

Device Management Tool DSV4xx for smart field instruments



**Diagnostics and remote diagnostics
of instruments**

Automatic documentation and documentation storage

Display of dynamic measured values

Structuring by user groups

– On request with password protection

**Designed according to the operating concept for all
intelligent field instruments (VDI/VDE 2187)**

**Supports the Field Device Tool concept (FDT)
and Device Type Manager (DTM)**

– For HART and PROFIBUS

**For use with all HART instruments also if no
DTM is available**

Support of FOUNDATION Fieldbus

Support of bus structures

– E. g. FSK bus

Configuration and parameterization of instruments

– Online and offline

Automatic device recognition

Instrument-specific parameterization masks

– In uniform presentation

Online help – any time with a keystroke

Operational with operating systems

Windows 2000, XP

General description

DSV4xx (SMART VISION) is a universal, graphical management software for intelligent field instruments and provides intuitive handling.

DSV4xx (SMART VISION) communicates with all HART-capable instruments that support universal and common practice HART commands. With ABB instruments the proprietary HART commands are supported additionally, so the complete functionality of each instrument is at your hand.

DSV4xx (SMART VISION) supports HART and PROFIBUS DTM's as well as all other PROFIBUS instruments within the scope of the profile specifications 2.0/3.xx.

Furthermore, DSV4xx (SMART VISION) supports the communication with FOUNDATION Fieldbus DMA (Device Management Application).

Areas for application

- Configuration and parameterization of field instruments
- Device diagnostics with status report
- Visual device overview as a copy of plant device communications
- Saving/management of device data
- Planning and administration of device tags
- Multi-visual online display of instrument data (information concerning measurement values, diagnostics, configuration, parameterization, status)

PC/Notebook requirements

- see supplementary information: 3KDE631114R3901

Licensing

- see supplementary information: 3KDE631114R3901

Functionality/Special features

Management

- Management of devices and device networks in projects.
- Definition of projects by means of a graphical interactive project editor.
- Definition and assignment of tag names in the project editor.
- Automatic allocation of names, addresses.
- Easy selection of instruments by simple clicking on the corresponding project entry.
- Instrument recognition via tag number or address.
- Simultaneous communication to several field instruments.
- Contrans I scan procedure to ascertain connected HART instruments.

Parameterization

- On-/offline configuration and parameterization of smart field instruments.
- Upload of device data:
read parameterization and configuration information from the instrument.
- Download of device data:
reload stored device data to the instrument.
- Detailed, specialized device data windows for complete parameterization of all integrated field instruments.
- Basic parameterization for all HART 5.1 compatible field instruments (HART Universal).
- Parameterization for all PROFIBUS DP-V1, PROFIBUS PA instruments.
- Parameterization for selected FOUNDATION Fieldbus-H1 Instruments

Online display of measuring and status information for each device

- Numerical
- Bargraph with alarm limits
- Trend recorder with scaleable time axis
- Instrument status with error export functions
- With DTM instrument specific indicators are used instead of the standard indicators.

Archiving

- Save instrument data onto a Windows compatible storage device (floppy disk, hard disk, streamer, CD-ROM, etc.)
- Save project data

Documentation

- Printing device data
- Printing diagnostics information
- Printing a DSV4xx (SMART VISION) project.

Miscellaneous

- Password protection, e.g. for the download of instrument data
- Simultaneous use of (e.g.) 4 serial COM interfaces and 4 PROFIBUS lines on one PC/Notebook to connect field instruments
- Integrated comment and note functions for each device
- User interface designed according to VDI/VDE 2187 rules
- Simultaneous display of several measurement value windows, of data input/output or configuration windows

Comprehensive help functions are available in every place of the program.

