- Select between Terminal Block and D-SUB connector
- All products are certified to international specifications (UL508/UL1604, CE)

Excellent self-diagnostic function



Before application

After application

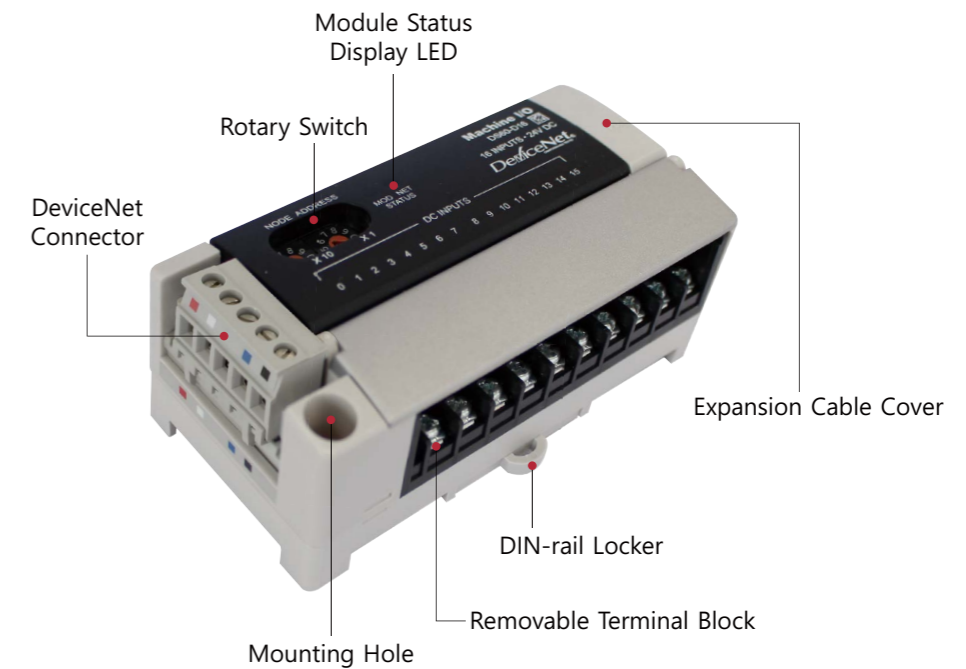
Exceptional wiring reduction

- Wire reduction and simplification
- Distributed panel configuration
- Save installation and commissioning time
- Reduce miswiring and wiring change time

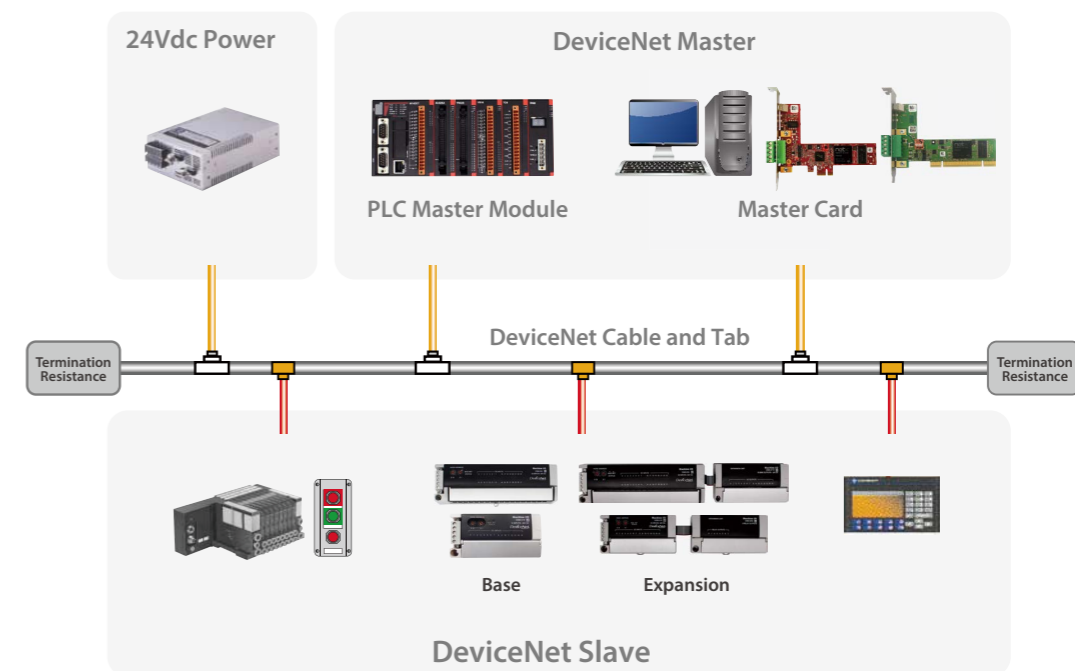
Main applications

- Semiconductor/FPD equipment
- Electronics assembly and inspection equipment
- Conveyor automation line
- Food process machine automation
- Automobiles
- Machine automation devices
- Textile machine

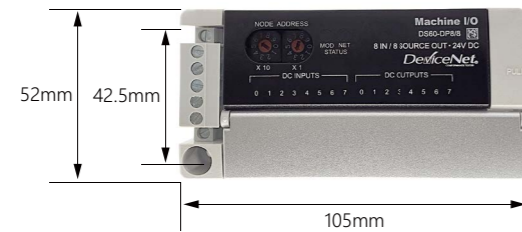
Configurations



Configuration Examples



■ Dimensions



* Mounting Hole Diameter
 Internal : $\Phi 4.2$
 External : $\Phi 7.6$
 * Height : 42.5mm

