

Data communication with the new volume conversion device EK280:

Multilingual and backward compatible

In addition to the secure control of daily tasks, the use of English for the exchange of information is now an obligation in order to survive in professional life. Better still is to master other foreign languages in order to respond individually to your respective partners.

It is no different for a modern volume conversion device: alongside the metrological requirements for volume conversion and data storage, there is also an obligation to transfer the detected meter readings, measured values and archive data. It is, therefore, no longer enough to simply provide a data protocol. The new EK280 volume conversion device is well positioned in this respect – and as far as the “mother tongue” is concerned, it is backward compatible with its successful predecessor, the EK260.

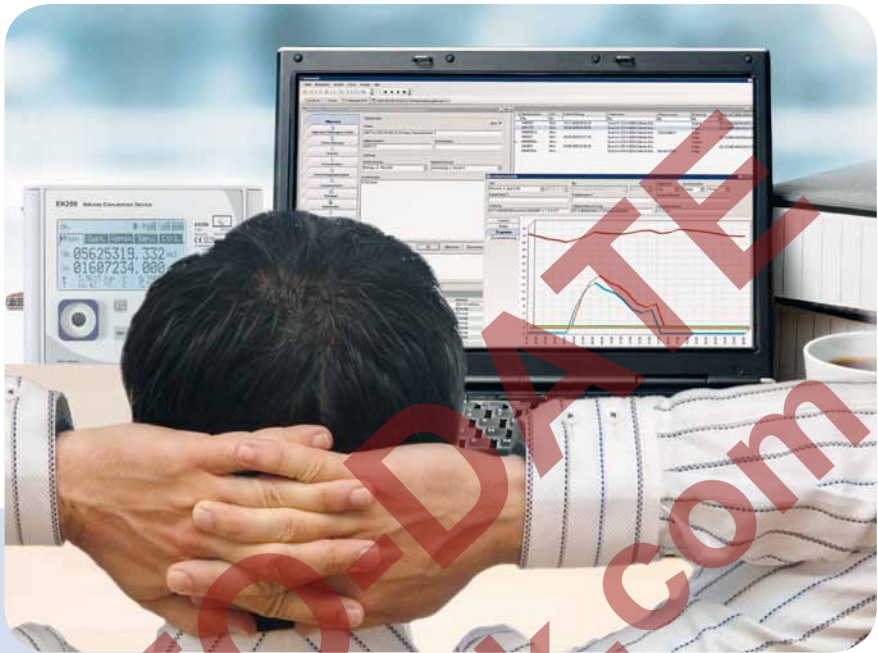
The “mother tongue” of the EK280 is based on the International Standard IEC 62056-21, still better known today under the name IEC 1107. This data protocol, which was defined more than ten years ago for data exchange with electricity meters, has been implemented in the volume conversion devices and data loggers of the LIS-200 series. That was, and is, the basis for successful integration into the remote reading systems of well-known manufacturers.

Together with the reliability and long-term stability of the LIS-200 devices, this is the main reason for the widespread use of Elster data loggers and volume conversion devices. For this to continue, in developing the new EK280 volume conversion device, Elster has ensured that it is also backward compatible as regards the communications options. What is more, before the product launch, extensive tests were

carried out with our system partners (see confirmation of the system partners on pages 4 and 5) to ensure that the EK280 can also be read using the existing EK260 device drivers or with a corresponding update. The functionality of EK280 reading is based on the capabilities of the device drivers to read an EK260 with firmware version 2.55. Of course, the EK280 offers even more functions, such as additional archives. These are not yet support-

ed by the existing drivers. The future will show how far it is useful to implement these on the basis of the existing drivers and data protocol IEC 62056-21, or whether it would be better for these to be based on new future-oriented concepts – such as the international standard for meter data communication, DLMS/COSEM.





Those responsible for remote meter reading can relax – the EK280 is backward compatible and can be read using the existing EK260 device drivers.

