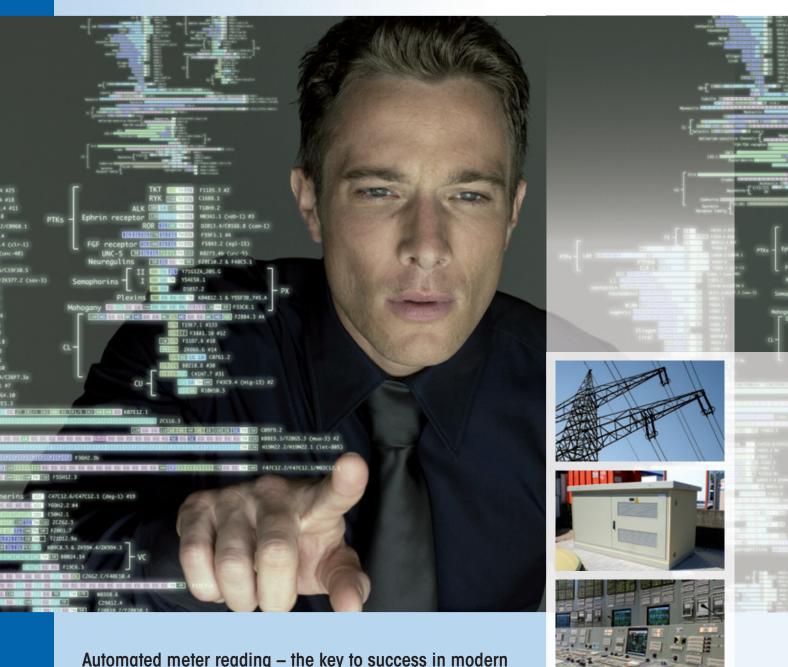# Dr. Neuhaus

Solutions for Automated Meter Reading

Automated meter reading – the key to success in modern energy data management

The liberalization of the energy markets presents utilities and operators of distribution networks with new challenges. Many meters have to be read automatically by remote and the meter data have to be exchange with other market players. That's why a powerful automated meter reading system is an absolute must.
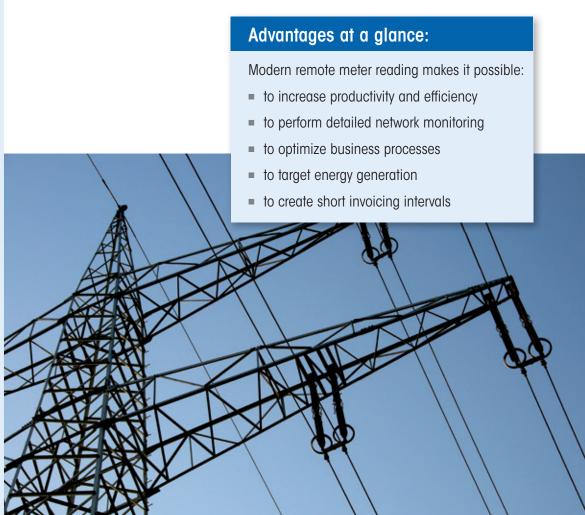
Company with 30 years of experience
M2M Communications Made in Germany

Dr. Neuhaus stands for innovation in industrial communications and is a pioneer in the field of automated meter reading. The ZDUE modem series enables remote meter reading for all types of energy supply, including electricity, heat, gas and water meters. The ZDUE modems have been used successful by well-known utilities all over the world since 1993. They are available in four different versions: for analog, GSM, GPRS or LAN connections.

Liberalization affects automated meter reading requirements
Automated meter reading is the basis for modern energy management

Remote meter reading for special contract customers is an important instrument in modern energy management. It's essential that the meter data is as up to date, complete and in a high quality. With the help of such data, it is possible to adapt energy generation and distribution to real needs, as just one example.

In addition, the liberalization of the energy market has presented completely new challenges to the different market players, energy generators, energy traders network operators and customers. Focusing on the different interests concerned, there are now significantly different demands made at the meter station. In addition to communications technology, the format and the further processing of the data provided play an important role.

