FBK-2 Evaluation Kit

Easy and Rapid Implementation of a Foundation™ Fieldbus or PROFIBUS PA Prototype

- Hardware and software for generating a Foundation Fieldbus (FF) H1 respectively a PROFIBUS PA (PA) communication interface for HART transmitters
- Designed for ease-of-use and requires no programming
- Qualified for further evaluation

Easy and Rapid Prototyping of Fieldbus Interface

- Turning any HART transmitter into an FF H1 or PA field device prototype
- Mapping a limited set of HART Universal Commands including process value to appropriate fieldbus block parameters
- Fast and easy integration of existing HART transmitter into fieldbus network for evaluation purposes
- Implementation through configuration only, without requiring any programming
- Applicable for proof-of-concept of the created FF and PA communication capabilities and as platform for gathering required experience regarding full fieldbus implementation

Ideal Basis for Full Fieldbus Implementation

- Based on hardware and software of Softing’s FBK-2 product
- Ideal platform for developing fully functional FF and PA communication interface for field device
- Only minor steps required to develop complete field device after completion of evaluation

Direct Usage in Applications Without Specific Preventive Measures

- Elimination of direct contact and protection against electrostatic discharge by plastic housing
- Possible use of interface prototype directly within fieldbus laboratory network

Applicable for Fieldbus Network Simulation

- Simulation of process values (ramp, saw tooth)
- Simulation of Control in the Field applications (FBK-2 Evaluation Kit FF only)
## FBK-2 Evaluation Kit

### Technical Data

#### User Interface
- **Controls**: Power on/off button, Bluetooth pairing button
- **Status LEDs**: FIELDBUS (Fieldbus mode), HART (HART mode), Bluetooth (Pairing/Bluetooth active), Low battery, Power on

#### Interfaces and Connectors
- **USB**: Speed: USB 2.0 Full Speed, Connector: USB Type C
  - Electrical: Non intrinsically safe. Do not use inside hazardous areas. 5 V, 100 mA. Uṁ = 253 V
- **Bluetooth**: BT mode: BT Classic, 2.4 - 2.478 GHz, Output Power: +8 dBm (maximum)
- **Fieldbus**: Connection: 4 mm banana type jacks (red/black), polarity has to be observed
  - Physical Layer: according to IEC 61158-2, Type 1: 31.25 Kbit/s, voltage mode
  - Nominal input current (Fieldbus): 10 mA in Bluetooth and regular USB mode
  - 18 mA (with fieldbus voltage > 9,5V) for increased battery life time in USB mode (controlled by application)
- **HART**: Connection: 4 mm banana type jacks (red/black)
  - Physical Layer: HART FSK compliant modem

#### Operation in Hazardous Areas
- **Intrinsic Safety Parameters**: EX ia IIB, Ui = 30 V or FISCO field device
  - Isolation: 1500 VDC between USB and Fieldbus, 1500 VDC between USB and HART

#### Physical Properties
- **Dimensions (L x W x D)**: 175 mm x 74 mm x 32 mm
- **Weight**: 330 g (incl. Batteries)
- **Power Supply**: Battery: 3 * Alkaline, IEC-LR6, nominal voltage 1,5 V
  - For use in hazardous area: Energizer E91 or Duracell Procell MN1500.
  - With batteries of other types or manufacturers certification is void.
  - Fieldbus interface (Medium Attachment Unit) powered by fieldbus.
- **Operating Temperature**: -20°C .. +50°C
- **Storage**: Store batteries in a dry place at normal room temperature.
- **Relative Humidity**: < 95% rH non condensing
- **Protection Class**: IP 54 (if USB port covered with cap)

#### Radio permit
- EU countries, USA, Canada and Japan, other countries on request

### Scope of Delivery
- **Hardware**: mobiLink, USB cable, fieldbus cable set with clips, 3 * Alkaline IEC-LR6, USB memory stick
- **Software**: PACTware, Communication DTM for HART, FOUNDATION Fieldbus and PROFIBUS PA
  - (for FOUNDATION Fieldbus and PROFIBUS PA optional license required)
- **FOUNDATION Fieldbus Configuration Tool ComConf** (optional license required)
- **Documentation**: On USB memory stick

### Order Numbers
- **DBA-KM-020410**: mobiLink for HART applications, including accessories
- **LRA-KK-021971**: Licence for FF CommdTM
- **LRA-NN-021972**: Licence for PA CommdTM
- **LRA-KK-020721**: Licence for FF Configuration Tool ComConf
- **DBL-KM-020411**: mobiLink HART incl. FF Comm DTM Licence
- **DBL-KM-020412**: mobiLink HART incl. FF and PA Comm DTM Licence
- **DBL-KM-020413**: mobiLink HART incl. PA Communication DTM License
- **HUA-AA-001012**: USB hardlock for the flexible use of product licenses in combination with Softing License Manager

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