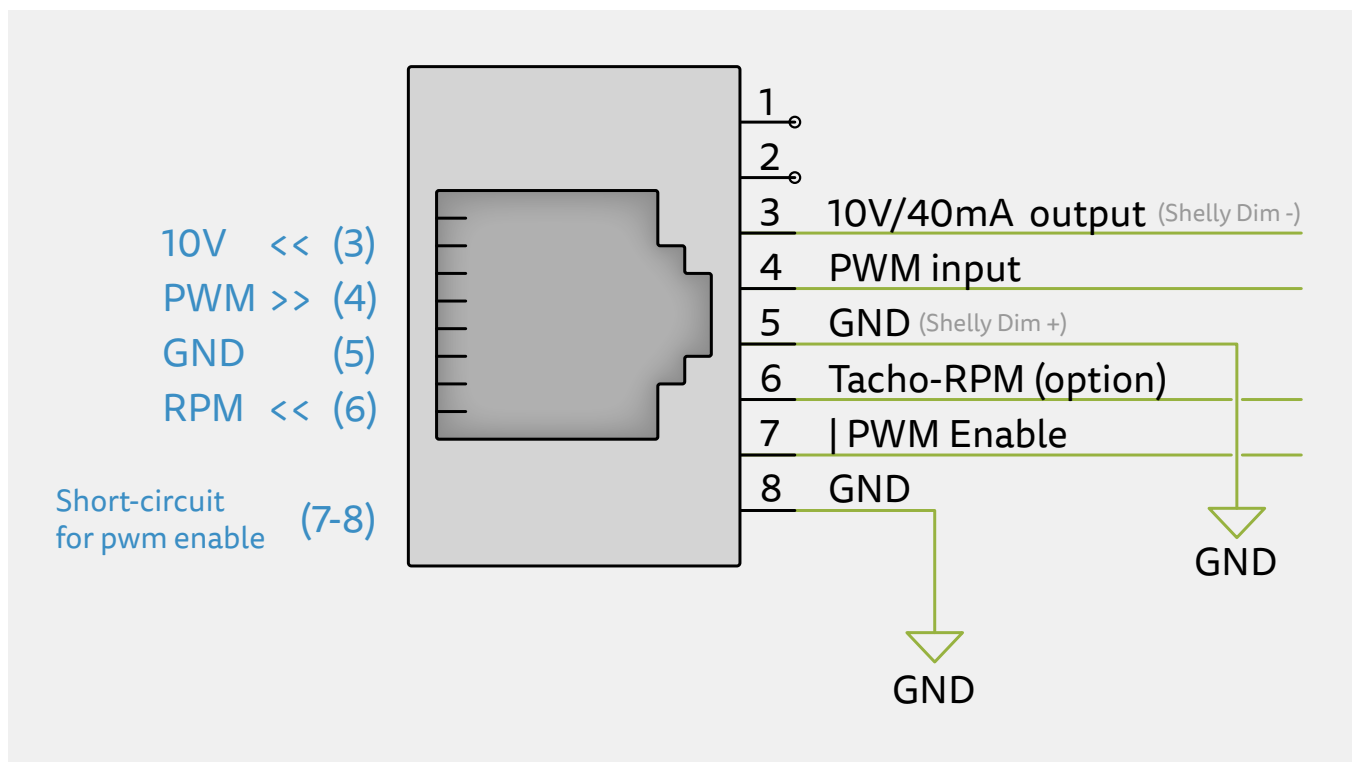


RJ 45

- *Pin assignment for the interface*
- *EC radial fan connection diagram*



Pin assignment for RJ45 interface (EC Motors)



ECblue fans from PrimaKlima are equipped with an interface for external climate controllers or speed controllers, which are simply connected to the fan via a standard RJ45 network cable.

If no controller is connected to the EC fan, it will always run at the set power (see Fig. 2). If the controller should fail, the emergency run function is activated (= set value of the trim potentiometer from 0-100%). To do this, the two screws must be loosened and the housing cover removed. At reduced speed, there is no power loss, so the fan saves up to 70% energy compared to AC fans. The fan motor outputs a speed signal, which can be universally processed and displayed by compatible controllers such as the [ECTC-1M-Digital](#) from PrimaKlima.

To connect fans to a Homematic controller or similar systems, the Homematic controller requires a PWM or 0-10V output.

This hardware extension may need to be purchased separately. You can find an example here: <https://www.stall.biz/project/analogausgang-und-pwm-mit-homematic-schaltaktor-realisieren>

For Shelly users: Connect wire 3 of the RJ45 cable to Shelly Dim -, and wire 5 to Shelly Dim +.

