

General Specifications

FieldMate
Versatile Device Management Wizard



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.

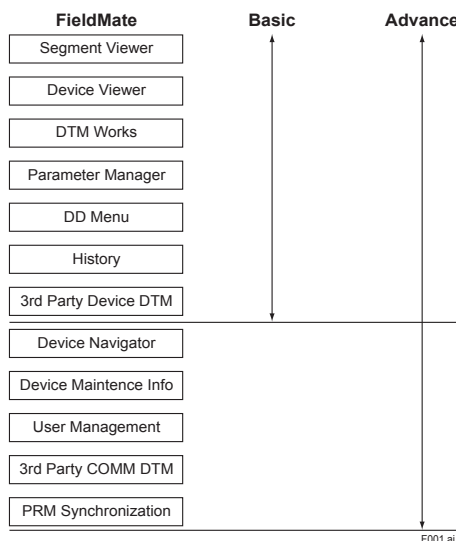
*FDT: (Field Device Tool) defines the system environment in which the DTM runs.

*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.



F001.ai

■ 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

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 off-line 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**

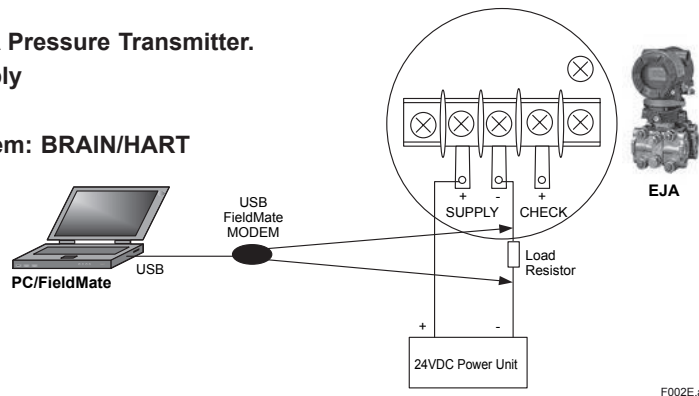
Synchronize information between FieldMate and PRM, to make best use of PRM as a master data base. Bi-directional file transfer operation is supported.

3. 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**



4. System Requirements

■ **Hardware Operating Environment**

- **PC**
 - **Machine:** IBM PC/AT compatible
 - **CPU:** Pentium III 1 GHz or faster (Pentium 4, 1G or faster recommended)
 - **Main Memory:** 1 GB or more
 - **Hard Disk Drive:** 8 GB or more (minimum free space: 1GB)
 - **CD-ROM Drive:** Windows XP compatible
 - **Display:** 1024 x 768 or better resolution recommended 16bit colors or better

Network Port:

- For BRAIN/HART device
One USB or RS-232C port
- HART Modem (Yokogawa option)
 - FieldMate Modem: BRAIN/HART (Yokogawa option)

- For FOUNDATION fieldbus H1 device
A slot for PCMCIA card or a PCI slot
- Fieldbus Interface Board (National Instruments)
 - PCMCIA -FBUS
 - PCMCIA -FBUS/2
 - PCI-FBUS/2
- NI-FBUS Communication Manager 3.0 or higher

■ **Software Operating Environment**

OS: Windows XP Professional SP2 (English)

<Advance Only>

- For PROFIBUS device
One USB port
- PROFIBUS interface card and COMM DTM
 - PROFlusb and PROFIdtm (Softing)
 - PROFIBUS DP/PA coupler
 - KFD2-BR-A.PA.93 (Pepperl&Fuchs)
 - 6ES7 157-0AC80-0XA (SIEMENS)

5. Model and Suffix Codes

Field device management software package: FieldMate Release: R1.03

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

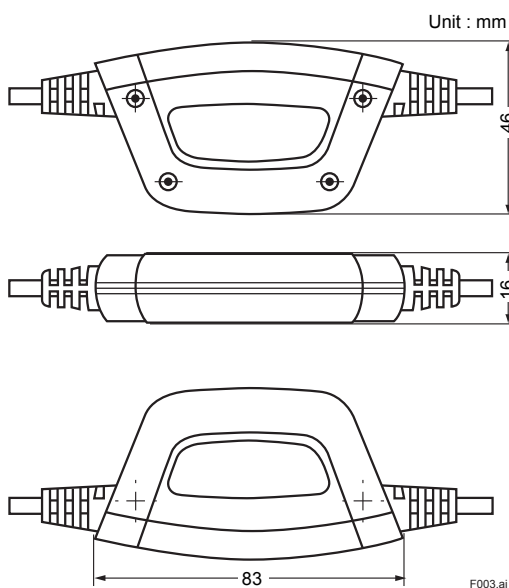


Fig. 3: USB HART Modem or USB FieldMate Modem

Total cable length: Approximately 2.3m

Technical Specifications	USB Interface
SOFTWARE	
Operating System	Windows XP Professional+SP2
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 R1.03:

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. 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.

10. Trademarks

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