



THE NEW LIGHTING AND MEDICAL SUPPLY SYSTEMS
FOR HEALTH AND CARE

modultechnik



LIGHT MAKES YOU FEEL GOOD!

Everybody needs light; and modul technik provides it to those who need it most!

Since our companies founding in 1984, lighting has been a fundamental part of our product range. The majority of our products contain lighting components which are always of the highest quality.

From now on we will be going one step further and are offering our customers a new lighting package! As of today, modul technik will be taking over all medical products from Zumtobel, one of the leading providers of professional lighting concepts worldwide.

This will expand our product range in the area of supply units and, for the first time, we will be able to offer single bed lighting for the normal care and intensive care sectors.

The focus is upon quality, design and modern lighting technology. In the future, all customers, who appreciate Zumtobel as a reliable manufacturer of first class medical products, will still be able receive the identical product in the same quality exclusively from modul technik - made in Germany!

On the following pages of our product overview, you will find all further information for the ideal use of our latest lighting and supply units in your care rooms and on your intensive care wards.

Be inspired by the latest products from modul technik and do not hesitate to contact our experts if you have any questions. Switch the light on and increase your patients' well-being.

modul technik! Lights on! Feel good!

Yours sincerely

Anna Balagny
Managing Director

Philip Balagny
Managing Director

PICTOGRAMS



General lighting

The directed indirect component provides general lighting of at least 100 lx. Sophisticated lighting technology ensures almost 100 % emanation of the light, and thereby provides particularly effective general lighting even in the depth of the room. Moreover, glare is avoided and a pleasant room impression is created, conveying calm and relaxation.



Reading light

The reading light provides an illuminance level of at least 300 lx. Precise direction of light makes sure that other patients in the room who need rest are not disturbed. This is ensured by sufficiently high illuminance levels and the removal of glare in areas susceptible to glare.



Examination lighting

For simple examinations at the bedside, for doctors' visits, setting of infusions and giving shots (but not for more extensive examinations and treatments), the reading light can be switched to fulfil a special examination function, or the reading light and the general lighting can be combined, depending on the model and version installed. In this case, the mean illuminance level along the longitudinal axis of the bed is 300 lx, at a uniformity level of at least $E_{min}:E_{max}=1:2$.



Night/orientation lighting (indirect)

This lighting enables the nursing staff to look after patients and medical equipment during the night, without disturbing other patients. Minimum requirement: 5 lux at the level of the bed.



Guidance lighting (for orientation during the night)

The nightlight helps patients and care personnel to find their bearings during the night. It provides glare-free light.



Prismatic direction of light

Prismatic structures in the luminaire diffuser assist almost 100 % emanation in the case of indirect light. With direct lighting they ensure removal of glare in potentially affected areas.



Reflector direction of light

The light is directed and emanated via optimised reflector optics. They enable precise direction of light onto the useful plane, meeting highest requirements in terms of illuminance.



Micro-vane lighting technology

An innovative principle ensures lighting with excellent glare control that provides 300 lux at the reading level. With the micro-vane louvre, the optical system sets new standards in terms of glare control – in both longitudinal and lateral directions.



Waveguide direction of light

The light provided by the T16 light source is coupled into a tapering SLC® waveguide. Inside the side lighting coupler (SLC®), the light is emitted and directed downwards via a combination of precisely arranged linear prisms on the rounded upper side and microprisms on the underside, thereby achieving minimal glare and optimal direction of light.



Flexible lighting module

This lighting module is a movable reading light that can be moved without interfering with the electrical installation. The reading light can be easily adjusted, allowing flexible arrangement of beds for installing medical apparatus at the bedside. It is also possible to convert a multi-bed room into a single-bed room without major effort.



Supply section

The supply section is made of extruded aluminium. All surface finishes are resistant to conventional disinfectants.



Communications equipment

Communications equipment complying with all current standards can be fitted into the medical supply unit. These include, for instance, system components for bedside operated devices, light and nurse-call systems, television, data and telephone outlets, which are completely wired and assembled in the factory.



