

COST-EFFECTIVE SOLUTION USING ENCODER WITH M-BUS INTERFACE

AMR goes wired

There is a deep-rooted preconception that automatic meter reading (AMR) can only be achieved at a reasonable cost if you use radio transmission as the basis for the process. However, especially when it comes to the new housing sector, a wire-based solution offers a number of advantages because wiring is relatively cheap during the construction phase. In addition, ELSTER's new M-BUS ENCODER solution provides a system which transfers original meter readings and, therefore, offers advantages when it comes to commissioning and process security for data transmission and billing.

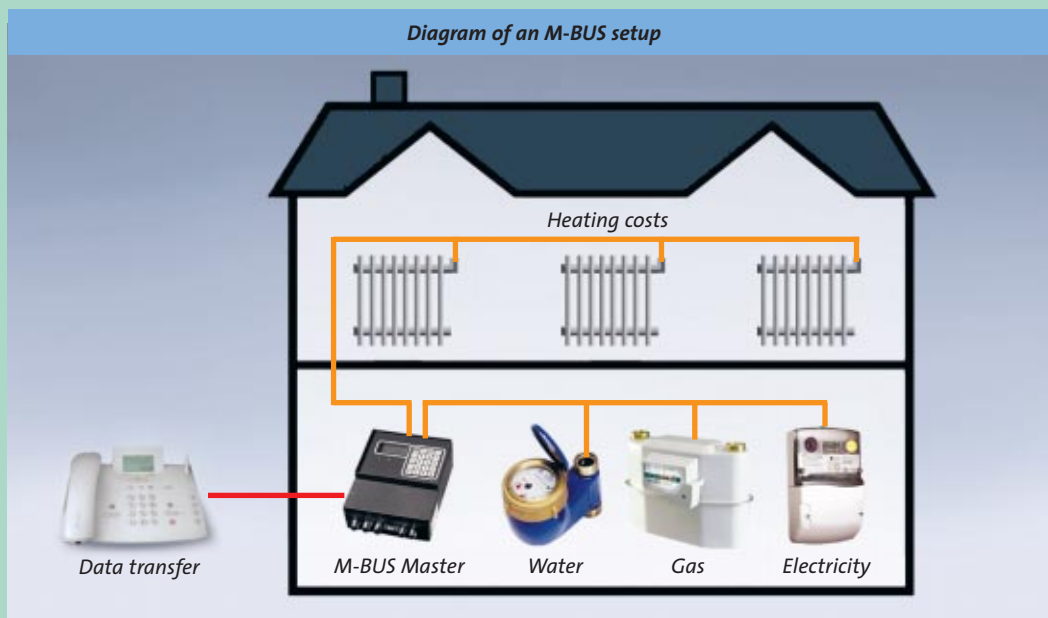


BK-G4 with Absolute-ENCODER

The M-BUS is a cost-optimised, two-wire field bus conforming in terms of hardware and protocol to the European Standard EN 1434. Any common metering device in the field of residential metering can be switched into this bus system, provided that it is equipped with the M-BUS interface. This means that all devices, from heat cost allocators to water meters, heat meters, electricity meters and gas meters, can be read out via this bus system.

An M-BUS can be organised in any form of chain or tree structure. Only closed circuits must be avoided. M-BUS connections also have no polarity so the incoming cable can be connected in any way to the contacts in the meter. The bus cable need not conform to any specific requirements – a telephone cable is sufficient. Up to 250 meters

Diagram of an M-BUS setup



can be administered in a bus segment whereby the length of cable can be more than two kilometers. If this is not enough, amplifiers can be used to add on further bus segments.

The bus is controlled via so-called M-BUS Masters, which act as data concentrators. If a meter is only fitted with a pulse output, then a pulse module with a backup battery in case of power failure can be connected and can function as an interface for the bus system. However, this does involve the potentially time-consuming setting of parameters and, what's more, a few well-known uncertainties with regard to the pulse transmission have to be taken into account. The data sets in the M-BUS include information on the medium which has been metered, the meter manufactu-

rer, the size of meter and, of course, the registered meter reading.

The standardised M-BUS world has an easily accessible range of components. If you use this system in connection with an ENCODER on an ELSTER diaphragm meter, this will provide you with a cost-effective remote data readout possibility using permanently installed cables – including comfort and security in the transmission of original meter readings with the help of the unique ELSTER Absolute ENCODER technology! Should you need help to find M-BUS Masters or other M-BUS components, please feel free to ask us for support.

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