PROFIBUS connection via USB adapter	Description	Catalog No.	Data sheet
	DSV401 & DTM / DMA software bundle - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface.	63111-9 820 026	10/63-1.20 EN
	NDA121-NO - USB - PROFIBUS DP/PC Adapter	63631-9 890 002	10/63-6.31 EN
	NDE230-NO - DP cable plug, 9-pos. SUB-D - incl. switchable bus termination & programming connection SUB-D, ≤ 12 MBit/s, IP 40 ♦PINS: IN: 1A = RxD/TxD-N, 1B = RxD/TxD-P OUT: 2A = RxD/TxD-N, 2B = RxD/TxD-P	63641-9 890 119	10/63-6.40 EN
	NDE220-NO - DP cable plug, 9-pos. SUB-D - incl. switchable bus termination, ≤ 12 MBit/s, IP 40 ♦PINS: IN: 1A = RxD/TxD-N, 1B = RxD/TxD-P OUT: 2A = RxD/TxD-N, 2B = RxD/TxD-P	63641-9 890 118	10/63-6.40 EN
	PROFIBUS DP cable, violet NDC110-NO - 2 x 0.32 mm ² (AWG22/1), 65/330/1000 m	63647-9 890 14x	10/63-6.47 EN
	ABB Field device overview - PROFIBUS DP		10/63-0.47 EN
	ABB Field device overview - PROFIBUS PA		10/63-0.46 EN
	Installation suggestions - PROFIBUS DP/PA		10/63-0.40 EN
	*) Presently tested: further on request ABB: LD 800P family, NDL100-NX/NO		
	*) Repeater DP/DP: for copper RS 485, FO, IR, ...		

PROFIBUS connection via Ethernet Gateway	Description	Catalog No.	Data sheet
	DSV401 & DTM / DMA software bundle - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface.	63111-9 820 026	10/63-1.20 EN
	Ethernet - PROFIBUS DP Gateway (on request)		
	NDE230-NO - DP cable plug, 9-pos. SUB-D - incl. switchable bus termination & programming connection SUB-D, ≤ 12 MBit/s, IP 40 ♦PINS: IN: 1A = RxD/TxD-N, 1B = RxD/TxD-P OUT: 2A = RxD/TxD-N, 2B = RxD/TxD-P	63641-9 890 119	10/63-6.40 EN
	NDE220-NO - DP cable plug, 9-pos. SUB-D - incl. switchable bus termination, ≤ 12 MBit/s, IP 40 ♦PINS: IN: 1A = RxD/TxD-N, 1B = RxD/TxD-P OUT: 2A = RxD/TxD-N, 2B = RxD/TxD-P	63641-9 890 118	10/63-6.40 EN
	PROFIBUS DP cable, violet NDC110-NO - 2 x 0.32 mm ² (AWG22/1), 65/330/1000 m	63647-9 890 14x	10/63-6.47 EN
	*) Repeater DP/DP: for copper RS 485, FO, IR, ...		

HART connection via FSK/USB modem	Description	Catalog No.	Data sheet
<p>„Point to Point“</p>	<p>DSV401 & DTM / DMA software bundle</p> <ul style="list-style-type: none"> - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface. - Communication interface: "HART 5.1(Standard)" for general HART devices. - Communication interface: "FSK 600 Baud" for TSx02. 	63111-9 820 026	10/63-1.20 EN
	<p>NHA121-NX</p> <ul style="list-style-type: none"> - USB - HART-FSK/PC modem, electrical isolation, IS input II (2) G [EEx ia] IIC 	3KDE636710L0001	10/63-6.71 EN
	<p>NHA121-NO (Alternative, not shown)</p> <ul style="list-style-type: none"> - USB - HART-FSK/PC modem, electrical isolation, Non-Ex application 	3KDE636710L0002	10/63-6.71 EN
	<p>NHA102-NO²⁾ (Alternative, not shown)</p> <ul style="list-style-type: none"> - RS 232C - HART-FSK/PC modem, electrical isolation, Non-Ex application 	63671-7 957 838	10/63-6.71 EN

