

CARDIAC REHABILITATION



ergoline rehab system

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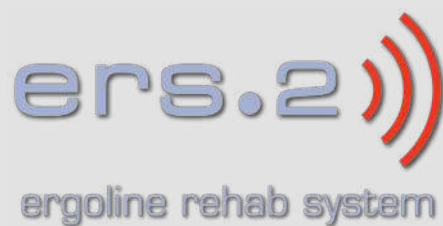


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MOVING TO HEALTH

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*A world
of possibilities*

– the way to create your
own customized solution.



Therapy by design

One of the major goals of cardiac rehabilitation is to systematically improve the performance of the cardiovascular system. The strict quality guidelines for rehabilitation practices complying with medical protocols place high demands on the utilized systems.

Technology and design

As one of the leading providers of high-quality ergometers and cardiac rehabilitation systems, our company has stood for the highest quality and design standards for over 30 years.

Our products and system designs are always based on German technology and engineering. We exclusively process materials and components made in accordance with the most stringent German and European standards.

ergoline Academy

Our competency also encompasses the professional advancement of our national and international users.

Our experienced presenter team, comprising physicians, sports scientists, physiotherapists, and institutes offers a wide range of top-quality practical seminars on a multitude of topics—always representing the current state of science.

ergoline standards

- Development and production in Germany
- High-quality components and workmanship
- Training by sports scientists of the ergoline Academy
- Comprehensive service support
- Regular software updates
- Intensive collaboration with research institutes and universities (e.g. German Sports Academy, Cologne)
- Quality assurance in accordance with EN ISO 13485



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Training in the classical sense

A proven standard

Ergometer training with ECG acquisition via suction electrode system or disposable electrodes has been an established work method in cardiac rehabilitation for years.

Quick work

The comprehensive ergoline system philosophy lets physiotherapists and sports scientists assist their patients with maximum convenience.

Even with large patient groups, the preparation, actual training, and subsequent evaluation of results can be performed efficiently, safely, and easily.



Advantages of ECG acquisition

- Acquisition of a 1-channel ECG via leadwires (adhesive electrodes or suction electrode system)
- Software-driven training equipment, central load control
- Proven and efficient—easy to disinfect for quick group changes
- Full data overview—including at the ergometer display (ECG waveform, blood pressure, SpO2, heart rate)
- Automatic, software-assisted seat adjustment



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Telemetry Flexible safety

Wireless training with ECG radio transmitters means enhanced safety and convenience—for patients and physiotherapists alike. A chest belt with transmitter replaces the suction electrode system or disposable electrodes, offers patients a greater range of movement, and therefore has more flexible use options.

Limitless training

Whether endurance training on ellipticals, step machines or other cardio equipment: the ergoline ers2 rehab system and the ergoline Bluetooth ECG telemetry system guarantee seamless ECG recording. In addition, endurance training equipment by a number of manufacturers that support the widely used ergoline interface standard can be controlled via the ergoline ers2 system.



Advantages of telemetry

- ers2 ECG telemetry system (1 or 2 channels)
- Integration and software control of various endurance training equipment
- Software-driven training equipment, central regulation of the load
- No additional devices required
- ergoline ergopad app for mobile remote ECG monitoring



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MTT monitoring

A new level of safety

The applicable guidelines recommend monitored and personalized physical training for all patients.

Particularly in the area of free training (strength/aerobic exercise), the ergoline ers2 system now also offers monitoring and documentation of vital functions, especially ECG data.

Safety for critical patients

This allows for creating individual circuit training routines for every patient, with the number of repetitions and intensities visible to patients at uncontrolled equipment, including during training.

Once training at a station has been completed, the ECG recording continues without interruption. In addition to training data for the individual stations, the ers2 software also documents all important times (start, end, pause) and equipment parameters.



