

THE INNER STRENGTH



DEWERT

A DewertOkin Technology Brand



**INNOVATIVE SOLUTIONS
FOR DRIVE & SYSTEM TECHNOLOGY**

CARE | HOSPITAL

Every movement
needs an impulse.



A force that provides the drive – yet which is often not seen: Dewert signifies this “inner strength”. In the hospital and care sector, our drive technology makes a valuable contribution towards improving the quality of life for people in need of care. When built into medical products, our motor drives, control units and operating elements support patient’s mobility and health.

Dewert already offers intelligent system solutions with advanced technology today. Dewert Care Connect® is used to network nursing facilities and provide extensive functions for patient monitoring and the central control of nursing beds. Our goal is to give patients and caregivers an optimal user experience. Manufacturers of beds, OP tables and patient chairs are benefiting from our competent and quick service.

Reliable, safe and comfortable. Worldwide.

For over 30 years. With the “inner strength” of DEWERT.



DEWERTOKIN TECHNOLOGY GROUP CO., LTD

DewertOkin Technology Group Co., Ltd is located at Wang JiangJing Economic zone, JiaXing Zhejiang, China, which is an active area for business in the Yangtze River Delta. We maintain the brands OKIN and Dewert for the linear drives. They are widely used in smart furniture (such as motion upholstery, massage chairs, theatre seating, recliners and adjustable beds), medical applications (such as medical and nursing beds) and adjustable office desk control systems. We are a main partner for several major furniture factories. Our goal is to provide complete smart furniture solutions worldwide.



Business solutions

Dewert's drive and system solutions can be used in a wide variety of medical applications. Dewert relies on close cooperation with customers – starting right from the development phase. The best system configuration for each application can be created in this way.



CARE

Drive and system technology is very important for both home care and nursing home applications. Adjustable nursing beds, sanitary facilities and motorized wheelchairs with stand-up assist functionality actively support patients – so that they can remain independent in their everyday lives for as long as possible. Care solutions from Dewert provide patients with outstanding safety and reliability and make it easier for them to get up, sit or lie down. Ease of use is ensured thanks to the versatile operating possibilities.



HOSPITAL

Reliable technology is essential for hospitals. Patients and staff depend on technology every day and must be able to use it quickly and intuitively. Electric drives are at the heart of sensitive applications such as intensive care beds, operating tables, incubators and supply units. Dewert's drive and system technology provides many safety features. Thanks to its high-quality construction and robust components, this technology meets the most demanding requirements for tight seals and hygiene.



SPA

For the expanding spa sector, the top priority is maximum comfort. Users of treatment chairs and tables for wellness or beauty applications expect reliable components which ensure gentle and fast position adjustments. Dewert's solutions are ideally suited to the requirements of the spa market segment. The powerful drives move very quietly and smoothly. The controls and operating elements provide intelligent functions with added value for the user.



TREATMENT

Whether in physiotherapy, dialysis or dental practices – there is quite a wide variety of applications in the treatment sector. It is not only patient comfort that matters here. Often, many drives have to be installed in a very confined space so that complex motion profiles can be implemented. Dewert's drive technology unites high performance and a compact design. This provides users with the most versatility and freedom while designing the layout of their applications – all at an optimum price/performance ratio.



NURSING BEDS

— CARE

Reliable and user-friendly

Bed systems for hospitals and care facilities are a basic part of the daily routine of patients and caregivers. The demands on modern beds are high: facilities expect long-lasting products, caregivers need reliable technology with a high level of functionality, and patients place great importance on comfort.

Intelligent drive technology from Dewert unites these characteristics. Dewert products are single-fault protected and meet all of the required standards. Their robust and compact design, combined with their high push and pull forces, enable them to be used in applications such as in low nursing beds and bariatric beds.

Dewert provides a cost- and time-optimised planning phase during which specific motion profiles can be designed. Dewert is ready during the entire project planning process to support and work out the best solutions. This includes carrying out joint test runs.

CU20 Control unit





ICU BEDS

— HOSPITAL

Safety for challenging tasks

Intensive care places the highest demands on staff and technology. ICU beds (Intensive Care Unit) must be easy to use, as well as ensure quick adjustments at any time. It must be possible to move patients into a shock position or CPR position within seconds.

As a system provider, Dewert ICU beds come fully equipped with customised drive technology, operating elements and a wide range of accessories. Thanks to intelligent and powerful Dewert technology, even complex motion profiles can be achieved – for example, pivoting movements to quickly reposition patients.