Advantages at a glance:

Modern remote meter reading makes it possible:

- to increase productivity and efficiency
- to perform detailed network monitoring
- to optimize business processes
- to target energy generation
- to create short invoicing intervals

Transparent meter modems for any application
ZDUE – the universal modem family for automated meter reading

With the ZDUE product line, Dr. Neuhaus Telekommunikation offers a product portfolio that has been specially designed to meet the requirements of automated meter reading. Independent of the meter type and protocol, the readings are transmitted to the control center transparently and made available for the downstream business processes. This applies to the energy consumption data of all currently standard meters and data acquisition devices for electricity, gas, water and heat.
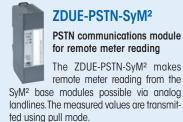

Dr. Neuhaus Telekommunikation has already been supplying utilities with devices for meter reading transmission for more than 20 years. The know-how acquired during this time is reflected in the current product line. The open, standardized interfaces offer the customer a high degree of flexibility. This applies to the choice and number of the connected meter as well as to the selection of the central AMR software used to control and manage the reading process.

ZDUE-GPRS-SyM²

GPRS communications module for remote meter reading

The ZDUE-GPRS-SyM² makes remote meter reading from the SyM² base modules possible via the GPRS network. The measured values can be transmitted using either push or pull mode.

ZDUE-PSTN-SyM²

PSTN communications module for remote meter reading

The ZDUE-PSTN-SyM² makes remote meter reading from the SyM² base modules possible via analog landlines. The measured values are transmitted using pull mode.

ZDUE-LAN-SyM²

LAN communications module for remote meter reading

The ZDUE-LAN-SyM² makes remote meter reading from the SyM² base modules possible via the LAN/DSL network. The measured values can be transmitted using either push or pull mode.

"Decades of Dr. Neuhaus experience with meter modems have been invested in the development of the ZDUE products," says Ludger Böggering, head of Marketing at Dr. Neuhaus Telekommunikation GmbH. "Our customers profit from simple operation, maximum reliability and reduced overall costs for the life of the device."

![Dr. Neuhaus logo]

Dr. Neuhaus Telekommunikation GmbH – a company with 30 years of experience

Dr. Neuhaus Telekommunikation focuses primarily on the development and production of GSM, GPRS, LAN and PLC-supported communications solutions for wireless and wired data transmission. These innovative hardware and software products for portable as well as stationary data communications. The universal solutions are used in such professional applications as Smart Metering, in automated remote meter reading and in industrial automation.

Quality Made in Germany

The close connections between sales, development and production make it possible to efficiently implement all requirements to the benefit of the customer. The company employs 100 people; more than 40 % are qualified engineers.

Product Matrix	ZDUE-GSM-PLUS-V	ZDUE-GPRS-PLUS-VI	ZDUE-MOD-PLUS-V	TAINY Switching-Center	ZDUE-GPRS-SyM²	ZDUE-PSTN-SyM²	ZDUE-LAN-SyM²
INTERFACES							
CL1	■	■	■				
RS232	■	■	■		■	■	■
RS485	■	■	■				
local SyM² bus					■	■	■
VOLTAGE							
45 VDC PoE					■	■	■
100-230 VDC	■	■	■				
Auxiliary voltage source	■	■	■				
FUNCTIONALITY							
PC configuration (local/remote)	■	■	■		■	■	■
Software				■			
RADIO							
GSM	■	■			■		
GPRS	■	■			■		
PSTN			■			■	
QuadBand	■	■			■		
LAN							■
IP telemetry E-DIN 43863-4		■		■	■		■
Fixed IP	■	■					
ENVIRONMENTAL CONDITIONS							
- 20 °C to + 55 °C	■	■	■		■	■	■
MECHANICS							
Three-point mounting	■	■	■				
105 x 70 x 180 mm	■	■	■				
Top-hat-rail mounting in SyM² base module					■	■	■
120 x 36 x 71 mm					■	■	■
Sealable	■	■	■		■	■	■
IP51	■	■	■				
IP20					■	■	■
ORDER NUMBER	819103	820208	814818	317708	815716	815914	815815