General Specifications

F3LD01-0N
DeviceNet Scanner Module

FA-M3

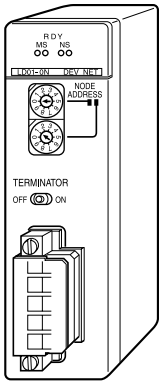
GS 34M6H28-01E

General

The F3LD01-0N DeviceNet Scanner Module is an interface module that connects an FA-M3 system to DeviceNet. The module supports the DeviceNet's master function and controls a wide variety of field devices in a multi-vendor environment, from sensors and actuators to sophisticated devices.*

- It can control a maximum of 16,000 points (1000 words) of I/O data.
- It is provided with a message communications function.

*: DeviceNet is a registered trademark of Open DeviceNet Vendor Association, Inc. (ODVA). The copyright to the software installed on this module is held by S-S Technologies Inc. (SST).



Functions

DeviceNet Support Functions

DeviceNet Function			
Device type: Communications adapter		Master/scanner	Y
Explicit peer-to-peer message	Y	I/O slave message	
I/O peer-to-peer message	N	• Bit Strobe	Y
Configuration consistency value	N	• Polling	Y
Fault node recovery	N	• Cyclic	N
Baud rate: 125, 250, 500 Kbps		• Change of State (COS)	N

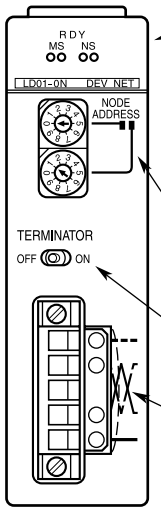
Specifications

Item	Specification				
Interface	Conforms to DeviceNet.				
Transmission speed	125, 250 or 500 Kbps (switch selectable)				
Transmission media	5 dedicated lines (2 signal, 1 shielded and 2 power lines)				
Transmission distance	Trans-mission speed	Maximum trunk line cable length		Branch line length	
		Using only thick cables	Using only thin cables	Maximum length	Total distance
	125 Kbps	500 m	100 m	6 m	156 m
	250 Kbps	250 m			78 m
	500 Kbps	100 m			39 m
Connection configuration	Multidrop or T-branch system				
Number of nodes	64 (including master)				
Error detection	CRC error, duplicate node number check, device list matching				
Network power supply	Voltage: 11-25 V DC, Current consumption: 40 mA max. (24 V DC) (supplied via a DeviceNet connector)				
Termination resistance	121 Ω (specified by a built-in switch when the line is terminated)				
Number of I/O points	Input: 8000, Output: 8000, Total: 16,000 (1000 words)				
Maximum message length	Send: 84 bytes, Receive: 88 bytes (service data)				
Number of modules	16 max.				
Current consumption	200 mA				
External dimensions	28.9 (W) × 100 (H) × 83.2 (D) mm*				
Weight	110 g				

*: Excluding protrusions (see external dimensions for details).

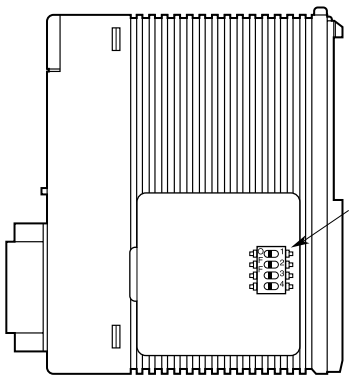
Components and Functions Front View

■ Front View



Indicators
RDY:
Lit when the internal circuit is functioning normally.
MS :
Indicates the state of the module. Lit in green when the module is functioning normally.
NS :
Indicates the state of the network. Lit in green when the module is communicating with the network normally.
Node address switches:
Sets a node address (00 to 63). The factory setting is 00.
Terminator switch
Used when the module serves as a terminating device.
DeviceNet connector
Connects to a network cable.

■ Right Side View



Operation mode switches
SW1, SW2: Transmission speed
SW3, SW4: Reserved by the system.
The factory settings are all OFF.

Note: This figure is drawn with the panel cover removed.

