

ETC2017 Proportional plus-integral (PI) Controller



Summary

Air Systems:

Constant or Variable Air Volume systems for single or dual duct systems with options of:

- up to two reheat stages
- supply air, extract air cascade control humidity control
- Control for variable speed fans

Air/Water Systems:

Fan Coil units for 2-pipe or 4-pipe systems with options of:

- Humidity control
- Pressure control
- radiator control, chilled ceiling

Water Systems: Radiator, floor heating or chilled ceilings Individual room control for hotel rooms, meeting rooms, etc.

Specifications

Model	ETC2017,3 point floating and modulating control dual output,2 pipe or 4 pipe system	
Power Supply	Operating Voltage	24 V AC 50/60 Hz ± 10%
	Power Consumption	Max 4 VA
	Electrical Connection	Terminal Connectors
	Battery (deluxe version)	Lithium CR1220 3V
Signal Inputs	Analog Inputs Signal	DC 0-10V, DC 0-5V or 0...20mA
	Resolution	39 mV, 0.078 mA
	Accuracy	- 2%
	Temperature Inputs	RT
	Range	-40...140 °C
	Resolution	0.1 K
	Accuracy	0.5 K
Type	NTC 10KΩ, 25 °C, B25/50:3950 Acc: 1%	
Signal Outputs	Analog Outputs Signal	DC 0-10V or 0...20mA
	Resolution	39 mV, 0.078 mA
	Accuracy	- 2%
	Maximum Load	20 mA, 500Ω
	Digital Switching Outputs	DO1, DO2
	AC Voltage	24V-220V AC 1A max.
	Insulation resistance	AC2500 V RMS acc. to EN 60 730-1, complying with UL standards File ref E81734
Display (LCD)	Actual values and setpoint (LCD)	4 digits
	Resolution value < 1000	0.1
	Resolution value > 1000	1
	Digital Signals	ON, OFF
Parameters	For details of control parameters see parameter section	

Product Application Reference Proportional plus-integral (PI) Controllers

Specifications

Environment	Ambient Temperature	-10 to 50°C acc IEC 721-3-3 (14 to 122 °F)
	Operation Climatic Conditions Temperature Humidity	To IEC 721-3-3 class 3 K5 0...50°C <95% r.h.
	Transport & Storage Climatic Conditions Temperature Humidity Mechanical Conditions	To IEC 721-3-2 and IEC 721-3-1 class 3 K3 and class 1 K3 -25...70°C <95% r.h. class 2M2
Standards	CE conform according to EMC Standard EMEI Standard	89/336/EEC 73/23/EEC
	Product standards Automatic electrical controls for household and similar use Special requirement on temperature dependent controls	EN 60 730 -1 EN 60 730 -2-9
	Electromagnetic compatibility Emissions Immunity	EN 50 081-1 EN 50 082-1
	Pollution Class	Normal acc. to EN 60 730
	Degree of Protection	IP30 to EN 60 529
	Safety Class	III
	General	Dimensions
	Weight (including package)	80g

Operation Modes

Comfort: The unit is in full operation mode. All the control functions are operating according to their setpoints. The unit displays occupied mode.

Standby: The setpoints are shifted according to parameters UP-08. The heating parameter is shifted down and cooling parameter up. The unit displays unoccupied mode. Outputs are limited to UP-09 standby maximum. For two stages heating or cooling the second stage will not operate while in standby mode. Standby operation may be disabled with UP-07.

Energy Hold Off (EHO): The unit is switched off. All outputs are off. The temperature will still be monitored in order to activate the unit in case of frost. (If frost protection is enabled). Off is displayed.

Operating Elements

- 4-digit display of current value, time, control parameter or setpoint
- Unit of displayed value, °C, °F, % or none
- Graphical display of output or input value with a resolution of 10%
- 4-digit display of current value, time, control parameter or setpoint
- Operation modes:



Comfort mode,



Standby mode,

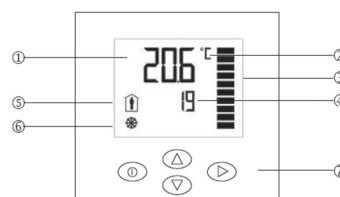


Energy Hold Off

- Symbols:

- Buttons for operating the controller

▽△ POWER button: Pressing the button less than 2 sec toggles standby and comfort mode. Pressing ▷ the button for more than 2 seconds switches the unit off.



UP and DOWN buttons: change setpoints and parameters

OPTION button: used for accessing different control modes and advanced setup. Acts as Enter in parameter changing menu.