

- **A RELIABLE DRINKING WATER SUPPLY**
- **HIGH-TECH FOR LIGHTING SOLUTIONS**
- **TECHNOLOGICAL ADJUSTMENTS TO SMS RELAY**

## EDITORIAL

Dear readers,

Water is life!

Water forms the basis of our existence. Without water, neither humans nor the environment could survive. The water available worldwide is distributed in a highly disparate manner. There are regions in which rain almost never falls, while other areas have more water than they could ever use. Generally, countries in the southern hemisphere have problems with their water supply and insufficient drinking water, and are at the same time developing countries. Hence, what we in Switzerland take for granted every day is not necessarily a matter of course for everyone around the world. The issue of available water is also exacerbated by increasing population density and climatic changes. Therefore, it is necessary to treat this life-giving resource with respect. Rittmeyer has dedicated itself fully to this responsibility. Its measuring equipment, control systems, and automation systems form the basis for innovative solutions for water and energy provision, wastewater treatment plants, and hydroelectric power plants worldwide. What they have in common is that they ensure the highest level of protection for humans and the environment, increase the efficiency of installations, and reduce operating costs. For years, Rittmeyer has utilised high-quality products in its installations, for the benefit of us all. With its proven field devices, ComatRelco is therefore an ideal partner for achieving its corporate goals.

The topics of reliability and availability for humans and installations have always been our concern. To the best of our ability, we develop our products to give them the maximum possible lifespan. We achieve this based on our long-standing experience from our own development division, as well as by utilising suitable materials that correspond to the requirements in the field.

With the two high-performance relays CHI14 and CHI34, we have developed exactly the right product for long-term lighting. We have overcome the challenges of extremely high

capacitive inrush currents with microprocessor technology and electromechanical know-how. By using these products, you are definitely on the safe side. Give yourself peace of mind.

We would be glad to provide you with more information about SMS relays and the technological update to the newest generation of the mobile network. We will be supplying you with backwards-compatible devices in the first half of 2018. Hence, upgrading installations for your clients will be a breeze, as the existing configuration file can simply be transferred over. Benefits to our clients and efficiency are our priorities, which is why we are always searching for the optimal solution. Keeping you updated is important to us. As part of our portfolio maintenance measures, we have begun updating our product labels. This will ensure a unified appearance in switch cabinets. At the moment, we are in a transition phase, but the products delivered will increasingly follow the printed samples. Functionally, they will not be any different, and products of the same type with different labels will be absolutely identical with regard to their functions. If you have any questions about this, please feel free to contact us.

We wish you a great summer and look forward to the many constructive conversations at the ineltec expo in Basel, which will be taking place very soon.

Summery regards,  
Daniel Herren



Daniel Herren  
Vice President of  
Sales

# RITTMAYER AG HIGHEST QUALITY FOR A RELIABLE DRINKING WATER SUPPLY

Being able to simply turn on the tap and receive clean drinking water is something we take for granted in Switzerland. In order for this to happen, a water supply system is necessary that provides the population with access to drinking water of the highest quality. The requirements for the safety and re-

liability of the system are equally high. Rittmeyer AG plans and realises these complex installations using a comprehensive range of measurement and control technology. For years, it has relied on components from ComatReleco.

## How the water supply works

Water is usually obtained by tapping a spring, via groundwater pumps, or in lake waterworks. Subsequently, the water passes through multiple filter stations if necessary, before it is transported to consumers or collected in reservoirs. At all times, its quality must be impeccable. As soon as there is even the slightest amount of impurities, it is no longer fed into the supply network. To ensure this, the water is monitored around the clock with sophisticated measuring equipment.



Control centre

## Ensuring the flow of water

A water supply system must ensure that consumers have sufficient quantities of drinking water at various locations at all times.

In order to do so, the water must usually be transported to multiple structures at various geographical locations. At locations where there is insufficient or no natural incline, the water needs to be transported using electrical energy via pumps. Hence, pump stations are an important component ensuring the reliability of the water supply.



Pump station

## No water without measurement and control technology

The failure of a pump station can quickly lead to an emergency in the water supply system. The measurement and control equipment which Rittmeyer AG manufactures and provides brings the water where it is needed — in the required quantities and with the highest possible level of energy efficiency. The systems allow fully automated operation at all times of the day and night, whereby the various process data are constantly transmitted to a control centre and monitored. In the case of a malfunction, the system sounds an alarm immediately. This allows the staff to quickly ascertain where the problem is. Hence, the reliability of the control system is vital. That is why many system components have been designed in a redundant fashion and are equipped with emergency power supplies.

## ComatReleco and Rittmeyer AG: A partnership for the highest level of reliability

The requirements to be fulfilled by water supply staff, who are responsible for the drinking water in their area of supply, have increased over the past few years both with regard to the scope of responsibility as well as their complexity. Hence, it goes without saying that reliable control systems are crucial for process monitoring. That is why Rittmeyer AG only uses high-quality components. Due to their high reliability and long lifespan, the products of the Swiss company ComatReleco fulfil all the necessary criteria. During process monitoring, the time relay C55 detects whether the processor is operating properly, and the type C7 coupling relay implements the commands from the automated system to the electrical loads.



