

# iDigit



## Control device



The controls series iDigit and iBasic grant an optimal management of the environmental well-being. These electronic controls, available with analogical or digital interface, are of easy use and they allow the regulation of all kind of hydronic terminals produced by Aerfor.

They are the result of some decades of experience in this field and are expressly studied to ensure maximum functionality at low cost. Special attention is also given to the design, modern and innovative, that makes them suitable to any kind of ambiance. They can control hydronic terminals for 2 and 4 pipe systems or with electric heaters and are available in more versions depending on the needs and desired comfort. From the simple iBasic0, with only the selection of fan speed, to iDigit2, with backlit LCD display and the possibility of automatic selection of the operating mode and fan speed to ensure maximum comfort and a gradual modulation of power output.

Top of the series are the iBasic3 and the iDigit2 which can manage the fan coil with electronic motor EC, for maximum energy savings.

iDigit2 can be used in management systems with open protocol BMS Modbus®.

On the fancoils of the series FIPA and FNL it is possible to use the controls iDigit2 and iBasic3 for the management of ACHPS, innovative solution that achieves high performance in 4-pipe systems, using a single coil.

All thermostat iBasic and iDigit could be chosen with:

- **slim version:** used for standard applications with flush box inside the wall predisposition (thermostat terminal blocks are external to plastic backside)
- **wall version:** used for application with wires that necessary has to be external to the wall (thermostat terminal blocks are internal to plastic part)

## iDigit 2 Digital Thermostat with blue LCD display



### iDigit 2

- full optional ON/OFF digital thermostat with large blue LCD display and adjustable backlighting
- perfectly suitable to all applications and compatible with each type of system
- easy to install and to configure: all settings will be possible by software (not dip switch)  
settings are predisposed in two different levels: the first is accessible to the final user, the second one is accessible only with a password and it gives the possibility to modify all important parameters in function of the system and the application. The operation of change settings will be possible in each time after installation on the wall, and without opening the control and removing plastic parts
- in case of standard applications, there are some default recipes already pre-charged (for example standard setting for 2 or 4 pipe system in accordance to all similar product in the market). So, the control gives also the possibility to avoid each single parameter setting or to modify only few parameters, starting from a standard application.
- calendar clock and integral battery as standard
- Operation with 2 pipe - 4 pipe - fan only - heat pump system
- Hourly and weekly programming as standard
- RS485 bus connection as standard
- Device totally controlled using open Modbus communications protocol.
- manual or automatic selectable speed (MIN/MED/MAX).
- output for AC fan motor: max 1A 230Vac
- Always running or thermostat controlled fan operation
- Fan starting temperature thresholds could be set separately for heating and cooling operation. This function allows the function of minimum thermostat for winter mode, and maximum thermostat for summer mode. Both temperature values could be set by software.
- 0-10VDC output for EC brushless fan motor (low absorption and low noise)
- 230V-50Hz ON-OFF valves
- 0-10VDC modulating valves
- 3 points floating valves
- Manual or Automatic changeover for WINTER/SUMMER mode. In automatic mode, the changeover could be set in function of air temperature (normally for 4 pipe system) or of water temperature (2 pipe system)
- SUM/WIN changeover temperature thresholds setting separately for heating and cooling operation
- Monitoring of fan power absorption with fan alarm output (as standard)
- neutral zone and proportional band setting by software
- alarm in case of system malfunctions (air probe or fan motor fault)
- free contact for hotel functions, such as: room empty/occupied, courtesy light control - control of bathroom fan with room occupied,...
- Automatic/manual/centralized setting of SUM/WIN operating mode switching
- Inputs for control of window contact, economy contact, auxiliary contact, and bathroom and fire alarm
- Centralized comfort/economy operating control
- Intelligent control of electric heater as alternative or addition
- Air temperature monitored by internal probe or remote NTC air probe (max 10m, shielded cable, away from power wires)
- Filter fouling alarm
- for 2 pipe system, it is possible to read the water temperature in the coil directly on the display.
- predisposed for external shutter control
- Antifreeze function
- Keyboard lock function
- silent thanks to advanced triac control technology
- replaceable electric protection fuse
- Infra-red remote control receiver (optional)
- Control of humidification/dehumidification with internal humidity sensor (optional)