■ Product List

Catalog	Description
DS60_D32	Base, 24V DC, 32 Universal Input, RTB
DS60_T32	Base, 24V DC, 32 Sinking Output, RTB
DS60_R16	Base, 16 Relay Output, RTB
DS60_DT16/16	Base, 24V DC, 16 Universal Input/16 Sinking Output, RTB
DS60_D16(D)	Base, 24V DC, 16 Universal Input
DS60_T16(D)	Base, 24V DC, 16 Sinking Output
DS60_P16(D)	Base, 24V DC, 16 Sourcing Output
DS60_DT8/8(D)	Base, 24V DC, 8 Universal Input/8 Sinking Output
DS60_DP8/8(D)	Base, 24V DC, 8 Universal Input/8 Sourcing Output
DS60_AVI	Analog Input, 4CH, Voltage
DS60_ACI	Analog Input, 4CH, Current
DS60_AVO	Analog Output, 2CH, Voltage
DS60_ACO	Analog Output, 2CH, Current
DS60_RT4	RTD Input, 4CH
DS60_TC4	Thermocouple Input, 4CH
DS60_ED16(D)	EXP, 24V DC, 16 Universal Input
DS60_ET16(D)	EXP, 24V DC, 16 Sinking Output
DS60_EP16(D)	EXP, 24V DC, 16 Sourcing Output
DS60_ER8(D)	EXP, 8 Relay Output
DS60_EDT8/8(D)	EXP, 24V DC, 8 Universal Input/8 Sinking Output
DS60_EDP8/8	EXP, 24V DC, 8 Universal Input/8 Sourcing Output

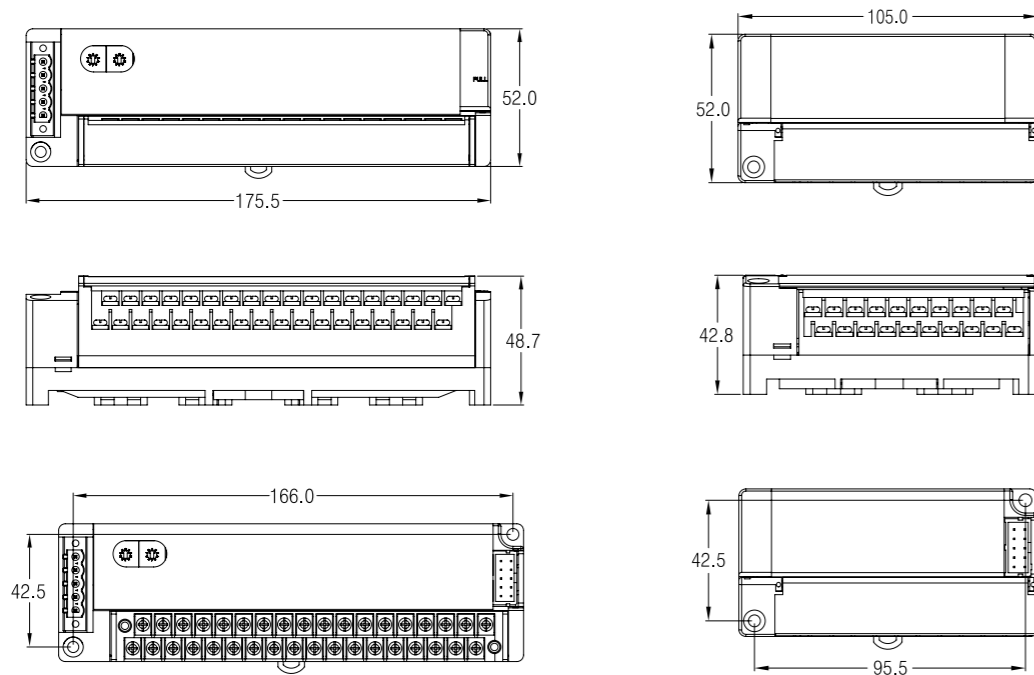
※ (D)D-SUB Type

• 32 Points

- Base
- DS60_D32
- DS60_T32
- DS60_DT16/16
- DS60_R16

• 16 Points

- Base
- DS60_D16(D)
- DS60_T16(D)
- DS60_P16(D)
- DS60_DT8/8(D)
- DS60_DP8/8(D)
- DS60_AVI
- DS60_ACI
- DS60_AVO
- DS60_ACO
- DS60_RT4
- DS60_TC4
- Expansion
- DS60_ED16(D)
- DS60_ET16(D)
- DS60_EP16(D)
- DS60_ER8(D)
- DS60_EDT8/8(D)
- DS60_EDP8/8



MACHINE I/O

The EC60 Series are I/O products which control the EtherCAT. The EC60 Series allow easy configuration of various solutions control of PC, PLC, and Stand-Alone controller.

EC60 Series



EC60 Series EtherCAT I/O

Optimized solution for device control

- Compact size that minimizes installation space requirement
- Flexible I/O configuration with diverse I/O types
- Cost-effective solution
- Various user actions can be set according to the fault
- All products will be certified to international specifications : CE, cMETus*, KC, EtherCAT Conformance Test*, RoHS
- Extended functions(Max. 64 Points)

* Planned

Designed for field work environment

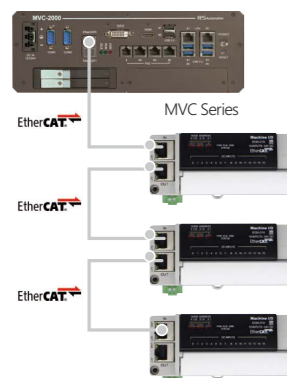
- Din-rail and Panel mounting
- Excellent self-diagnostic function such as status diagnosis of input/output and network
- Easy of Use (Built-in I/O protection circuit, Cabling convenience by removable terminal block)