In addition to the data protocols mentioned above, the EK280, like the EK260 before it, also supports the Modbus protocol. This is often used in the area of system monitoring, for example in conjunction with remote control or SCADA systems. Here too, Elster ensures backward compatibility to the EK260, realized by means of flexible configuration options within the EK280. Alongside the ASCII, RTU and TCP modes, the Modbus addresses, data formats, byte order, etc. can be freely parameterized. With the EK260, you still need to decide which protocol should be used to communicate via the interface. Now, in addition to data communication over the internal modem, the interface terminal block can be used for commu-

nication via the Modbus protocol – and this simultaneously and independently of each other.

The EK280 already offers the possibility to transfer data using DLMS/COSEM communication. DLMS/COSEM is an energy-type and communications-media independent standard, publicly available as IEC or CEN/CENELEC Standards. The standard defines comprehensive security mechanisms for access protection (identification of the partners before data exchange), access control (role-based access, access rights, certificates) and security of data transfer (cryptographic protection of messages during transport), and meets the highest requirements when it comes to

the secure transfer of sensitive data. Furthermore, DLMS/COSEM is already supported by many meter manufacturers and system providers worldwide. A look at the DLMS User Association's published list of certified devices that meet the requirements of the standard, leaves no doubt about this: www.dlms.com/conformance/listofcompliancequipment/index.html.

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|--------|---|
| DLMS | Device Language Message Specification |
| COSEM | Companion Specification for Energy Metering |
| WELMEC | European Cooperation in Legal Metrology |

The following service providers and system partners have confirmed the backward compatibility of the EK280 under application of the protocol according to IEC 62056-21 with their remote meter reading systems:

Görlitz AG
August-Thyssen-Straße 32
56070 Koblenz, Germany
www.goerlitz.com

GÖRLITZ

IDSpecto.collector – reliable online reading of multi-utility energy meters

Whatever meter is used: the IDSpecto.collector module reliably reads energy meters for all utilities and integrates the values in the IDSpecto energy data management system. All commonly available meter standards and protocols, such as DLMS and IEC 62056-21, are supported. The new EK280 volume conversion device from Elster can also be read following a simple update of the existing EK260 driver.





The EK280 is optimally equipped for remote data transfer: in Zone 2 or in safe areas, a GPRS/GSM modem and a power supply unit can be integrated in the device. This reduces costs in the procurement stage and when installing and commissioning.

In short – the EK280 is multilingual and in addition to its “mother tongue” IEC 62056-21, it is equally “fluent” in the Modbus protocol and DLMS/COSEM communication. What is more, if in future new requirements should emerge for communications, so that so-to-speak new “vocabulary” is needed, or if something changes

in the “grammar”, this will not be a problem. We can update the firmware of devices in the field remotely, and so meet the new requirements without having to physically access the metering point. The device is,

of course, metrologically approved (Welmec Guide 7.2) and is encrypted and certified by application of the methods set out in DLMS/COSEM.

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Would you also like to test whether the EK280 can be read by your data retrieval system? Not a problem: send a short e-mail to support@elster.com and we will send you the access details to a test device.

ITF-EDV Fröschl GmbH
Hauserbachstraße 7-10
93194 Walderbach, Germany
www.itf-edv.de



ZFA-F – the universal meter data platform

Communication with meters, measuring and recording devices is achieved in a manufacturer-independent manner via individual device drivers. With currently more than 240 different device drivers, all popular meters, registration equipment and transmission devices are supported. The volume conversion device EK280 from Elster can be read with the existing driver (within the limits of the functionality of the EK260). With an update to the EK280 device driver, the full range of functions of the volume conversion device can be used.

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B+K Bittner+Krull
Softwaresysteme GmbH

Argos system solution – front-end remote reading

The remote reading system from Bittner+Krull can read a variety of electronic meters for all media and from diverse manufacturers. The system automatically interprets the raw data read. The system uses an automated procedure to assign substitute values for those that are missing, in conformity with Metering Code 2006 and G685. This also works for the new volume conversion device EK280 from Elster, using the existing driver.