Dewert's drive technology also features high safety reserves that remain fully functional even during exceptional situations, such as short-term overloads. Dewert's special strength lies in developing customised system configurations and special solutions for ICU beds.

MC21i Control unit



MEGAMAT 20i
Single drive



MEGAMAT 20i
Single drive



AG7
Battery



DC22i
Lifting column



DC22i
Lifting column



IPROXX 2
Handset



IPROXX AC 2
Control keypad





PATIENT LIFTERS

— SPA

Mobility for improved quality of life

Moving from the bed to a chair or a bathtub is an essential part of the daily life of people with mobility impairments. Moreover, safe access to therapy pools during water therapy helps to facilitate these applications.

Patient lifters ensure a reliable and safe lifting and lowering that significantly improves the quality of life for these people. The ACCUCONTROL system from Dewert with its lifting, pivoting and lowering functions is customised for exactly these requirements. In addition to safe and durable operation, the ACCUCONTROL system is also designed for easy integration into a patient lifter.

Dewert offers a wide range of components, consisting of control units, drives, handsets and accessories. The ACCUCONTROL technology also has advanced overload protection, single-fault protection and self-monitoring for service and maintenance.

ACCUCONTROL 4.5 Control unit



IPROXX 2
Lifter



JLDQ20M
Single drive



MEGAMAT 5
Single drive



PATIENT CHAIRS

— TREATMENT

Stability and precision

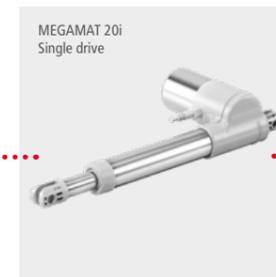
Safety, comfort and a compact design play an important role in patient chairs. Given the fact that patients sometimes remain sitting for long periods, the chairs must also be capable of gentle and precise adjustments. In addition, the slim design enables doctors to work very close to patients.

Powerful drive technology and versatile lifting columns are therefore indispensable. Dewert lifting columns for patient chairs deliver outstanding stability and reliable adjustments. Their whisper-quiet operations as well as the gentle, quick adjustments provide even more comfort during treatment.

A special feature: Despite their very small size, Dewert lifting columns have a very large lifting stroke, providing excellent versatility to users.



MC20i
Control unit



MEGAMAT 20



The digital generation of drives

The new generation of drives is suitable for a wide variety of usage in all medical applications. The MEGAMAT 20 is not only very powerful but, due to its compact and extremely stable construction it is also suitable for applications with only limited space available.

The position is detected by means of an optical sensor that accurately detects the position of the drive at any time. Equipped with a worm wheel drive, the MEGAMAT 20 is particularly quiet-running while operating. Moreover, the high IP67W protection category makes the MEGAMAT 20 very durable against external influences. On request, the MEGAMAT 20 is available with an integrated MOSFET controller. Using this controller, different parameters, such as stroke and speed, can be programmed individually in the drive.

SINGLE DRIVES

MEGAMAT 20

MEGAMAT 20i



	MEGAMAT 20	MEGAMAT 20i
Description	Powerful and robust drive for varied usage in all medical applications. The MEGAMAT 20 is compact and features a wide range of functions and integrated position sensors.	The smart Megamat20i has an integrated control unit that allows digital communication between components. By eliminating the need for a separate control unit, the MEGAMAT20i provides outstanding versatility and flexibility in tight spaces and systems.
Adjustment load	max. 6000 N push, max. 4000 N pull	max. 6000 N push, max. 4000 N pull
Adjustment speed	6000N 5.2 mm/s 4000N 8.2 mm/s 2000N 13.6 mm/s	6000N 5.2 mm/s 4000N 8.2 mm/s 2000N 13.6 mm/s
Stroke length*	max. 600 mm	max. 600 mm
Installation dimensions**	min. 167 mm + stroke	min. 167 mm + stroke
Control unit	analog	internal digital
Special configuration	ER function (0 N pull force, 4.000 N push force)	ER function (0 N pull force, 4.000 N push force)

*depending on the force
**depending on the stroke

Reliable drive technology

Powerful, compact and versatile usage: Dewert's single drives, double drives and lifting columns form the reliable heart of many medical applications. Their high-quality and robust workmanship ensure maximum durability.