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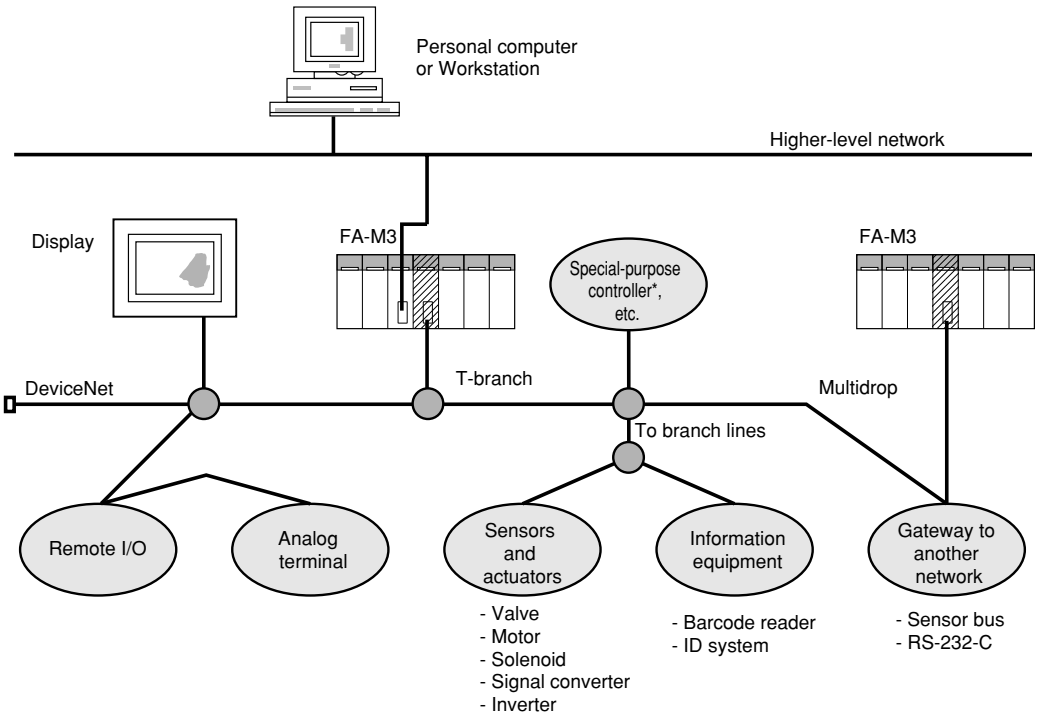
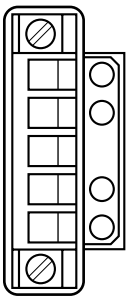
System Configuration Example



*: Mass flow controller temperature controller and robot controller. etc.

External Connection Diagram

■ Connector Specifications



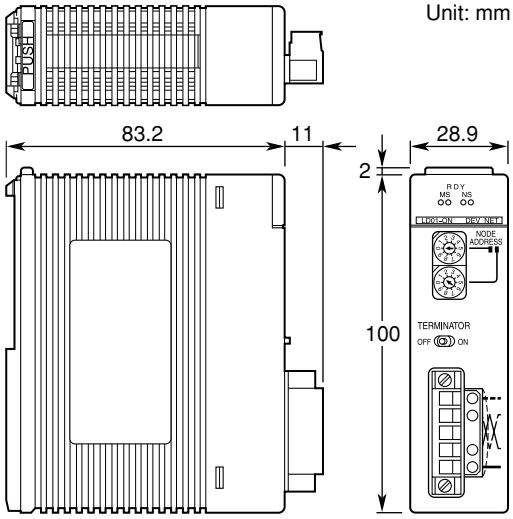
V–	(Black)
CAN_L	(Blue)
Shield	
CAN_H	(White)
V+	(Red)

Operating Environment

There is no restriction on the type of CPU modules that can be used with this module.

External Dimensions

Unit: mm



Model and Suffix Codes

Model	Suffix Code	Style Code	Option Code	Description
F3LD01	-0N	· · · · · · ·	· · · · · · ·	DeviceNet, 1port