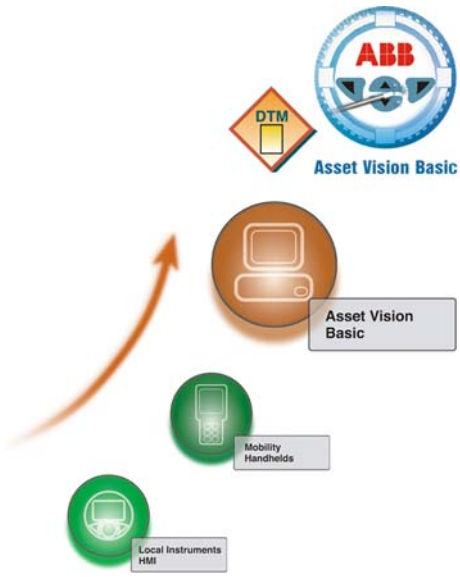
Data Sheet DS/DTM/DAT200-EN Rev. A

DTM Bundle & DAT200 Asset Vision Basic for intelligent field devices



DTM500 bundle

— Contains ABB device driver (DTM)
— Supports FDT Standard 1.2/1.2.1
— Adheres to the FDT Style Guide
— Graphical overview of DTM functions
— Easy Set-up wizard
— Diagnostics in accordance with NAMUR NE107; provides additional maintenance information

DTM400 bundle

— Contains ABB device driver (DTM)
— Supports FDT Standard 1.2
— Diagnostic information

DAT200 Asset Vision Basic

— FDT frame application for configuration, diagnostics, and maintenance tasks on intelligent devices
— Supports FDT Standard 1.2/1.2.1
— Supports all current fieldbus protocols via communication DTMs
— Point-to-point wizard
— Create a project tree at the touch of a button
— Structured according to user accounts and in line with the FDT Style Guide, with password protection if required
— Online help
— Supported by .NET 2.0

1 FDT / DTM technology

FDT technology makes an important contribution towards ensuring unrestricted utilization of the fieldbus potential by standardizing the communication interface between the field devices and the systems.

A key feature is its independence from the communications protocol, the software environment for the devices, and the host systems. Using FDT, it is possible for any host to access any device - via any protocol.

The heart of the FDT concept lies in the Device Type Manager (DTM), a component offered by ABB for a multitude of devices. It can be used in any system that supports the FDT interface.

The DTM is the configuration and management component of a field device. It is familiar with all the rules governing devices (plausibility checks), and contains all graphical user dialogs, the device configuration, diagnostics, and maintenance.

DTMs are loaded into the libraries of the automation system or of stand-alone tools, in a similar way to a printer driver in an office environment.

2 DTM bundles

2.1 General

"ABB DTM400" and "ABB DTM500" are names given to ABB DTM bundles for HART, PROFIBUS, FOUNDATION Fieldbus, and MODBUS devices.

2.2 Applications

- Configuration and parameterization of devices
- Diagnostics for devices and retrieval of status messages
- Online and offline display of device data (measurement data, diagnostics, configuration/parameterization, and status information) in multivisual format

2.3 Parameterization

- Graphical overview of parameter groups
- Online/offline configuration
- Upload device data:
  Read parameterization/configuration information from device
- Download device data:
  Write stored device data back into the device
- "Easy Set-up" program wizard for guided, quick parameterization of intelligent devices
- Parameters not synchronized with the data set/device are highlighted

2.4 Online display of measurement and status data

- Select how measured values are displayed:
  - Numerically
  - As a bar with alarm limits
  - As an analog dial
  - As a trend graph

  All graphical elements feature a scalable time axis.
- Status and diagnostics in accordance with NAMUR
  - Includes information (DAT500) on "possible cause" and "suggested action"

2.5 Archiving

- Back up & load TAG-related device data
- Print selected device data (DTM500)

2.6 Other features

- Select from two display windows (DTM500)
  - Main operation:
    Display all of the DTM-functions in a single window
  - Application:
    Display selected DTM-functions in individual windows
- Navigation area with tree structure (DTM500)
- Comprehensive online help available throughout the DTM

Important

Information on

- system requirements (hardware/software)
- number and type of DTMs in each of the packages
- licensing

is available either in "Supplement Info" under **\Documentation** on the data storage medium supplied, or latest at **www.abb.com/fieldbus** .

