Driver DTM FMT500-HART

For intelligent gas mass flowmeters FMT500-IG - HART

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*) DTM400 Bundle Supplement Info is available on the data medium \documentation or latest in www.abb.com/fieldbus. Enter here in the search field following No. "3KXD801400R3901".

1 Device - Revision Record / What is new?

1.1 Hardware

FMT500-IG Standard

Released Revision	Released Date	Remarks
01.02	27.09.2002	First release
01.03	12.05.2003	Bugfix version
01.04	13.06.2003	Bugfix version
01.05	02.01.2004	Bugfix version

FMT500-IG Ex(Haz.)

Released Revision	Released Datum	Anmerkungen
01.00	06.05.2003	First release
01.01	25.08.2003	Bugfix version

1.2 Software

Released Revision	Released Date	Remarks
01.06	17.07.2003	First release
01.07	25.03.2004	Bugfix version
01.80	07.04.2004	Bugfix version
01.79	30.06.2004	Bugfix version
01.85	02.09.2005	Easy Setup version
01.87	24.07.2009	Bugfix version
01.88	11.02.2013	Bugfix version

2 DTM - Engineer IT Device Type Manager

2.1 Supported devices

FMT500-IG_HART on Firmware Version 1.85-1.87 (full functionality), from firmware Version 1.06 to 1.81 partially not usable (see point 6), not usable on Firmware versions below 1.06

2.2 Version record / What is new?

Compatible to device firmware 1.85

Released Version	Released Date	Remarks
01.00.10	08.06.2004	First release
01.01.00	02.09.2005	New features

2.3 Requirements

2.3.1 PC-Hardware / Operating system

See DTM400 Bundle Supplement Info*)

2.3.2 Frame application / compatibility

The FDT 1.2 compatibility was tested with the dtmINSPECTOR Rev. 1.01.21.

Therefore the ABB DTM should be usable in all frame applications according to the requirements of FDT 1.2. Please read the respective frame application documentation, too..



2.4 Installation and configuration

2.4.1 Installation

- Make sure that the minimum hardware requirements are met.
- Start Windows (with administrator rights!).
- Cancel all running programs.
- Insert CD-ROM.
- Start "Setup.exe" in the DTM\DTM FMT500-HART (Sensyflow iG) directory of the CD or in the folder you choosed for the software uploaded from the Internet.
- Follow the instructions.

2.4.2 Uninstall instructions

In the operating system: "Start -> Settings -> Control Panel -> Add/Remove Programs -> Install/Uninstall" -> Select the DTM and Uninstall.

2.5 Update- / Upgrade instructions

Uninstall is not needed before update / upgrade. It can be handled like a new installation, existing projects will be kept.

Hints regarding new versions may be found under http://www.abb.com/Fieldbus

2.6 Known problems and limitations

- If starting of a DTM fails with a runtime error 6 which occurs together with a control SV4_digital.OCX, the PC needs to reboot.
- Inputs in edit boxes have to be finished with CR or TAB to be valid.
 The actual measured values are not displayed in Trend View leg-
- end.
- The Trend View does not react (dynamically) on changes of the ranges. The window has to be closed and reopened.
- The Trend View reacts incorrectly on changes to the window size. The window size must not be changed.
- The Trend View does not display units.
- The timebase of the Trend View cannot be changed.
- The Analog Display does not react (dynamically) on changes of the ranges. The window has to be closed and reopened.
- The labels on the Analog Display may overlap when a bad scaling is selected. In that case the window size or the scaling must be changed.
- The deactivation of combo boxes is not reflected in their color.
- The version information in FDT does not display the currently installed version.
- Function and connection cannot be modified simultaniously at the outputs.
- Earlier firmware versions 1.06 to 1.81 allow limited use, further use only with liability exclusion by ABB.
- Limitations are as follows:
- The allocation of the measuring displays was modified.
- Analog output functions 0-22 mA and 4-21.6 mA are no longer selectable from the DTM.
- Analog output alarms HIGH and LOW are no longer selectable from the DTM.
- Output connections to INPUT 1 and 2 are no longer selectable from the DTM.
- Output 2 connection to COMMON ALARM is rejected by the device firmware.
- For input 1 and 2, the allocation of the function was modified.
 Furthermore, functions FREQUENCY and SWITCH are no longer selectable from the DTM.

- For input 1 and 2, the allocation of the polarity was modified.
- Additional limitations for firmware versions 1.06 to 1.07 affect the massflow unit 'SCFS' which can not be chosen. Additionally, when changing the temperature, the hysteris may be not accepted.
- Totalizer functionality improved with firware version 1.87
- From version 1.88 Totalizer Unit exchange via DTM to digital output updated
- Valid for FDT frame applications only:
- TAG cannot be set via a DTM. In DSV401 (SMART VISION) this limit does not apply.
- DTM cannot switch to Offline mode if working with Online Application. Device has to be disconnected first and then the DTM can be switched to Offline mode only.
 In DSV401 (SMART VISION) this limit does not apply.
- It could happen that the list of available functions for a DTM in the frame application does not get updated. If that happens, click on "New project" in the frame and when prompted to save click on "Cancel". The DTM menu with all functions in the frame will be available again.

In DSV401 (SMART VISION) this limit does not apply.

2.7 Getting help / further information

- Press 'F1' for online help. Help concerning the integration of the DTM in the FDT frame application can be found in the respective documentation of the frame application.

Hints regarding commissioning

- When a device has been connected for the first time, and an upload was done, it is recommended to save all data using the menu file/save as dataset. (database suffix *.dat)
- Initialisation of the DTM for the FMT500:
 For starting the DTM, the DTM for the FMT500 as HART devicehas to be used when creating the project tree. For initialisation the point "More" has to be selected in the menu under "Device".
 Depending on the operating speed of the PC this could take some seconds.
- Configuration of the FMT500:

The DTM is started by clicking the right mouse key or via the menu point "Device", in each case with "Edit".

Changed data are displayed in blue and underligned. Using the command "Save data to device" these data will be sent to the device.

 In case the DTM will be used with an ABB AC800M controller, a HWD-file needs to be generated for implementation. For instructions refer to the information within the AC800M documentation.

2.8 How to get the Software (driver)?

Please use one of the following ways to get the Software (driver):

 Available on the newest DTM & DSV401 (SMART VISION) CD-ROM

The latest Software (driver) and "Supplementary Information" at one time with hints regarding new versions, known problems and limitations, etc. may be found:

As download from http://www.abb.com/Fieldbus

- ->[select Fieldbus protocol]
 - ->[select field device]
 - ->[select device group / name] use link read more
 - -> go to flag "Fieldbus & HART Files"

2.9 Licensing the DTM

See DTM400 Bundle Supplement Info*)

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