

General Specifications

FieldMate
Versatile Device Management Wizard

FieldMate™ R2.04

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, ISA100 devices by Built-in DTM interpreting the existing Device Description (DD) instantaneously, for devices that do not have DTMs available.

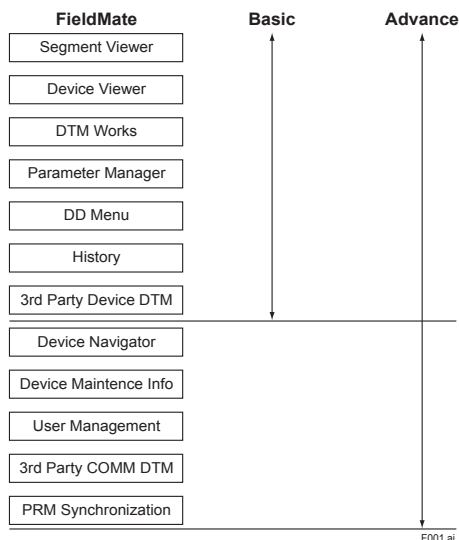
*FDT: (Field Device Tool) defines the system environment in which the DTM runs.

*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 (HART7 is supported)**
- **PROFIBUS**
- **ISA100.11a**
It conforms to ISA (International Society of Automation) 100.11a which has been progressed as the standards of Wireless system for Industrial Automation.

■ Device Interface Function

Segment Viewer: BRAIN, FOUNDATION fieldbus H1, HART, PROFIBUS, ISA100.11a*1

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)

*1 It displays either via gateway or infrared communication.

Device Viewer: FOUNDATION fieldbus H1, HART

Displays the current status of the field device, including errors, warnings and 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, ISA100.11a**

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 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. System Requirements

Software Operating Environment		
OS		<ul style="list-style-type: none"> ● Windows 7 Professional 32bit/64bit SP1 or later(English) ● Windows Vista Business 32bit SP2 or later / Home Premium 32bit SP2 or later(English)
Hardware Operating Environment		
	Windows 7	Windows Vista
PC	IBM PC/AT Compatible	
CPU	Intel® Core™2 Duo T7100 or similar specification CPU	
Main Memory	2GB or more	1GB or more (2GB or more recommended)
Hard Disk Drive	8GB or more	
DVD-ROM Drive	Windows 7 compatible	Windows Vista compatible
Display	1024×768 or better resolution recommended Windows 7 compatible	1024×768 or better resolution recommended Windows Vista compatible
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 *1	Interface	One PCMCIA card slot
	Interface board	PCMCIA-FBUS Series 2 (National Instruments)
	Driver	NI-FBUS Communication Manager 4.0.1 or later
FOUNDATION fieldbus H1 *1	Interface	One USB port USB2.0 standard
	Interface hardware	FFusb (Softing) V1.31 or later *2
PROFIBUS	Interface	One USB port USB2.0 standard
	Interface card & COMM DTM	PROFusb and PROFIdtm (Softing) PROFIdtm DPV1 V5.45 or later
	DP/PA coupler	KFD2-BR-A.PA.93 (Pepperl+Fuchs) 6ES7 157-0AC80-0XA (SIEMENS)
		Bluetooth 2.0
HART	Interface	Bluetooth 2.0
	Modem	VIATOR® Bluetooth®Interface: Model 010041(MaCTek®) *3
ISA100.11a *4	Interface	One USB port USB2.0 standard
	Modem	Infrared Adapter:ACT-IR224UN-LN96-LE 9600bps (ACTISYS) *5
	Driver	Version 1210 or later
ISA100.11a *6	Interface	One Ethernet port
Login		
Account		Administrator privilege

*1 Interface is selectable

*2 The package is provided complete with FieldMate driver from Softing

*3 Microsoft supplied Bluetooth stack is used

*4 ISA100.11a OOB infrared communication

*5 Holder for Infrared Adapter is available (recommended): Gorillamobile Original: GM1 (JOBY, Inc).