Mains-power components

The system allows installation of mains-power components such as safety sockets, switches, momentary-action switches and dimmers as well as potential equalisation sockets which are wired to the central connection point ready for use.



Medical gases

The medical supply unit houses different media for medical gas supply. A gas duct integrated in the supply section contains the medical quality copper pipes from the respective outlet to the central connection point.



Design options

The design theme of the patient's room can be picked up by the colour of the medical supply system, thereby creating a harmonious atmosphere. Depending on the product used, surfaces may be either powder-coated in RAL colours or present a natural anodised finish, or wood veneer panels can be used to match the room design.



CE mark certifies

The CE mark certifies that a product has met all relevant European directives. Luminaires that bear this mark (without a code number) are not medical products according to currently applicable legislation. They meet all normative and legal requirements that are placed on a luminaire used in hospitals.



ELGADUCT medical supply units are medical devices (class IIa) and correspond to the legal requirements under Annex II of Directive 93/42/EEC, based on the quality management system and EN ISO 13485, as well as the provisions of the Medical Devices Act.

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SINGLE-BED-LIGHTS

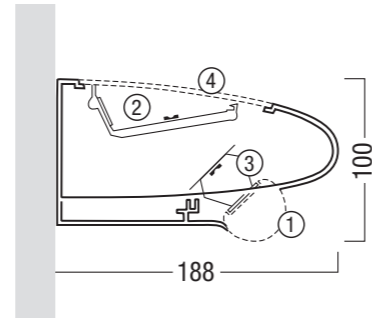
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MEDICAL SUPPLY SYSTEMS

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belia



belia LED

- 1 Micro-vane lighting technology
- 2 Indirect light: T16 or LED
- 3 Direct light: T16 or LED
- 4 Prismatic diffuser

SUCCINCT DESIGN, WARM RADIATION

A luminaire without edges and corners, yet clear and noticeable: the lighting technology of the **belia** single-bed luminaire is incorporated within a particularly flowing design that satisfies requirements for more homeliness in care environments. The rounded forms appear warm and friendly and uniform curves provide peace of mind for the observer. And the form underlines the function: thanks to the distinct subdivision of the luminaire into two levels for indirect and direct light, a clear visual classification is assured. And with materials and colours, highest priority was given to an attractive, clean appearance. High-quality aluminium, powder-coated with a uniform colour (metallic grey) underlines **belia**'s elegant character.



„The design of an aeroplane wing, streamlined and with all components arranged in a compact way, was the inspiration for a completely new type of single-bed luminaire. This created the basis for optimum integration of unique direct-lighting technology. Its clean, elegant character with rounded corners gives **belia** an appealing, patient-friendly appearance.”





BELIA IS ADJUSTABLE



Room lighting



Examination lighting



Reading lighting



Night/orientation lighting

Room lighting

belia really creates lighting conditions for well-being. The room is fed with indirect light right into its corners, and longitudinal prisms within the diffuser are a clever detail with great effect. They restrict a direct view into the luminaire and instead create a feeling of well-being with optimum light distribution.

Examination lighting

Thanks to the interplay of room lighting and direct light, **belia** assures precise and focused examination lighting, thus guaranteeing doctors and care personnel good working conditions.

Reading light

When people must spend most of their time in bed, a high-quality, gentle light relieves the burden of a hospital stay and promotes recovery. **belia** provides a reading light for patients that conforms with relevant standards, disturbing neither the patients nor their neighbours and is always available within reach, independent of room lighting.

Night/orientation lighting

The night lighting integrated within the luminaire body gently penetrates the darkness. For this purpose, **belia** accommodates an LED solution with indirect light distribution.

Room lighting, reading light and examination lighting are available both as contemporary LED solution and with conventional light sources.

For medical purposes, **belia** is simply linked up to a medical supply unit such as **IV 1054**, **MEV 8000** or **comfort**. The result is an attractive supply solution that provides both energy, communications and data systems as well as medical gases.

