

# ers.2 System

Cardiac Rehabilitation

## System

The Ergoline ERS II system offers a flexible and comprehensive concept to provide physicians, therapists and sports scientists with maximum comfort in patient care.

A variety of system components such as different training ergometers, ECG telemetry transmitters, and a freely scalable software system can be combined in accordance with individual user preferences. Even with large patient groups, the preparation, actual training, and subsequent evaluation of results can be performed efficiently, safely, and easily.

### A world of possibilities

- System for cardiac rehabilitation
- Simultaneous monitoring, control and documentation of training sessions for up to 24 patients per PC
- ECG acquisition via integrated ECG amplifier or telemetry transmitter
- Storage of the full-disclosure ECG for all patients/training sessions
- Any number of control devices (e.g. ergometers, treadmills, recumbent devices)
- Session training with unlimited number of activities
- Versatile analytical and comparative options
- Comprehensive documentation



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## Software

The powerful ers.2 software relies on an intuitive operation concept and enables versatile group training in compliance with the applicable guidelines in medical training therapy for up to 24 patients.

The system can also be flexibly adapted to special requirements. 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.

### Time savings by transferring all relevant data from the hospital information system (HIS)

- Personal data
- Diagnoses
- Medications
- Results of the exercise test ECG / Ergospirometry test, etc.

### Comprehensive management of cardiac rehabilitation or MTT

- Group management
- Training control
- Training in compliance with applicable guidelines
- ECG monitoring
- Option to adjust and revise the protocol during ongoing training
- Safety based on continuous target/actual comparison
- Complete recording of all training measures

### Seamless data recording during endurance training and MTT

- Trend
- Analysis
- Documentation
- Transparent documentation of therapy progress
- Access to all saved training data and evaluations
- Convenient diagnostic reporting



## Training in the Classical Sense

Ergometer training with ECG recording based on a suction electrode system or disposable electrodes has been an established working method in cardiac rehabilitation for many years. For this purpose, Ergoline offers a full equipment line for conducting controlled training sessions during cardiological rehabilitation.

Bicycle Ergometers, Special Ergometers for obese patients, or Arm Ergometers, all Ergoline ergometers can be operated with the ers.2 system, using the integrated Ergoline ECG amplifier.

### Ergometer training with ECG recording

- Acquisition of a 1 channel ECG via lead wires (adhesive 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, SpO<sub>2</sub>, heart rate)

For ECG acquisition with wired electrodes, the Ergoline rehabilitation ergometers can be equipped with an integrated ECG amplifier.

The ECG is acquired via the suction system integrated into the Ergometer or via 3 disposable adhesive electrodes and transmitted to the ers.2 software. The ECG quality can be checked on the Ergometer display at all times.

The ers.2 software also offers an SpO<sub>2</sub>-controlled training mode, i.e. the Ergometer load is automatically adjusted to the patient's current SpO<sub>2</sub> value.

The use of a Soft Tip sensor instead of a clip reliably prevents the sensor from slipping off the finger during the training. This ensures continuous control of the current oxygen saturation (SpO<sub>2</sub>).

The Ergoline 2-channel ECG transmitter offers extended options: 2 freely defined, independent ECG channels can be controlled & recorded with 5 electrodes.



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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 ers.2 rehab system and the Ergoline telemetry system guarantee seamless ECG recording.

### Wireless training with ECG radio transmitters

- ECG telemetry (1 or 2 channels)
- Integration and software control of various endurance training equipment
- Software-driven training equipment with central regulation of the load
- No additional device displays required
- Ergoline Ergopad app for remote ECG monitoring on the move

Faster patient preparation: Simply snap in to connect the ECG transmitter to the flexible, adjustable Ergoline chest strap. ECG data are transmitted wirelessly to the ERS system – up to a distance of 100 m. The use of commercially available AAA batteries or rechargeable batteries ensures safe, stable power supply for the transmitter.

As an alternative to the chest strap, the 1-channel ECG transmitter can be plugged into a special adapter with highly flexible ECG leadwires – the ECG is then acquired via commercially available disposable electrodes.

ECG recording and monitoring can be waived for certain patients.

In those cases, the heart rate required for training control is reliably determined by the Ergoline chest strap and transmitted to the ers.2 software, using wireless technology.



## Training Monitoring on the Move

The EOA app for Android tablets is an integrated on-the-go solution for performing and documenting training units outdoors and in field tests with up to six patients.

Whether the 6-minute walk test or outdoor training, EOA meets all the requirements of mobile monitoring in cardiac rehabilitation. The full integration in the ers.2 software platform warrants easy, centralized management of the patient data, analysis, and reporting.

### The EOA app for Android tablets

- Safety in the field with patient specific limit values and information for the therapist
- Motivation based on direct feedback to the patient (e.g. personal pulse check versus measured heart rate)
- Documentation of additional vital parameters (ECG, HR, BP, SpO2)
- Planning of training groups and participating patients with the ers.2 software
- Documentation and analysis of field trainings in the ers.2 system

### ECG monitoring on the move with the Ergopad app

During the training, the key data of all patients are sent to the Ergopad app on the mobile devices of the therapist or physician.

All important patient parameters are available everywhere to guarantee a high level of patient safety. If necessary, therapists can immediately consult a physician. Current patient information can be transmitted over WLANs, e.g. to the physician's office or even during hospital rounds.

### Chest strap transmitter for 1-channel ECG

Faster patient preparation: Simply snap in to connect the ECG transmitter to the flexible, adjustable Ergoline chest strap. ECG data are transmitted wirelessly to the ERS system up to a distance of 100 m. The use of commercially available AAA batteries or rechargeable batteries ensures safe, stable power supply for the transmitter.

