softing smartLink HW-DP IIoT Gateway Owner's Manual

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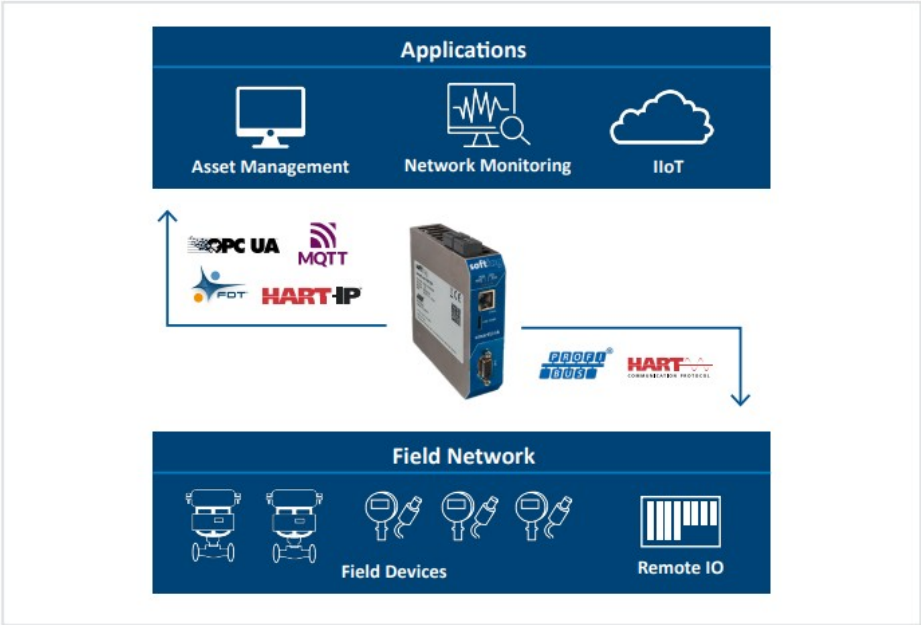
smartLink HW-DP
Owner's Manual

Contents

smartLink HW-DP IIoT Gateway

Industry 4.0 connectivity for new and existing PROFIBUS DP networks

- PLC Independent access to PROFIBUS DP networks
- Integration without interference with the operation of existing installations
- Compatible with products of leading device manufacturers



Configuration, Parameterization and Plant Asset Management Using Standard Industry Tools

- Independent of configuration tools
- Centralized and time-saving parameterization of PROFIBUS and HART field devices directly from the control room using HART IP and HART over PROFIBUS
- Access from Plant Asset Management applications for field devices configuration based on FDT / DTM and EDDL standards (acyclic master)

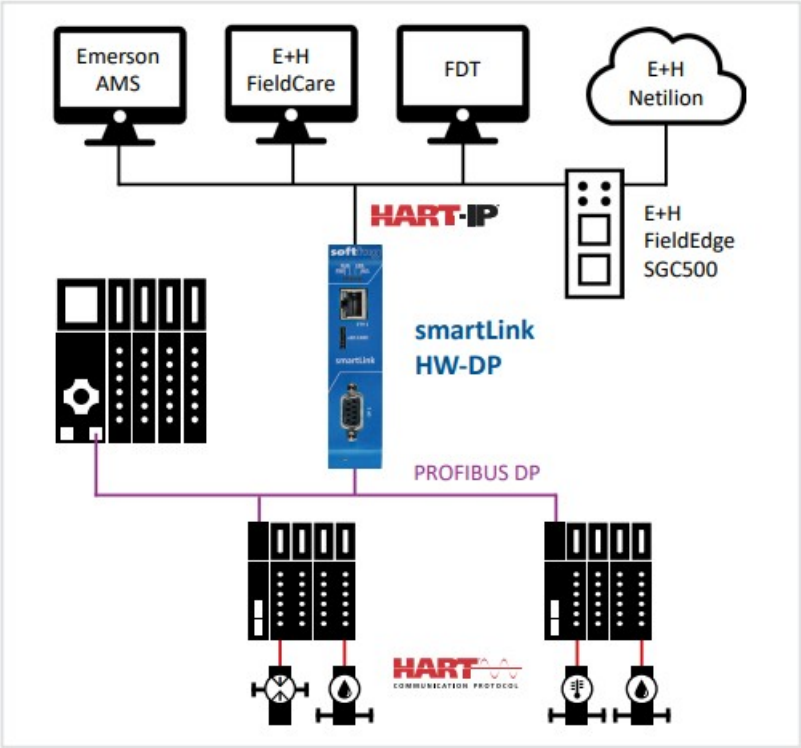
Ethernet Access Point to PROFIBUS DP

- Provides 2″ channel to access the field devices
- Acts as PROFIBUS DP master class 2
- Support of one PROFIBUS DP segment