Main applications

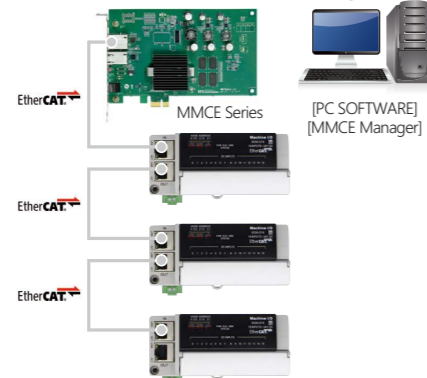
- Semiconductor/FPD equipment
- Electronics assembly and inspection equipment
- Conveyor automation line
- Food processing machine
- Automobiles
- Machine automation devices
- Textile machine

Configuration Examples

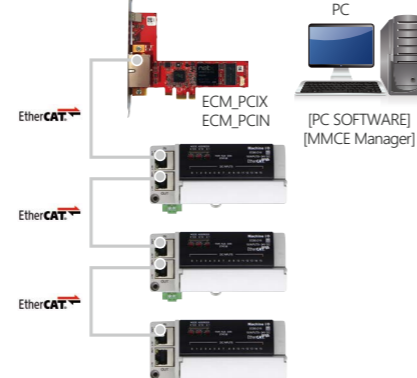
MVC Series



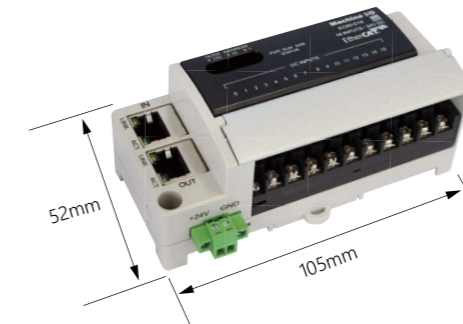
MMCE Series



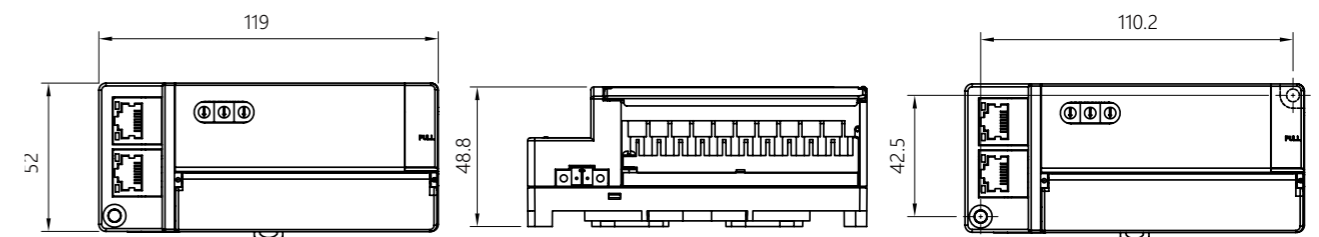
ECM_PCIX Series



Dimensions



- * Mounting Hole Diameter
Internal : $\Phi 4.2$
External : $\Phi 7.6$
- * Height : 42.5mm



Example of Module

Able to expand with 3 expansion modules of DS60 Series (16P+16P+16P).



Product List

Catalog	Description
EC60_D16	Base, 12/24 VDC, Input 16 Points, RTB
EC60_T16	Base, 12/24 VDC, Output 16 Points, RTB
EC60_DT8/8	Base, Combo, 12/24 VDC, Input 8P, TR(NPN) Output 8P, RTB
EC60_AVI8	Base, Analog Voltage Input 8CH, RTB
EC60_AC18	Base, Analog Current Input 8CH, RTB
EC60_RT4	Base, RTD Input 4CH, RTB
EC60_TC4	Base, TC Input 4CH, RTB
EC60_AO4	Base, Analog Voltage/Current Output 4CH, RTB

* Expansion modules of DS60 can be used.

X8 e-CON I/O

*Planned

The X8 e-CON I/O is the I/O products which control the EtherCAT. The X8 e-CON I/O allows easy configuration by adopting the e-CON type connector.

X8 Series e-CON I/O



■ Features

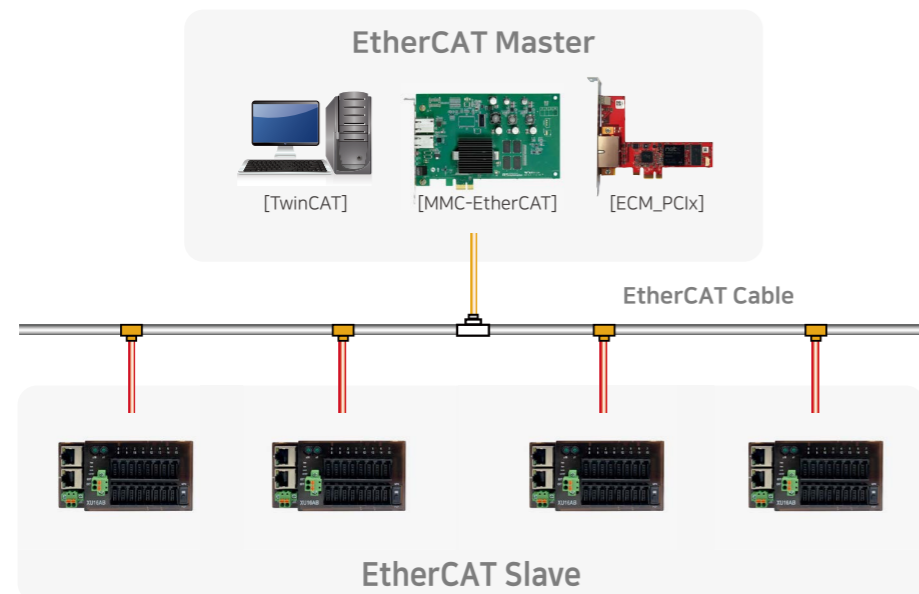
High-speed, Long-distance transfer

- Supports up to 100Mbps, with max 100m of distance between modules
- Conversion time of Analog Input module : 1ms/8CH

