KAN-therm Smart

Automation System

Comfort under control

TECHNOLOGY OF SUCCESS

About KAN

Innovative water and heating solutions

KAN was established in 1990 and has been implementing state of the art technologies in heating and water distribution solutions ever since.

KAN is a European recognized leader and supplier of state of the art KAN-them solutions and installations intended for indoor hot and cold tap water installations, central heating and floor heating installations, as well as fire extinguishing and technological installations. Since the beginning of its activity, KAN has been building its leading position on such values as professionalism, innovativeness, quality and development. Today, the company employs over 600 people, a great part of which are specialist engineers responsible for ensuring continuous development of the KAN-therm system, all technological processes applied and customerservice. The qualifications and commitment of our personnel guarantees the highest quality of products manufactured in KAN factories.

Distribution of the KAN-therm system is performed through a network of commercial partners all over Poland Germany, Russia, Ukraine, Belarus, Ireland, the Czech Republic, Slovakia, Hungary, Romania and in the Baltic States. Our expansion and dynamic development has proven soeffective that KAN-therm labeled products are exported to 23 countries, and our distribution network assumes Europe, a great part of Asia, and a part of Africa.

The KAN-therm system is an optimal, complete multipurpose installation system consisting of state of the art, mutually complementary technical solutions for pipe water distribution installations, heating installations, as well as technological and fire extinguishing installations. It is the materialization of a vision of a universal system, the fruit of extensive experience, the passion of KAN's constructors, as well as strict quality control of our materials and final products.
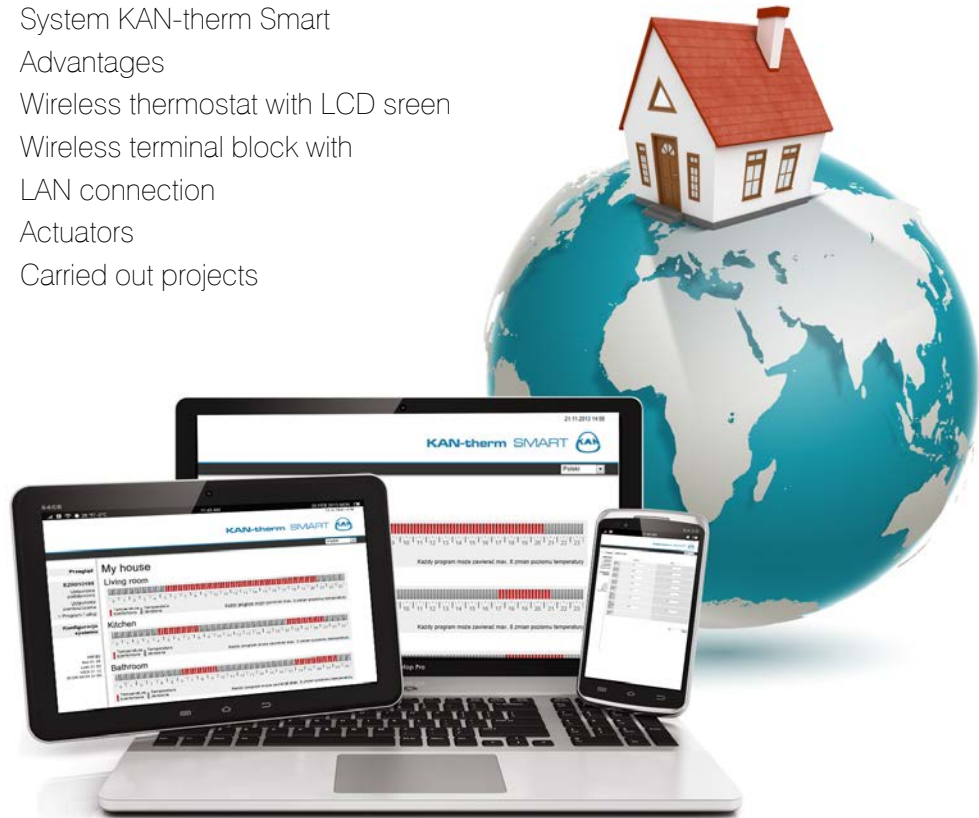
SYSTEM KAN-therm
- special award:
Pearl of the highest quality
and:
**Golden Quality International Medal
2015, 2014 i 2013.**

TECHNOLOGY OF SUCCESS

Contents

SYSTEM **KAN-therm**

Smart

The KAN-therm SMART automation system is a complete, state of the art system for controlling indoor temperature that thanks to Internet connection, offers the possibility to operate it from any place on the Earth by means of a laptop, an iPod or a Smartphone.

