

HIGHLIGHT OF THIS ISSUE

CONNECT. THE NEW ENCLOSURE FOR WIRED APPLICATIONS.



INSIDE

02/2015





CONNECT USB

"WIRED FOR A
RELIABLE
CONNECTION."



EDITORIAL

DEAR READERS,

You are holding the latest edition of our customer magazine INSIDE in your hands.

In times of wireless transmission methods – Bluetooth, WLAN, NFC etc. – many devices still need fixed cable connections, whether to guarantee a permanent power supply, or to guarantee reliable data transmission and processing to and from the device. Specially for wired applications, we have some enclosure ranges in our portfolio that can be used as desktop or mobile devices, on the wall or even freely suspended. The integrated cable glands made of soft TPE material seamlessly continue the high-quality design of the enclosures. The flexible cables can be protected from mechanical stress by means of strain relief devices.

To meet these requirements, we have now launched a new line of enclosures. The CONNECT consists of a convex and a flat enclosure shell with an operating area, both ends having identical recesses for using cable glands and/or end parts. By dispensing with screws – the two shells simply snap together – there is a choice of visible/operating panels for the devices.

We hope you enjoy reading our magazine

Dipl.-Vw. Martin Knörzer
Managing Director





You can download the whole OKW catalogue, individual product sections, assembly instructions or certifications here in PDF format: www.okw.com, *About OKW*

"RELAX AND MAKE NEW DISCOVERIES."

RASPBERRY-CASE



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With the help of an optional holding clamp (in our range of accessories) the new CONNECT can also be hung on round tubes up to Ø 32 mm or on profiles.

"THE NEW CONNECT. WITHOUT, WITH SINGLE OR WITH DOUBLE CABLE ENTRY."

JOSEF BOTH, RESEARCH & DEVELOPMENT



THE CONNECT SERIES

Allow us to present the new CONNECT range of enclosures, specially for wired applications. This enclosure can be used in computer peripherals, security and building services systems, measuring and control engineering as well as in data transfer and medical technology, among other areas. Connect is available in three lengths.

The standard enclosure consists of a convex and a flat half-shell. On both end sides there are identical recesses for accommodating end elements. The assembly of the two shells is very rational, as they simply snap into each other. The deliberate decision not to use screws makes it possible to choose freely which of the two enclosure shells is to be the front side. The recessed panel on the flat shell allows the installation of push switches, light emitting diodes or a membrane keyboard / decor foil. The enclosure shells offer the option of mounting either

cable glands or end parts on the two end sides. If, for example, the enclosure is to hold a circuit as a connecting part for data transfer, both ends can be fitted with cable glands for standard round cables. If it is intended for use as a wired remote control or additional control element, the CONNECT enclosure can also be used as a freely suspended unit through a combination of an end part at one end and a cable gland at the other. The integrated strain relief in the cable gland kit ensures increased electrical and mechanical safety, as the cables are clamped inside the gland.

Use as a USB distributor is also conceivable, since there is enough room on the surface of the enclosure as well as on the long sides. Cutouts effected through mechanical processing allow the installation of USB ports and USB connectors, so that for example two or more CONNECT enclosures can be connected



Your individual enclosure – thanks to a wide variety of production techniques, the new CONNECT can be modified according to your wishes.



Wide variety of applications – without, with single or with double cable entry, for desk-top or mobile use, or freely suspended.

8 | 9 THE CONNECT SERIES

directly to each other. Besides operating elements, a compact display screen can also be installed on the flat enclosure shell.

The matt finish of the enclosure is elegant, and as an operating part it is comfortable to hold. There is sufficient space on both enclosure shells for pushbuttons and switches as well as LED displays. Four attachment pillars in the flat shell offer the option of fitting PCBs and other components.

CONNECT enclosures are made of the robust, UV stabilised material ASA+PC-FR (UL 94 V-0) and offer protection class IP 40. In the colour off-white (RAL 9002), the enclosures have the same profile – 22 x 54 mm (H x W) – but are available in three lengths: 76, 116 and 156 mm. Customers can thus find the right enclosure with identical designs and suitable lengths depending on interface requirements. It thus becomes possible to create a complete product series with a uniform appearance but different dimensions.