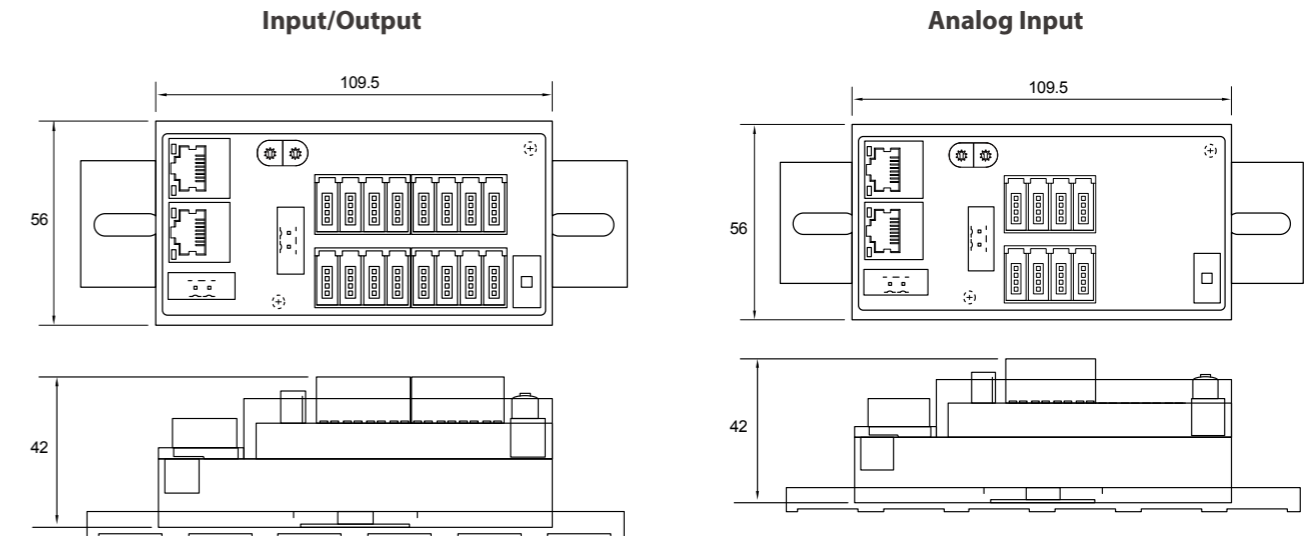
Designed for field work environment

- Adopts e-CON type connector, standard for major semiconductor equipment
- Efficient work with simple wiring
- Compact size that minimize installation space requirement

■ System Configuration



■ Dimensions



Item	Width	Height	Depth
Size(Common)	109.5	56	42

※ Unit : mm

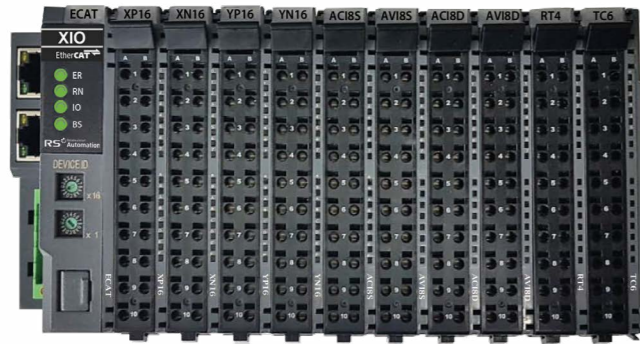
■ Product List

Catalog	Description
X8_XU16AB	Input, NPN/PNP, 16 Points
X8_YN16B	Output, NPN, 16 Points
X8_YP16B	Output, PNP, 16 Points
X8_AI8B	Analog Input, Voltage/Current, 8CH, Conversion time 1ms/8CH
X8_A04B	Analog Output, Voltage/Current, 4CH

NETWORK I/O

XIO series is an I/O system that supports the industry standard Fieldbus Protocol. It consists of the main fieldbus support adaptor and slice type expansion I/O (Discrete/Analog). The minimum mounting area can expand up to 16 units. Self-diagnostics enable quick response to errors.

XIO Series



■ XIO Series Network I/O

High-speed and long-distance transfer

- High-speed data processing(1ms)
- When 16 expansion modules are connected
- Supports up to 100Mbps, with max. 100m of distance between modules
- Scalable using standard CAT.5 or higher Ethernet cable

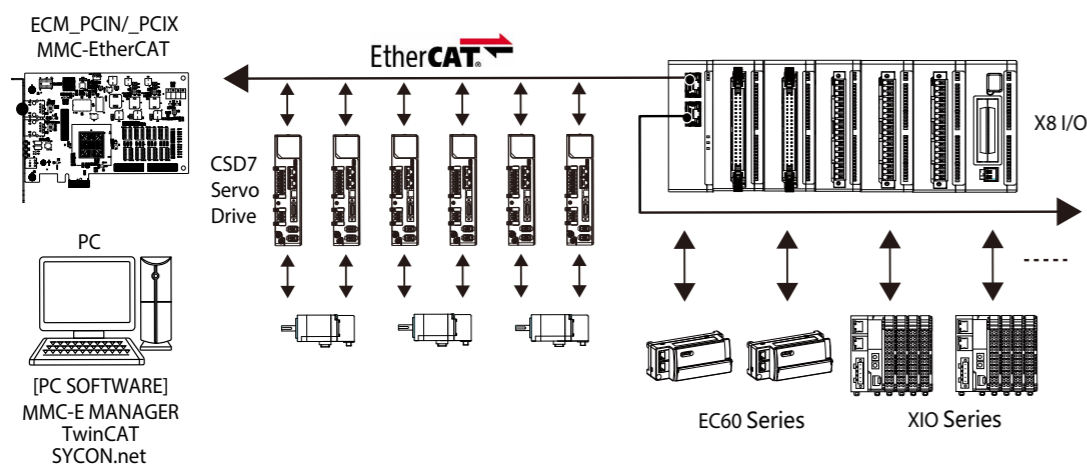
Main applications

- Semiconductor/FPD equipment
- Electronics assembly and inspection equipment
- Conveyor automation line
- Food processing machine
- Machine automation devices
- Automobiles
- Textile machine