Key Component for Transition to State-of-the-Art Technology

- Re-use of existing PROFIBUS segments without requiring modification
- Access to cyclic and acyclic data via HART-IP and OPC UA

Asset Management and Parameterization of HART Devices



Configuration, Parameterization, Plant Asset Management

- Secure, standardized access to devices
- Parallel to and independent of the controller

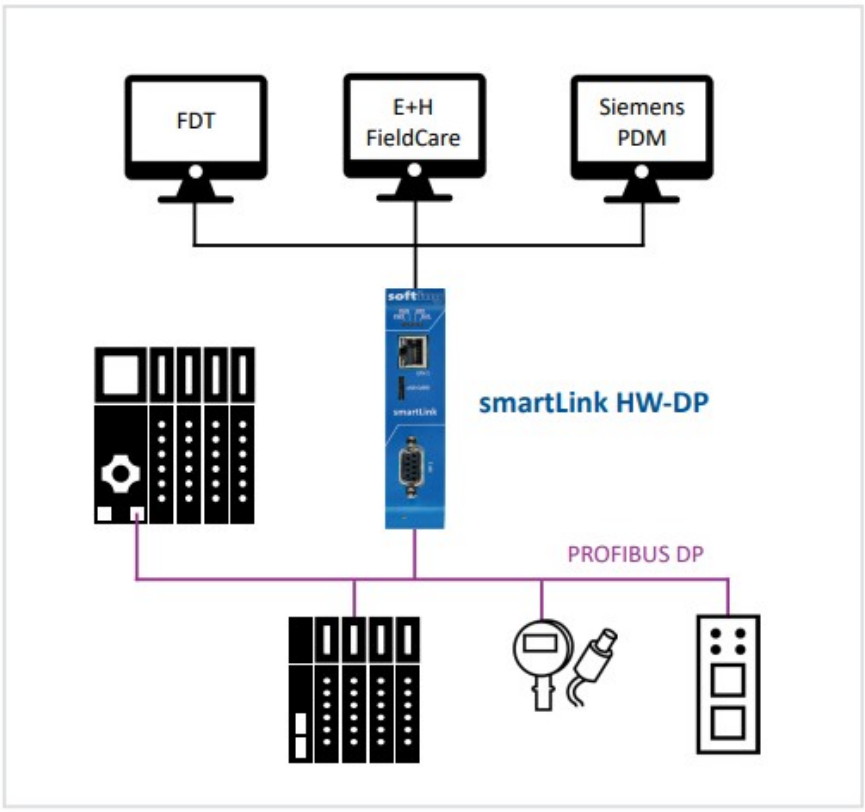
Inexpensive and low-risk integration

- Connection of a large number of HART devices without rewiring the devices
- Use of existing infrastructure using
- HART over PROFIBUS”
- Large number of supported Remote IOs

Compatible with established standard applications

- Uses HART-IP as standard application protocol
- Proven and tested

Asset Management and Parameterization of PROFIBUS Devices



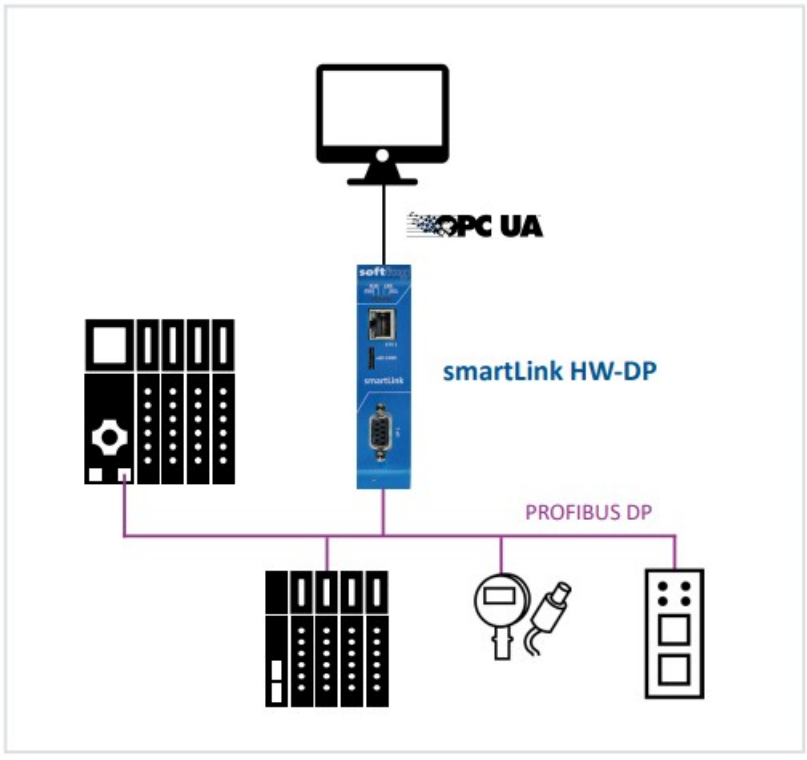
Configuration, Parameterization, Plant Asset Management

