

## prio 150EC circ. duct fan

Item Number: 78184

Variant: 230V 1~ 50/60Hz



EC-motors, high level of efficiency

Low SFP values

100% speed controllable

Integrated motor protection

Can be installed in any position

Compact design

Low sound level

Potentiometer included for ease of commissioning

EC fans are intelligent devices using integrated motor electronics, ensuring that the motor always runs at optimal load. With EC motors the proportion of energy utilized effectively is higher, which as a result reduces the energy usage considerably, compared with AC motors. Another special feature of EC fans is their energy-saving potential not only at full load, but especially when speed controlled, i.e. at part load. When operating at part-load, the energy used is much lower than with an asynchronous motor of equivalent output.

Reduced energy usage guarantees a drop in operating costs.

The prioAir series is designed for installation in ducts. The prioAir models have 25 mm long spigot connections in acc. with EN 1506:1997. The fans have aerodynamically optimized impellers and guide vanes. Motor protection is integrated in the electronics of the motor. The air tight casing (tightness class C in acc. with EN12237:2003) is manufactured from special composite material.

The mounting clamp facilitates easy installation and removal, and prevents the transfer of vibrations to the duct. Mounting bracket to the wall or ceiling as accessory.

For installation in damp locations we recommend to use a run-on timer. The fans are delivered with a pre-wired potentiometer ( 0-10 V) that allows you to easily find the required working point.

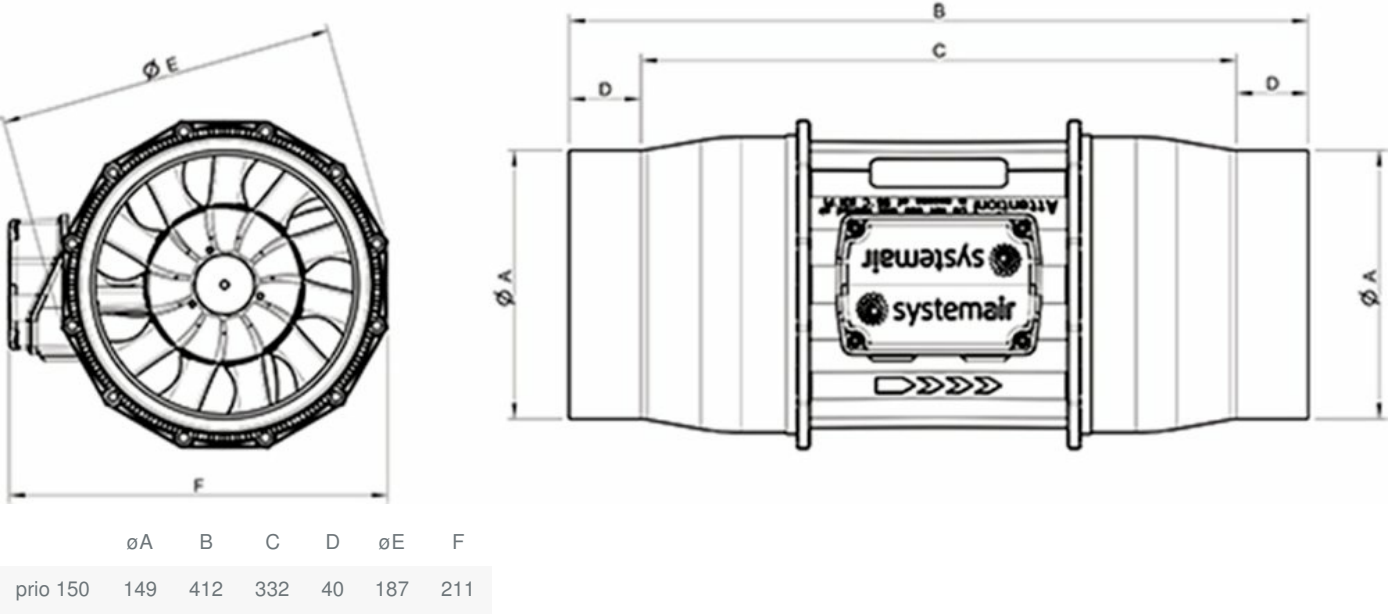


### Technical parameters

Nominal data		
Voltage (nominal)	230	V
Frequency	50; 60	Hz
Phase(s)	1~	
Input power	76	W
Input current	0.642	A
Impeller speed	4,330	r.p.m.
Air flow	max 796	m³/h
Temperature of transported air	max 55	°C
Max temperature of transported air, when speed controlled	55	°C