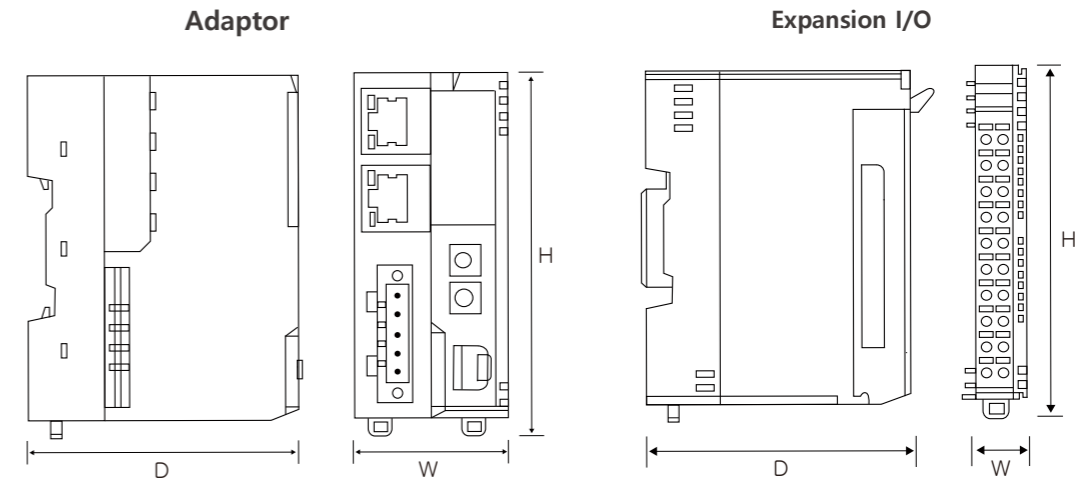
Scalability and low cost

- Slice type Network IO product can reduce the cost by using expansion modules
- 5~10mm(Height) space can be secured compared to other comparable models
- Supports up to 16 modules, regardless of module type

■ System Configuration



■ Dimensions



Items	Width	Height	Depth	Weight	Remark
Adaptor	44	95	71	72g	Unit : mm
Expansion IO	16	95	77	72g	Unit : mm * Depth including TB Height

■ Product List

Catalog	Description
XIO_ECAT	EtherCAT Adaptor
XIO_DNET ^{※2}	DeviceNet Adaptor
XIO_MTCP ^{※2}	Modbus TCP/IP Adaptor
XIO_XN16	12/24VDC, 16 Points, Sink(NPN Type Sensor Input)
XIO_XP16	12/24VDC, 16 Points, Source(PNP Type Sensor Input)
XIO_YN16	12/24VDC, 16 Points, Sink (NPN Type Output)
XIO_YP16	12/24VDC, 16 Points, Source (PNP Type Output)
XIO_ACI8S	Analog Current Input(0/4~20mA), 8CH, 16bits, Single Ended
XIO_AVI8S	Analog Voltage Input(±5V, ±10V), 8CH, 16bits, Single Ended
XIO_ACI8D	Analog Current Input(0/4~20mA), 8CH, 16bits, Differential
XIO_AVI8D	Analog Voltage Input(±5V, ±10V), 8CH, 16bits, Differential
XIO_RT4	RTD Input, 4CH, 16bits, 4-wires
XIO_TC6	TC Input, 6CH, 16bits, External CJC Sensor
XIO_AO4	Analog Voltage/Current Output, 4CH, 16bits, Single Ended

※1 Specifications and the model name of this product can be changed without prior notice in order to improve the product performance.
 ※2 Planned

X8 EtherCAT I/O

*Planned

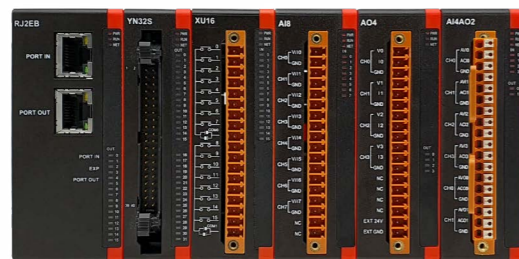
It is an I/O product adopting the EtherCAT network, an international industrial standard network, based on the market verification of the X8 Series.

X8 Series

Mill Type



Plug/Eject Header Type



Features

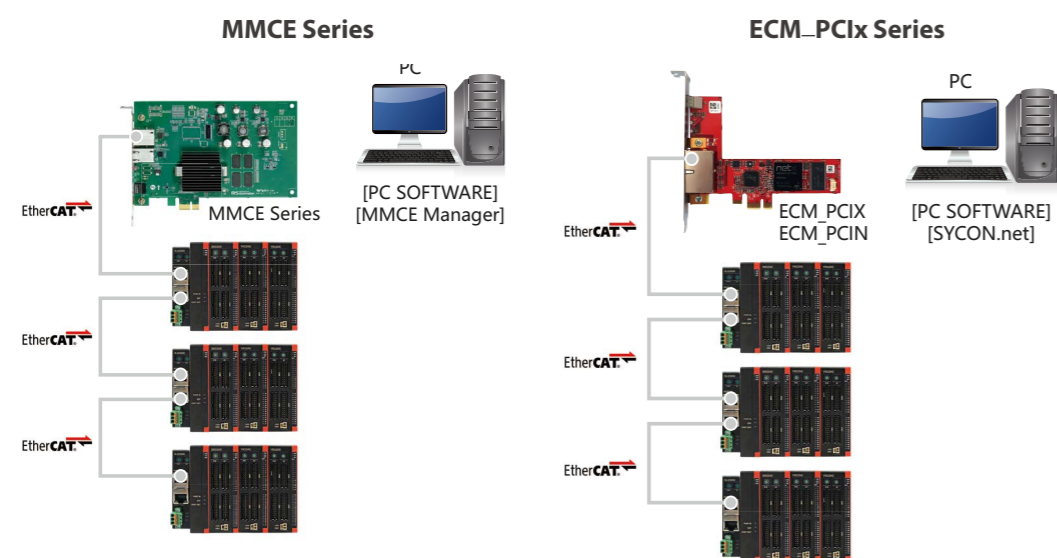
Solutions optimized for equipment control

