



SYMBIOT

POWERED BY ISKRAEMECO

Field Assist



The Symbiot FieldAssist is a modern and user-friendly solution designed by Iskraemeco. It is dedicated for local meter operations in the field (meter commissioning, meter data reading, meter parameterization and meter firmware upgrade).

The central Symbiot FieldAssist Backend server enables the management of user permissions and preparation of command files, automatically distributed to smartphones or tablets. The Web-based Backend server assures the management of work orders and an overview of the digitally signed operating logs with the geographical location on the map.premises; it enables centralized management of users and operations for the S- FA applications.

Meter readouts and operation logs collected with the Symbiot FieldAssist application are automatically transferred to the Backend server and imported into Symbiot or any other HES. In the case of using the Symbiot Suite, the integration is readily available. 3rd party Head-End-Systems can be integrated on the level of collected files, made available by the Backend server in a dedicated folder.



Solution architecture.

The solution consists of the following components

Symbiot FieldAssist App

the Android application for local meter operations in the field with a USB or Bluetooth optical probe running on a smartphone or tablet.

Symbiot FieldAssist Administrator

a Windows service with an administrator web portal running on the customer's premises; it enables centralized management of users and operations for the S- FA applications.

Supported meter operations.

Supported operations on electricity meter

- Read Clock.
- Set Clock.
- Synchronize Clock – meter clock synchronization with time on an Android device.
- Read Load Profile.
- Read Billing Profile.
- Read Event Log – enables reading of any meter event log with a simple presentation.
- Read Registers – enables reading of arbitrary meters registers with simple presentations.
- Execute Command Script – meter parametrization with arbitrary command script in NCS format.
- Monitoring – periodical presentation of current measurement values on the meter. On industrial meters, a vector diagram is presented.
- Meter Firmware Upgrade – upgrade of DLMS based electricity meters.
- Meter Snapshot – reading of complete meter data from the meter for further inspection.

Supported operations on wireless M-Bus meters (water, heat, gas meters)

- Passive reading – reading of measurement values for all meters in the reach (general Walk-by / Drive-by mode of meter readout).
- Target reading – reading of measurement values only for the meters contained in the work order (suitable for collecting the missing measurement data).

Additional functionalities available in the Symbiot FieldAssist application

- Seamless operation with the Key Management System (KMS) when online connection available.
- Offline work with meter keys if the online connectivity to KMS is not possible.
- Work order management with the Google Maps navigation.
- Digitally signed operations log, with geographical location and optional photo evidence of the action.



The solution supports **Iskraemeco and other non-Iskraemeco meters.**

There is a growing list of supported meters. If a meter is not supported yet, Iskraemeco can integrate it on a project basis.

End-user benefits.

- Central management of operations and user rights.
- Simple and ergonomic user interface.
- Support for any Android-based device, from simple to rugged one.
- Support for revoking the permission if a phone/tablet was lost or stolen.
- Securely protected data is instantly transferred between the phone application and the Center.
- Support for DLMS and IEC 1107 electricity meters.
- Support for Low-Level Security and High-Level Security (Cossem Security Suite 0, 1, 2).
- Complete set of electricity meter operations including reading, writing, and DLMS meter firmware upgrade.
- Vector diagram and smart meter monitoring.
- Walk- By / Drive By meter readout for water, heat and gas meters.
- Integration with HES and out-of-the-box integration into Symbiot System.
- Support for wired USB and wireless Bluetooth optical probes.
- Secure and seamless support for Key Management System (KMS).
- Work order management.
- Localization support.



The **SYMBIOT FieldAssist** in a nutshell:

- **Simple-to-use utility tool** that runs on Android. It is aimed at field technicians and enables meter installations, readouts and local maintenance tasks.
- **It supports electricity meters and battery-powered w-Mbus meters** (water/heat/gas) using the efficient Walk-By/Drive-By readout method.
- The use of work orders provides a clear overview of daily tasks. It enables efficient traveling between meter locations **using Google Maps navigation**.
- The solution utilizes **a two-way communication** with the center for online exchange of work orders, commands, operational logs and collected data.
- **The solution is highly secure.** It enables seamless operation with any KMS system without exposing the meter keys. Besides, it offers the offline operation mode when no internet connection is available, assuring the field technician to complete the mission under any circumstances.



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