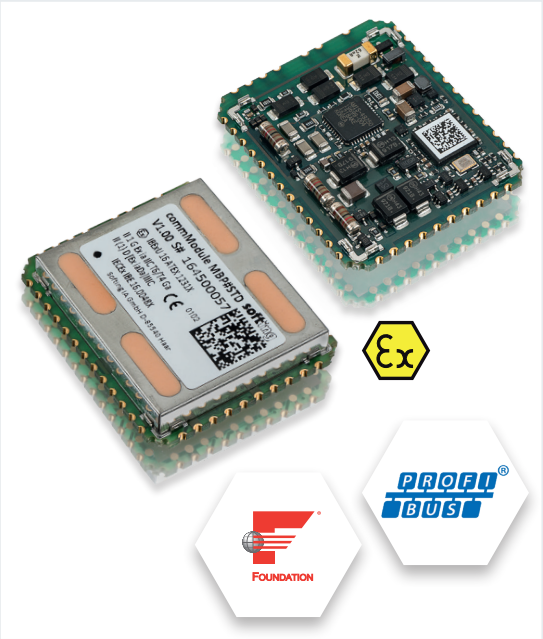
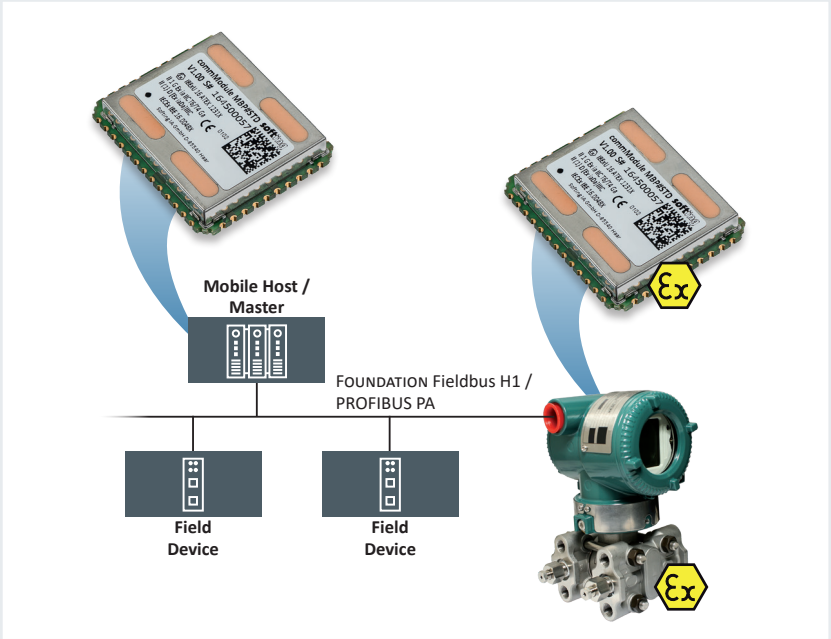
commModule MBP

Implementation of FOUNDATION Fieldbus and PROFIBUS PA Field Devices

- **Fast and cost-effective fieldbus implementation with a single hardware platform for FOUNDATION Fieldbus H1 and PROFIBUS PA instruments.**
- **Small footprint as well as the universal hardware are the main arguments in favor of commModule MBP.**
- **Easy integration into HART and Modbus devices by script-controlled mapping to HART or Modbus commands using commScripter tool.**





Fast Implementation

- Fast implementation path to FOUNDATION Fieldbus H1 or PROFIBUS PA instruments
- Fully tested protocol stack, proven in ten thousands of field devices
- Only hardware integration to be implemented
- Meeting FF requirements for Physical Layer Test and Conformance Test as well as of PA specifications

Cost Reduction by Universal Piggyback Solution

- Small footprint for use in majority of process equipment
- No expensive development of fieldbus hardware
- No stack porting, no application programming
- Components placed on one side only, automatic assembly on motherboard possible
- Potted and non-potted version for optimized ex design
- ATEX and IECEx approval for use in explosive environments
- Stack license included, FF or PA functionality selected by hardware pin

Smart way to upgrade HART and Modbus Devices for Fieldbus and PROFIBUS

- Script-controlled mapping of fieldbus function block application to device specific HART or Modbus commands
- No need for C programming
- commScripter tool checks script and creates mapping table
- Off-the-shelf commModules are customized by downloading mapping table

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commModule MBP

Technical Data

Hardware	Processor	Renesas RX64M
	RAM	512 kByte
	Flash	3 MByte (on chip)
	Non-volatile RAM	On chip for persistent storage of parameters
	Connectors	Solder pads on edge of PCB
	Current Consumption	10 mA … 26 mA (adjustable by software)
	Power Supply to Device	3.2 V (max. 70 mW) and 6.2 V (max. 90 mW)
	Operating Temperature	-40 °C … +80 °C
	Storage Temperature	-40 °C … +85 °C
	Relative Humidity	10 % … 90% non condensing
	Mounting	Soldering (automatic assembly possible for non-potted version)
	Weight	15 g (pottet). 8 g (non-potted)
	Dimensions	32,00 x 38,71 x 6,50 mm
Interfaces	Fieldbus Interface	FOUNDATION Fieldbus H1 and PROFIBUS PA according to IEC61158-2, selectable by HW pin
	Interface to Field Device	UART (regular firmware for commScripter), UART, I2C, SPI (user specific firmware)
	Protocol to Field Device	Protocol to Field Device
Certificates	ATEX	II 1G Ex ia IIC Ga
	IBEXU17ATEX1135U	II (1)D [Ex ia Da] IIIC
	IECEx IBE 17.0038U	Ex ia IIC Ga, [Ex ia Da] IIIC
	FF Physical Layer	Passed
	FF Conformance	Passed (CT1014FF)

Scope of Delivery

Hardware	Packaging Unit: 90 pieces in tray (sealed dry pack)
Firmware	FF and PA device stack plus commKit mapping application flashed on board
Documentation	Hardware Manual

Order Numbers

EIA-KS-022200	**commModule MBP** potted, 90 pieces in tray
EIA-KS-022220	**commModule MBP** non-potted, 90 pieces in tray
EIA-KS-022400	**commModule MBP** potted, 5 samples in tray, potted
EIA-KS-022420	**commModule MBP** non-potted, 5 samples in tray

Additional Products and Services

EVA-MK-022210	**commModule Evaluation Kit** (commModule MBP in housing with connectors)
DXA-KL-020620	Renesas E1 Flasher
LDA-KM-022451	**commScripter** Single Seat Developer License FF to HART
LDA-LM-022452	**commScripter** Single Seat Developer License PA to HART
LDA-KS-022453	**commScripter** Single Seat Developer License FF to Modbus
LDA-LS-022454	**commScripter** Single Seat Developer License PA to Modbus
HUA-AA-001012	USB Hardlock for commScripter Licenses
SIA-KS-022470	commScripter Workshop (per day)
SIA-KL-020100	Integration Support (per hour)

Your local Softing contact:

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