As a practical accessory, a holding clamp for round tubes up to Ø 32 mm as well as profiles makes it possible to suspend the enclosure. The centring devices needed for the holes in the enclosure are already preformed and concealed, so that the visual appearance of the enclosure is not impaired by the clamp.

The CONNECT series can be used for many different applications. The free choice of the top side of the enclosure as well as the end parts and cable gland kits leave plenty of scope for possible



Individual parts: Enclosure shell flat, enclosure shell convex, end parts, cable gland including strain relief kit.



Uniform profile – the enclosures are available in one width and one height and in three different lengths.

finished products. CONNECT can also be used for stationary and mobile purposes.

Further processing or finishing enhances the enclosure even further. For example, printing with your own company logo or interface pictographs, mechanical processing (e.g. for additional cutouts on the long sides) or EMC aluminium coating on the inside of the enclosure are possible, as are many other options. To match the colours of the enclosure to the individual CI requirements, OKW Gehäuseysteme offers two methods in-house: on the one hand, painting the components in your favourite colour and/or with different degrees of gloss, protective coating, ESD lacquer, soft touch and metallic effects. On the other hand the complete injection moulding of the enclosures in special colours or, for example, in black, flame-resistant V-O material. The production of a black cable gland is also possible.

The new CONNECT series of enclosures by OKW fully justifies its product name, for it offers optimum wired connection to and from individual devices.

You can find more OKW enclosure ranges for wired applications on the following pages 10-11.



CONTACT
 Josef Both
 RESEARCH & DEVELOPMENT
 Tel. +49 (0) 62 81 404-150
 E-Mail BothJ@okw.com



SENSO-CASE

- especially user-friendly thanks to an ergonomic handle
- cable glands offer an attractive finish
- wall suspension elements and strain relief units as accessories





SMART-CASE

- the sweeping design of the enclosure convinces its users through unsurpassed usability
- ideal for wired remote control units
- holding clamps, wall suspension elements, strain relief units available as accessories



BLOB

- high level of practical value thanks to a convincing 3D touch sensation
- The entire circumference on the shadow groove of the enclosure is available for positioning the cable glands





RAILTEC CV

Enclosure for the vertical installation of printed circuit boards

- 16-pin push-on terminal blocks in a 5 mm grid and clips for mounting on DIN rails already included in the supply
- Integrated, vertical printed circuit board guide rails
- Fast assembly through simple snap-in construction
- 22.5 mm wide
- Material PA66, UL94-V0, green
- With/without ventilation slots
- Recesses for lettering labels (side/front)

RAILTEC C

DIN rail enclosure with high top parts

- The comprehensive range of enclosures cases for DIN EN 60715 rail mounting as well as for direct wall mounting
- 6 modules, 90 x 107 x 114 mm (L x W x H)
- Horizontal and vertical printed circuit board installation possible
- Opening for terminal outputs on both sides
- Open or closed front panels
- Material PC, UL94-V0, light grey
- Compatible with existing accessories (front panel, convex front cover, terminal guards) of the RAILTEC C range of enclosures



CARRYTEC M

With carrying cases and shoulder strap

Besides the smaller S version, the CARRYTEC M is now also available as a complete version with carrying cases and a shoulder strap.

In the two side pockets with zip fasteners, cables, sensors and instruments can be connected and easily stored. With the help of the shoulder strap (1400 mm long), the device can be carried on your shoulder.



"NON-STOP INNOVATIONS."

Do you need any more information
about new products?

We shall be pleased to help you:

Tel.: +49 (0) 62 81 404-00

E-Mail: Info@okw.com

ADVANCE NOTICE

BODY-CASE

New enclosure for on-the-body applications

The new BODY-CASE is expected to be available from the end of January 2016. The „wearable enclosure“ fulfils its function in the simplest way, without restricting the user in his activities and without being conspicuous.

The BODY-CASE can be worn in many different ways: on your arm, round your neck, with a clip on your belt or shirt pocket as well as loosely or permanently attached to articles of clothing.

More information in the next issue of this customer magazine.