Sound data		
Sound pressure level at 3m (20m² Sabin)	48	dB(A)
Protection/Classification		
Enclosure class, motor	IP44	
Insulation class	B	
Dimensions and weights		
Duct dimension; Circular, inlet	150	mm
Duct dimension; Circular, outlet	150	mm
Weight	1.9	kg
Others		
Duct connection type	Circular	
Motor type	EC	

# Dimension

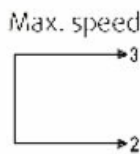


## Wiring

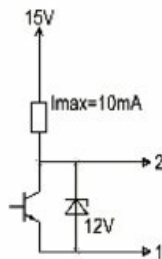
### 9.3.1.1 Wiring diagram prioAir EC

The fans are delivered with a pre-wired potentiometer (0–10 V)

#### Client side

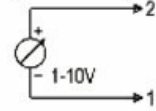


Adjustable speed through PWM  
1...10 Klz



100 % PWM → n = max  
10 % PWM → n = min  
< 10 % → 0

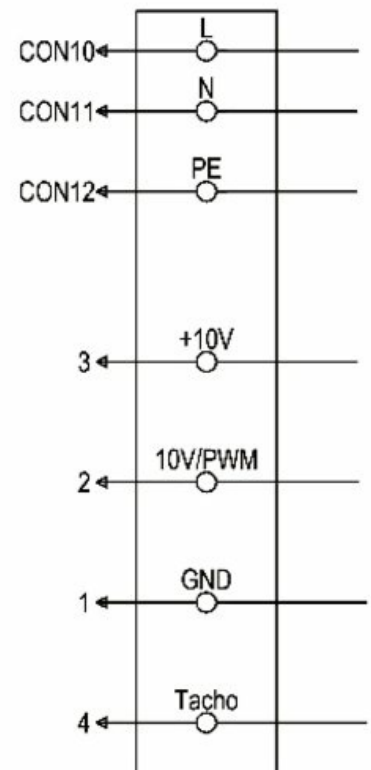
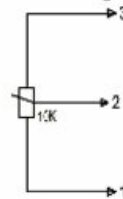
Adjustable speed



10V → n = max  
1V → n = min  
< 1V → 0

#### Factory setting

Adjustable speed through potentiometer



Wire no.	Connection	Color	Function/assignment
CON10	L	black or brown	Power supply 230 V AC, 50...60 Hz, see name plate for voltage range
CON11	N	blue	Neutral conductor
CON12	PE	green/yellow	Protective conductor
1	GND	blue	GND-connection of the controller interface
2	0...10 V PWM	yellow	Controller input 0...10 V or PWM
3	10 V	red	Voltage output 10 V / Short-circuit-proof power supply for external devices (e.g. poti) prioAir 150EC, prioAir 160EC > $I_{max}=1.1mA$ prioAir 200FC/prioAir 250FC > $I_{max}=10mA$
4	Tacho	white	Speed output: Open Collector, 1 impulse per revolution, electrically isolated, $I_{sink\ max}=10\ mA$

## Accessories

- CO2RT-R-D Transmitter (6993)
- EC-Vent control board (3115)
- MTP 10, 10K, Speed control (32731)
- MTV-1/010 Controller 0..10V+ (30650)
- prio 150/160 mount. br. compl. (79314)
- RT 0-30 Room Thermostat (5151)
- CXE/AVC Modbus (37256)
- EC-Vent Room Unit (3018)
- MTP 20, on/off, 3-step (310220)
- Presence detector/IR24-P (6995)
- REV-3POL/03 ON/OFF (33978)

## Documents

- MANUAL\_PRIOAIR\_EN\_[006].PDF
- prio160\_150\_dxf\_o\_rahmen.dxf
- EU DECLARATION OF CONFORMITY\_PRIO\_EN\_001.PDF