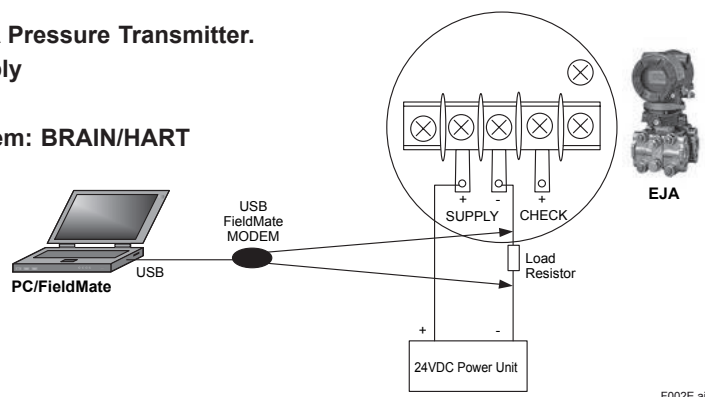
*6 ISA100.11a communication via gateway (YFGW710)

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: R2.04

MODEL, SUFFIX CODES

Model	Suffix Codes	Description	Remarks
FSA110	FieldMate Basic	
License	-S	Single PC license	License number issued
—	1	Always 1	
Language	1	Always 1 *2	
Option Code	/M	USB HART Modem	HART
	/B	USB FieldMate Modem	BRAIN/HART

CD-ROM (FieldMate Software Media): F9197DS *1

DVD-ROM (Device Files Media): F9197DT *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	1	Always 1 *2	
Option Code	/M	USB HART Modem	HART
	/B	USB FieldMate Modem	BRAIN/HART

CD-ROM (FieldMate Software Media): F9197DS *1

DVD-ROM (Device Files Media): F9197DT *1

USB HART Modem: F9197UB

USB FieldMate Modem (BRAIN and HART protocols): F9197UC

*1 Replacement disk only

*2 With an English Windows OS, FieldMate English can be installed.

With a Japanese Windows OS, either FieldMate Japanese or FieldMate English can be installed.

6. External View

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

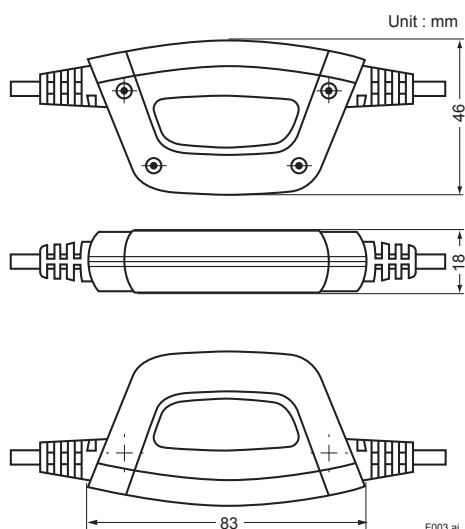


Fig. 3: USB HART Modem or USB FieldMate Modem

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

*1: USB2.0 also covers USB1.1

*2: FieldMate modem

EMC Conformity Standards

EN61326-1 Class A, Table1 (Basic immunity test requirement)

• KC Mark

Registration No: KCC-REM-YHQ-EEN260

7. Included Items

FieldMate includes the following items:

<Product>

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

<Documentation>

- License number sheet
- Getting Started

Please download User's Manual via Yokogawa Web site

<http://www.yokogawa.com/fld/doc/manual/fld-fieldmate-manual-01en.htm>

8. Items Contained in Media

■ Items contained in the Media of FieldMate R2.04:

CD-ROM: FieldMate Media

- FieldMate Program
- USB modem driver

DVD-ROM: Device Files Media

- Device DTM for Yokogawa devices
 - BRAIN
 - FOUNDATION fieldbus H1
 - HART
 - PROFIBUS
 - ISA100.11a
- Device DTM for the HART devices *1
- Built-in DTMs
 - FOUNDATION fieldbus H1
 - HART
 - ISA100
- 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 on the Web site 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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