On the Internet site, enter the following number in the Search box:

- For the **DTM400** bundle: "3KXD801400R3901"
- For the **DTM500** bundle: "3KXD801500R3901"

2.7 Overview of DTM400 & DTM500 bundle

Bundle	FDT Specification		Windows operating system *)				DTM Style Guide	Graphics-based overview	Easy Set-up
	1.2	1.2.1	2000	XP	Vista	7			
DTM400	●	-	●	●	-	-	-	-	-
DTM500	●	●	●	●	●	●	●	●	●

***)** Minimum Windows operating system (e.g. SP) see "Important Information".

3 DAT200 Asset Vision Basic

3.1 General

Asset Vision Basic is an FDT frame application used for configuration, diagnostics, and maintenance tasks on intelligent devices.

Asset Vision Basic offers support for devices using all current communication protocols via communication DTMs.

Asset Vision Basic contains a point-to-point wizard that is not only intuitive for users but also enabling a device to be parameterized quickly.

Asset Vision Basic conforms to FDT Specification 1.2.1. and supports FDT 1.2; it is, therefore, open for certified DTMs.

Asset Vision Basic is supported by .Net 2.0.

3.2 Applications

- Provides the FDT frame for DTMs (device DTMs, communication DTMs, remote I/O DTMs, and so on)
- Straightforward tool for quick device parameterization (point-to-point wizard)
- Visual device overview that maps device communication links in systems (project tree)
- Storage/management of device data
- Device measuring point planning and management

3.3 Management

- Management of devices and networks in projects
- Display and management of all installed DTMs (device catalog), incl. a filter function for sorting according to:
  - Device type
  - Manufacturer
  - Group
  - Protocol
- Assignment of measuring point names in the project manager (network)
- Assignment of device/DTM addresses in the project manager (network) via the communication DTMs
- Device recognition via device TAG number or address
- Simultaneous communication (online) with several devices
- Scanning of devices connected via communication DTMs
- Automatic generation of a project tree in the project manager (network) via communication DTMs

3.4 Archiving

- Back up & load project-related data
- Print project related data

3.5 Point-to-point (Tool Mode) wizard

- The wizard guides you in opening a project for a device.
- The wizard assists in configuring communication interfaces, finding the device, and selecting the right DTM.
- The wizard with three modes:
  - Online:
    Automatic device selection, connection to device, and reading of device data
  - Offline:
    Manual device selection and display of device instance data
  - Open file:
    Opens a previously saved point-to-point project in Offline or Online mode

3.6 Other features

- Password protection available for user accounts with fixed roles
- Language settings
- Configuration of Tool Mode wizard
- Configuration of frame window and shortcuts
- Option of opening FDT and error monitor
- Customizable tool bar
- Application view can be switched to a tab or window
- Comprehensive online help available throughout the Tool
- Minimum Windows operating system (e.g. SP) see "Important Information".

Important

Information on

- system requirements (hardware/software)
- registration

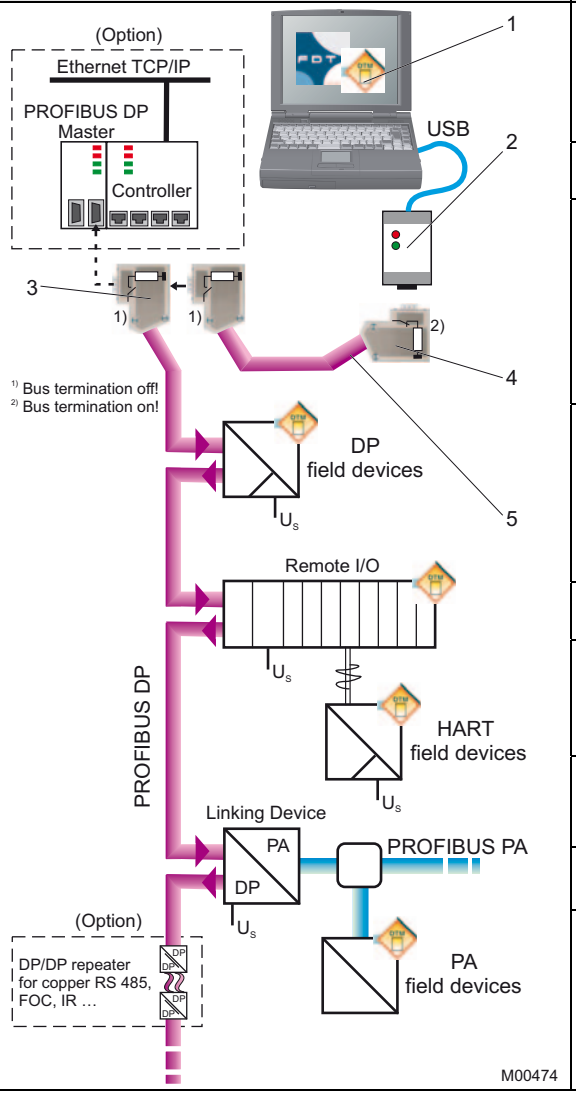
is available either in "Supplement Info" under **\Documentation** on the data storage medium supplied, or latest at **www.abb.com/fieldbus** .

