



WERMA *r e p o r t*

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Equality is not an indifferent matter

WERMA Signaltechnik wins equal opportunities prize



Radiant faces at the award ceremony: Trade and Industry Minister Ernst Pfister and WERMA Managing Director Günter Kirn

For years WERMA has been committed to promoting the compatibility of job and family for women in technical occupations. Now WERMA has received an award for its efforts: The first prize in the state competition "Equal opportunities for men and women in the workplace 2006".

PRAISE FROM THE TRADE AND INDUSTRY MINISTER ERNST PFISTER

In November 2006, the Trade and Industry Minister, Ernst Pfister (FDP) presented Managing Director Günter Kirn with the winner's certificate. The certificate pays tribute to the exemplary measures introduced amongst the company's 170 strong workforce to

further the equality of men and women in the workplace and to promote the compatibility of family and job.

170 EMPLOYEES - 2/3RD OF WHICH ARE WOMEN

WERMA has always had good experience with female employees and was determined to extend this success to the whole of the technology sector. The hard numbers reflect this success, declared Pfister: "Out of the 170 employees around two thirds are women." One third of the staff in middle management are also women.

WOMEN AND TECHNOLOGY

With "Girls Day", technical project work or a day of activities specially tailored for young female grammar school students, the company attempts to inspire young women to take up technical occupations. This commitment has born fruit: In October 2006 three female students began a course of study in machine engineering at WERMA – a first in the history of the company.

CHILDREN, PARENTAL LEAVE AND THE RETURN TO WORK - NONE OF IT A PROBLEM AT WERMA

WERMA also shows a high degree of flexibility concerning the point in time agreed for the return to work. Those returning, both male and female, generally return to their previous department and position. WERMA

maintains contact to both its male and female employees, even during parental leave. A wide range of flexible working time models ease the process of combining job and family commitments for the returning parents.



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WERMA centre stage.

Rotating Mirror and LED Beacons on the lake stage in Bregenz.

WERMA signal beacons have also found application in stage technology. For example in the staging of Giuseppe Verdi's opera "Il Trovatore".

WERMA BEACONS AT VERDI PERFORMANCES

C. 25-30 rotating mirror beacons 883 and LED beacons 829, each in red, have been installed on the 50x40 meter large stage on Lake Constance. The setting for the Verdi opera is an impressive oil refinery. The WERMA beacons lend the unusual stage set an even

more spectacular appearance as well as providing the numerous chimneys and towers with the necessary high safety lighting.

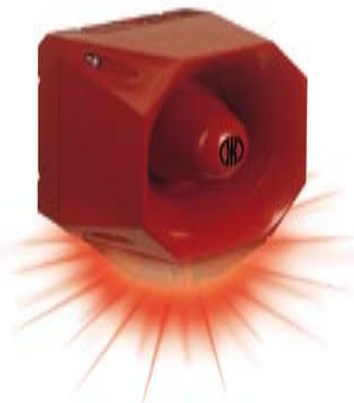
PURE DRAMA

As the lake stage – on Lake Constance, in front of Bregenz – is subject to wind and weather, the high degree of protection IP 65 was an important criteria for the deployment of the WERMA signal beacons. The excellent signal effect of the rotating mirror beacon 883 as well as the LED beacons 829 also proved decisive for the choice of the stage

technicians. These beacons provide an ideal underscoring of the dramatic scenes in "Il Trovatore".



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How does colour sound?

Multi-Tone Sounder 142 and Flash/Multi-Tone Sounder Combination 442 – Now available in new colour variants!

NEW COLOUR VARIANTS FOR THE GREATEST POSSIBLE RANGE OF APPLICATIONS

Today modern architecture and visual appearances play an increasingly important role. In order to meet these demands, WERMA has extended its programme to include new colour variants for its multi-tone sounder 142 and the optical-audible combination 442. The products are now available with a grey housing as well as in combination with a yellow flashing light.

MULTI-TONE SOUNDER 142 - LOUD 120 DB WITH 42 DIFFERENT TONE TYPES

The WERMA multi-tone sounder 142 offers 42 tone types and frequencies for the most diverse range of applications. Additionally, the duration of the signal can be defined,

i.e. the automatic switch-off of the warning tone can be programmed with the greatest accuracy. The sound output can be set according to the background noise levels at up to 120 dB.

MULTI-TONE SOUNDER IN COMBINATION WITH A LIGHT-INTENSIVE XENON FLASH

Many applications call for the reinforcement of the audible signal by an optical signal. WERMA's optical-audible combination provides the optimum solution: the loud multi-tone sounder 142 in combination with an intensive xenon flash. This flash/multi-tone sounder has a flash energy of up to 3.5 Ws and an innovative design.

Keeping you safe.

Monitored LED Permanent Beacon 829



Monitored Permanent Beacon with long life, maintenance-free LED technology

The miniscule luminescent chip – better known as LED (light emitting diode) – has advanced to become an indispensable component in a wide range of applications. WERMA is actively involved in shaping this trend and is now able to offer the first Monitored LED Permanent Beacon.

MONITORED BEACON FOR DIRECT CONNECTION TO THE SAFETY-PLC

A classic application area for monitored beacons is the safeguarding of machine cells and robotics, laser welding systems and

plants in the automotive industry by means of light barriers and other detectors. Frequently, such protective measures are also required for packing and filling systems. In connection with a safety-oriented control, the beacon 829 is predestined for muting applications.