Advantages of MTT monitoring

- Seamless telemetric ECG monitoring—before, during, and after MTT
- Documentation and monitoring of uncontrolled equipment as well as free group exercises and tests (strength, aerobic exercise, 6-minute walk test)
- Central documentation in the ers2 software
- Administration and organization of circuit training
- ergoline ergopad app for remote ECG monitoring on the move



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The powerful and versatile ers2 software allows for diverse group training in medical training therapy with up to 16 patients, which complies with the applicable medical guidelines. Physicians or physiotherapists can view all current events with the click of a mouse at the central station terminal. The central configuration enables the individual adjustment of the software to the corresponding work routine.

Thanks to the real-time display and storage of all ECG signals and relevant training data, physiotherapists can quickly assess their patients' status at any time during the training. Any occurring alarms are readily identified on the display, based on criteria that are automatically and individually defined for each patient. Additional blood pressure measurements can be initiated for individual patients at all times.

Based on the training standards defined by the supervising physician and physiotherapist, individual control parameters for patient training can be easily adjusted at any time.

The digital training documentation provides a scientifically sound overview of the current training regimen and individual performance progress.

The function menus of the ers2 software available for monitoring can be individually adapted to clinical workflows in consultation with the responsible physicians and physiotherapists.

[illegible]

Advantages for the physiotherapist

- Option to adjust and revise the protocol during ongoing training
- Safety based on continuous target/actual comparison
- Complete recording of all training measures
- Comprehensive management of MTT or cardiac rehabilitation
- Time savings based on transfer of all relevant data from the hospital information system (HIS)
- Software-assisted adjustment of ergometer seat height

Advantages for the physician

- Training in compliance with applicable guidelines
- Seamless data recording during endurance training and MTT
- Transparent documentation of therapy progress
- Access to all saved training data and evaluations
- Convenient diagnostic reporting
- ergoline ergopad app for mobile remote ECG monitoring of patients in training

1 Management

03 ECG 03
Bicycle 03

Doe John

- Patient management
- Patient analysis
- Devices/sensors
- Configurable pop-up function

2 Monitoring

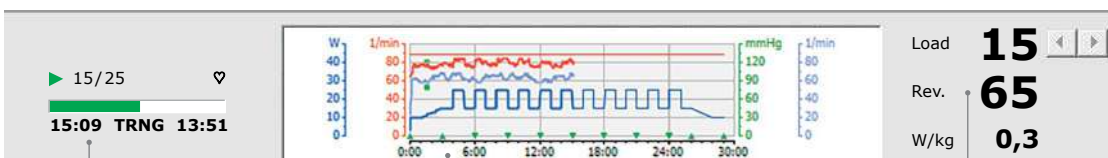


- Current heart rate
- Training heart rate
- Stoplight system for target/actual comparison

- ECG management
- Blood pressure management
- Remarks
- Manual inputs
- ECG pop-up function

- Blood pressure
- SpO2
- RPE

3 Control



- Training protocol type
- Training duration
- Training parameters

- Training protocol selection
- Height adjustment for seat and handlebar
- Diagram parameter selection
- Training pop-up function

- Current load
- Current speed
- Energy, distance, METS, W/kg

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Workflow ers.2

1 Basic configuration

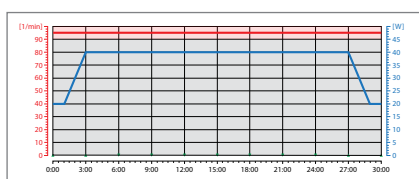
- Configure default training protocols
- Define phase duration
- Define control type

Using the comprehensive setting options for warm-up, training, and recovery phases, the default training protocols are defined once with the therapy management for the standardization of administrative procedures.