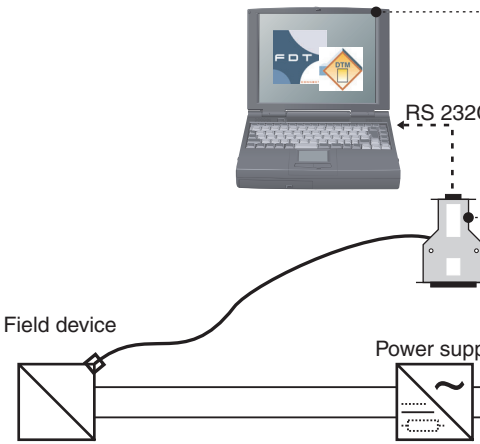
2) Not suitable for TSx02 with "FSK 600 Baud"!

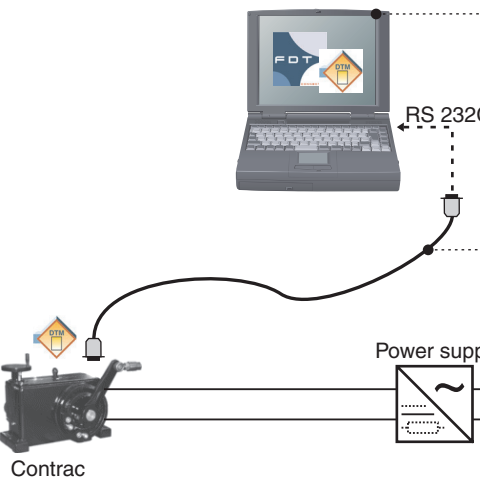
1) General HART devices and THx01, TSx02.

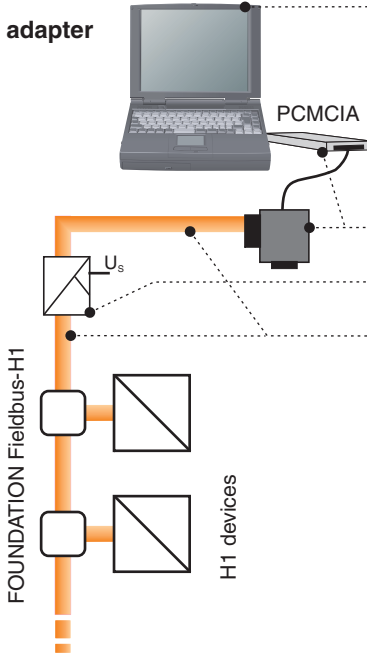
Hint: If the FSK-modem is used without controller, a 250 Ohm resistance is to be used in serial!

HART connection via FSK/USB modem	Description	Catalog No.	Data sheet
<p>„BCI100-V171xx Contrans I“</p>	<p>DSV401 & DTM / DMA software bundle</p> <ul style="list-style-type: none"> - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface. - Communication interface: "HART 5.1(Standard)" for Contrans I Backplane. 	63111-9 820 026	10/63-1.20 EN
	<p>NHA121-NO</p> <ul style="list-style-type: none"> - USB - HART-FSK/PC modem, electrical isolation, Non-Ex application 	3KDE636710L0002	10/63-6.71 EN
	<p>NHA102-NO (Alternative, not shown)</p> <ul style="list-style-type: none"> - RS 232C - HART-FSK/PC modem, electrical isolation, Non-Ex application 	63671-7 957 838	10/63-6.71 EN

.....2x Connecting cable (Not included in ABB delivery)
 - consisting of Ø 2 mm bunch plug on the bus amplifier side and wire for the tapping clip of the modem.

