

# DIZ

## DOEPKE-INFO-ZEITUNG FREE CUSTOMER NEWSLETTER BY DOEPKE SCHALTGERÄTE GMBH

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## Reducing downtime

### Monitoring and reactivating using the DFA 2 remote actuator

Doepke's DFA 2 remote actuator is used to monitor RCCBs and to restore the availability of the electrical systems after an RCCB has been triggered unintentionally – for example, in photovoltaic systems, small wind power stations, heat pumps and e-mobility charging stations.

RCCBs may be triggered by momentary differential currents (caused by switching operations in the mains or by storms). In such cases, however, there is usually no fault in the system. The DFA 2 provides for an automatic restart after 15 seconds and in doing so guarantees high system availability. The circuit breaker can be triggered or restarted remotely, regardless of a system fault and the automatic function.

A cost-intensive manual inspection on site is only required if the RCCB trips again, as this indicates an actual system failure.

The DFA 2 remote actuator is suitable for use with RCCBs up to 125 A. The functioning of the



Can be docked on both the DFS 2 and the DFS 4:  
The DFA 2 remote actuator enables the RCCBs to be monitored and controlled from afar

RCCB is not affected by the remote actuator. Auxiliary contacts signal the current status of the RCCB, so that the system operator is immediately informed about any trips by means of a connected signalling device.

Regular testing of the RCCB is possible using the integrated remote tripping function. Existing RCCBs can be easily retrofitted

with a detent. An independent power source with a direct or alternating current of 24 V is required to ensure the signal and switch-on function of Doepke's DFA 2 remote actuator even when the RCCB is switched off. ■



Holger Freese  
Product Management

## Lady Luck has chosen

### The winners in our prize draw



Fate has been decided! The competition winners from the last edition of DIZ have been confirmed, and they have been notified.

#### 1st prize: weekend in Norddeich, Germany and flight to Norderney

The 1st prize goes to Mr. Klamert from Leonberg.

#### 2nd prize: DFA 2-4 remote actuator

The 2nd prize goes to Mr. Klug from Zwickau.

#### 3rd prize: Jever Digestif, glasses, "Ostfriesenmoor" novel

The 3rd prize goes to Mr. Franken from Westoverledingen.

We would like to congratulate all of our winners and hope that they enjoy their prizes. ■



## Swiss electricians are well-informed

Doepke invited to industrial electricians' series of information congresses in Switzerland



Consistently well attended: Lectures are held throughout the year – and always attract a large audience, like the one in Basel

► **Approximately 5,000 participants spread over ten dates up to November: this is the estimated total for a series of Electrosuisse congresses in Switzerland. Doepke is also represented in specialised technical lectures and provides information on the use of AC-DC sensitive residual current circuit breakers (type B/B+) in practice.**

The Congress of Industrial Electricians, hosted and organised by Electrosuisse, is an information event for all industrial electricians working in Switzerland. Participants come

from all sectors. The aim of the event is to keep all industrial electricians in Switzerland informed about the latest technology and standards by means of lectures and presentations by technical experts.

Electrosuisse is the recognised professional organisation in the field of electrical engineering. The association comprises approximately 6,500 members (engineers, students, scientists and academics, utility companies, industrial companies, associations, universities and institutions). Electrosuisse provides services to the

entire electrical sector; for example, consultancy, inspection, testing, certification and further training. It is committed to promoting the safe, reliable, economic and sustainable generation and use of electricity. Furthermore, Electrosuisse represents Switzerland in the international standards and certification bodies and leads the Federal Inspectorate for Heavy Current Installations (ESTI) on behalf of the Federal Government.

The event programme for the Congress of Industrial Electricians comprises various lectures, embracing

the entire electrical industry. Topics include innovations in electrical engineering and alterations to standards, examples and tips for operating electrical systems and installations, and accident prevention measures.