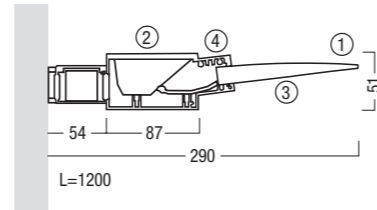
Compatible and extremely contact-friendly – optional supply elements for **belia**

belia has, at least on the outside, the dimensions of a classical single-bed luminaire and yet at a length of 580 mm offers space for several supply components. The infeed of these occurs centrally on the rear side.



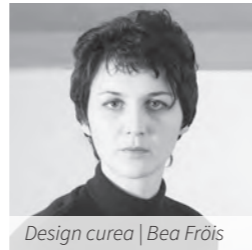
- 1 One or two flush-fitted, integrated safety sockets
- 2 A nurse call system that allows a comfortable switching of reading light via an optionally integrated impulse switch
- 3 A flush-fitted, integrated telecommunications/data socket





curea and curea LED

- 1 Waveguide
- 2 Indirect light: T16 or LED
- 3 Direct light: T16 or LED
- 4 Night light E14 or LED



Design curea | Bea Fröis

The **curea** housing is made of extruded aluminium section, the surface is powder-coated in RAL titanium colour. We recommend using Incidur® or Aspesin® for cleaning the waveguide.

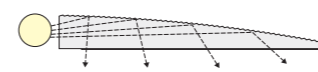
MODERN LIGHTING CULTURE

curea uses innovative waveguide technology for direction of light and harnesses it to provide a new lighting culture in hospitals and health-care settings. **curea** features aesthetic, contemporary design and ensures a pleasant room atmosphere, glare-free lighting and also minimises reflections on display screens of diagnostic equipment and other technical medical apparatus. **curea** harmoniously complements hori-

zontally and vertically installed medical supply systems building them into attractive supply solutions. **curea** also boasts every feature needed for perfect bedside lighting when looking after the elderly: the soft light produced by waveguide technology is gentle on both care personnel's and patients' eyes, and **curea**'s plain language of form helps achieve a calm, discreet room impression.

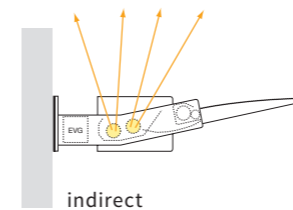


curea SLC® Waveguide



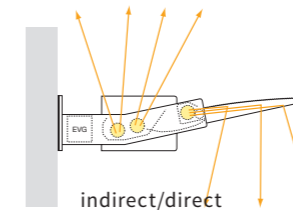
Waveguide technology is based on a light guide made of acrylic glass with an applied microprismatic structure, and ensures selective direction of light. It produces largely low-glare light and pleasant and uniform room lighting. Direct viewing of the light source is prevented and annoying reflections on smooth surfaces and LCD screens are minimised.

curea exploits the properties of the special SLC® linear waveguide which tapers outwards. The light is coupled into the tapering SLC® waveguide. Inside the linear waveguide the light is directed downwards via a combination of precisely arranged linear prisms on the rounded upper side and microprisms on the underside.



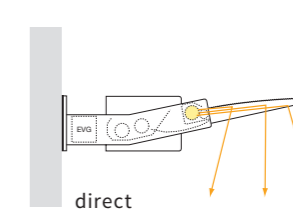
General lighting

As built-in indirect components, two T16/54 W lamps or LED-modules provide uniform general lighting introducing a living-room ambience. A small portion of the light gently illuminates the waveguide module.



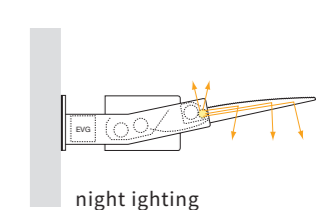
Examination lighting

Examination lighting in conformity with standards is achieved by switching on the direct reading light and indirect room lighting simultaneously.



Reading light

A T16/39 W lamp or LED-modules provide the patient with glare-free reading light via the waveguide module.