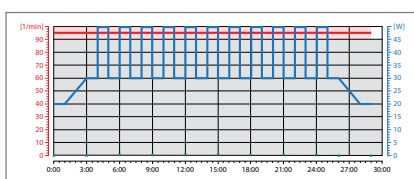
The system automatically reflects and defines all profile types within these protocols:

- Constant protocols (load / HR control / SpO2 control)
- Interval protocols (load / HR control)
- Custom protocols

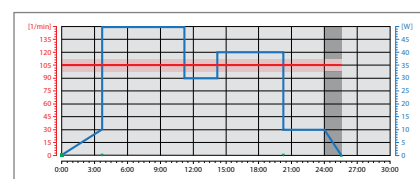
The protocols are automatically assigned when a new patient is admitted while load parameters can be customized.



Constant load protocol type



Interval protocol type



Free protocol type

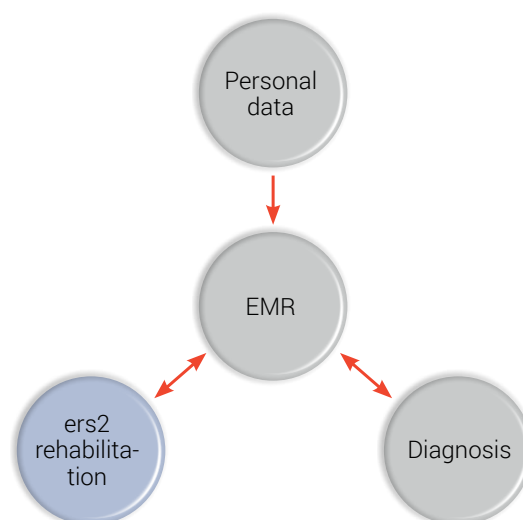
2 Admit patient (HIS or manual)

- Personal data
- Diagnoses
- Medications
- ECG results of the exercise stress test / ergospirometry test, etc.

The patient's personal data, medications, diagnoses, diagnostic reports (e.g. stress test) can be imported from the electronic medical record of the hospital information system (HIS) or entered manually.

Ideally, the patient profile will contain all necessary data for individual training management when it is imported into the ers2 system.

This relieves the physiotherapist of clerical data entry tasks.



3 Training organization

- Group management
- Training control
- ECG monitoring

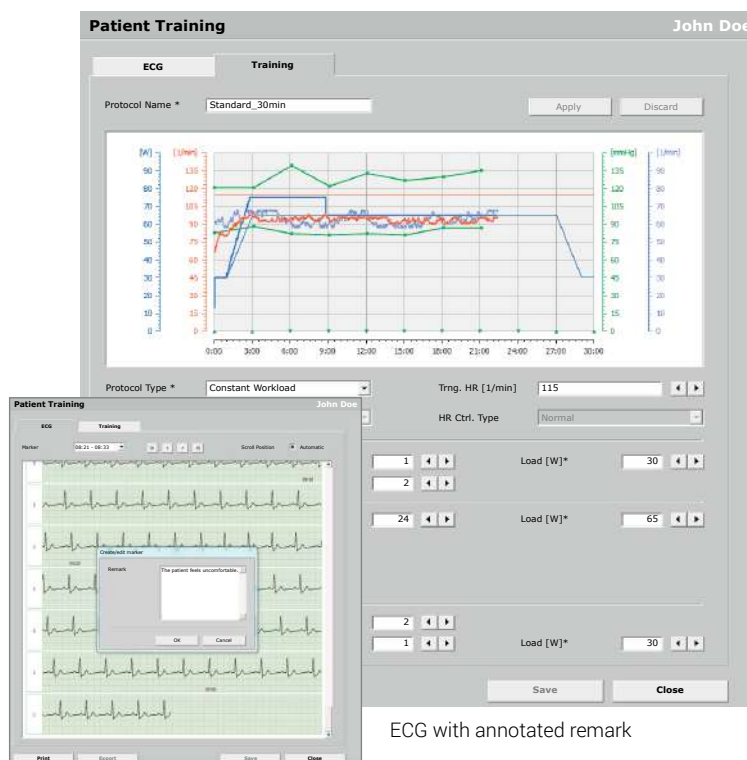
Allocating patients to groups simplifies the organization of the tightly scheduled rehab process.

