

# General Specifications

## F3LD01-0N DeviceNet Scanner Module

FA-M3

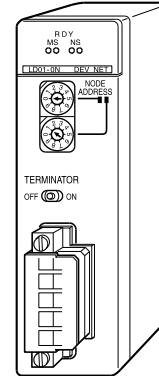
GS 34M06H28-01E

### 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       | I/O slave message     | Y |
| I/O peer-to-peer message            | Bit Strobe            | Y |
| Configuration consistency value     | Polling               | Y |
| Fault node recovery                 | Cyclic                | N |
| Baud rate: 125, 250, 500 Kbps       | Change of State (COS) | N |

### Specifications

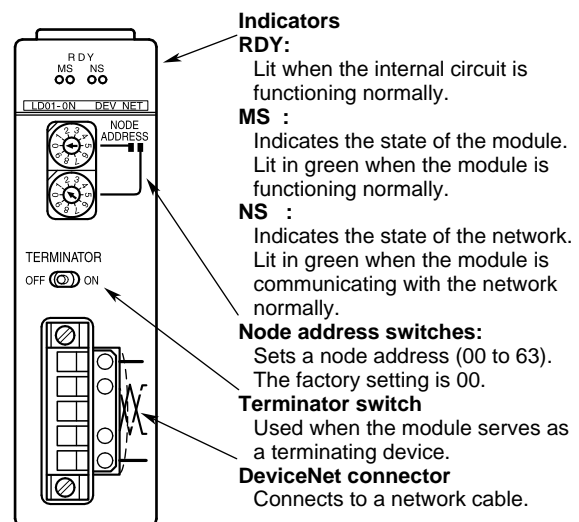
| Item                                       | Specification   |                                    |                           |                   |                   |
|--|---|------------------------------------|---------------------------|-------------------|-------------------|
| <b>Interface</b>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

\*1: Excluding protrusions (see external dimensions for details).

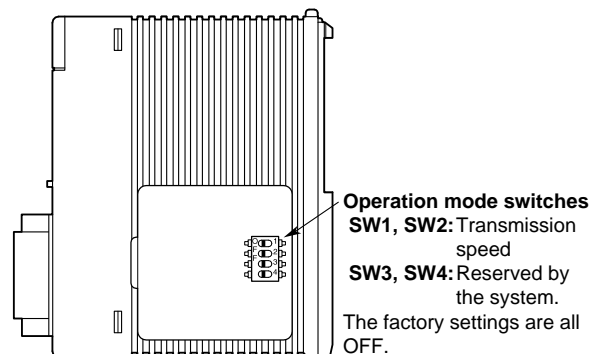
\*2: To comply with the standard, the outdoor cable shall be less than 10 m, the indoor cable shall be less than 30 m.

### Components and Functions Front View

#### ■ Front view

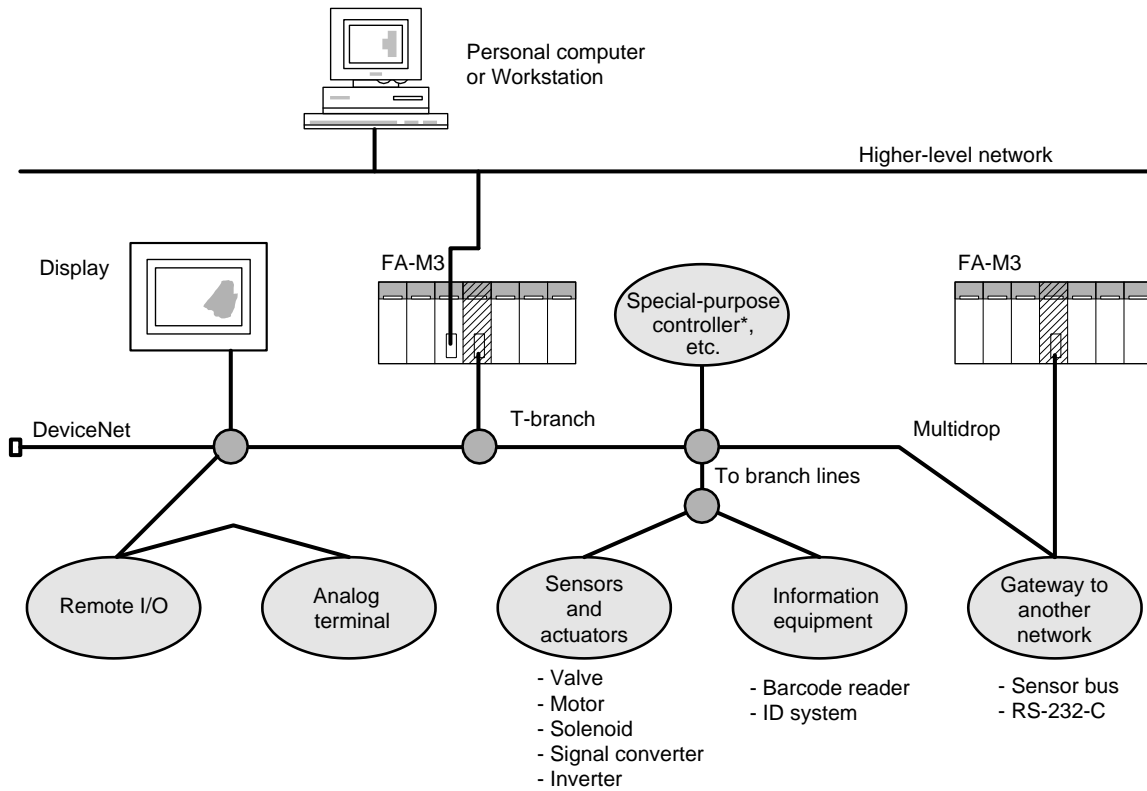


#### ■ Right side view



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

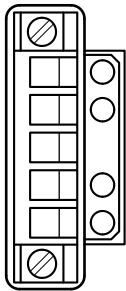
### System Configuration Example



\*: 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.

### Model and Suffix Codes

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

### External Dimensions