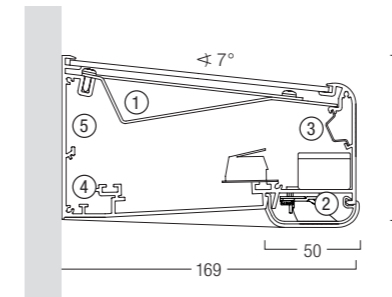


Night light

The indirect component is also fitted with an E14 lamp socket or LED-modules. This ensures that both staff and patients can find their bearings during the night.

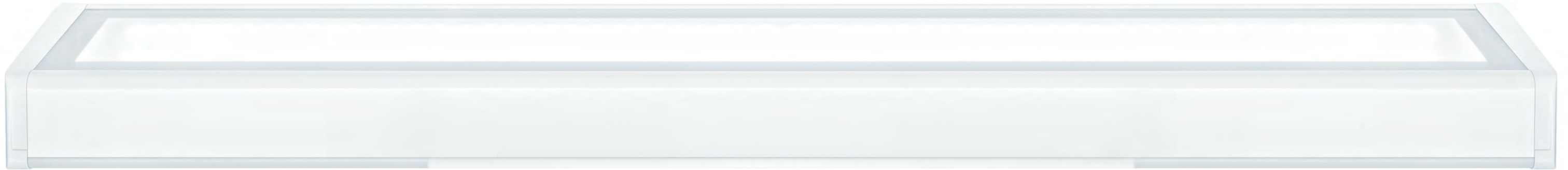


sinus SL



sinus SL single-bed luminaire

- 1 Room lighting
- 2 Reading light/examination lighting
- 3 Data cables
- 4 Low-voltage cable duct
- 5 Power current cable duct



SLIMLINE DESIGN WITH GREAT POTENTIAL

With its understated, slimline stylistic idiom, the **sinus SL** single-bed LED luminaire presents itself as a flexible technological supply system and design element in one unit. Equipped with top-quality LED technology, the luminaire is available in a standard length of 1150 mm for single beds and is suitable for configurations of up to 6 m for multi-bed rooms. Individual switching and dimming is possible just as well as calling up individual lighting scenes.

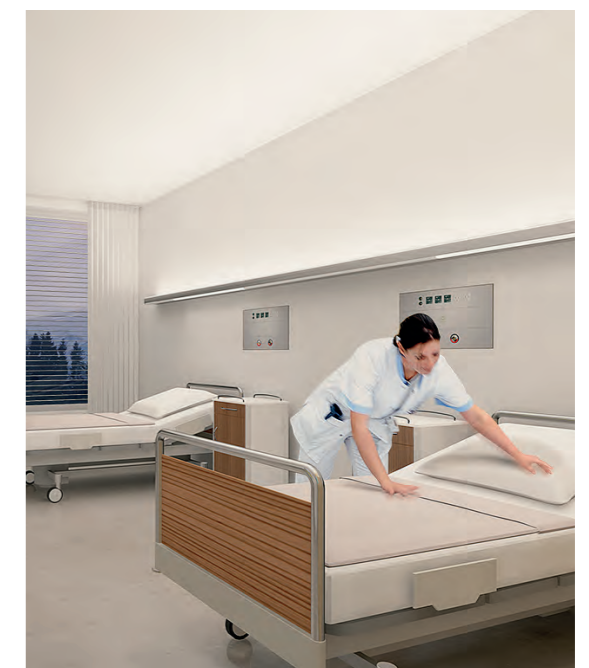
Optionally available in two colour temperatures, the flexible **sinus SL** luminaire is able to comply with all requirements in patients' rooms or care facilities as needed. As regards room lighting with indirect light component for low-shadow lighting, there is a choice of combinations from 4000 K

with 6440 lm and 3000 K with 6020 lm. The reading light with direct light distribution (1010 lm at 4000 K or 940 lm at 3000 K) creates pleasant reading conditions. The combination of room lighting and reading light ensures perfect lighting for examinations, without causing glare for the person lying in bed.