NEW PRODUCTS/PRODUCT ENHANCEMENTS

WE ARE LOOKING FORWARD TO YOUR VISIT

23-25 February 2016

Joint stand with the company Hoffmann + Krippner
Nuremberg Trade Fair, Hall 2, Stand 2-629
www.embedded-world.de

Whether the safety of electronic systems, distributed intelligence, the Internet of things or e-mobility and energy efficiency – the embedded world trade fair in Nuremberg will let you experience the whole world of embedded systems.

Hoffmann + Krippner GmbH

Siemensstraße 1, 74722 Buchen, Germany
E-Mail info@tastatur.de
www.tastatur.de

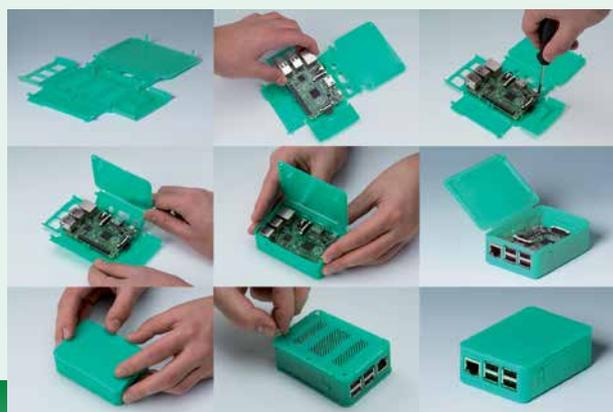
Hoffmann + Krippner is one of the leading manufacturers of customer-specific membrane keyboards and complex operating units in Europe. At the Buchen location, capacitive and resistive touchscreen systems are developed, manufactured and finished using production methods like „Optical Bonding“.



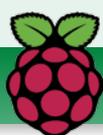
The innovative RASPBERRY-CYSE use the film hinge principle to hold the mini-format single-board computers Raspberry Pi B+/PI 2 and offer all of the necessary openings for connections.



"SINGLE PART ENCLOSURE FOR RASPBERRY PI B+ AND PI 2."



RASPBERRY-CASE



Raspberry Pi, a success story. The idea behind this was to provide pupils and students with a single-board computer for their first programming exercises – cheap but of high value at the same time.

The unusual enclosure for the Raspberry board focuses on the original idea – simple and low-cost. The enclosure consists of one single part and can be assembled very easily and quickly. The board is simply placed in the enclosure, and may be fixed with screws. Just fold up the long sides first, then the short sides, and snap on the cover. The mini-computer is ready for use. There are slots in the base for ventilation and holes drilled for optional wall mounting.

Being made of translucent polypropylene materials – in mint green and raspberry – the LEDs on the boards can easily be read. To dismantle the box, proceed in the reverse order. Any necessary adjustment work, or the connection of external units, can be effected quickly and without tools.

ORDER INFORMATION

You can order the Raspberry case directly from us if you order a minimum quantity of 50 pieces. You can obtain smaller quantities at:

- AMAZON www.amazon.de
- CONRAD www.conrad.de
- DISTRELEC www.distrelec.com
- ETTINGER www.ettinger.de



Electroencephalography (EEG) is a method of medical diagnostics and neurological research for measuring the accumulated electrical activity of the brain by recording the voltage fluctuations on the surface of the head.

"STATIONARY SYSTEM FOR LONG-TERM EEG RECORDINGS."

SOMNOMEDICS, AM SONNENSTUHL 63, 97263 RANDERSACKER, GERMANY

Packing the sensitive electronics of medical products individually and well is an enormous challenge. The company SOMNOmedics, producer of EEG systems, and OKW Gehäusesysteme have together developed and produced a plastic enclosure with many slots, a recorder and a touch screen.



CUSTOMER APPLICATION

The demand for innovative medical instruments is rising constantly. Particularly when it is a question of state-of-the-art multifunctional devices, flexible solutions are called for. Nowadays many different requirements have to be met, not only by the electronics but also by a suitable enclosure.