SINGLE DRIVES

JLDQ19M

MEGAMAT 2



Description	Affordable yet powerful single drive for a variety of applications: The JLDQ19M has high adjustment forces and is very compact.	Versatile and affordable drive based on proven MEGAMAT technology with many configuration options. Optionally available as MEGAMAT 2 Easy with basic functionality.
Adjustment load	max. 6000 N push, max. 4000 N pull	max. 6000 N push, max. 3000 N pull
Adjustment speed	max. 42 mm/s	max. 28 mm/s
Stroke length	max. 500 mm	max. 425 mm
Installation dimensions	min. 150 mm + stroke	min. 163 mm + stroke
Special configuration	-	Versions ER, GQR

SINGLE DRIVES

JLDQ20M

MEGAMAT 5



Description	Equipped with a Hall sensor for position feedback, a low noise level and high push and pull forces, the JLDQ20M is ideal for the use in care and hospital beds. The 90° adjustment of the tail end allows an installation in various spaces and applications.	The MEGAMAT 5 is equipped with high pushing forces of up to 8.000 N, a compact and stable construction as well as manual emergency lowering, which makes the single drive ideally suited for lifter applications such as patient lifters.
Adjustment load	max. 4000 N push, max. 3000 N pull	max. 8000 N push, max. 3000 N pull
Adjustment speed	max. 30 mm/s	max. 9.5 mm/s
Stroke length	max. 500 mm	max. 400 mm*
Installation dimensions	min. 140 mm + stroke	min. 163 mm + stroke

*depending on the adjustment load

LIFTING COLUMNS

DC20



Description	Versatile heavy-duty column with a particularly low noise level during operation. Ideal for applications with high off-centre loads.
Adjustment load	max. 2000 N push
Static bending load	1000 Nm
Adjustment speed	max. 18 mm/s
Stroke length	max. 700 mm
Installation dimensions	125 mm + 1/2 stroke
Special configuration	-

LIFTING COLUMNS

DC22i



Description	The durable, smooth-operating and powerful lifting column DC22i with an integrated optical sensor offers the perfect solution for hospital and nursing beds, which require the highest safety standards.
Dynamic adjustment load	max. 2000 N as central load, max. 350 N on lever arm 400 mm
Static load	max. 1000 N on lever arm 400 mm
Adjustment speed	max. 14.5 mm/s
Stroke length	max. 400 mm
Installation dimensions	370 mm

DOUBLE DRIVES

DUOMAT 9



Description	The successor to the DUOMAT 7 features SMPS and a plug-in power cord – so it can be used around the world. A modern housing design, increased mechanical stability and the many configuration details and options: all this makes our drive even more attractive to use.
Adjustment load	max. 6000 N je Seite
Adjustment speed	max. 6.5 mm/s
Stroke length	87 mm und 69 mm (back section or leg section)
Installation dimensions	Installation length: 714 mm, component height: 119 mm Axle distance: 581 mm (+/- 3 mm), axle diameter: 25 mm
Control unit	Relay control/microprocessor
Reset function	electrical reset function (9V battery), mechanical release mechanism (ER)

SINGLE DRIVE

MEGAMAT FBR



Description	Rotation drive with unique combination of simple design and effectiveness.
Adjustment load	max. 6 Nm, Clockwise/anticlockwise rotation
Torque transmission	Standard hexagon steel SW 10 as per DIN EN 10278
Adjustment speed	70 rpm

Intelligent systems

The needs-based care of patients requires power and concentration. Intelligent systems from Dewert make it easier to work in nursing facilities and can be individually adapted to the requirements of the situation.

CONTROL UNITS

CU20



Up to four analog single drives and one manual switch can be connected to the very space-saving CU20 control unit. Thanks to the great price-performance ratio and high flexibility, the CU20 is ideally suited for use in demanding applications in the medical sector.

Connection options:

Drives: 1–4

Operating elements: 1

Optional configuration:

External power supply (e.g. LED bed lights)

MC20i



The MC20i single-fault-proof distributor unit contains all the features needed to best configure a functional nursing or hospital bed. Up to 9 components can be connected, an additional hub can be used for an extension.

Connection options:

Drives: 1–4

Operating elements: 1–2

Optional configuration:

Battery connection, external power supply

MC21i



The MC21 includes a very powerful power supply unit and allows the use of an additional hub so that the system can be expanded with additional components. The single-fault-proof distributor unit can be used for bed systems for hospital or care facilities.

Connection options:

Drives: 1–4

Operating elements: 1

ACCUCONTROL 3.0



Compact and battery-operated control unit and voltage supply for mobile applications. Single-fault protection, with error display and optionally available with onboard charging of the batteries.

Connection options:

Drives: 1–2

Operating elements: 1

ACCUCONTROL 4.5



Battery-operated control unit and voltage supply for mobile applications, single-fault protection. The ACCUCONTROL 4.5 OC version can directly charge the battery with the integrated charger and does not need to be removed for this.