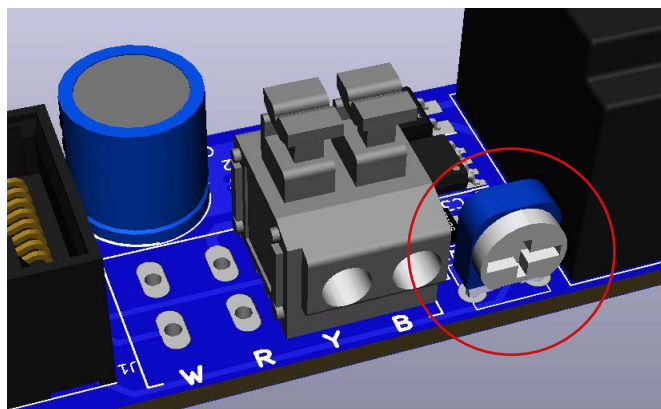
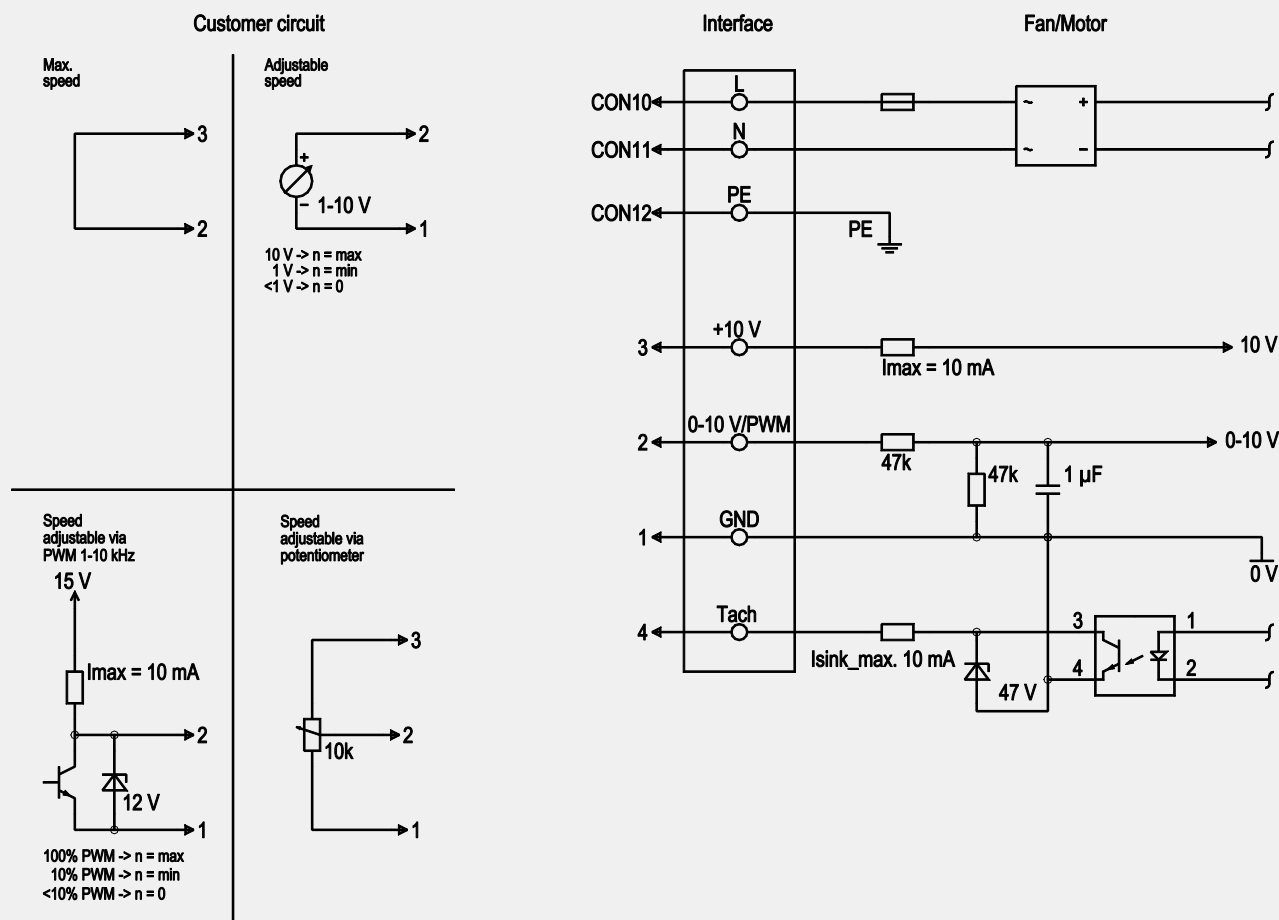


Fig. 2: Trim potentiometer on the circuit board (right stop 100%)

EC radial fan - RadiCal

Wiring diagram/motor side



No.	Conn.	Designation	Color	Function/assignment
	CON 10	L	black	Supply connection, power supply, phase, see nameplate for voltage range
	CON 11	N	blue	Supply connection, power supply, neutral conductor, see nameplate for voltage range
	CON 12	PE	green/yellow	Ground connection
2		0- 10V PWM	yellow	0-10 V / PWM control input, Ri=100 kΩ, SELV
4		Tach	white	Tach output, open collector, 1 pulse per revolution, Isink max = 10 mA, SELV
3		+10 V	red	Fixed voltage output 10 VDC +/-3 %, Imax. 10 mA, short-circuit-proof, power supply for ext. devices (e.g. pot), SELV
1		GND	blue	Reference ground for control interface, SELV

ebmpapst

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