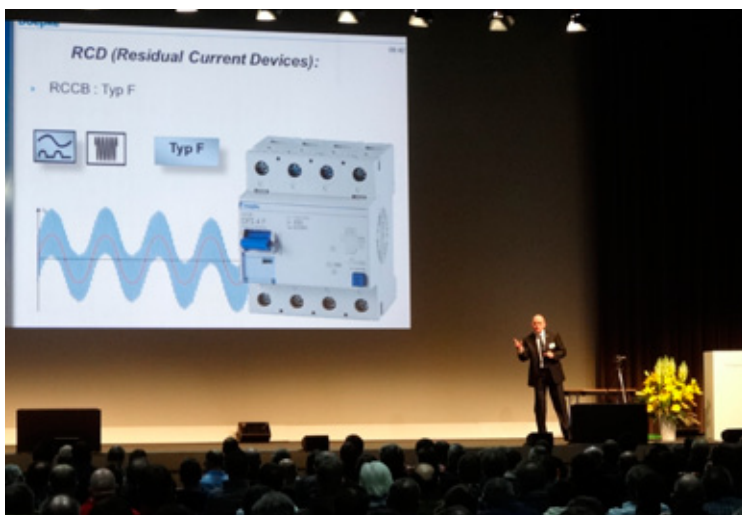
The Doepke presentation entitled "Residual current circuit breakers in practice – everything you need to know about RCD type B" will be lead by Hans-Wolfgang Sorg. Information will be provided on:

- » the operating modes and differences between AC current-sensitive and pulsating current-sensitive RCCBs and RCCBs that are sensitive to all currents,
- » modular residual-current-operated protective devices (MRCD) and residual current monitoring devices (RCM),
- » personal and fire safety,
- » application areas, uses and benefits of RCCBs that are sensitive to all currents,
- » regulations and standards as well as
- » residual current analysis with DRCA 1.

Doepke is accompanied and supported by Demelectric AG, who are responsible for the organisation and implementation as well as the translation of the technical presentation into both French and Italian.



Hans-Wolfgang Sorg  
Sales Representative – South of Germany



Current equipment in the lecture (left) and in operation (right), with Demelectric Head of Sales and Marketing De Monaco



## Big in Oman

### Construction fair attracts visitors to Muscat

The BIG Show, one of the largest and most important construction fairs in Oman took place for the tenth time from 17 March to 20 March in Muscat in the Sultanate of Oman. Approximately 200 exhibiting companies brought the numerous visitors into close contact with their products and services.

Doepke attended the fair for the first time this year, with a joint stand shared with FTG inside the German pavilion. Over the four days of the fair, employees of Doepke International Trading LLC were able to present trade fair visitors with both the Doepke product range and the FTG wiring material.

Oman is one of the emerging countries in the Gulf region and offers companies sound opportunities for economic development, not least due to a government investment programme amounting to 20 billion US dollars. ■



Joint trade fair appearance in Oman: FTG and Doepke's joint stand in the German pavilion

## STANDARDISATION

### DIN EN 62477-1 (VDE 0558-477-1)

"Safety requirements for power semiconductor inverter systems and equipment; Part 1: General information"

This standard for products with power semiconductor inverter systems comprises minimum requirements for safety aspects such as requirements for protection against electric shock. It is primarily intended for product committees to establish product standards, e.g. for frequency converters (products with frequency converters) or uninterruptible power systems.

Section 4.4.8 contains information on compatibility with residual current operated protective devices (RCDs). Manufacturers of single-phase operated devices with power semiconductor converters with "Schuko" plugs must construct these devices so that they are not able to generate any smooth DC residual currents > 6 mA in the event of a



fault. That's why they are compatible with RCD type A. However, for new installations with these devices, we particularly recommend type F RCDs. Type F RCDs detect residual currents with mixed frequencies, which may be generated in the event of a fault by devices with single-phase operated converters (for example, modern domestic washing machines).

On the contrary, multi-phase operated devices with power semiconductor converters for the fixed connection or with plug connection may by all means generate smooth DC residual currents > 6 mA in the event of a fault. If a residual

current-operated protective device (RCD) is to be provided then this must be of type B or B+. Type A and type F RCDs are not permitted here. In accordance with Section 6.3.7.5, the manufacturer must provide appropriate instructions on the product and in the manuals if, in the event of a fault, smooth DC residual currents may occur which are only detected by a type B or B+ RCD. ■



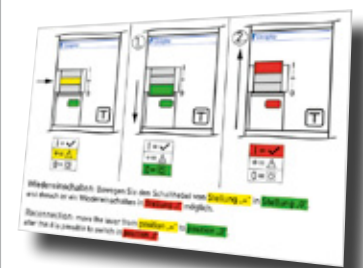
Günter Grünebast

Head of Standardisation/Testing/Certification

## New information stickers

### Perfect for the distribution panel

What should you do when the RCCB has triggered? For some, the answer is not that straightforward as the inside of a distribution box may be very confusing to lay people. A new sticker provides the necessary information.



