

General Specifications

FieldMate
Versatile Device Management Wizard

FieldMate™ R2.01

GS 01R01A01-01E

1. Features

FieldMate is available in a **<Basic>** and an **<Advance>** version with differentiated features provided.

FieldMate Basic is mainly used for the field device setting and adjustment, which must be connected for all activity.

FieldMate Advance adds off line database function for up to 300 devices which maintains a complete record for all device configuration and maintenance activity.

FieldMate is a PC based configuration tool that performs numerous tasks, including initial setup, daily maintenance, troubleshooting, and configuration back-up for device replacement. These tasks are streamlined by FieldMate's intuitive operation and integrated environment, which is independent from communication protocols and device vendors.

FieldMate incorporates the open FDT/DTM standard and is compliant with DTMs per the FDT 1.2 standard. Additionally, FieldMate supports both HART and FOUNDATION fieldbus H1 devices using the existing Device Description (DD), for devices that do not have DTMs available.

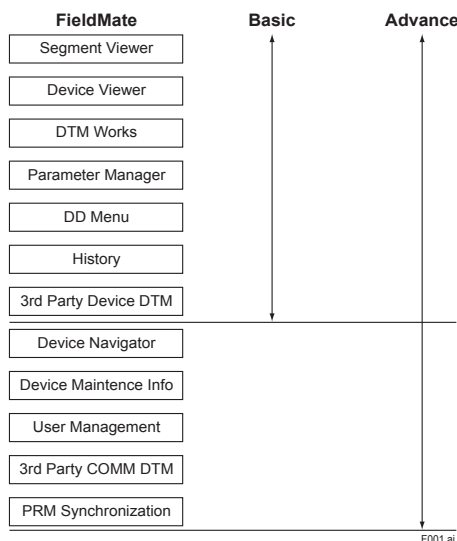
*FDT: (Field Device Tool) defines the system environment in which the DTM runs.

*DTM: (Device Type Manager) is the application which defines the Graphical User Interface (GUI) specific to the device.

The FDT frame is an integral part of FieldMate. Many DTM's are included with the FieldMate application, and additional DTM's are available from most field device vendors.

2. Functional Details

The following columns identify the features available in both the Basic version and the Advanced version.



■ Communication Function

FieldMate supports the following communication protocols:

- **BRAIN**
- **FOUNDATION™ fieldbus H1**
- **HART**
- **PROFIBUS**

■ Device Interface Function

Segment Viewer: BRAIN, FOUNDATION fieldbus H1, HART, PROFIBUS

Displays a list of devices currently connected on the communication lines, grouped by protocol.

Basic device specific information is displayed depending on protocol (Device ID, Manufacturer ID, address, Device type, Device revision, and status)

Device Viewer: FOUNDATION fieldbus H1, HART

Displays the current status of the field device, including errors, warnings, good status. The status display icon (red, yellow, green) clearly indicates the device's self-diagnostic status.

■ Configuration Function

Device parameters can be easily configured.

● DTM Works: BRAIN, FOUNDATION fieldbus H1, HART, PROFIBUS

The DTM Works provides not only configuration, but easy setup, calibration, simulation wizards etc. as defined by the device vendors' DTM.

● Parameter Manager: FOUNDATION fieldbus H1, HART

The Parameter Manager is a simple parameter viewing window, in which adjustment and field device replacement can easily be performed. Configuration files may be imported/exported from/to the device easily, and stored on the PC for future needs.

● DD Menu: FOUNDATION fieldbus H1

The existing fieldbus DD is utilized to enable function block configuration.

■ History Function

Logs of operations are automatically recorded.

- 1) Date & Time
- 2) Device Tag
- 3) Device ID
- 4) User
- 5) Source: DTM works, DD Menu, Parameter Manager, etc.
- 6) Category: Configuration (device parameter change) and System (logs of login, etc.).
- 7) Message: Details log of changes

■ 3rd Party DTM Function

This function provides device interface in compliance with FDT 1.2, enabling the features defined by the device vendor's DTM.

<Advance only>

■ **Device Interface Function**● **Device Navigator**

Shows all registered devices.

Provide a searching function by tag, device name, memo, etc.

Online registration and offline registration can directly be implemented from Segment Viewer/Device Navigator

Marking it with flags to remind users of outstanding issues etc., simplifying daily maintenance.

■ **Database Function**● **Device Maintenance Info.**

Provides advanced maintenance information consisting of:

- Device Information
- User memo
- Document link
- History
- Parameter
- DTM data

All information can be exported / imported, and can be saved as a "Device Template".

- Parameter Manager

- DTM works

Parameters may be loaded from or saved to the offline database.