The KAN-therm SMART System's devices are a new generation components of control automation that offer unprecedented up to now functionalities and operation possibilities. This system is designed for wireless control and regulation of temperature and other parameters of heating and cooling systems deciding on comfort sensation in rooms. This system offers also a number of additional advanced functions making operation of heating or cooling systems extremely effective, energy saving and user-friendly.

The KAN-therm Smart is a multifunctional system that apart from temperature control and regulation in various heating zones realizes also switching over heating/cooling modes, controlling heat source and pump operation. The system's terminal block enable to connect a temperature limiter and external control clock. The functions for protection of pumps and valves (periodical start-up during time of longer standstills), protection against freezing and temperature limit are also realized.

In case of bigger installations with use of 2 or 3 KAN-therm Smart terminal blocks there is the possibility to interconnect them in one system enabling mutual wireless communication by means of radio technology.

ISO **9001**

3

Advantages
of the KAN-therm Smart system

— **On-line control**
The control hub (terminal block) has a functionality of connection with Internet network. Thanks to such solution the system enables to program, make changes, update software or to switch ON and OFF the whole heating or cooling installation from any place on the Earth by means of a laptop, an iPod or a Smartphone.

— **Versatility**
The standard system supports various types of surface heating or cooling installations. The system provides devices and offers many additional functions enabling accurate measurement, regulation and control of various parameters in rooms.

— **Compatibility**
Thanks to the fact that the terminal block is equipped with a number of additional inputs and outputs for control signal, there is a possibility to connect the KAN-therm Smart automation system to advanced, intelligent, building management and monitoring systems (so called BMS systems - this option is still developed) and to alternative external equipment (like boiler, external heat source, pumps, burglar alarms etc.).
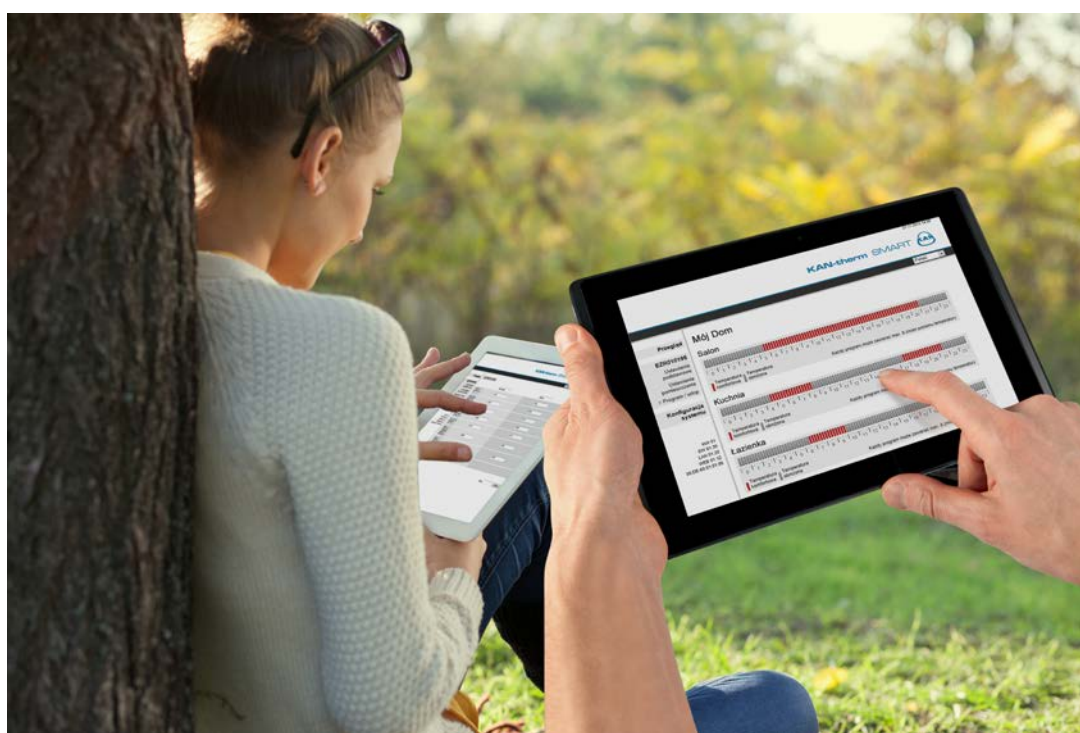
Convenience

The control system operation and visualization of current parameters of the building are carried out by means of the "KAN-therm SMART Manager" easy, simple and intuitive in use application available on website via a PC computer, Smartphone or iPad. The "KAN-therm Smart Manager" application is also available on MicroSD card – updating and making changes may be carried out by means of a PC computer or the KAN-therm Smart wireless thermostat.