The various protocols can be changed or adjusted during training at all times.

Clicking on a patient's current training data displays an enlarged view.

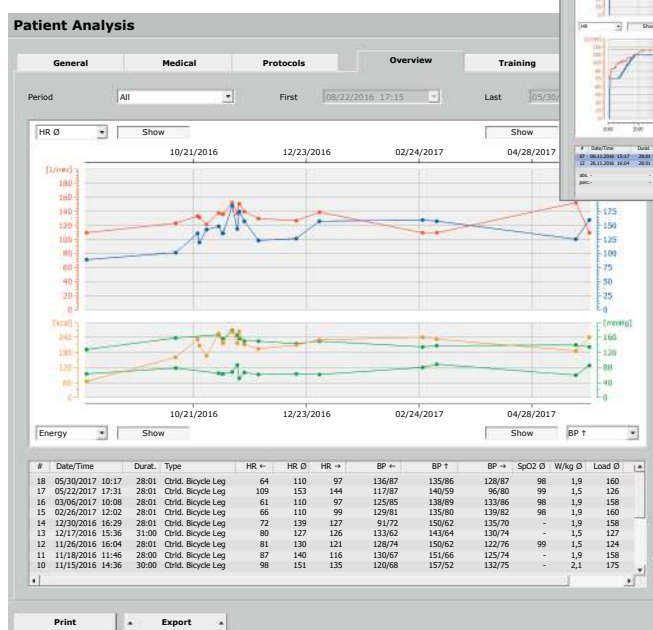
All ECG data recorded up to this point can be assessed on the screen, including retroactively. The direct comparison with previous training sessions provides important information to evaluate current physical performance.

While reviewing an individual patient, the supervisor never loses sight of all the other ECGs and can switch between patients if needed.



4 Documentation and evaluation

- Overview
- Analysis
- Documentation



Training overview

All of a patient's recorded training sessions can be reviewed at any workstation in the network. This information includes the full-disclosure ECG data as well as all other training data.

Events earmarked during the training can be accessed directly and printed.

The diagram illustrating all training units that a particular patient has completed provides important information for evaluating the therapy outcome. As an alternative to diagram, all relevant parameters can also be displayed in table format for further data processing, e.g. for exporting to the HIS.

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ers2 ECG telemetry system

Supervision on the move with the ers2 ECG telemetry system (ETS) for heart rate monitoring and documentation of the ECG signal in cardiac rehabilitation.



ers2 1-channel ECG chest belt (ETS1 chest belt)



ers2 1-channel ECG adapter (ETS1 adapter)



ers2 1-channel ECG telemetry system (ETS1)

- Signal acquisition via ECG chest belt or ECG electrode adapter
- Chest belt system
- Wide-range transmission via Bluetooth (up to 50 m)
- Flexible, adjustable chest belt

Wireless training with ECG radio transmitters means enhanced safety and convenience – for patients and therapists alike.

The ers.2 telemetry transmitter with chest strap replaces the suction electrode system or disposable electrodes, offering the patient greater freedom of movement and more flexible usage options.

Whether used for endurance training on exercise bikes, ellipticals, treadmills, or other cardio equipment, the ergoline ers2 rehab system and the ergoline telemetry system guarantee seamless ECG recording.





Bicycle ergometer ergoselect 1

- 6 – 450 watts, speed-independent
- Patient weight up to 160 kg
- Continuous seat height adjustment
- 360° handlebar rotation
- Wide range of expansion options



Bicycle ergometer ergoselect 4 / 5 M/T/Reha

- 6 – 999 watts, speed-independent
- Patient weight up to 160 kg
- Gas-spring assisted adjustment of seat height (option)*
- Motor-assisted seat height adjustment (adjustable from ers2) *
- Motor-assisted handlebar height adjustment (adjustable from ers2)
- ECG, suction electrode system, blood pressure, add-on option for SpO2
- Wide range of expansion options

* increases maximum permitted patient weight to 200 kg

Options
(see page 17)



01.