■ **User management**

Provides simple security and activity logging by allowing users to be defined by a user name and password. The user ID is incorporated as part of the device maintenance history.

■ **3rd Party COMM DTM support**

Provides advanced connections and communication networking enabling:

- Access PROFIBUS-PA/DP devices

- Access HART devices via PROFIBUS

- Access 3rd Party multiplexers.

User defined communication topology can be saved in FDT project.

● **PRM (Plant Resource Manager) Synchronization**

Synchronize information between FieldMate and PRM, to make best use of PRM as a master data base. Bi-directional file transfer operation is supported.

3. System Requirements

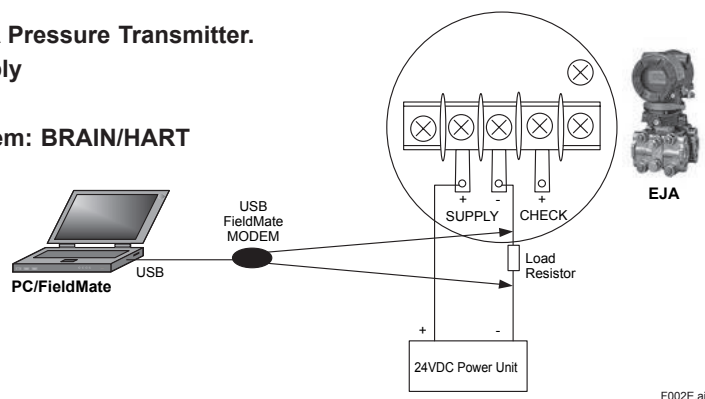
| Software Operating Environment | | |
|--------------------------------|---|--|
| OS | <ul style="list-style-type: none">● Windows Vista business 32bit SP1 or later/ Home premium 32bit SP1 or later (English)● Windows XP Professional 32bit SP3 or later (English) | |
| Hardware Operating Environment | | |
| | Windows Vista | Windows XP |
| PC | IBM PC/AT Compatible | |
| CPU | Intel® Core™2 Duo T7100 or same specification CPU | Pentium III 1 GHz or faster (Pentium 4, 1GHz or faster recommended) |
| Main Memory | 1GB or more (2GB recommended) | 1GB or more |
| Hard Disk Drive | 8GB or more (minimum free space:1GB) | |
| CD-ROM Drive | Windows Vista compatible | Windows XP compatible |
| Display | 1024×768 or better resolution recommended 16bit colors or better | |
| Network port | | |
| BRAIN HART | Interface | One USB port USB2.0 standard |
| | Modem | USB FieldMate Modem: BRAIN/HART(Yokogawa Option) USB HART Modem (Yokogawa Option) |
| FOUNDATION fieldbus H1 | Interface | One PCMCIA card slot |
| | Interface board | FBUS Series 2 (National Instruments) FBUS, FBUS Series 2 (National Instruments) |
| | Driver | NI-FBUS Communication Manager 3.2.1 or later NI-FBUS Communication Manager 3.0 or later |
| PROFIBUS | Interface | One USB port USB2.0 standard |
| | Interface card &COMM DTM | PROFibus and PROFIdtm (Softing) PROFIdtm DPV1 V2.03 or later |
| | DP/PA coupler | KFD2-BR-A.PA.93 (Pepperl&Fuchs) 6ES7 157-0AC80-0XA (SIEMENS) |
| Login | | |
| Account | Administrator privilege | |

4. Connection Example (for reference)

Sample BRAIN or HART configuration, connecting a pressure transmitter.

Required Components

- BRAIN or HART EJA Pressure Transmitter.
- 24 V DC Power supply
- Load Resistor
- USB FieldMate Modem: BRAIN/HART



5. Model and Suffix Codes

Field device management software package: FieldMate Release: R2.01

MODEL, SUFFIX CODES

| Model | Suffix Codes | Description | Remarks |
|---------------|-----------------|---------------------|-----------------------|
| FSA110 | | FieldMate Basic | |
| License | -S | Single PC license | License number issued |
| — | 1 | Always 1 | |
| Language | 0 | Japanese | |
| | 1 | English | |
| Option Code | /M | USB HART Modem | HART |
| | /B | USB FieldMate Modem | BRAIN/HART |

CD-ROM (FieldMate Software Media): F9197DA *1

CD-ROM (Device Files Media): F9197DC *1

USB HART Modem: F9197UB

USB FieldMate Modem (BRAIN and HART protocols): F9197UC

MODEL, SUFFIX CODES

| Model | Suffix Codes | Description | Remarks |
|---------------|-----------------|---------------------|-----------------------|
| FSA111 | | FieldMate Advance | |
| License | -S | Single PC license | License number issued |
| — | 1 | Always 1 | |
| Language | 0 | Japanese | |
| | 1 | English | |
| Option Code | /M | USB HART Modem | HART |
| | /B | USB FieldMate Modem | BRAIN/HART |