## iBasic Thermostat with internal microprocessor



Model	iBasic0	iBasic 1	iBasic 3
• ON/OFF Thermostat	–	•	•
• Thermostat with internal microprocessor and dip switch configuration	–	–	•
• Manual MIN/MED/MAX (MIN/MED only iBasic3) control speed: max 1A 230Vac for all speeds	•	•	•
• Automatic speed available (MIN/MED/MAX)	–	–	•
• 2 and 4 pipe system	•	•	•
• 230V-50Hz ON-OFF valves	•	•	•
• ON-OFF unit	•	•	•
• 0-10VDC modulating valves	–	–	•
• 230V-50Hz 3-points valves	–	–	•
• 0-10VDC output for EC brushless fan motor (low absorption and low noise)	–	–	•
• optional: external NTC probe as minimum thermostat (cooling if $T_{water} < 15^{\circ}C$ , heating if $T_{water} > 35^{\circ}C$ )	–	–	•
• possibility of using in association with electric heater (only 2 pipe system) as alternative or addition	–	–	•
• Window contact	–	–	•
• Economy contact	–	–	•
• Replaceable electric protection fuse	•	•	•
• Remote room air probe (max 10m, shielded cable, away from power wires)	–	o	o
• Minimum thermostat (code TM, fan starting only if hot water in the coil)	o	o	–

- o Optional
- Not available
- Including

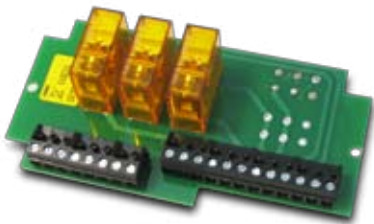


### Integration

The controls of the series iDigit e iBasic can be smartly integrated into the fancioils of the series FIPA.



ALSY



ELMS



EBIR



## Auxiliary Coil

High Performance System

This innovative system gives the possibility to use the fan-coil of the FNL or FIPA series with one single coil in a 4 pipe system.

By this way the main coil with 4 rows can receive water from the system at lower temperature than usual for getting an equivalent or even higher capacity.

For instance the feeding water temperature can be 45°C instead of the usual 70-60°C with a relevant energy saving.

The system **ACHPS**, with its combination of special valves and thermostat, provides also the by-pass of the water in the fancoil maintaining a constant pressure in the system.

**For more details ask technical documentation to [info@aerfor.com](mailto:info@aerfor.com)**

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### ALSY

- alarm system for fan failure detecting
- It could be used in association with all AC fan motor from 120mA to 2A max current absorption
- two leds for giving quickly indications relative to the fan motor status: OFF, ON, FAULT
- two free contact for remote the signals. The contacts could be used both for turning ON/OFF a light for fan motor faulty or in an advanced BMS system, in association with all software in the market
- Studied for running with all the fan motor with or without autotrasformer in the market. Setting an ADJ, it could be always possible to choose the right minimum current for each fan motor

### ELMS

- Master-slave system (all units work in accordance with master)
- installed in each unit (master and slave), it allows to control all the fan coil with only one thermostat
- Max current for each fan speed: 2,4A. Max 550W

### EBIR

- to be used with all fan motor that have an absorption less than 3,47A (max 800W) for the max and med speed and 1,6A (max 370W) for min speed
- used always in association with UTW70 unit
- Master-slave system (all units work in accordance with master)

### TM

- minimum thermostat, to be fixed on the coil aluminum fin.
- Fan starts running only if hot water in the coil (over 35°C)
- Fan stops if water temperature fall down the 28°C
- In this way, only hot air is moved in the room.

### TR 230/24

- Transformator 230Volt-24Volt
- used for power supplying the 0-10V modulating valves
- used in all application where 24V-50Hz is necessary

### RRE

- Relay for electric heater
- it could be also used for giving free contact or windows contact in some dedicated electric box.



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