LED PERMANENT BEACON FOR USE IN SAFETY APPLICATIONS

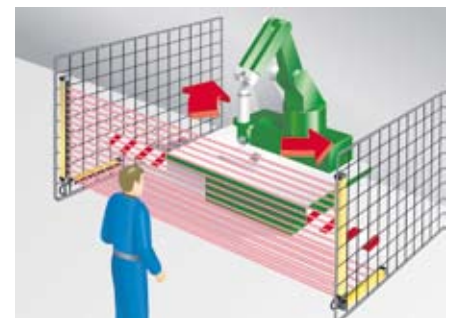
The device is externally fed with 24 V DC which also serve the monitoring circuit. It is equipped with monitoring electronics which signals the current flow back to two electrically isolated, potential-free semiconductor outputs. During fault-free beacon operation, both redundant outputs are closed.

In the event of a failure of the power supply, a wire breakage in the supply cable or the loss of conductivity in three or more LED strips, both outputs are opened. If a fault occurs in the monitoring electronics, at least one output is opened. If a maximum of two LED strips have developed a high impedance, the remaining four strips are still able to generate sufficient light intensity and no error message is sent. These fault detection mechanisms are prerequisites for the application as self-monitoring muting beacons in safety applications. The connection to the safety switching device is realised via a 6-core cable which is connected to two comfortably accessible terminal blocks inside the beacon. Protection against false polarity is provided for. The outputs are short-circuit

proof and a maximum of 100 mA may be applied. The maximum switching voltage amounts to 30 V DC. The ON-resistance of an output amounts to approx. 25 Ohm. The response time during normal operation and in case of filament breaks lies between 1 msec and 5 msec.

EXTREMELY BRIGHT LEDs FOR A COLOUR INTENSIVE LIGHT EFFECT

The use of LEDs ensures a high degree of resistance to shocks, vibrations and other mechanical stresses and strains. The LEDs employed have a lifetime of up to 50,000 hours, an extremely low current consumption and are maintenance free. Thanks to its high protection rating IP 65 the beacon, which is available in red, yellow and clear, can also be used in rough ambient conditions.



The Monitored LED-Beacon 829 is predestined for muting applications

That sounds good!

Loud Ex Multi-Tone Sounder 714

AUDIBLE EX SIGNAL DEVICES IN A RANGE OF APPLICATIONS

Whether in refineries, filling stations, joiner's workshops, flour mills or in the chemical and petrochemical industries – today audible Ex signal devices find a range of applications in explosion protected areas. For this reason WERMA has added the loud Ex multi-tone sounder 714 to its existing product range.



DEPLOYMENT IN ZONES 0, 1 AND 2

The new Ex multi-tone sounder from WERMA is designed for the deployment in explosive gas or vapour atmospheres. It signals dangers and disturbances in the zones 0, 1 and 2 and is constructed in accordance with the high protection rating IP 65. The compact Ex multi-tone sounder has a diameter of 93 mm and a height of 103 mm. The intrinsically safe product also stands out with its modern design.



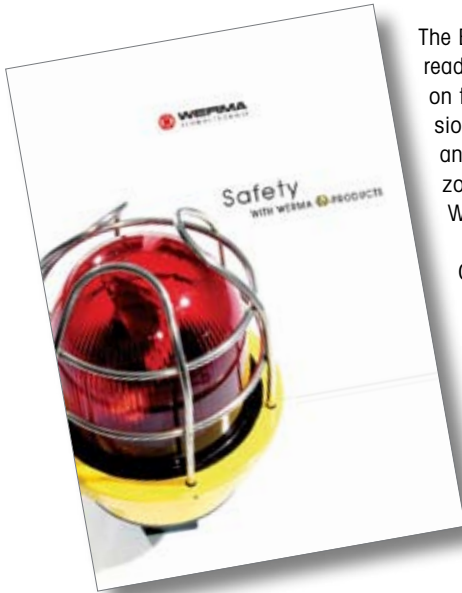
INTERNATIONAL SIGNAL TONES FOR THE WIDEST POSSIBLE RANGE OF APPLICATIONS

Ex multi-tone sounder 714 provides 26 different tones and frequencies for a wide range of signalling applications – from indicating a safety status to signalling extreme dangers. The different tones can be set using DIP-switches. Two tones can be set externally via voltage inputs.

The WERMA Ex Brochure

Comprehensive reference work

From the Ex signal tower to optical and audible Ex signal devices, you will find all the products from our comprehensive Ex programme in our new Ex Brochure.



The Ex brochure also provides our readers with important information on the fundamentals of explosions, inflammable substances and the classification of the zones, as well as an overview of WERMA's Ex products.

On the final page of the brochure there is a large poster, summarising all you need to know about international identifications, temperature classes, types of protection etc. The poster can be simply removed and hung on a wall.

Check it out!

Optical and Audible Signal Devices in the new WERMA Catalogue for 2007

A highlight of the 2007 catalogue is the new appealing layout and a whole series of additional information and overview pages. These assist our existing and prospective customers in finding their way around our catalogue as quickly and simply as possible.

This year the "Tech-Talk" section, compiled by experts for experts, contains interesting background information on "Audible" theme.



Staff Developments!



ZHAN WANG

Since November 2006, the International Sales department has received additional support from Zhan Wang (24). Mrs Wang, a business graduate (BA), takes over responsibility, for some Asian countries, Australia, Poland, Slovenia and Bulgaria. She completed her three year study course at WERMA, spending the last practical phase in Spring 2006 in the sales department.

WERMA at trade fairs



We would like to invite you to visit us at our stand in Nuremberg between 27th and 29th March 2007 (Hall 7, Stand 7-132). This environment provides an ideal framework for the presentation of our explosion protected signal devices.



We would also be happy to welcome you to our stand in Hanover (Hall 8, Stand A37) between 16th and 20th April 2007. This fair provided ideal opportunity to present latest products and innovations in the field of optical and audible signalling.

Further trade fair dates for 2007 can be found under www.werma.com! We are looking forward to inspiring you with our ideas and solutions!



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