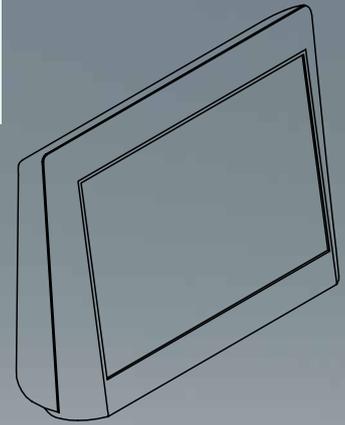
A stationary EEG system must offer sufficient room and above all a clearly arranged space so that there are enough slots for electrodes. It should also be possible to implement various possible adaptations, and easy handling should be guaranteed. To avoid an annoying clutter of cables, wireless transmission of the measured data would also be advantageous. Together with the enclosure specialist OKW Gehäusesysteme, the company SOMNOmedics has developed a suitable product that meets all of these requirements and is already in use Europe-wide. SOMNOmedics is a company that operates at international

level, offering powerful and innovative solutions for out-patient and in-patient sleep diagnostics as well as diagnostic equipment for neurology and cardiology. The devices are currently the smallest on the market and can be flexibly used as screeners or as complete PSG systems with extended EEG recording. Specially for neurological applications, SOMNOmedics has mobile systems for long-term electroencephalography (EEG) recordings in its product range. In this area, the range of products has been extended by a new, stationary EEG system.

The stationary EEG system by SOMNOmedics comprises a modified enclosure, the so-called stationary headbox, which forms the basis for an EEG amplifier. In the upper area, there is a holder in which the recorder from the SOMNOscreen plus range is integrated. The device is only functional when the two components are combined. A touch screen which receives the measured signals (EEG, ECG, EMG, oxygen saturation etc.) via



COMTEC – Modern, flat styling in 7 sizes and 2 colours. Ergonomic keypad enclosures with operating face inclined at 10°, a real asset when operating and reading.



The stationary headbox also has further connections on the rear interface surface.

Bluetooth and displays them in real time is also integrated. This makes it quick and easy to check whether all sensors have been correctly attached to the patient. On the front there are clearly arranged slots which allow the user to insert the EEG electrodes during a routine stationary examination, thus saving time. The stationary headbox also has further connections on the rear interface surface. Thanks to the shape of the enclosure, the device is easy to handle for both the doctor and the patient, and is reliable in everyday use. It can be used as a mobile version or as a desktop model. However, mounting on a standard DIN-rail by means of an adapter is no problem either. It is thus ideally equipped for everyday clinical use. Several units of the stationary headbox, including the recorder, are already in use Europe-wide.

COMTEC 290 desk enclosure series

For the development of the stationary headbox, SOMNOmedics decided in favour of the standard OKW COMTEC 290 enclosure

in black (RAL 9005). But why this particular version? The ABS (UL 94 HB) enclosure (protection class IP 40) with the dimensions 290 x 200 x 75.5 mm (W x D x H) is particularly suitable for the safe installation of the necessary electronics thanks to its large volume. However, not only sufficient space in the interior was needed, but also enough surface area for slots for electrodes. The corresponding SOMNOscreen plus recorder as well as a touch screen also had to be installed in the enclosure. Thanks to the large operating area on the front of the COMTEC, all of these



SOMNOscreen plus – the smallest PSG system, with up to 33 channels. Wireless thanks to integrated radio transmitter, and upgradable any time.



Clearly arranged slots which allow the user to insert the EEG electrodes during a routine stationary examination, thus saving time.

requirements were no problem, and by means of numerous cutouts, all electrode slots were installed. Now all that was needed was an elegant solution for installing the recorder and the touch screen. Here, the available volume paid off twice over: beside the installation of the electronics, there was also enough room for the holder. For this particular solution, two panels were made for inserting the components, and these were then fitted in the interior. In addition to the wireless data transfer to the PC, optimum use was made of the large installation volume, and an annoying clutter of cables was also avoided. The recessed operating area offers ideal protection for the decor foil used, and the 10° inclination is practical for reading off the data. The modern and attractively flat enclosure design gives a gently feeling and underlines the ease of operation of the product. The interface surface on the rear of the top part was used for further connections. In addition, self-adhesive rubber feet ensure stable positioning for desk-top applications.