Longlife – Functional miniature industry relay C7



C55 – Quartz-controlled, high-precision multi-functional relay

Rittmeyer AG develops, produces, and installs devices, systems, and installations for measurement and control technology for the water and energy industries. Its range of products comprises measuring devices for pressure, fill level, flow rate, angle and position, as well as turnkey process control systems for water and energy supply, hydroelectric power plants, and process and environmental technology systems. It is headquartered in Baar, in the canton of Zug, Switzerland. The company has around 300 employees. It

owns multiple overseas subsidiaries in Europe and sales offices in America and Asia. Rittmeyer AG is a company in the BRUGG Group, which is represented in all major industrial nations.



# CHI14 / CHI34 HIGH-TECH FOR LIGHTING SOLUTIONS

Modern light sources such as LEDs or fluorescent lamps with electronic ballasts have an inrush current that is 250 times higher than their nominal current — a challenge for switching components.

The CHI series power relays were developed specifically for applications in the field of lighting technology, and are correspondingly equipped for the switching of high inrush currents.

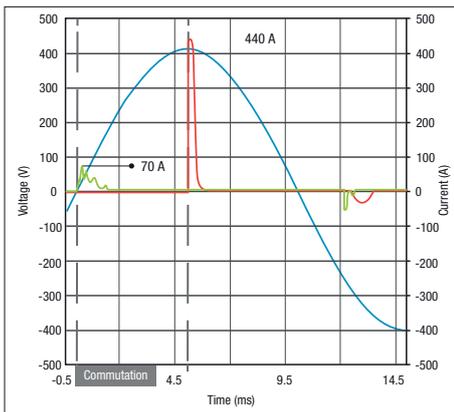
At the moment they are switched on, switching power supplies for LED lights, electronic ballasts, as well as power supplies in industrial environments experience a current that can be up to 250 times as high as the device's nominal current. For example, when switching on a supposedly 'harmless' 90 W LED floodlight, a brief current of almost 100 A may be experienced.

By already taking these aspects into account when choosing the size of the components, the operator of a facility can avoid high follow-up costs due to constant replacement procedures.

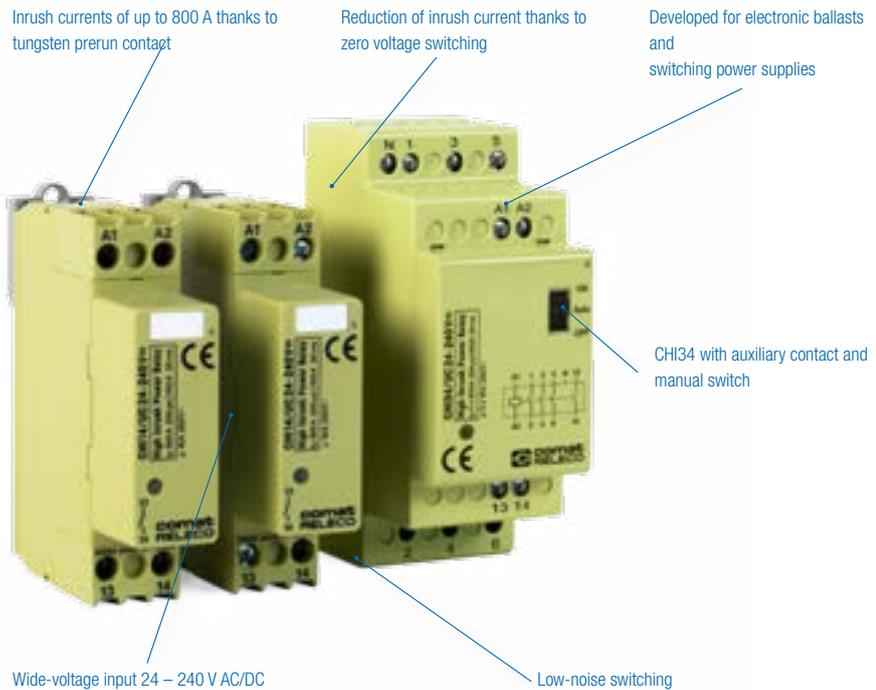
The CHI power relay series is setting new standards in this field. With the latest contact technologies, they allow inrush currents of up to 800 A to be switched for a nominal current of 16 A. The microprocessor-controlled zero voltage switching further reduces the inrush current, allowing significantly more lighting units to be controlled per channel than previously available switching components. With the CHI34, this

technology has been implemented in a three-phase device for the very first time, in which the phases are individually monitored and switched at a 120° offset from each other. With a width of 35 mm, the CHI34 also possesses a make contact for auxiliary circuits and a manual operating switch (0-Auto-1). This makes the device half as wide as a conventional installation contactor with additional auxiliary contact module. Thanks to its low-noise switching procedures, the devices from the CHI series are also ideal for use in residential settings.

The graph below shows the inrush currents of a single, typical fluorescent lamp. The same behaviour is also observed in LED lamps. Naturally, the inrush current increases by the appropriate factor when multiple lights are used. For determining the number of lights and/or ballasts which can be switched using the CHI34, the performance characteristics of the ballast need to be taken into account. Our support representative will be glad to assist.