- Secure, standardized access to devices
- Parallel to and independent of the controller

Compatible with established standard applications

- Drivers available for FOT and Siemens PDM
- Proven and tested

Direct Access to Process Data from PROFIBUS Networks



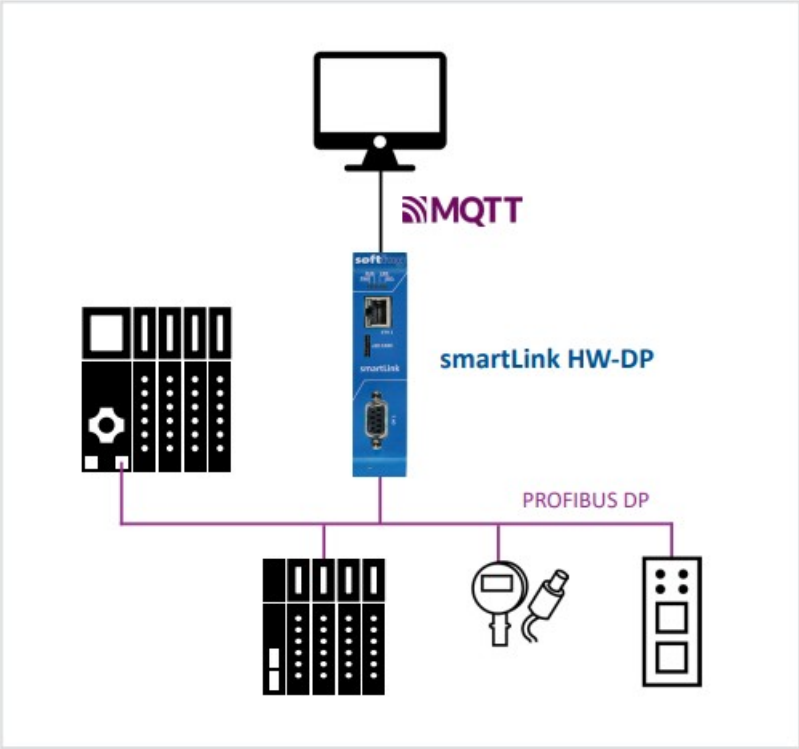
Capturing process data directly from the network

- Live provision of all process data for further use in typical Industry 4.0 applications such as data analytics
- Collecting data directly from the network, replacing the need to access the controller
- No intervention in the running prosess

Secure provision of data using OPC UA

- State-of-the-art transmission method in industrial networks
- Also for several parallel accesses

Asset Monitoring and Diagnostics in PROFIBUS Networks



Complete inventory of the entire network

- 1&M data from all connected devices
- Automated live queries without configuration

Secure provision of data using MQTT

- State-of-the-art transmission method for cloud connectivity
- Information model based on OPC UA Companion Specifications for PROFINET

Health monitoring of all connected devices

- Diagnostic messages and status of all bus stations
- Statistics parameters for the entire network

