

# EC-PRESS 0-10V Closed Loop Pressure Controller



- **General remarks:** EC-PRESS is a PI controller for use with ebm-papst EC fans and other products using a 0-10V control input for constant pressure control. When used with an appropriate differential pressure transmitter it will maintain a pre-programmed pressure in HVAC systems by varying fan speed in relation to system pressure.

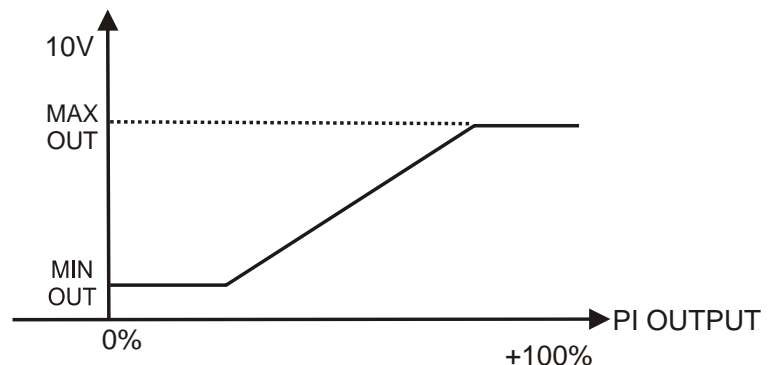
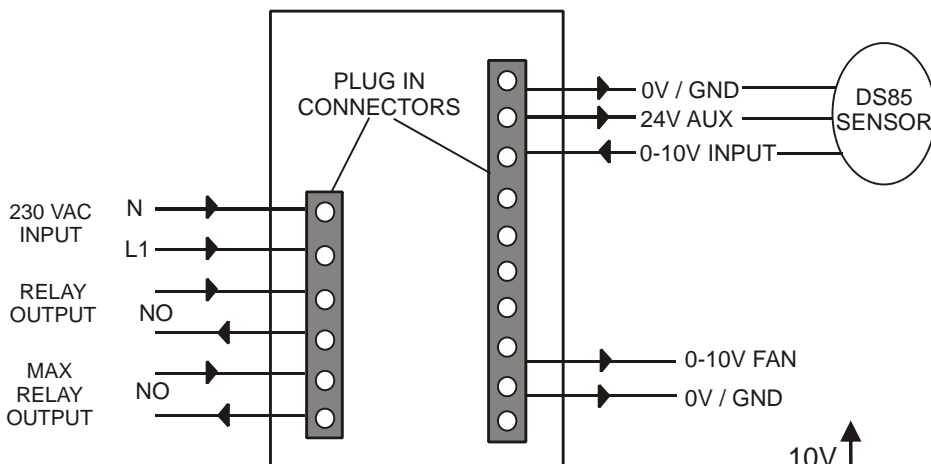
### Additional features:

- Sensor ranges 0-50, 0-200, 0-500 and 0-1000 Pa
- Auxilliary DC supply out 24VDC / 20mA +/-30%
- Plug-in connectors for easy wiring
- Digital display of system pressure
- Programmable alarm relay

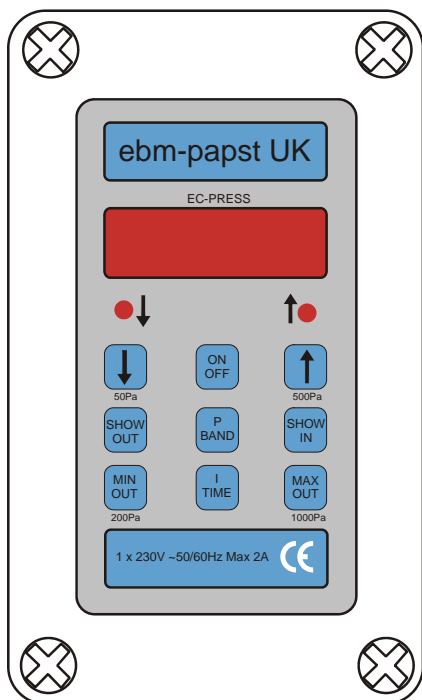
Nominal data	Supply voltage	Control range	Max .amb. temp.	Min amb. temp.	Protection rating	Weight	Width	Height	Depth	Mounting hole spacing	Current	Output
Type		Pa	°C	°C		kg	mm	mm	mm	mm	mA	V DC
EC-PRESS	230V 50Hz	0-1000	45	-5	IP54	0.4	80	130	60	113x63	-	-
DS85-50	24V	0-50	50	0	IP65	0.09				-	12	0-10
DS85-200	24V	0-200	50	0	IP65	0.09				-	12	0-10
DS85-500	24V	0-500	50	0	IP65	0.09				-	12	0-10
DS85-1000	24V	0-1000	50	0	IP65	0.09				-	12	0-10

Subject to alterations

### Connection Diagram



# Programming guide




















The required sensor range is selected by holding the appropriate key for 2 seconds on power-up. Sensor range is confirmed on the digital display.

The controller will maintain the set point pressure by varying the fan speed. The current pressure is indicated on the display. The setpoint pressure, the input from the pressure sensor and the output to the fan can also be displayed with a simple key press.

Fan minimum or maximum speed is programmed as a percentage of the range and an alarm relay operates if the control output stays above or below the pre-set levels for more than 30 minutes. The display flashes LO or HIGH to indicated the alarm condition. A second relay operates to indicate if the unit is powered on or off.

The keypad automatically locks itself after 10 minutes of inactivity to prevent inadvertent adjustment.

Keys pressed	Description	Range	Default
 	Use to adjust setpoint. Hold down for rapid adjustment.	0-1000 Pa dependent on selected sensor.	-
 	Use in combination with other keys to adjust selected parameter. Hold down for rapid adjustment.	Depends on selected function	-
	Switches controller off. DC output goes to zero. Relay 1 opens.	-	-
	Displays the 0-10V control output signal as a percentage.	0-100%	-
	Displays the 0-10V sensor input signal as a percentage.	0-100%	-
	Sets the minimum permitted 0-10V output signal as a percentage.	5-95%	5%
	Sets the maximum permitted 0-10V output signal as a percentage.	5-100%	95%
	Sets the proportional band for the PI regulator*	0-100	10
	Sets the integration time for the PI regulator*	0-100	10
 	Hold down both keys for 10 seconds to lock or unlock the keypad.	LOC when first locked	Locked
	Hold for 2 seconds on power up to select 0-50 Pa sensor.	50	Setpoint 7Pa
	Hold for 2 seconds on power up to select 0-200 Pa sensor.	200	Setpoint 30Pa
	Hold for 2 seconds on power up to select 0-500 Pa sensor.	500	Setpoint 75Pa
	Hold for 2 seconds on power up to select 0-1000 Pa sensor.	1000	Setpoint 150Pa