For modifications such as milling, painting, printing, EMC coating and much more, OKW Gehäusesysteme has its own in-house Service Centre, and can process and finish the enclosures directly on site. Besides the standard range, OKW can also produce customer-specific enclosure solutions, even going as far as serial production.



CONTACT
SOMNOmedics GmbH
Am Sonnenstuhl 63
97236 Randersacker, Germany
Tel.: +49 (0) 931 35 90 94-0
E-Mail: info@somnomedics.de
www.somnomedics.de



If you specifically want to lose body fat, you must know when the body is in a lipometabolic state. By measuring the resting metabolic rate (RMR) you can easily see how you can burn approx. 75% of your entire energy.



The PhysiCal® is a high-tech measuring system – with innovative installation in the OKW SYNERGY range of enclosures

With the PhysiCal®, a personal metabolic profile can be created and analysed with the help of a metabolic test based on the resting metabolic rate within five minutes by means of spirometry (a medical procedure for measuring and recording the oxygen and carbon dioxide concentration in exhaled air as well as air flow rates).

In this process, energy metabolism is not only calculated but measured exactly and individually. The results are recorded and analysed in a detailed result report. This method is scientifically recognised and is called indirect calorimetry.

Respiratory gas analysis (spirometry at rest)

In an upright sitting position, the customer inhales and exhales quietly for approx. 3 to 5 minutes using a mouthpiece. During this time, fine sensors measure the respiratory gas and transfer the data to specially designed software. The customer then receives an easily understandable analysis based on the traffic light principle as well as recommendations for compensating for any deficits detected. The PhysiCal® has not only flow sensors but also CO₂ and O₂ measuring sensors with the help of which the calorific profile can be determined. You receive a statement about what proportion of sugar and fat is used by the organism to provide energy. In this way, another very important value can be detected, that is, how much valuable oxygen from the inhaled air is in fact utilised by the cells. (Oxygen utilisation). The PhysiCal® measurement takes place at rest because this

"HIGH-TECH DEVICE FOR CREATING A PERSONAL METABOLIC PROFILE."

TELMEDE GMBH, BRESLAUERSTRASSE 2,
85386 ECHING/MUNICH, GERMANY

SYNERGY – A symbiosis of plastic and aluminium. 36 enclosure sizes in four basic geometrical shapes – square, rectangular, circular and oval.