02.



03.



04.

Recumbent ergometer ergoselect 600 K/Reha

- 6 – 1000 watts, speed-independent
- Patient weight up to **300 kg**
- Adjustable seat spacing and back rest
- ECG, suction electrode system, blood pressure, add-on option for SpO2



Options
(see page 17)



01.



02.



03.



04.

opticross

100 – 500 watts speed-independent, up to 1000 watts speed-dependent, 15 – 140 rpm, preset speed limitation to 80 rpm, menu option can be changed to 15 – 500 watts speed-independent

- HBS braking system (Hybrid Braking System), regenerative eddy-current brake
- Patient weight up to 200 kg

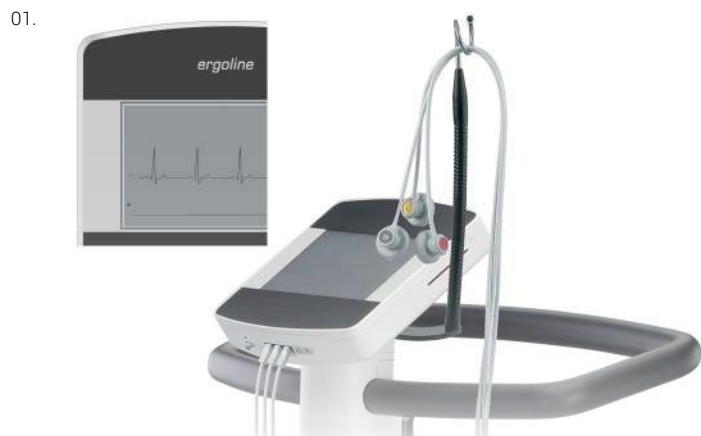


Arm ergometer

emotion – motion body 900 med

- 25 – 500 watts, speed-independent, up to 1000 watts speed-dependent, 20 – 120 rpm
- HBS braking system (Hybrid Braking System), regenerative eddy-current brake
- Patient weight up to 200 kg





1-channel ECG suction electrode system (integrated in ergometer)

- Adjustable vacuum strength
- Easy cleaning
- Direct ECG display at ergometer screen
- Cable for disposable electrodes available as an alternative



Blood pressure measurement (integrated in ergometer)

- Determination of the blood pressure during exercise tests (Korotkoff)
- Different cuff sizes available



Chip card

- Patient identification in the ers2 software via the chip card interface at the ergoselect ergometer



SpO2 measurement (integrated in ergometer)

- Different sensors available
- Determination of the oxygen saturation (SpO2) during exercise tests (pulse oximetry)



Treadmill

ergosprint

- Speed 0.5 – 22 km/h
- Grade 0 – 25 %
- Large running surface (150 cm x 50 cm)
- Patient weight up to 250 kg



Treadmill accessories

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Illustration shows optional accessories:

- Safety bar with release line
- Long hand rails
- Large control panel



Consistent reliability

The quality of ergoline products forms a solid foundation for the profound trust users have placed in the ergoline brand for over 30 years.

We meet these high quality expectations of our customers with closely monitored processes, the use of high-quality materials and components as well as extensive tests and inspections.



Made in Germany

“Made in Germany” is not just a quality seal for ergoline, but represents the promise to meet the highest standards of quality, precision and longevity – all ergometers are developed and produced exclusively at our company headquarters in Bitz (Baden-Württemberg).

PREMIUM QUALITY

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MOVING TO HEALTH

MADE IN GERMANY

Notes

ergoline - made in Germany



ergoline plant in Baden-Württemberg, Germany



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The motto "State-of-the-art technology and custom design" is both a challenge and an obligation for all ergoline products.

It represents our standard to always offer our customers complete, high-quality solutions. On the other hand, it also refers to the obligation to act with commitment, fairness and dedication.



PREMIUM QUALITY



MADE IN GERMANY

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