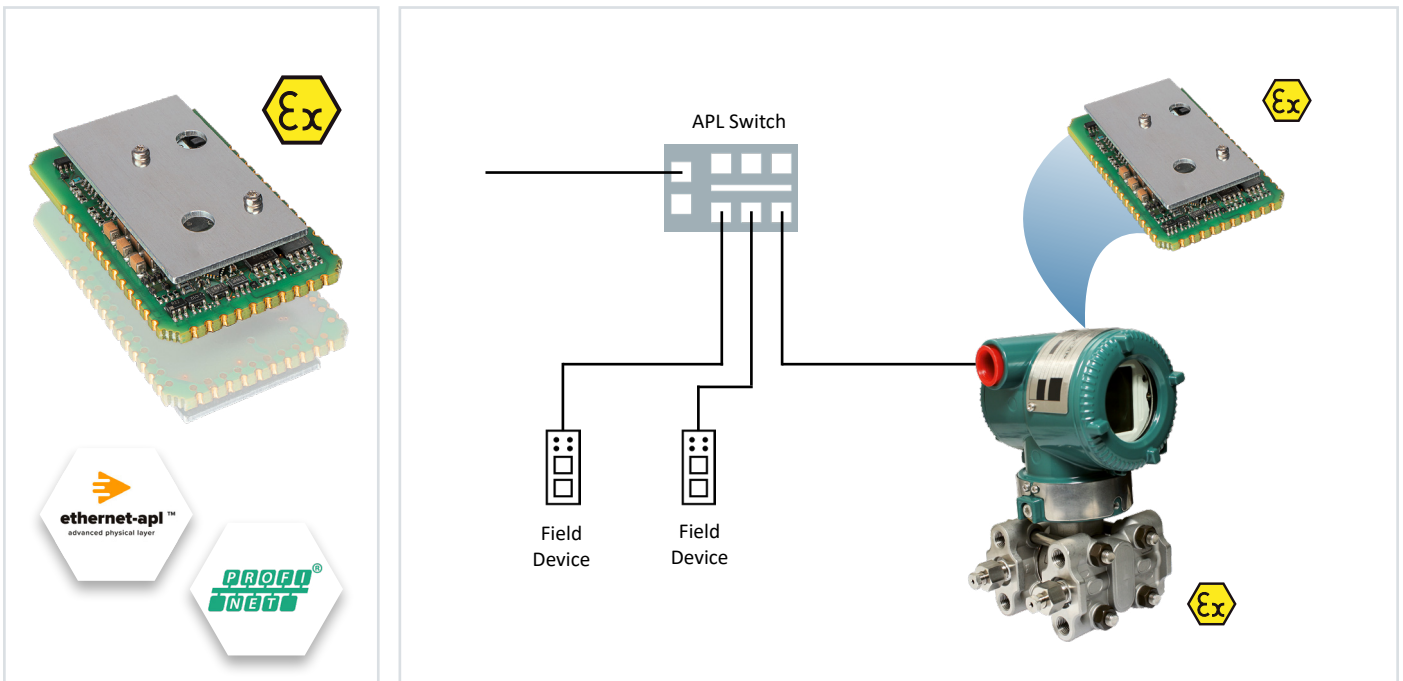


# commModule APL

## Core Electronics for APL Field Devices

- Fast and cost-effective Ethernet-APL implementation for process automation devices
- PROFINET protocol software according to PA profile 4.02 already onboard
- Allows for intrinsically safe hardware designs for use in hazardous areas
- Easy integration into HART and Modbus devices



### Fast and cost-effective implementation

- Small footprint for use in majority of process equipment
- No need for a complex hardware development
- No stack porting, no application programming
- Components placed on one side only for automatic assembly on motherboard

### PROFINET protocol software according to PA profile 4.02 already onboard

- Implementation follows latest APL and PI specifications
- Run-time license for the software is already included

### Made for intrinsically safe hardware designs

- Potted and non-potted version for optimized ex design
- ATEX and IECEx approval for use in explosive environments

### Easy integration into HART and Modbus devices

- Script-controlled mapping of 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

# commModule APL

## Technical Data

<b>Hardware</b>	Processor	Renesas RX64M
	RAM	2,5 MByte
	Flash	4 MByte (on chip)
	Non-volatile RAM	On chip for persistent storage of parameters
	Connectors	Solder pads on edge of PCB
	Current Consumption	50 mA
	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 ... +125 °C
	Relative Humidity	10 % ... 90% non condensing
	Mounting	Soldering (automatic assembly possible for non-potted version)
	Weight	24 g (potted), 8 g (non-potted)
	Dimensions	32,0 x 54,7 x 8,0 mm
<b>Interfaces</b>	Fieldbus Interface	PROFINET over APL with PA Profile 4.02
	Interface to Application Device	for regular firmware for commKit: UART, for user specific firmware: UART, I2C, SPI
	Protocol to Application Device	HART, Modbus or user specific
<b>Certificates</b>	ATEX	In preparation
	IECEX	In preparation

## Scope of Delivery

Hardware	Preliminary engineering samples of commModule APL available on request Production devices on tray (sealed dry pack) available later this year
Firmware	PROFINET device stack, mapping application
Documentation	Hardware Manual

## Order Numbers

EIA-AS-022430	<b>commModule APL</b> potted, samples
EIA-AS-022450	<b>commModule APL</b> non-potted, samples
EIA-AS-022230	<b>commModule APL</b> potted, 90 pieces in 6 trays
EIA-AS-022250	<b>commModule APL</b> non-potted, 90 pieces in 6 trays

## Additional Products and Services

EVA-MA-022240	commModule Evaluation Kit (commModule APL in housing with connectors)
DXA-KL-020621	Renesas E2 Lite Flasher
LDA-AM-022755	commScripter, Single Seat Developer License PROFINET to HART
LDA-AM-022756	commScripter, Single Seat Developer License PROFINET to Modbus
HUA-AA-001012	USB Hardlock for commScripter Licenses
SIA-AY-022471	commScripter APL Workshop (per day)
SIA-KL-020100	Integration Support (per hour)

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