HART connection via LCI/RS 232 adapter	Description	Catalog No.	Data sheet
 <p>Field device Address "0"</p> <p>Power supply</p>	DSV401 & DTM / DMA software bundle - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface. - Communication interface: "HART 5.1(Standard)" for Positioner, TEUxxx. - Communication interface: "FSK 600 Baud" for BCI (Contrans I modules).	63111-9 820 026	10/63-1.20 EN
	NHA201-NO - RS 232 - HART-LCI/PC adapter with small connector for: Positioner, TEU421, TEU471, BCI100 (Contrans I modules)	63671-0 319 621	10/63-6.71 EN
	NHA202-NO (Alternative, not shown) - RS 232 - HART-LCI/PC adapter with T-connector for: TEU421, TEU471, BCI100 (Contrans I modules)	63671-0 744 009	10/63-6.71 EN

Contrac connection via Contrac cable	Description	Catalog No.	Data sheet
 <p>Contrac</p> <p>Power supply</p>	DSV401 & DTM / DMA software bundle - SMART VISION - Device Management Tool for configuration and parameterization of PROFIBUS DP/PA and HART field devices incl. open FDT interface. - Communication interface: "FSK 9600 Baud" for Contrac.	63111-9 820 026	10/63-1.20 EN
	Configuration cable - RS 232 - PC connection cable for Contrac (4..20 mA, HART or PROFIBUS DP)	V68999-746 349	10/68-7.20 EN

FOUNDATION Fieldbus connection	Description	Catalog No.	Data sheet
via PCMCIA adapter	<ul style="list-style-type: none"> DSV401 & DTM / DMA software bundle - SMART VISION - Device Management Tool for configuration and parameterization 	63111-9 820 026	10/63-1.20 EN
	<p>Hint: Operation at the workbench <u>ONLY!</u></p>		
	<ul style="list-style-type: none"> PCMCIA - FOUNDATION Fieldbus-H1/PC adapter (Not included in ABB delivery) Presently tested: National Instruments "NI PCMCIA-FBUS" 		
	<ul style="list-style-type: none"> PC 900-NR - Power Conditioner for FOUNDATION Fieldbus-H1 	3BDH000353	3BDD011867R101
	<ul style="list-style-type: none"> FOUNDATION Fieldbus-H1 cable, orange NFC080-NO - 2 x 0.88 mm²(AWG18/7), 65/330/1000 m NFC150-NO - 2 x 1.30 mm²(AWG16/7), 1000 m (optional) NFC250-NO - 2 x 2.10 mm²(AWG14/7), 1000 m (optional) 	63668-9 890 16x	10/63-6.67 EN
	<ul style="list-style-type: none"> ABB Field device overview - FOUNDATION Fieldbus-H1 		10/63-0.56 EN
	<ul style="list-style-type: none"> Installation suggestions (in preparation) - FOUNDATION Fieldbus-HSE/H1 		10/63-0.50 EN

Ordering information

<p>DSV401 (SMART VISION) - Single PC license Device Management Tool CD-ROM (German, English), manual as PDF-file. Following the installation the complete software runs 90 days in demo-mode and needs to be licensed within this period. The license key is to be requested at ABB and will be delivered free of charge. Please refer to the supplementary info.</p> <p>- Inclusive modules for HART devices: Pressure: AS800, PTH Temperature: TEU471, TEU421, TEU211, TS01/TS11, TS(x)02, BCI100-V17152 (Contrans I), S95.3U_x (Rueger) Flow: 10VT1000, FXE4000(50XE4000), FXT4000(10DT4000), FSM1000(50SM1000), FXM1000(50XM1000), FXM2000(50XM2000) Positioners: TZID, SR3780 (Samson) Universal: The HART Universal device driver supports every HART-capable device with the standard HART functions (Universal commands)</p> <p>- Inclusive DTM400 Bundle: By purchasing the DSV401(SMART VISION) single PC license the DTM400 bundle is also operable without restriction.</p>	<p>Catalog No. 63111-9820026</p>			
<p>SMART VISION Operating instruction, hard cover, German SMART VISION Operating instruction, hard cover, English</p>	<p>Catalog No. 63111-9820041 63111-9820042</p>			

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