CD-ROM (FieldMate Software Media): F9197DA *1

CD-ROM (Device Files Media): F9197DC *1

USB HART Modem: F9197UB

USB FieldMate Modem (BRAIN and HART protocols): F9197UC

*1 Replacement disk only

6. External View

External view of USB HART modem or
USB FieldMate modem: BRAIN/HART

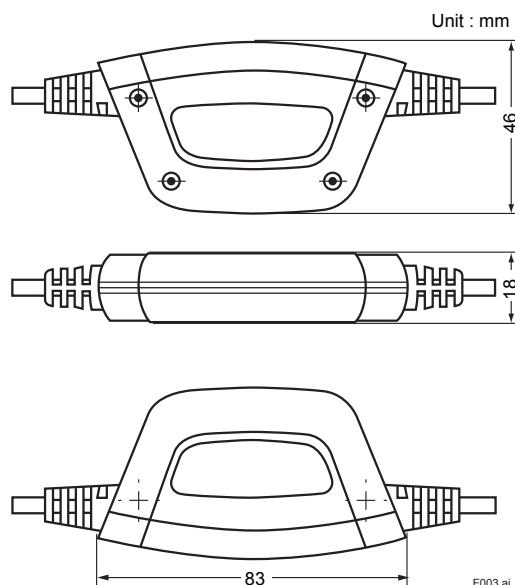


Fig. 3: USB HART Modem or USB FieldMate Modem

Total cable length: Approximately 2.3m

| Technical Specifications | USB Interface |
|--------------------------|--|
| SOFTWARE | |
| USB Interface | USB2.0 standard (*1) |
| ELECTRICAL | |
| Power Supply | System powered by USB Port |
| Supply Current | 40mA@ + 5 V |
| Pins to Computer | USB Type-A connector |
| Pins to Device | 2-pin, polarity insensitive Mini-grabber test clips. Detachable alligator clips additionally*2 |
| Output Level (HART) | 0.5 + / - 0.1 Vpp trapezoidal wave@1200/2200 Hz |
| Output Level (BRAIN) | 1.0 + / - 0.1 Vpp trapezoidal wave@2400 Hz |
| Isolation(DC) | 1910 VDC between instrument and computer |
| Isolation(AC) | 1350 Vrms (50Hz) |
| ENVIRONMENTAL | |
| Operating Temperature | 0 °C to 55 °C |
| Storage Temperature | -40 °C to 70 °C |
| Storage Humidity | 0% to 95% relative humidity |
| PHYSICAL DIMENSIONS | |
| Enclosure | 83 x 46 x 18 mm, ABS industrial enclosure |
| Device Interface Cable | 190 cm, 2-conductor terminating with two mini grabber clips |
| USB Cable | 27 cm cable terminating in a USB type A connector |
| CERTIFICATION | EN61326 |

*1: USB2.0 also covers USB1.0

*2: FieldMate modem

7. Included Items

FieldMate includes the following items:

<Product>

- CD-ROM: FieldMate Software Media
- CD-ROM: Device Files Media
- USB HART modem w/ cables (optional)
- USB FieldMate modem: BRAIN/HART w/ cables (optional)

<Documentation>

- License number sheet
- Getting Started
- Operational Precaution

8. Items Contained in Media

■ Items contained in the CD-ROM of FieldMate R2.01:

1st CD-ROM: FieldMate Media

- FieldMate Program
- USB modem driver
- User's Manual for FieldMate

2nd CD-ROM: Device Files Media

- Device DTM for Yokogawa devices
 - BRAIN
 - FOUNDATION fieldbus H1
 - HART
 - PROFIBUS
- Device DTM for the HART devices *1
- DD for the FOUNDATION fieldbus H1 devices *2
- DD for the HART devices *1

*1: Devices registered with HART Communication Foundation, some DTM or DD may not be included.

*2: Devices registered with Fieldbus FOUNDATION, some DD may not be included.

Remarks:

Yokogawa certifies the quality and operability only of DD and DTM which have been registered by Yokogawa.

9. Compatibility

Compatibility between FieldMate and Device Files is indicated at the following URL.
<https://voc.yokogawa.co.jp/PMK/>

10. User Registration

FieldMate may be installed on a single PC using the license number provided. FieldMate may be used for up to 30 days without registration.

For permanent installation, user registration is required. After registration an Activation Key is provided to the user. User registration may be done on the FieldMate User Registration web site. The items required for user registration are the license number and Hard Disk serial number (Volume Serial Number) of the PC to which FieldMate is installed.

11. Trademarks

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