CUSTOMER APPLICATION

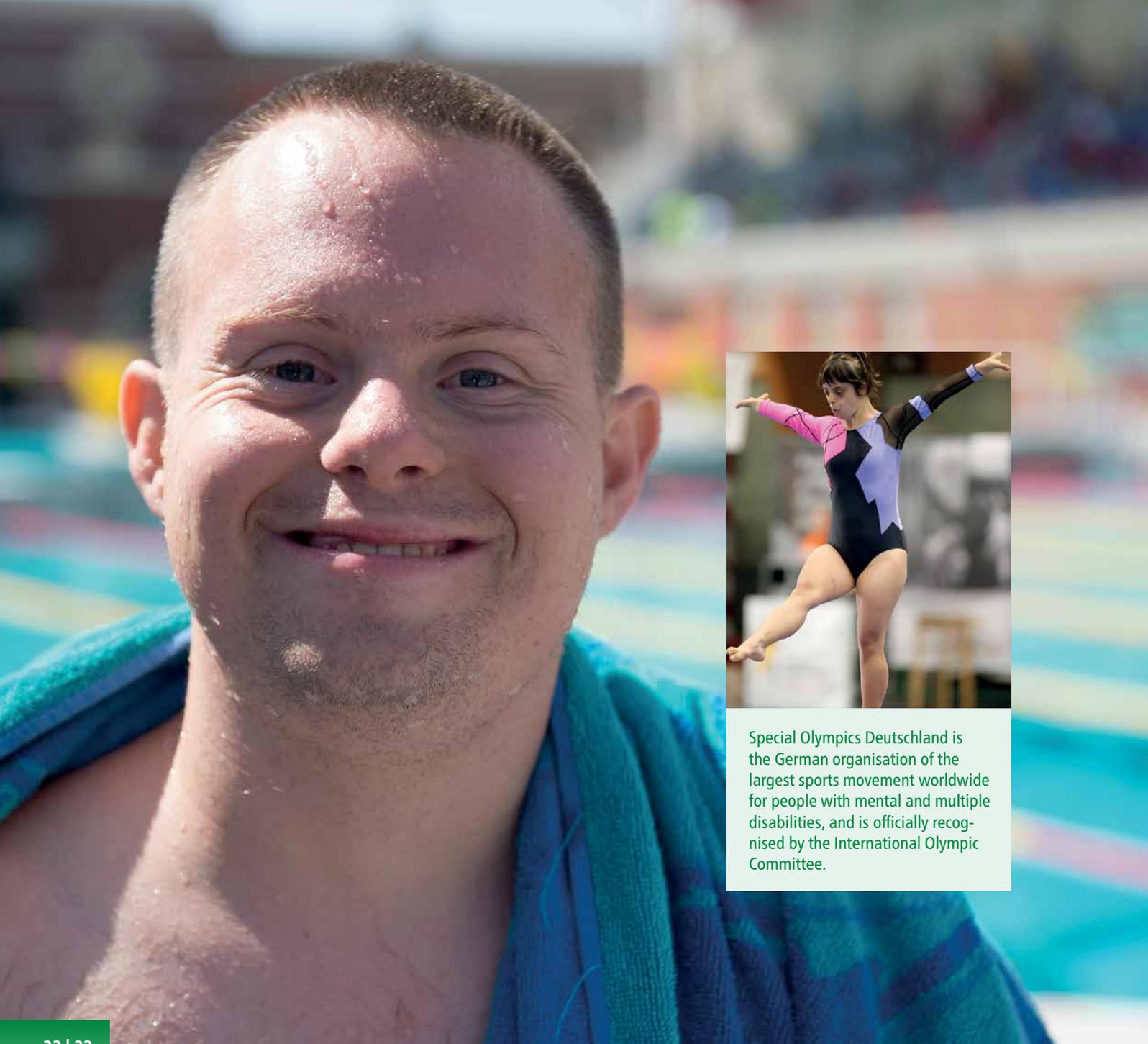
represents the state that a person spends most of his time in. This means that this measurement is not only a snapshot but reflects a nutritional and life profile of the last few days, allowing weight or health problems or energy deficits to be analysed. For measurement at rest, as with the PhysiCal®, exceedingly sensitive measuring sensors must be used. By measuring the resting metabolic rate (RMR) you can easily see how you burn approx. 75 % of your entire energy. Metabolism at rest or during exercise is measured using different methods. A very wide range of applications can be found in the diagnostics of the resting metabolic rate (RMR). Since this generally accounts for approx. 75% of total energy consumption, it largely determines the substrate utilisation of carbohydrates or fats.

The results of the measurement

The PhysiCal® analysis software generates a comprehensive result report with detailed explanations. On the basis of the results of the measurement (e.g. metabolic quality, respiratory acid load and burning index), further recommendations can be made concerning nutrition, exercise and relaxation.

CONTACT

Telmed GmbH
Breslauerstr. 2
85386 Eching/Munich, Germany
Tel.: +49 (0) 89 37 06 23-0
E-Mail: info@telmed.de
www.telmed.de / www.stoffwechselformung.de



Special Olympics Deutschland is the German organisation of the largest sports movement worldwide for people with mental and multiple disabilities, and is officially recognised by the International Olympic Committee.



"SPECIAL OLYMPICS. THE SPORTS ORGANISATION FOR PEOPLE WITH MENTAL DISABILITIES."

SPONSORING

OKW Gehäusesysteme is sponsor of the regional association Special Olympics Baden-Württemberg. This non-profit organisation contributes towards supporting people with mental and physical disabilities in their sports activities, in line with the slogan: Exercise is fun and improves the quality of your life..

The needs and tasks of Special Olympics Baden-Württemberg (SOBW), a regional association of German Special Olympics, consist in giving people with disabilities in sports a place of enjoyment and happiness, because regular training and participation in competitions gives people with mental disabilities the chance to develop their physical fitness and motor skills, to have fun, to make friends and to experience companionship. Sport reinforces self-confidence and independence, reduces fear and stress, and helps these people to deal with everyday situations.