The optional night light offers adequate safety during the night. The slimline **sinus SL** luminaires are made of extruded aluminium section with die-cast aluminium end pieces and dispose of a slanted top cover and rounded corners for easy cleaning. Optionally, form-fit electrical components such as socket outlets, data outlets or nurse call combinations can be added.



sinus SL single-bed luminaires



sinus SL with consistent indirect light component



pureline II

FREEDOM OF DESIGN ALL THE WAY DOWN THE LINE

Single-bed luminaire

As a visually attractive single-bed luminaire, **pureline II** is bound to impress thanks to its plain lines, unruffled elegance and healthful light. For the patient, it brings a note of homeliness into the often unfamiliar environment of the hospital. Even as a single-bed luminaire, **pureline II** easily meets the requirements placed on perfect general, reading, examination and night lighting. A choice can be made between versions fitted with contemporary LED technology or with T16 fluorescent tubes.



pureline II

TOP MARKS FOR LIGHTING QUALITY BENEFICIAL COMBINATION OF SEVERAL LIGHT SOURCES

„The right amount of the right light at the right time.“
Le Corbusier

Whether at the patient's instigation, brought about by the staff or unexpectedly quickly – as soon as the situation in the care room changes, **pureline II** can respond by changing its appearance. Extremely diverse lighting requirements ranging from daily ward rounds through to everyday activities such as reading, eating or communicating can be catered for by finely coordinated combinations of indirect room light and direct lighting. At the same time, its unique compact system channel means that **pureline II** is a medical supply unit, almost without anyone noticing.



General lighting

Two slimline T16 lamps or state-of-the-art LED technology are the frugal energy sources for pleasant ambient lighting providing high visual comfort. Specially designed reflectors guarantee excellent light distribution, besides an outstanding light output ratio.



Examination lighting

In the case of doctors' visits, examinations and medical treatment, glare-free light with high illuminance and excellent colour rendition is indispensable. Through a well-balanced combination of indirect room lighting and dimmable direct light, **pureline II** offers ideal visual conditions for doctors and nursing staff.



Reading lighting

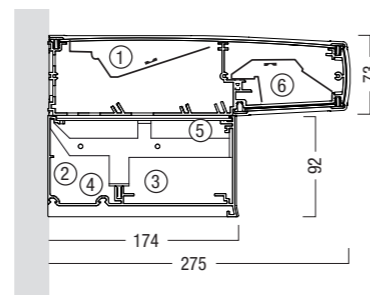
The reading light, which can be adjusted as a standard feature of the luminaire module, can be perfectly arranged to suit the patient's bed, enabling the designer to make fine adjustments during the installation phase. Lighting scenes can be personalised without disturbing the occupants of adjacent beds. Even the reading light is available with innovative LED technology.

pureline II

DESIGN WITH INNATE VALUES

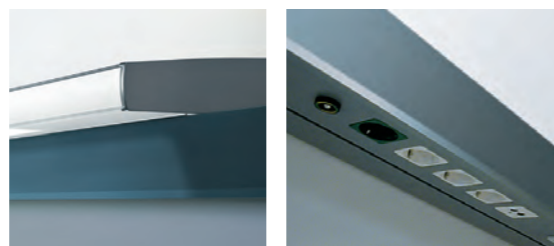


The lighting concept can lend a room a cosy feel, especially in medically used areas where architecture and equipment have to fulfil a large number of functional tasks. **pureline II** integrates the lighting and medical supply unit into the architecture as a horizontal axis, producing a lighting effect that does everyone involved good – a lighting effect that can be adjusted to an extremely wide variety of situations and tasks, creates pools of light, provides accent lighting and never overlooks one important factor: the need for economy through maximum energy efficiency. **pureline II** meets the most exacting human, economic and ecological requirements.



pureline II LED

- 1 Room lighting
- 2 Low-voltage wiring
- 3 Built-in electrical components
- 4 Mains-voltage wiring
- 5 Copper tubes for medical gases and vacuum
- 6 Reading light