- Compact size that minimizes installation space requirement
- Able to expand with max. 12 modules(Digital)
- Cost-effective solution

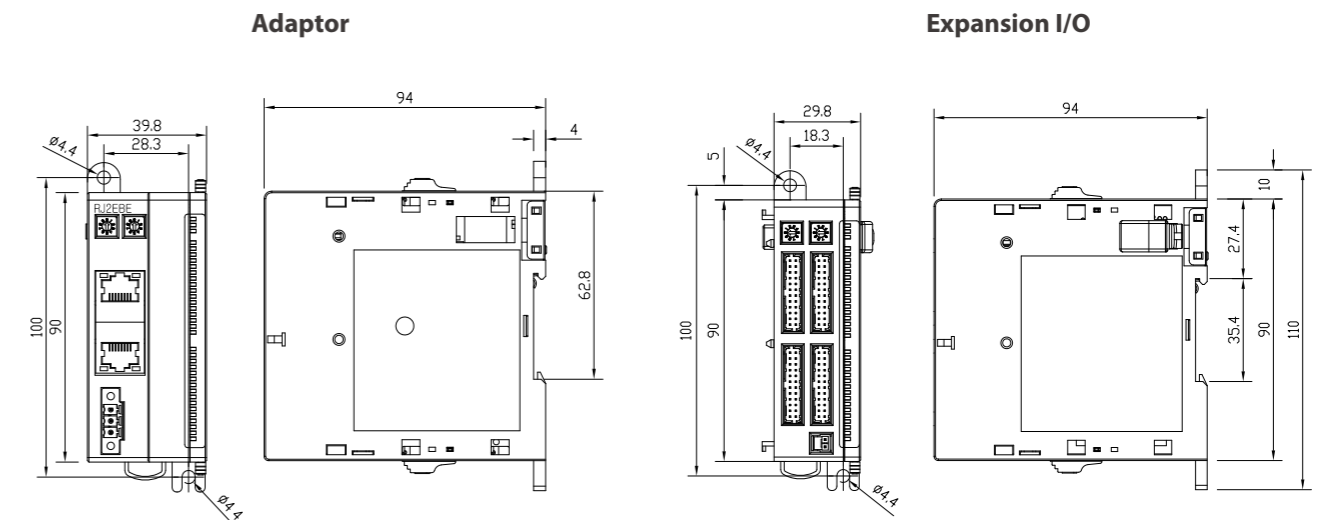
Designed for the fitted Field Work Environment

- DIN-rail and Panel Mounting
- Provides efficient numbers of point compared to the space
- Efficient location of parts for work environment

Configuration Example



Dimensions



Product List

Mill Type

Catalog	Description
X8_RJ2EBE	EtherCAT Adaptor
X8_XN32AE	EXP, Discrete Input(NPN), 32 Points
X8_YN32E	EXP, Discrete Output(NPN), 32 Points
X8_AI8E	EXP, Analog Input(Voltage/Current) 8 Points, Conversion time 1ms/8CH

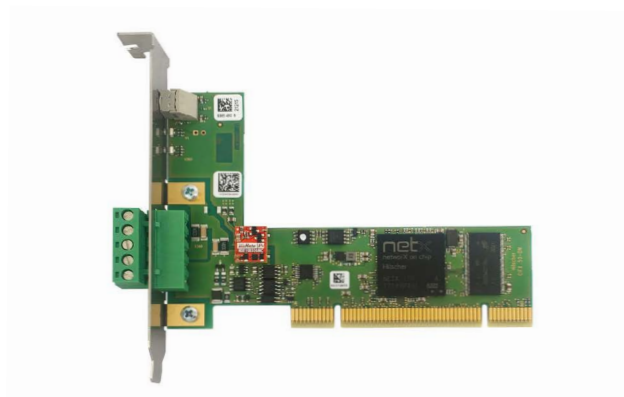
Plug/Eject Header Type

Catalog	Description
X8_RJ2EB	EtherCAT Adaptor
X8_XU16	EXP, Discrete Input(NPN/PNP), Plug Type, 16 Points
X8_XU16SA	EXP, Discrete Input(NPN/PNP), Slim, Plug Type, 16 Points
X8_YR16	EXP, Discrete Relay Output, Plug Type, 16 Points
X8_YN16	EXP, Discrete TR Output(NPN), Plug Type, 16 Points
X8-YN16S	EXP, Discrete TR Output(NPN), Slim, Plug Type, 16 Points
X8_XU32	EXP, Discrete Input(NPN/PNP), Eject Header, 32 Points
X8_XU32SA	EXP, Discrete Input(NPN/PNP), Slim, Eject Header, 32 Points
X8_YN32	EXP, Discrete TR Output(NPN), Eject Header, 32 Points
X8_YN32S	EXP, Discrete TR Output(NPN), Slim, Eject Header, 32 Points
X8_AI8EN	EXP, Analog Input(Voltage/Current) 8 Points, CoE
X8_AO4EN	EXP, Analog Output(Voltage/Current) 4 Points, CoE
X8_AI4AO2EN	EXP, Analog Input 4CH, Output 2CH, Voltage/Current, CoE

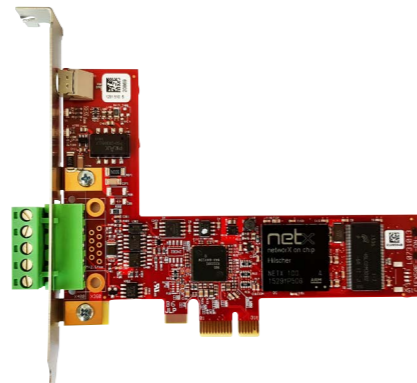
MASTER CARD

DeviceNet Master Card, DNM-PCIx Series make it easier to control the network equipment.