Displays:

Optical charge level indicator, deep-discharge protection, wear indicator

Connection options:

Drives: 1–2

Operating elements: 1

Optional configuration:

OC (onboard charging), DC (direct charging)

HANDSET

I PROXX 20i



The I PROXX 20 combines the robustness and versatility with a slim and elegant design. The intelligent backlight ensures optimum visibility of the keys.

Keys: max. 17 (compliant 11 Keys)
Configuration options: integrated mechanical or programmable multi-level locking function, Bluetooth interface

I PROXX 2



The I PROXX 2 combines the robustness and versatility with a slim and elegant design.

Keys: max. 11, suitable for up to 4 drives
Configuration options: integrated mechanical or programmable multi-level locking function, Bluetooth interface

NOCTURNE



Versatile and durable handsets with smooth, easy-to-clean surface. The intelligent backlight ensures optimum visibility of the keys.

Keys: max. 11, suitable for up to 4 drives
Configuration options: integrated mechanical or programmable multi-level locking function

I PROXX 2 Lifter



Handset for patient lifter, in a set with the ACCUCONTROL 4.5 control unit, customised foil design on request.

Keys: max. 6, suitable for up to 2 drives
Configuration options: integrated mechanical or programmable multi-level locking function

I PROXX Display



Intuitive and user-friendly handset with fully integrated LED display. The I PROXX display is single-fault protected, durable and versatile.

Keys: max. 9, suitable for up to 4 drives
Configuration options: integrated mechanical or programmable multi-level locking function

I PROXX AC 2



Outstanding durability and safety with a wide range of functions:
The I PROXX AC 2 enables multiple drives to be locked and unlocked. The special configuration includes an integrated mechanical or programmable multi-stage locking function.



INNOVATION

Dewert is continuously developing advanced systems for the hospital and care sector. Our goal is to provide users with real added value, for example, through intelligent networking and digitisation. These innovative concepts span our entire product portfolio – including quiet MOSFET control units without relays, efficient LED systems for floor lighting, VI boxes, reading lamps, as well as the complex networking of entire systems.

Networking

With Dewert Care® Connect, Dewert continues to drive forward the digitisation and networking of the medical sector. With bus-based systems, components such as drives, control units, operating elements and sensors can be easily integrated and centrally controlled. Dewert Care® Connect can export precise service data which, thanks to intelligent software, makes planning much simpler.

Digitalisation

Dewert is placing increased emphasis on intelligent drives with an integrated bus system, pulse width modulation, synchronisation and optical sensors. Users benefit from comprehensive management features for a wide service landscape. This includes, for example, the remote maintenance of systems, which enables better availability and planning as well as faster service times.



SAFETY



STANDARDS

Dewert products meet all of the applicable normative and regulative requirements in their areas of application. The normative basis is the series of standards for medical electrical equipment (60601-1, 60601-2-52) as well as specific standards that ensure compliance with electromagnetic compatibility (EMC). The highest standards are met in compliance with TÜV and UL. In addition, all Dewert products meet the European requirements for registration and prevention of chemical substances such as REACH and RoHS.



ENVIRONMENTAL AWARENESS

During the development and production of our drive systems, we are always aware of our responsibility to nature and the environment and are committed to the sustainable use of resources. Dewert continuously improves its products with regard to energy efficiency during production and subsequent use. In addition, many of our products and systems can be purchased PVC-free.



IP PROTECTION CATEGORY

To ensure functionality even under harsh environmental conditions, Dewert products have high IP protection classes, such as IPX6. Our drive technology is therefore protected against penetrating water. Furthermore, the MEGAMAT 20, can also be put through wash tunnels (IPX6W).



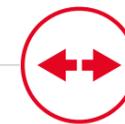
FIRE PREVENTION

Dewert develops its products with a focus on high product safety and only uses V0 fire-resistant class materials for fire-hazard components. The drive technology undergoes rigorous tests and therefore meets the strict flame retardant requirements for safe use in all nursing and hospital environments.



SINGLE-FAULT PROTECTION

Dewert products and systems feature outstanding functional safety to minimise dangers and risks to users. The topic of single-fault protection is an essential factor in this: Dewert systems are single-fault protected and therefore ensure that no danger arises when the first fault occurs. In addition, individual drives and functions can be locked manually.



RESET FUNCTION

Many Dewert drives can be equipped with a battery-operated reset function. This allows the lying surface of a bed to be moved into a horizontal position at any time, even if the power supply or the handset fails. Back and leg section are mechanically lowered. This gives the caregiver full control even in emergencies.



DEWERT

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