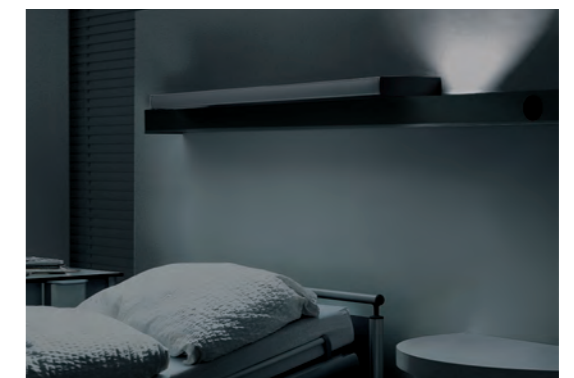


Design pureline | Torsten Fritze & Matthias Burhenne

„**pureline II** – reduced in its dimensions and form to a minimum, yet in its function extended far beyond what is usual – builds a bridge to a space-creating design element, which in its purity and formal elegance opens up new possibilities of interior design.”

Gentle night/orientation lighting

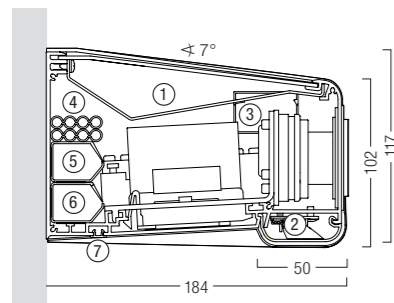
In order to make it easier for both nursing staff and patients to find their way during the night, **pureline II** can be fitted with an additional LED solution.





„**sinus** is a technological supply system for nursing areas. Owing to its plain design as well as the flexibility of its functions, the system will adapt to the most varied of interiors. The carefully manufactured details and the surface finish provide for top comfort.”

Design sinus
ARCODE_A. Ciotti - E. Molinaro



sinus supply unit

- 1 Room light
- 2 Reading/examination light
- 3 Medical gases
- 4 Data cables
- 5 Low-voltage cable duct
- 6 Mains power cable duct
- 7 Bracket for accessories

**MINIMALIST DESIGN.
MAXIMUM FUNCTIONALITY.**

The patient's well-being greatly influences the progress of recovery. Optimal lighting of the room essentially contributes to the patient feeling safe and snug even in an unfamiliar environment. At the same time, perfect lighting conditions need to be created in patient rooms for nursing staff and doctors. These are differing requirements easily met by **sinus**: depending on whether LED modules are switched individually or jointly, **sinus** assumes the task of reading, ambient or examination lighting.

The electrically movable LED boards inside the horizontal supply unit allow for maximum flexi-

lity when determining room layouts: the lighting can be adjusted to the arrangement and number of beds using a selector switch. To preserve the uncluttered appearance of **sinus**, all supply components except for the gas outlets are recessed into the underside.

Also accessories such as infusion holders and bed separators can be variably and quickly adapted in a groove on the bottom of the unit.



sinus flex | a comfortable 2-bed room...



... turns into a 3-bed room without compromising on functionality



SYSTEMATIC FLEXIBILITY

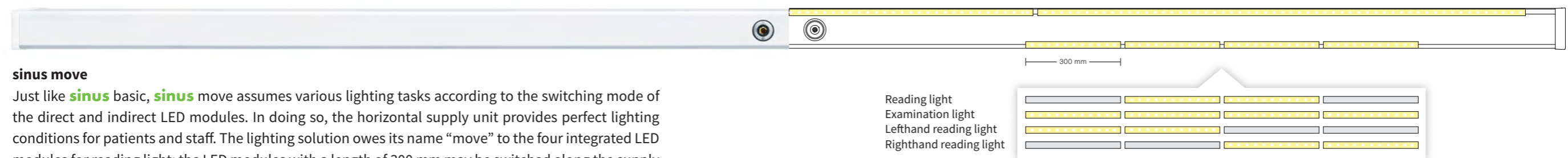
sinus basic

Thanks to individually switchable LED modules inside the supply unit, **sinus basic** effortlessly copes with various lighting tasks: two centrally placed LED modules with direct light distribution for reading light provide for high-quality illumination of the bed and reading area. An LED insert, extendable at will and emanating indirect light in an upward direction, allows for pleasantly diffuse room lighting. The combined switching of reading light and room light creates perfect lighting conditions for examinations.

