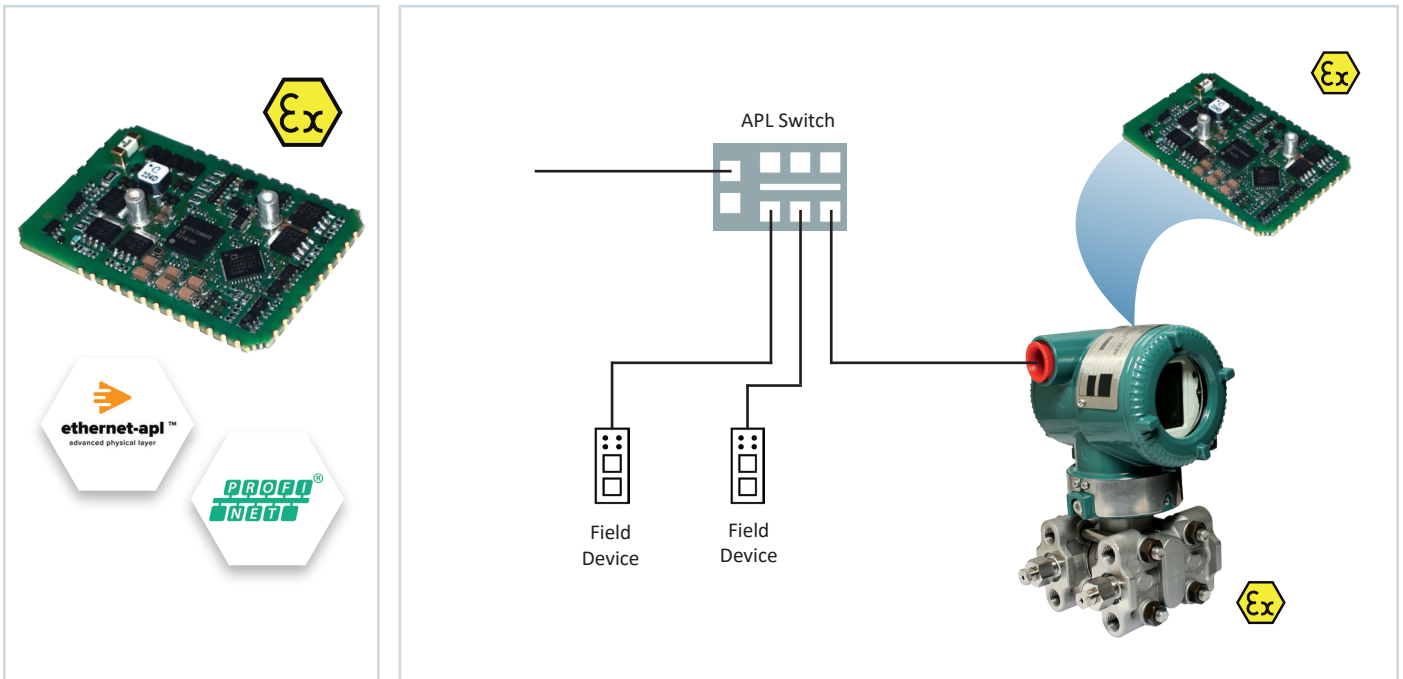


# commModule APL (preliminary)

## 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
- Suited for automatic assembly on motherboard
- No need for a complex hardware development
- No stack porting, no application programming

### 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 RX72N  |
|                                 | RAM                    | 1024 kByte   |
|                                 | 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                 | 15 g (potted), 8 g (non-potted)  |
|                                 | Dimensions             | 32,0 x 49,7 x 8,0 mm   |
|                                 | <b>Interfaces</b>      | Fieldbus Interface   |
| Interface to Application Device |                        | for regular firmware for commKit: UART, for user specific firmware: UART, I2C, |
| Protocol to Application Device  |                        | SPI HART, Modbus (coming soon) 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<br>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 |

## 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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