smartLink HW-DP

Technical Data

Hardware	Processor Status LEDs (Gateway) Real-Time Clock	Intel Cyclone V SoC with dual-core ARM Cortex-A9 PWR, RUN, ERR, BUS Real-Time clock with buffering, setting the time via browser or by NTP server (buffer time depends on conditions such as ambient temperature and duration of use)
Interfaces	Ethernet PROFIBUS DP	1 x IEEE802.3 10BASE-T/100BASE-TX/1000BASE-T, Connector: RJ45 1 x Segment with RS485 Physical Layer, Connector: 9-pin Sub-D socket
Supported	Communication Protocols	HART-IP, PROFIBUS DP
	PROFIBUS Remote IOs	**Siemens:** ET 200SP: 155-6BU01-0CN0 ET 200iSP: 152-1AA00-0AB0 ET 200M: 153-2BA10-0XB0 **ABB:** S800: CI801, CI840, CI840A S900: CI920N, CI920S **Pepperl+Fuchs:** LB: LB8105, LB8106, LB8109 FB: FB8206, FB8209 **R.Stahl:** iS1+: CPM 9440/15-01-11 **Turck:** BL20: BL20-E-GW-DP, BL20-GW-DPV1 excom: GDP 1,5 **WAGO:** I/O System 750: 750-333, 750-833
	HART IO Modules	**Siemens:** ET 200SP: 134-6TD00-0CA1, 135-6TD00-0CA1 ET 200iSP: 134-7TD00-0AB0, 135-7TD00-0AB0, 134-7TD50-0AB0, 138-7FA00-0AB0 ET 200M: 332-8TF01-0AB0, 331-7TF00-0AB0, 331-7TF01-0AB0, 331-7TB00-0AB0, 332-8TF00-0AB0 **ABB:** S800: AI815, AO815, AI845, AO845A, AI895, AO895 S900: AI930N, AO930N **Pepperl+Fuchs:** LB: LB3002, LB3102, LB3103, LB3105, LB4002, LB4005, LB4102, LB4105, LB3005A2, LB3006A, LB3106A, LB4106A, LB7104A FB: FB3202B1, FB3202B2, FB3205B2, FB3205B3, FB3302B2, FB3305B2, FB4202B2, FB4202B3, FB4205B2, FB4205B3, FB4205C2, FB4302B2, FB7204B3, FB7304B3 **R.Stahl:** iS1+: AIM 9461/12-08-11, AOM 9466/12-08-11, AUM 9468/32-08-11 **Turck:** BL20: BL20-2AIH-I, BL20-2AOH-I excom: AIH40Ex, AOH40Ex **WAGO:** I/O System 750: 750-484, 75x-842
	HART-IP Applications	Emerson AMS Device Manager V14.1.1, V14.5 Endress + Hauser Netilion (Field Edge SGC500)
	FDT Applications	PACTware, Endress + Hauser FieldCare
	Dimensions (H x W x D) Weight	120 mm x 28 mm x 110 mm Approx. 430g
	Power Supply	18 VDC … 32 VDC; SELV/PELV power supply mandatory Typical input current: 200 mA, maximum input current: 1 A (allowing for in-rush current at switch-on)

Physical Properties	Typical Power Loss	5 W
	Operating Temperature Storage Temperature	-40 °C … +65 °C (see detailed mounting description in user manual) -40 °C … +85 °C
	Relative Humidity	10 % … 95 %, non-condensing
	Cooling	Convection, no fan
	Mounting	DIN rail 35 mm
	Protection Class	IP20
Conformity / Standards	CE FCC VCCI	Electromagnetic compatibility (EMC) and Restriction of Hazardous Substances (RoHS) EN 61000-6-2 Generic standards – Immunity standard for industrial environments EN 61000-6-4 Generic standards – Emission standard for industrial environments EN 55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements Class A EN 55011 Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement Class A EN IEC 63000:2018 RoHS, Assessment to the restriction of hazardous substances FCC 47 CFR Part 15B Section 15.109 (Class A) VCCI Voluntary Control Council for Interferences by Information Technology Equipment, April 2015

Scope of Delivery

Hardware	smartLink HW-DP
Documentation	On Website

Order Numbers

GEA-YN-026000	smartLink HW-DP
GEA-YN-026001	smartLink HW-DP 50, Hardware preloaded with licenses for 50 devices
GEA-YN-026002	smartLink HW-DP 100, Hardware preloaded with licenses for 100 devices
GEA-YN-026003	smartLink HW-DP 250, Hardware preloaded with licenses for 250 devices
GEA-YN-026004	smartLink HW-DP 375, Hardware preloaded with licenses for 375 devices
LRA-NN-027004	smartPlus DP, License access to one field device

Additional Products and Services

DBA-KM-020410	mobiLink – Mobile HART interface

Your local Softing contact:

http://industrial.softing.com

Documents / Resources

	softing smartLink HW-DP IIoT Gateway [pdf] Owner's Manual smartLink HW-DP IIoT Gateway, smartLink HW-DP, IIoT Gateway, Gateway

References

- Industrial Communication solutions and products for Process- and Factory Automation
- User Manual