Economy

Thanks to built-in the „Start Smart" function that ensures the control system "self-learning" about the building specificity and possibility to lower temperature at night and to program thermal comfort on the weekly basis (time of heating) the system enables to save up to 20% of thermal energy.

Ecology

Due to optimal management of electric energy consumption the system is environmentally friendly. The low level of electric energy consumption is achieved thanks to energy-efficient actuators, characterized by only 1W power consumption, and thanks to special system of control and adjustment of radio signal power.

Wireless thermostat with LCD

The wireless indoor thermostat with Liquid Cristal Display (LCD) is a device that controls the KAN-therm Smart terminal block (24V or 230V). It is designed to monitor temperature in room and to set required temperature in controlled by thermostat heating zone (room).

— Modern and elegant design, high quality plastic resistant to scratches

— Small overall dimensions 85×85×22 mm

— Large (60×40 mm), legible LCD with backlight

— Communication system based on pictograms and the rotating dial provide comfort of intuitive use

— Very low energy consumption – over 2 years battery life

— Possibility of connecting a floor temperature sensor

— Bidirectional radio-frequency data transmission, 25m range inside the building

— Comfortable and safe use guaranteed by three-level MENU:
user functions, user parameters setting, installer settings (service)

— Many useful functions, e.g. children lock, standby mode, day/night or auto operation modes, "Party" or "Holiday" functions

— Possibility of setting many parameter – temperature (heating/cooling, temperature drops), timers, programs

1. The SMART wireless thermostat with LCD.

Wireless terminal block with LAN connection

The intelligent hub of the whole control system is the state of the art wireless terminal block that connects together all devices designed for data processing, communication and regulation of various parameters in the room.

The electric panel gathers and processes various data that concern individual, energy saving temperature control in each room, to ensure maximal comfort sensation by the user.

Standard terminal blocks are adapted to support heating and cooling installations. The implemented software performs well during current operation of the system as well as while extending it by additional devices and functions. All corrections and updating of software, while extending the system, are entered via integrated slot for microSD cards.

The terminal block has built-in socket for Ethernet network that enables to connect the whole control system to the home network (On-line operation). The "KAN-therm Smart Manager" integrated, multilingual application guarantees comfortable and intuitive management of the control system by means of a PC computer, an iPod or a Smartphone.

2. The SMART wireless terminal block with LAN connection (closed).

Wireless terminal block with LAN connection

The terminal block is fitted with the SysBuss special socket that enables cooperation of the KAN-therm Smart system with building management and monitoring systems (so called BMS systems).

— Bidirectional 868 MHz wireless technology

— 230 V or 24 V versions (with a power converter)

— Possibility of connecting up to 12 thermostats and up to 18 actuators

— Heating and cooling function as standard

— Manifold pump and valves protection functions, frost-protection function, safe temperature limiter, emergency mode

— Actuator operation functions: NC (normally closed) or NO (normally open)

— MicroSD card reader

— Ethernet RJ 45 socket (for connecting to the Internet)

— Possibility of connecting additional devices: pump module, dew point sensor, external clock, additional heat source

— LEDs clear indication of operation mode

— Range of operation in buildings 25 mm

3. The SMART wireless terminal block with LAN connection (open lid).

Actuators

The KAN-therm Smart actuators are the state of the art thermoelectric drives (servomotors) designed for opening and closing the valves of circuits of the surface heating and cooling system. They work, via connection of trminal blocks, with thermostats that control room temperature. The actuators are mounted on cut-off valves (thermostatic) in the KAN-therm manifolds series 71A, 75A, 73A, 77A for floor heating.

The actuator may be also mounted on thermostatic valve placed on supply line of a pump mixing system. In this case it operates as drive of the valve that controls (by means of regulator - thermostat) all circuits connected to the distributor.