On the Internet site, enter the following number in the Search box:

- "3KXD151200R3901"

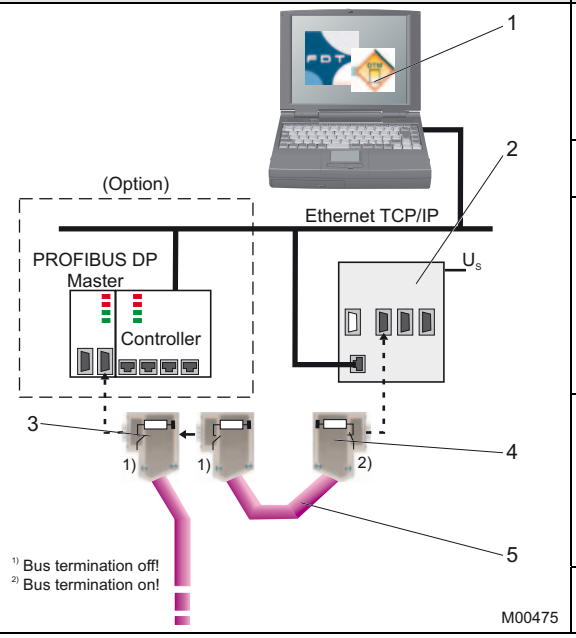
4 Connection types

PROFIBUS connection via USB adapter



	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: "is Pro adapter V3" *)		
2	**NDA121-NO**	63631-9890002	10/63-6.31
	- USB - PROFIBUS DP / PC adapter		
3	**NDE230-NO**	63641-9890119	10/63-6.40
	DP cable connector, 9-pin, SUB-D - Incl. switchable bus termination and SUB-D programming connection, ≤ 12 Mbps, IP 40 ■ Pin assignment: - **IN:** 1A = RxD/TxD-N, 1B = RxD/TxD-P - **OUT:** 2A = RxD/TxD-N, 2B = RxD/TxD-P		
4	**NDE220-NO**	63641-9890118	10/63-6.40
	DP cable connector, 9-pin, SUB-D - Incl. switchable bus termination, ≤ 12 Mbps, IP 40 ■ Pin assignment: - **IN:** 1A = RxD/TxD-N, 1B = RxD/TxD-P - **OUT:** 2A = RxD/TxD-N, 2B = RxD/TxD-P		
5	**PROFIBUS DP cable, violet**	63647-989014x	10/63-6.47
	NDC110-NO - 2 x 0.32 mm² (AWG 22/1), 65/330/1,000 m		
	ABB field device overview		
	- PROFIBUS DP		10/63-0.47
	- PROFIBUS PA		10/63-0.46
	Installation suggestions		
	- PROFIBUS DP / PA		10/63-0.40