- Fluorescent lamp with electronic ballast 40 × 24W T5
- Inrush currents with/without
- Zero voltage switching: 70A/440A

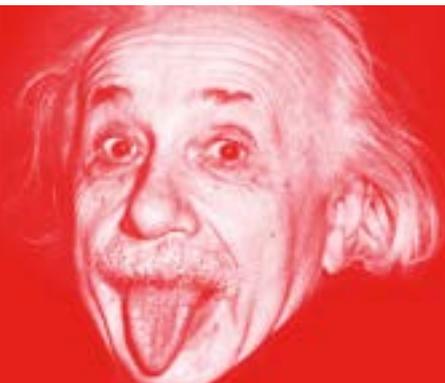


Type	CHI14	CHI34
24-240V	CHI14/UC24-240V	CHI34/UC24-240V
Eldas no.	505 715 002	505 715 102

## ineltec.

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12 – 15/09/2017, BASEL

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## MADE BY COMATRELECO TECHNOLOGICAL MODIFICATIONS FOR SMS RELAYS

Due to technical progress, mobile network operators have announced the shutdown of the GSM network (2G). According to available information from the major operators, this step will not occur before the year 2020. Hence,

there is still sufficient time to update systems which contain a built-in SMS relay. We would be glad to help!

The replacement of 2G with technologies with a higher transfer rate brings decisive advantages for the industry. It makes it possible to come one step closer to the "Internet of Things", or IoT for short.

In the first half of 2018, we will be offering you a revised version of the SMS relay CMS-10. In future, the SMS relay will perform data transfer via a secure internet connection utilising 3G/4G technology. This will make processes, systems, and objects faster, more reliable, and also make it possible to monitor and control them from anywhere. All existing features will also be supported in the future. Hence, existing applications will continue to be covered.

We will ensure that the retrofitting process to the new CMS-10 results in as little costs and effort as possible for you: The terminal configuration and the connector position will be identical, and it will be possible to transfer the existing configuration file to the device — in short, everything will be "plug and play".

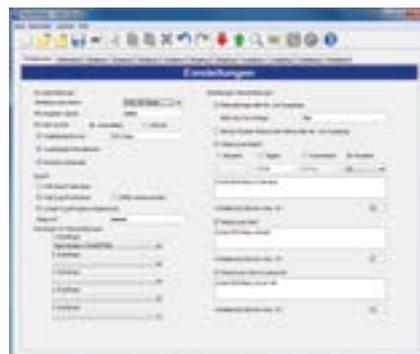
The operation of the device by the end user can take place either via a smartphone app or SMS, as has been the case so far. Furthermore, it will be possible to configure the device online using a web browser, but also via a smartphone app. Hence, the programming cable will no longer be necessary for programming the device in future.



SMS relay

### Important information at a glance:

- The revised version of the CMS-10 will be available in the first half of 2018.
- All existing features will remain.
- The terminal configuration and connector position will correspond to those on the existing SMS relay.
- It will be possible to easily transfer the configuration file (.csr file) of the existing device series to the new device.



FastSMSSet software  
for creating the configuration file



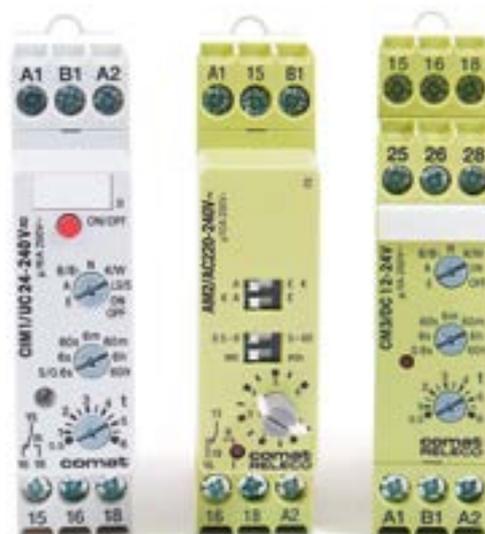
André Marti  
Product Manager

## MADE BY COMATRELECO NEW PRODUCT LABELS

As part of our portfolio maintenance measures, we have updated our product labels. It is important to us for you to be able to find all the necessary information on the product in order to put the device into operation without any problems.

In order to achieve this goal, we have allowed ourselves to be inspired by the CIM time relay series, which has long been a classic in the installation sector and the field of industry automation. Located on the front of all devices is the type designation, the rated values for voltage and current, information on the settings of the various functions, and the terminal labels. What's new: the connection diagrams are located on the device side next to the explanations of the functions and the approval and inspection logos.

The standardisation of the product labels also means that for a short time, products with various labels may be in circulation in the sales division. However, the devices are functionally identical and correspond to the type designation printed on them. We only have one warehouse facility, and the adjustments are ongoing. New batches that are manufactured will correspond to the illustrations on the right upon delivery.



CIM1 | AM2 | CM3

For technical queries, please do not hesitate to contact us at +41 (0)31 838 55 10 or support@comat.ch

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