— 230V or 24V versions

— "First Open" function facilitating the installation of actuators and performance of pressure tests

— NC or NO versions

— Quick assembly using KAN-therm M28x1.5 or M30x1.5 adapters

— Solid mount using a three-point locking system

— Actuator calibration – automatic adaptation to the valve

— Visualization of the actuator operation

— Mounting in any position

— Protected against water and humidity

— Energy-saving - only 1W of power consumption

The actuators are mounted on valves by means of the KAN-therm M28×1,5 or M30×1,5 plastic adapters (depending on valve type).

4. The smart actuators are available in 230V and 24V versions.

The KAN-therm Smart actuators, regardless of type (NC/NO), work with the KAN-therm Smart wireless terminal blocks (230V and 24V versions respectively).
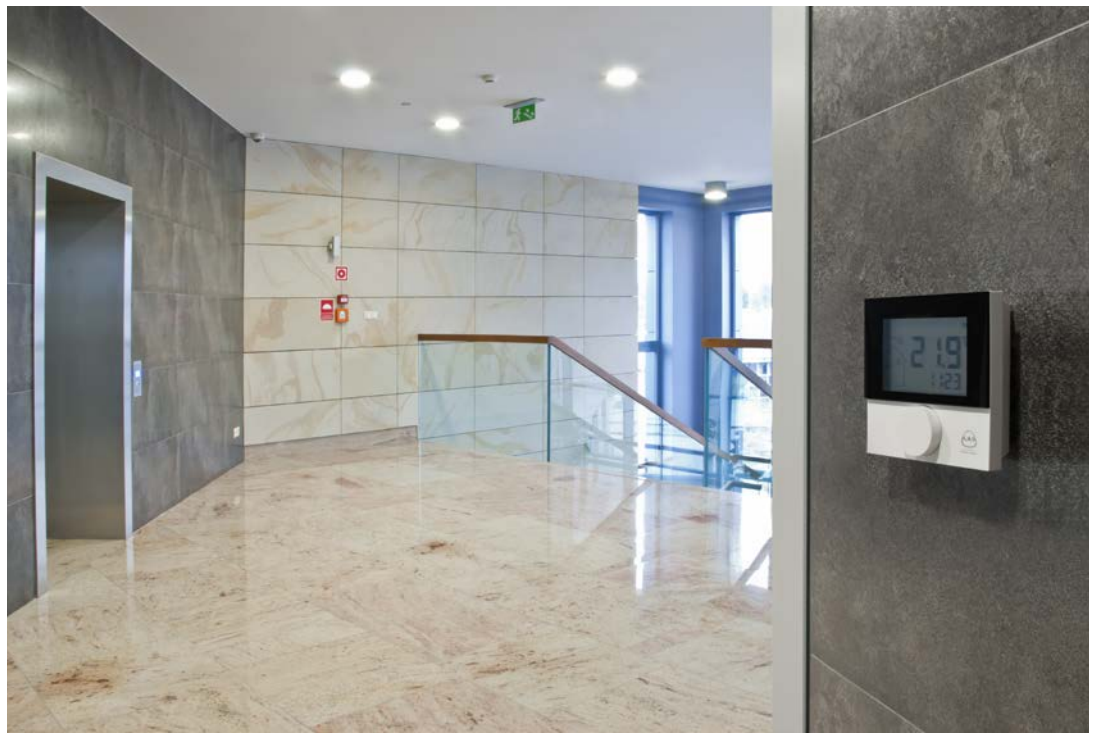
Carried out projects

The first, complete system for controlling room parameters with use of the KAN-therm SMART devices was realized in new, energy saving office building of the KAN company.

Optimally designed and configured this system guarantees real energy savings while ensuring maximal thermal comfort in rooms and constitutes basic element of intelligent building.

Elegant design of the SMART thermostat excellently matches the modern style single-family houses, apartment and public buildings.

Compatibility of the control system with many additional radiator and air conditioning units existing in building, guarantees achievement of optimal thermal conditions while preserving very low energy consumption.

The KAN-therm SMART system devices combined with alternative control and alarm devices constitute a completely intelligent, state of the art building management system.

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SYSTEM **KAN-therm**

Optimal, complete multipurpose installation system consisting of state of the art, mutually complementary technical solutions for pipe water distribution installations, heating installations, as well as technological and fire extinguishing installations.

It is the materialization of a vision of a universal system, the fruit of extensive experience, the passion of KAN's constructors, strict quality control of our materials and final products, and vast knowledge of the market of installations to meet the requirements of energy efficient, sustainable construction.

Push Platinum

Push

Press LBP

PP

Steel

Inox

Sprinkler

Underfloor heating and automation

Football Stadium installations

Cabinets and manifolds