

## Control board for biomass combustion systems Information sheet

EasyPel system is organized as all in one module, main board and display in one.  
Additional expansion modules can be attached to it

### Board



Overall dimensions 120x110x50mm  
Mounting hole 108x100mm

#### Board characteristics:

5 Outputs; 8 Inputs; Expandable

Preprogrammed Applications:

- Air /Water system
- Basic Burner / Boiler
- Combined boiler-dual fuel
- Chamber cleaning - compressed air

With additional extras and expansion modules

- Two feeding screws
- Chamber cleaning - mechanical
- Additional Flux fan
- 3 way mixing valve management

#### Outputs – total 5

TRIACS, with common fuse

- Voltage control function
- ON/OFF function

RELAYS ON/OFF

- At Line voltage (SPST) – 5A

- Expansion socket
- Power Supply 230V/50Hz ±10%

#### Display characteristics:

Display Type: LCD graphics – 2”

Push buttons – 4; buzzer

Rotary knob for quick power selector

Backlight with dimming

Build in menu languages 7

- Domestic hot water tank management
- Storage tank management
- RTCC clock with timers
- Custom software available

#### Main board

#### Inputs – total 8

<p>4 Analog - temperature</p> <p>1 Analog - photo sensor for flame presence</p> <p>3 Digital inputs (ON/OFF)</p> <p>1 Hall sensor for main fan</p> <p>1 Digital input for 12V PNP</p> <p>*Optional feedback (air flow/lambda)</p>	<p>3</p> <p>1*</p> <p>2</p> <p>1</p> <p>1</p>
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#### Others:

- Serial Interface for link and programming
- Optional WiFi module for remote access

**TYPICAL APPLICATIONS**

**BURNER – Type 1**

Mandatory Outputs		Mandatory Inputs	
Blower fan (main fan)	VCT	Boiler temperature	LT
Dosing screw	T.O.	Photo sensor for flame presence	PS
Igniter	R.O.	Room Thermostat Switch	NCC
Main CH Pump	T.O.	Alarm input (back fire)	NCC
Cleaning	T.O.	DHW Tank temperature	LT
		Hall sensor for main fan	HS
		Flux temperature (for efficiency)	HT
Outputs from EXP.Board		Inputs from EXP.board	
DHW Pump	R.O.	Mixing valve output temperature	LT
Flux Fan	VCT		
Secondary feeding screw	R.O.		
Mechanical Cleaning Direction	R.O.		
Mixing valve Open	R.O.		
Mixing valve Close	R.O.		

**BURNER – Type 2**

Mandatory Outputs		Mandatory Inputs	
Blower fan (main fan)	VCT	Boiler temperature	LT
Dosing screw	T.O.	Photo sensor for flame presence	PS
Igniter	R.O.	Room Thermostat Switch	NCC
Main CH Pump	T.O.	Alarm input (back fire)	NCC
Cleaning	T.O.	DHW Tank temperature	LT
		Hall sensor for main fan	HS
		Flux temperature (for efficiency)	HT
Outputs from EXP. Board			
DHW Pump	R.O.		
Secondary feeding screw	R.O.		
Mechanical Cleaning Direction	R.O.		

**BURNER – Type 3**

Mandatory Outputs		Mandatory Inputs	
Blower fan (main fan)	VCT	Boiler temperature	LT
Dosing screw	T.O.	Photo sensor for flame presence	PS
Igniter	R.O.	Room Thermostat Switch	NCC
Main CH Pump	T.O.	Alarm input (back fire)	NCC
DHW Pump	T.O.	DHW Tank temperature	LT
		Hall sensor for main fan	HS
		Flux temperature (for efficiency)	HT
Outputs from EXP.Board		Inputs from EXP.board	
Cleaning	R.O.	Mixing valve output temperature	LT
Flux Fan	VCT		
Secondary feeding screw	R.O.		
Mechanical Cleaning Direction	R.O.		
Mixing valve Open	R.O.		
Mixing valve Close	R.O.		

Other functions and/or input/output configurations are available at request  
 STB should be connected in series to feeding screw power supply for safety

**Legend:**

VCT – Voltage Control by Triac; T.O. – TRIAC ON/OFF function ; R.O. – Relay ON/OFF function;  
 LT – Low Temperature sensor input (t≤100°C); PS – Photo Sensor input  
 HT – High Temperature (pt1000, t≤300°C)  
 NCC –Normally Closed Contact; HS –Hall Sensor for RPM stabilization