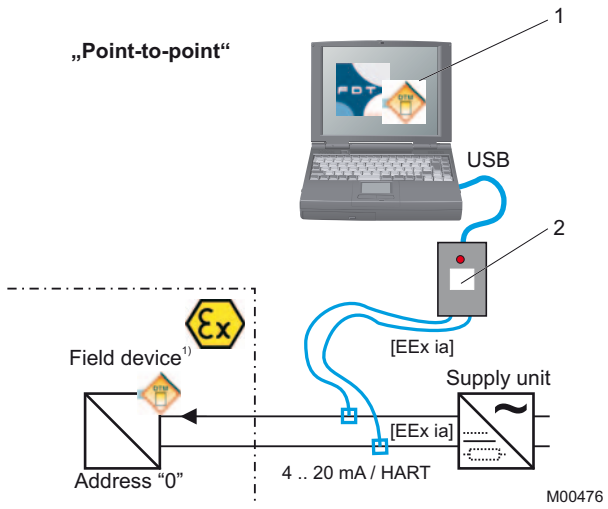
PROFIBUS connection via Ethernet gateway



	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: On request		
2	Ethernet - PROFIBUS DP gateway		
	- On request		
3	**NDE230-NO**	63641-9890119	10/63-6.40
	DP cable connector, 9-pin, SUB-D - Incl. switchable bus termination and SUB-D programming connection, ≤ 12 Mbps, IP 40 ■ Pin assignment: - **IN:** 1A = RxD/TxD-N, 1B = RxD/TxD-P - **OUT:** 2A = RxD/TxD-N, 2B = RxD/TxD-P		
4	**NDE220-NO**	63641-9890118	10/63-6.40
	DP cable connector, 9-pin, SUB-D - Incl. switchable bus termination, ≤ 12 Mbps, IP 40 ■ Pin assignment: - **IN:** 1A = RxD/TxD-N, 1B = RxD/TxD-P - **OUT:** 2A = RxD/TxD-N, 2B = RxD/TxD-P		
5	**PROFIBUS DP cable, violet**	63647-989014x	10/63-6.47
	NDC110-NO - 2 x 0.32 mm² (AWG 22/1), 65/330/1,000 m		

*) Recommended adapters/modems

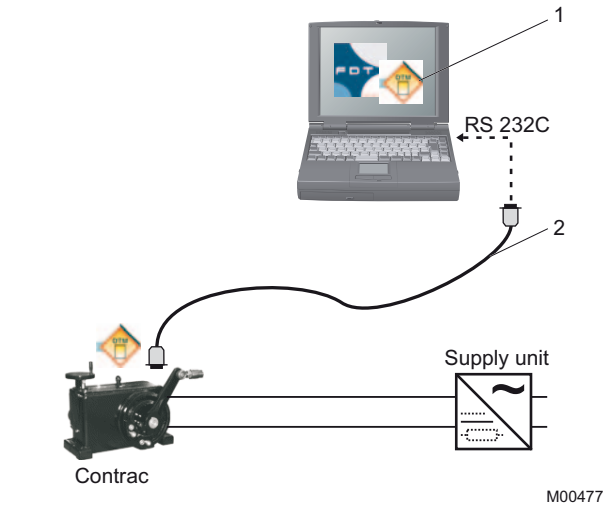
HART connection via FSK/USB modem



1) Any HART devices. Not for TSx02 with "FSK 600 baud"

	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: "is HRT USB v2" *)		
2	**NHA121-NX**	3KDE636710L0001	10/63-6.71
	- USB - HART FSK / PC modem, electrical isolation, Ex protection type II (2) G [EEx ia] IIC		
	NHA121-NO	3KDE636710L0002	10/63-6.71
	- USB - HART FSK / PC modem, electrical isolation, non-Ex applications (alternative, not shown)		
	Important During workshop operation with a power supply unit, a 250 Ω resistor must be connected in series.		