DNM_PCIX Series



DNM_PCIN : PCI Type



DNM_PCIX : PCI Express Type

■ Features of DNM_PCIX Series

Makes it easier to connect to DeviceNet by using DeviceNet Master Card, DNM-PCIx Series scanner card. Configuration Tool which is included on this card, can easily configure network via Network Auto Scanning, Scanlist Download, Explicit Messaging, Network configuration, Various I/O Tests and check the information of CIP/DeviceNet Object.

Easily implement IO control messages and explicit messages via API functions in programming languages such as Visual Basic and C++.

■ Specifications of DNM-PCIX Series

- Small Size PCI "Short" card
- Interface via Standard API (VC++, VC#, VB..etc.)
- Provide Free Network Configuration Software (SYCON.net for DNM_PCIX)
- CE, KC certificated

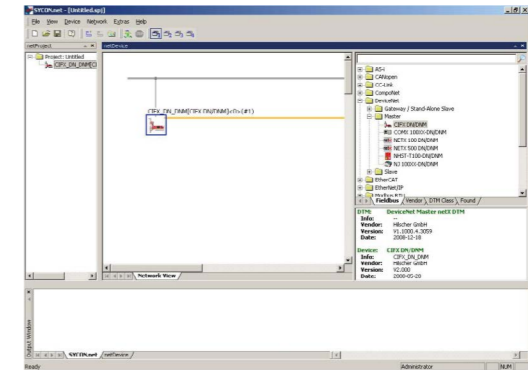
■ Support various control methods via DeviceNet

- Provide the Peer-to-Peer Explicit Messaging
- Support the standard velocity of DeviceNet
 - 125Kbps / 500m
 - 250Kbps / 250m
 - 500Kbps / 100m
- Provide the variable messaging mode for Efficient Data Exchange
 - Change-of-state (COS)
 - Cyclic
 - Polling
 - Bit/Strobe



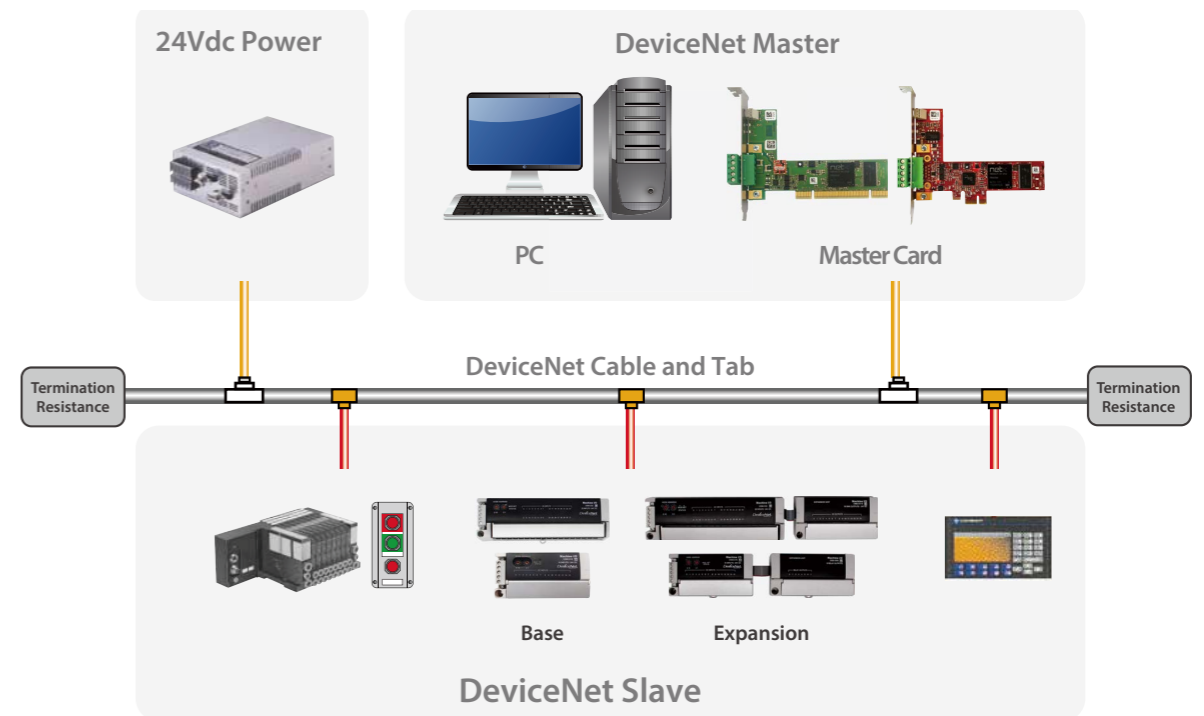
SYCON.net for DeviceNet Configuration

SYCON.net is the software for DNM_PCIX series cards configuration. It supports basic functions such as Auto Network Scanning, Scanlist Download and Explicit Message, etc.



