PROFIBUS PA Field Devices Software

Portable PROFIBUS PA Protocol Software for Field Devices

- Optimized to support customer-specific hardware platforms
- Full functionality for implementing conformant PROFIBUS PA field devices
- Consistently designed for portability to low-power microcontrollers

Fast adaptation to customer-specific hardware platforms

- Complete solution, software-based
- Especially designed for use in typical process automation field devices
- Implementation optimized for usage in low-power microcontrollers typically found in hazardous areas
- Suitable for many field device environments with a wide range in terms of microcontrollers, memory expansion and operating systems
- Adaptable to device-specific requirements
- Designed for use in customer-specific target platforms

Full range of functionality

- Implementation according to the PROFIBUS specification
- Including Function Blocks of the PROFIBUS PA profile from the PROFIBUS specification
- Modular design for individual selection of the functionality supported in the respective field device

Support for general fieldbus ASICs

- Implementation support not only for the PROFIBUS ASICs SPC4-2, but also for other fieldbus ASICs such as the UFC100-L1 from Softing
- Possible parallel implementation of PROFIBUS PA and Foundation Fieldbus H1 field devices on identical hardware platform
- Reduced implementation effort for second field device protocol when using the PROFIBUS PA and Foundation Fieldbus H1 field device protocol software from Softing in parallel
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Technical Data

| Minimum Hardware Requirements | CPU Class | 32 Bit, e.g. ARM Cortex-M, Renesas RX, ...
|                             | CPU Clock | 4 MHz
|                             | (Flash-) ROM | > 256 KB
|                             | RAM | > 64 KB
| Non-Volatile Memory | 4 KB, e.g. as EEPROM / FRAM

| Fieldbus Interface | Number of Channels | 1
|                   | Transfer Rate | 31.25 Kbit/s
|                   | Fieldbus Controller | Softing UFC100, (Siemens SPC4-2) (TI DAC8740)

| Licensing | Per-unit license | Per-unit license fee for use of the PROFIBUS PA field device stack in individual field devices. Protected by Security EEPROM. One-year maintenance contract recommended

| Options | Available Function Blocks | Analog Input (AI), Analog Output (AO), Discrete Input (DI), Discrete Output (DO), Totalizer (TOT)

Scope of Delivery

| Hardware | Security EEPROM
| Documentation | Application Programming Interface (API) manual

Order Numbers

| LRA-KK-021513 | PROFIBUS PA Device Stack License

Additional Products and Services

| FFPA-MAINTAIN-FD | Maintenance Contract for PROFIBUS PA Field Device Software
| IFA-KK-020503 | Unified Fieldbus Controller UFC-100-L2
| SPA-LL-020802 | Certification service PROFIBUS PA Physical Layer test
| SPA-LL-020805 | Pre-certification service PROFIBUS PA test
| EVA-MK-022210 | commModule MBP Evaluation Kit
| TSA-KK-023001 | Introductory Training “PROFIBUS PA”

This training is not offered as a standard training course, but tailored to individual customer requirements. It is usually held as part of a workshop related to with an integration project.

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