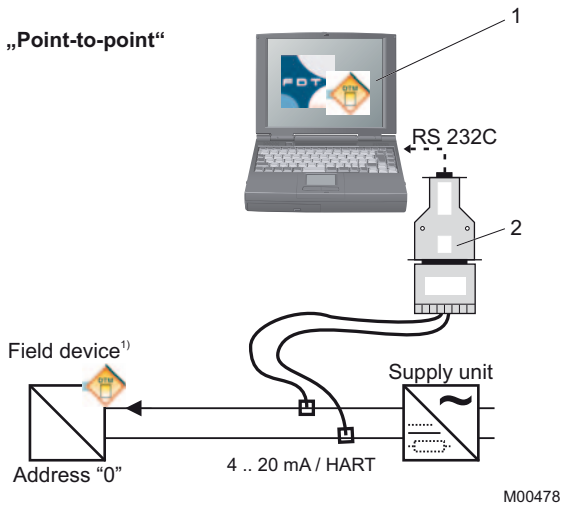
Contrac connection via Contrac cable



	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: "ABB Contrac-LCI Communication"		
2	**Configuration cable**	V68999-746349	10/68-7.20
	- RS 232C - PC connection cable for Contrac (4 … 20 mA, HART or PROFIBUS DP)		

*) Recommended adapters/modems

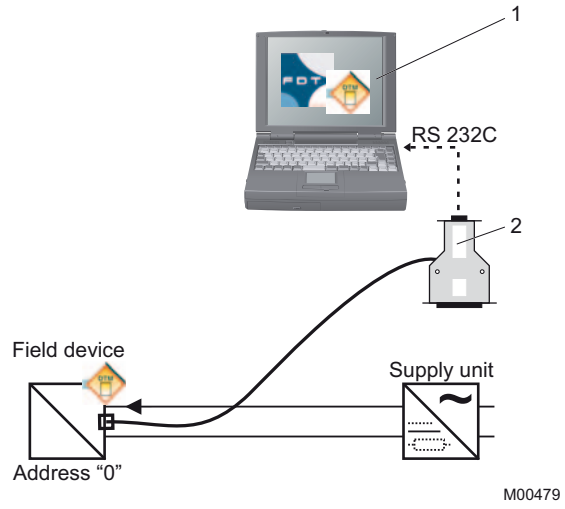
HART connection via FSK/RS 232 modem



[1)] Any HART devices. Not for TSx02 with "FSK 600 baud"

	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: Not in ABB scope of delivery [*)]		
2	**NHA102-NO**	63671-7957838	10/63-6.71
	- RS 232C - HART FSK / PC modem, non-Ex applications (Not suitable for USB / RS 232 adapters!)		
	Important During workshop operation with a power supply unit, a 250 Ω resistor must be connected in series.		

HART connection via LCI / RS 232 adapter



	Description	Order number	Data sheet
1	**DTM bundle & DAT200**	63801-9820027	DS/DTM/DAT200
	- DTM bundle devices & Asset Vision Basic - driver & device management tool for configuration and parameterization of intelligent field devices - Communication DTM: Not in ABB scope of delivery [*)]		
2	**NHA201-NO**	63671-0319621	10/63-6.71
	- RS 232C - HART LCI / PC adapter with small connector for positioner (Not suitable for USB / RS 232 adapters!)		

[*)] Recommended communication DTM:
"M&M HART Communication DTM"
Supplier:
M&M Software GmbH, Industriestr. 5, 78112 St. Georgen, GERMANY
Phone: +49 (0) 7724 / 9415-0, fax: +49 (0) 7724 / 9415-23
E-mail: fdt@mm-software.com

5 Ordering information

Description	Ordering Number
DTM Bundle DTM500 & DTM400 Bundle - single PC license. Once installed the DTM Bundle runs 90 days in demo mode(full functionality) and must be purchased within this period, if the data storage on a PC is requested. You will find the list of the device DTMs (driver) in the DTM Bundles in the "Supplement Info" on the data medium or latest available on www.abb.com/fieldbus.. Enter here the following no. in the search field - for the **DTM500** Bundle "3KXD801500R3901" - for the **DTM400** Bundle "3KXD801400R3901" - for the **DAT200** Tool "3KXD151200R3901" ***)** Minimum Windows operating system (e.g. SP) see "Supplement Info". - **DTM500** Bundle: The device DTM Bundle supports the standard FDT1.2 / 1.2.1, Windows 2000, XP, Vista and 7 ***)**. - **DTM400** Bundle: The device DTM Bundle supports the standard FDT1.2, Windows 2000 and XP ***)**. - Including **DAT200** Asset Vision Basic: For configuration, diagnostics and maintenance of smart devices. FDT frame application 1.2 / 1.2.1, Windows 2000, XP, Vista and 7 ***)**.	63801-9820027

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