





The HELIOS Clinic, Bleicherode, is a specialist orthopaedic hospital in North Thuringia with a focus on operative orthopaedic medicine. It has an excellent reputation for artificial hip, knee and shoulder operations, a reputation that goes far beyond its specific region. With well over 1000 navigated knee replacements the clinic has the most extensive experience worldwide in this field.

Like all equipment in the clinic, all its therapy, swimming and exercise pools also have to meet the high expectations of the patients in every aspect. All the more reason for Schwimmbadtechnik Kirchner to require maximum flexibility, a wide range of functions and reliability for the pool controls. They therefore decided on a modular system with networked units consisting of easy control relays. In this system, each relay is assigned to a functional group.

#### High operational reliability

The modular design of the system ensures a high level of operational reliability for the clinic operators and for the patients. Faults in individual system sections are detected quickly and normally do not impair the function of

### THE COMPANY

Schwimmbadtechnik Kirchner was founded in December 1994 in Sondershausen, not far from the Harz mountains. The company is based in Thuringia and offers different services for all the requirements of private and public swimming pools, saunas and solarium facilities. This includes consultation, construction, maintenance, and sauna sales and installation. For around three years, Kirchner has been successfully using easy devices for all control tasks in swimming pool applications.



the pools, since, in the event of a failure in individual system sections or modules, the remaining sections continue to operate. In this way, required functions such as the control of water temperature, pool water level, filtering and control of massage jets, as well as the metering of pool chemicals are fully retained.

The easy.NET topology consists of three easy 819-DC-RCX units, partly with central expansion modules, three easy 618-DC-RE units and one MFD-80-B with CP8-NT and an easy 618-DC-RE central expansion. This infrastructure is used to control, regulate and visualise the following parameters:

- 2 sand filters with 6-way valves, with volume flow and pressure differential measurement using 0-10V analog sensors
- Control of various motor-activated valves for water flow during filtering, rinsing, backwash and waste, for air purging and emptying, for locking and reporting all switch states.
- 2 splash water tanks with 4-20mA analog level sensor. Functions: control of the splash water volume with automatic replenishment according to pool use by patients, supply of filter backwash and consumption measurement
- 2 Filter pumps, 1.5 KW
- Jet stream and massage unit
- Underwater lighting with lighting scenarios
- Control of pool water temperature with heating by means of heat exchangers, measurement using 0-10V active temperature sensor, digital setting and display on the MFD display
- Pumping system for leakage water
- Data exchange with metering system and the metering pumps for swimming pool chemicals (chlorine metering, flocculating agent, PH value setting)
- Monitoring of important switching states with selective display in the MFD-Titan and central signalling to the house alarm



The MFD-Titan display from the easy product range enables the user to select between Manual and Automatic mode as required. Individual sections of the system can be operated and set up manually as required, whilst the remaining system continues to run in Automatic mode. The full-featured graphic display with 132 x 64 pixels comes with a backlight that can be switched on as required, and offers a high level of protection to IP65. Two freely programmable status LEDs are used to display additional operating states and signal alarms. Connections with maintenance-free and vibration-proof spring-loaded terminals ensure a high level of operational reliability.



### CONCLUSION

Dipl.-Ing. (FH) Herbert Kirchner, owner of Schwimmbadtechnik Kirchner, had this to say: "Moeller's switching devices from the easy series and the MFD-Titan display provide the HELIOS Clinic in Bleicherode with a highly reliable and flexible control system for all pool functions. The modular design enables the number of individual components to be kept to a minimum. In this way, space requirements and wiring costs are considerably reduced. The clearly structured visualization system provided by the MFD-Titan multi-function display enables it to be operated by users without any technical background. The customer is absolutely delighted with the solution."