The "switch position information sticker (HAS DFS 2/4)" clearly shows all possible toggle positions, their significance as well as the steps required for restart. The sticker is, for example, mounted to the inside of the distribution panel and clearly demonstrates the procedure for the layman. The sticker with item number 09200021 is now available. ■

## Strengthening product management

### New colleagues, new task allocation

Doepke product management has received reinforcements: some new colleagues started work at the beginning of the year, resulting in the following new responsibilities.

#### Günter Düselder

► DRCM/DMRCD, MFR, DMD, CIRCUIT BREAKERS FOR MRCD, RCMU, DRCA, SI SYSTEM AND ENERGY METERS



As Product Manager, Günter Düselder is responsible for residual current technology, residual current analysis technology, residual current analysis as well as for energy meters and the SI system. His areas of responsibility involve taking care of the products entrusted to him as well as training courses, coordination of particular projects, participating in the development of the product portfolio and providing an advisory service to sales partners and customers. He is an electrical engineer and has until now been involved with training, consultancy and development. Mr Düselder really interacts well with people.

#### Heino Thoben-Mescher

► RCCBs, MINIATURE CIRCUIT BREAKERS, FI/LS COMBINATIONS, WIRING MATERIAL, CONTACTORS, MONITORING EQUIPMENT AND PHYSICAL CONTROL UNITS



Likewise, in his role as Product Manager, Heino Thoben-Mescher has taken responsibility for RCCBs and miniature circuit breakers, wiring material, installation contactors,

monitoring equipment and physical control units since January. His areas of responsibility also include product support, participation in the development of the product portfolio and project coordination as well as

providing a customer advisory service and training courses.

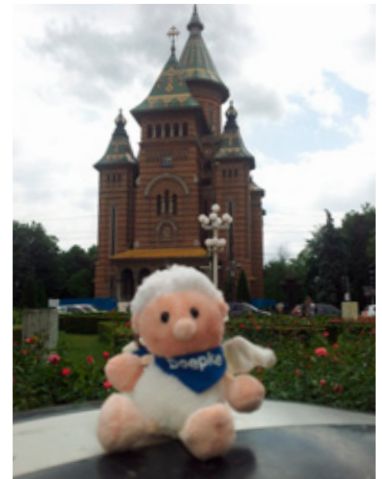
In the past, Mr Thoben-Mescher was employed as a master electrician. In this role, both classic electrical installations and intelligent

building system controls fell within his remit.

Mr Düselder and Mr Thoben-Mescher assume the responsibilities of Mr de Buhr and Mr Esen, who have taken on new roles within our company.

### The angel out and about...

#### ...in the south east:



The Doepke angel in front of the Cathedral of the Three Holy Hierarchs in Timișoara in Romania

After a visit to the north, several excursions to the west and countless trips to the south, our angel has now moved eastwards. Among other things, he visited the city of Timișoara in Romania, which is about the width of Milan and the climate was suitably pleasant. Electro-technically interesting: Timișoara was the fourth city in Europe (after Paris, Nuremberg and Berlin) to have permanent electric street lighting – this was a quarter of a century before the first street lighting in USA. ■

## New technical contact person

### The person behind the new voice on the phone

For some time now, anyone calling our product services number (0 49 31) 1806-888 has had a new voice to listen to: Marcus Häbel is the initial contact point for product-related questions and customer service.

Basic questions are competently answered by him on the spot. For

more complex matters, he ensures that callers are forwarded correctly so that their enquiry can be processed quickly by the appropriate in-house contact person – whether it be the responsible person in the Product Management team, someone from the Development Department or another employee. ■



#### PUBLISHER

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#### QUARTERLY QUOTE

*Men are wise in proportion,  
not to their experience,  
but to their capacity for experience.*

*George Bernard Shaw*

#### DATES / NOTES

##### Electrical Industry Trade Fair, Dortmund

11.09. – 14.09.2013  
Hall 3B, stand 3B.C50

##### Lectures: Use of residual current operated protective devices (RCDs) in photovoltaics

11 to 13 September  
PV dialogue within the framework of the Dortmund electrical industry

efa Leipzig  
16.10. – 18.10.2013

##### PLC/IPC/Drives Nuremberg

26.11. – 28.11.2013  
Hall 4, stand 4-261