The social commitment of OKW Gehäusesysteme now makes it possible for young sportsmen and sportswomen to compete in their favourite sports optimally and over the long term, and to participate in many different sports events.



CONTACT

Special Olympics
Baden-Württemberg
Am Fächerbad 5
76131 Karlsruhe, Germany
Tel. +49 (0) 721-15 16 966
E-Mail info@so-bw.de
www.so-bw.de



"FIGHT FOR SURVIVAL IN THE DEATH ZONE."



"LIVE PRESENTATION: PASSION 8000, DEPTH EVERYWHERE."

MULTI-VISION SHOW WITH GERLINDE KALTENBRUNNER

The Austrian extreme mountaineer Gerlinde Kaltenbrunner is the first woman to have climbed all 14 eight-thousanders without using additional oxygen. On 21 November she is coming to Buchen with her live presentation to talk about her exciting adventures.



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EVENTS

Gerlinde Kaltenbrunner has long been one of the most successful high-altitude mountaineers. Even Reinhold Messner has already acknowledged her great feats.

Gerlinde Kaltenbrunner has realised her dream and become the first woman to climb all 14 eight-thousanders „by fair means“, that is, without the help of bottled oxygen. When she reached the summit of K2 on 23 August 2011, she was only the third woman to climb all 14 eight-thousanders at all. However, Kaltenbrunner herself does not regard extreme mountaineering as a competition: „If I had only wanted to set up a record, I would have taken the easiest route each time. I do not attach any importance to being the first.“

Practice makes perfect ...

She began rock-climbing when she was only 13. In 1994 she reached the 8027 metre high fore summit of Broad Peak and thus, at the age of 23, reached a summit over 8000 metres for the first time. In 2003 she had to abandon the climb of Kangchenjunga due to severe storms, but in the same year climbed the notorious Nanga Parbat (8125 metres). Since she climbed Nanga Parbat, she has been living solely from the media exploitation of her climbing experiences. In particular on the high eight-thousanders Mount Everest, K2 and Kangchenjunga, the demands to be met by mountaineers who do without artificial breathing air are higher. Only through professional adaptation to the lack of oxygen and through special breathing techniques as well as calculated speed is it possible to get through and survive in the so-called



death zone. Extreme cold, storms, icefall and avalanches, the prevailing awareness of the constant dangers and the fact that no rescue is possible at higher altitudes also demand full concentration and a stable mentality.

The risks in her mountain tours must not be underestimated: in 2007, for example, she only narrowly escaped a disaster when she was struck by a snow slab and buried under the avalanche. She succeeded in freeing herself from the snow. A companion was also able to free himself – but two Spanish mountaineers who were bivouacking at the same place were killed. Kaltenbrunner has also lost some of her own companions: her companion Fredrik Ericsson fell just below the summit of K2 (at an altitude of 8300 metres) – for the sixth time she had to abandon the ascent of the „most difficult eight-thousander“.

In her live presentation „Passion 8000 – Depth Everywhere“ in the OKW logistics centre, the professional high-altitude mountaineer will present her breathtaking multi-vision show on a large screen and talk about her exciting and intense experiences on her 14 eight-thousanders. „I am especially looking forward to coming to Buchen, for the atmosphere there seems to be fantastic,“ the popular extreme mountaineer hinted.

Beginning at 7:30 pm.

Please send requests for ticket reservations to:
BothJ@okw.com

www.gerlinde-kaltenbrunner.at

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Publisher
Odenwälder Kunststoffwerke
Gehäusesysteme GmbH
Friedrich-List-Str. 3
D-74722 Buchen, Germany

+49 (0) 62 81 404-00
+49 (0) 62 81 404-144
Info@okw.com
www.okw.com

Managing director
Dipl.-Vw. Martin Knörzer

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Editors
Kay Hirmer
Lisa Binninger
Josef Both

Graphic
Kay Hirmer
Lisa Binninger

polyform industriedesign
Martin Nußberger
80335 Munich, Germany

Print
Laub GmbH & Co. KG
74834 Elztal-Dallau, Germany

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text and other components
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