- Free Software
- Auto Network Scanning
- Scanlist Download
- Explicit Message

■ Configuration Examples

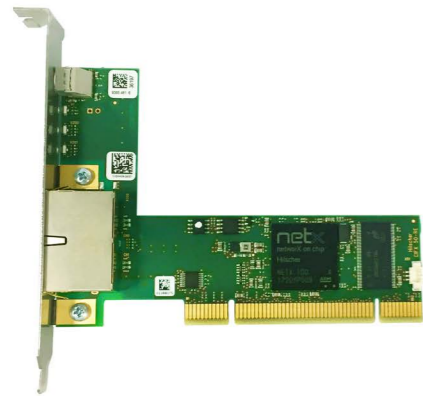


More product information can be found on our website.
<http://www.rsautomation.co.kr>

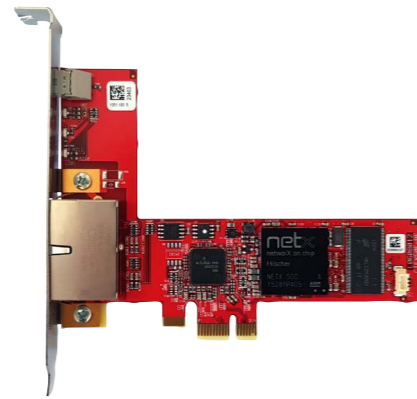
MASTER CARD

EtherCAT Master Card, ECM-PCIx Series make it easier to control the network equipment.

ECM-PCIx Series



ECM-PCIN : PCI Type



ECM-PCIX : PCI Express Type

■ Features of ECM-PCIx Series

EtherCAT network control can be easily configured by using EtherCAT Master Card, ECM-PCIx Series scanner card. Using SYCON.net(Configuration Tool), can check network information and control such as network setting and test through Network Auto Scanning function.

Moreover, possible of PDO, SDO control through given API in programming language such as Visual Basic C# and C++

■ Specifications of ECM-PCIx Series

- Small Size PCI "Short" card
- Interface via Standard API (VC++, VC#, VB..etc.)
- Provide Free Network Configuration Software (SYCON.net)
- CE, KC certificated

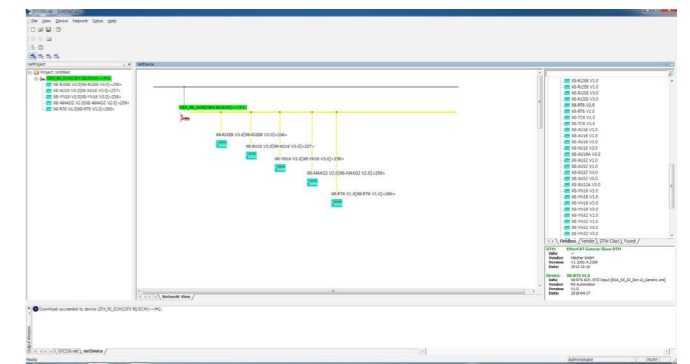
■ Support various control methods via EtherCAT

- EtherCAT Self-diagnostic function
 - Possible to check the basic information of Master Card
 - Possible to check status of Device and Network
 - Possible to check error occurrence and error code
 - Send PDO, SDO and status of slave modules
- Manual setting of data size for effective data utilization



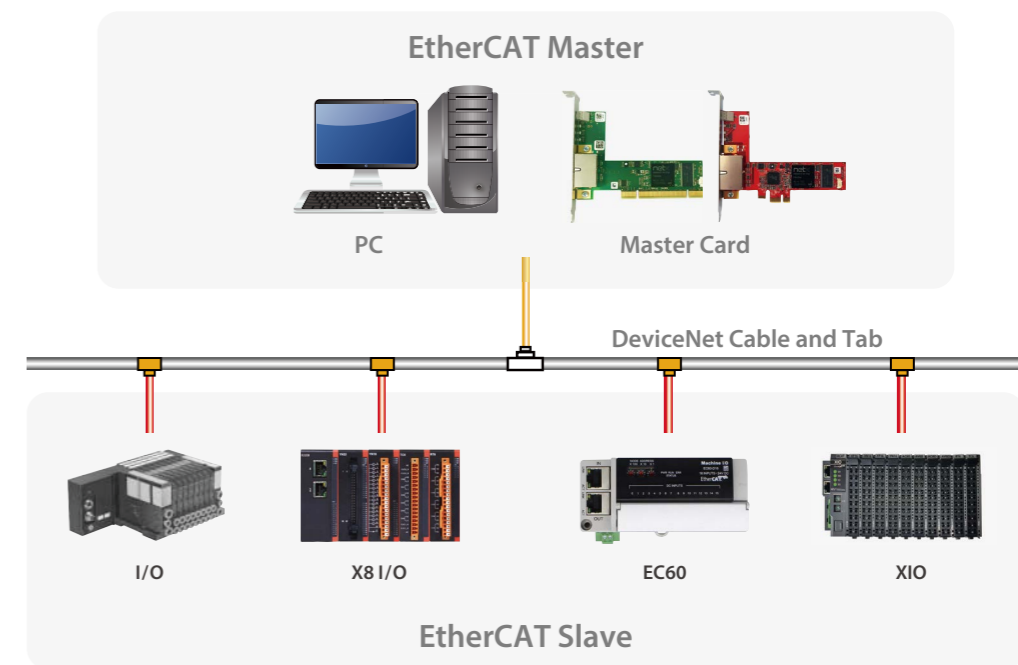
SYCON.net for EtherCAT Configuration

SYCON.net is the software for ECM-PCIx series cards configuration. It supports basic functions such as Auto Network Scanning, ENI File Download and PDO, SDO Control, etc.



- Free Software
- Small / Compact Size
- Microsoft.Net Framework Based
- Auto Network Scanning
- ENI File Download
- PDO, SDO Control
- XML File Viewer / Register / Unregister

■ Configuration Examples



More product information can be found on our website.
<http://www.rsautomation.co.kr>

Memo

Memo

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