Indirect room light with lighting insert 1500 mm



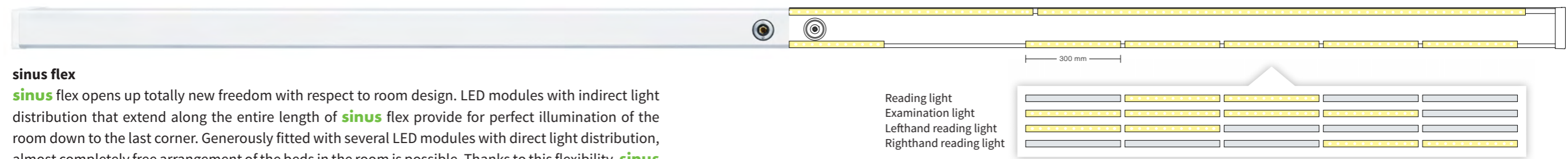
Indirect room light along the entire length of the section
(e.g. 3900 mm: lighting inserts with 1 x 1500 mm / 1 x 1250 mm / 1 x 1000 mm)



sinus move

Just like **sinus basic**, **sinus move** assumes various lighting tasks according to the switching mode of the direct and indirect LED modules. In doing so, the horizontal supply unit provides perfect lighting conditions for patients and staff. The lighting solution owes its name “move” to the four integrated LED modules for reading light: the LED modules with a length of 300 mm may be switched along the supply unit through a selector switch. This allows for better illumination of the patient’s bed and flexible arrangement of the beds.

Indirect room light along the entire length of the section
(e.g. 5400 mm: lighting inserts with 2 x 1500 mm / 1 x 1250 mm / 1 x 1000 mm)



sinus flex

sinus flex opens up totally new freedom with respect to room design. LED modules with indirect light distribution that extend along the entire length of **sinus flex** provide for perfect illumination of the room down to the last corner. Generously fitted with several LED modules with direct light distribution, almost completely free arrangement of the beds in the room is possible. Thanks to this flexibility, **sinus flex** also assumes, for instance, the lighting and medical supply of a third bed in two-bed rooms. Depending on the switching of the direct and indirect LED modules, the system will always supply the perfect lighting scene for the respective situation.



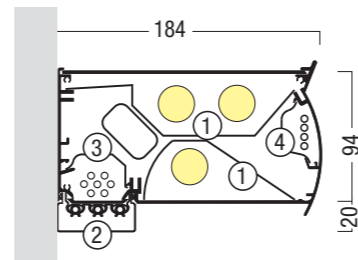
VE-L

TASTEFULLY INTEGRATED

PROFESSIONAL TECHNOLOGY — TASTEFULLY INTEGRATED

VE-L boasts an elegant design. The aluminium finish with a fine pinstripe texture creates an impression of marked practicality. The pleasantly elegant external appearance of **VE-L** is enhanced by inconspicuously integrated functionality. Electrical and communication outlets remain concealed at first glance but are nevertheless easily accessible and user-friendly, and outlets for medical gases and the reading light merge seamlessly into the design of the basic system. Lighting is provided by models featuring state-of-the-art LED technology or tried-and-tested T16 fluorescent tubes.

In **VE-L**, the well-protected, easy-to-clean reading light has been integrated into the underside of the section.



VE-L fixed reading light

- 1 Reflectors for direct/indirect room lighting
- 2 Copper pipes for medical gases and vacuum
- 3 Low-voltage wiring
- 4 Mains voltage wiring



modultechnik

Medizinische Versorgungssysteme und Geräte
medical supply systems and equipment

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